

Neubau eines KV-Terminal im Hafen Riesa, Alter Hafen

Hier: Lichtimmissions-Untersuchung

Bericht FA 6335-2.1 vom 04.11.2014

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Bericht-Nr.: FA 6335-2.1

Datum: 04.11.2014

Niederlassung: Düsseldorf

Ref.: DH / AH

Peutz Consult GmbH Beratende Ingenieure VBI

Messstelle nach
§ 26 BImSchG zur
Ermittlung der Emissionen
und Immissionen von
Geräuschen und
Erschütterungen

VMPA anerkannte
Schallschutzprüfstelle
nach DIN 4109

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1 Situation und Aufgabenstellung

Die Sächsische Binnenhäfen Oberelbe GmbH (SBO) planen im Hafen Riesa ein neues KV-Terminal zum Containerumschlag über den kombinierten Verkehr (Schiff, Bahn, Lkw) zu errichten.

Das beantragte neue KV-Terminal am Südufer des "Alten Hafen" in Riesa soll mit einer Kapazität von bis zu 100.000 TEU pro Jahr gebaut werden.

Ein Übersichtslageplan über den geplanten Ausbauzustand sowie über die örtlichen Gegebenheiten ist in Anlage 1.1 dargestellt.

Im Rahmen dieses Gutachtens werden die durch den Betrieb des neuen KV-Terminals verursachten Lichtimmissionen in den benachbarten Gebäuden simuliert und gemäß der LAI Lichtleitlinie [2] bewertet.

2 Örtliche Gegebenheiten

Der zukünftige Terminal befindet sich am Südufer des "Alten Hafens" Riesa. Hier entsteht ein trimodulares Containerterminal für den Umschlag von Containern über die Transportmittel Schiff, Bahn und Lkw.

Diese Anlage soll 24 Stunden/Tag betrieben werden, was somit auch eine Nutzung in den Dunkelstunden beinhaltet. Die hierzu erforderlichen Beleuchtungsanlagen in Form von Flutlichtstrahlern mit einer Masthöhe von bis zu 37m wurden gemäß DIN 12464-2, Beleuchtungsanlagen im Freien sowie der Arbeitsstättenrichtlinie ausgelegt.

Im Einflussbereich des geplanten Terminalstandortes liegt im Norden, auf der gegenüberliegenden Hafenseite, in ca. 200m Entfernung ein Wohngebiet. Südlich des Terminals schließt unmittelbar an das Plangebiet ebenfalls ein Wohngebiet an.

Untersucht werden 12 Immissionsorte innerhalb der nahe gelegenen Wohnnutzungen (siehe Anlage 1.2), für welche die höchsten Lichtimmissionen zu erwarten sind. Bei Einhaltung der Anforderungen an diesen Immissionsorten ist auch eine Einhaltung an weiter entfernten und somit günstiger gelegenen Immissionsorten gegeben.

Tabelle 2.1: Übersicht Immissionsorte

IO-Nr.	Straße / Hausnummer	Geschosse	Gebietseinstufung
01	Kirchstraße 2-6	2	M / D
02	Gartenweg 6	2	M / D
03	Dammweg 8	2	M / D
04	Kirchstraße 46	4	M / D
05	Hafenstraße 1	4	M
06	Lauchhammerstraße 19-25	4	M
07	Hafenstraße 2	3	M
08	Hafenstraße 4	2	M
09	Heinrich-Lorenz-Str. 2	2	M
10	Paul-Greifzu-Straße 1a	2	M
11	Paul-Greifzu-Straße 1b	2	M
12	Paul-Greifzu-Straße 3 / 3a	3	M

3 Beurteilungsgrundlagen

Beurteilungsgrundlage für die Wirkung von Lichtimmissionen auf Menschen durch Licht emittierende Anlagen sind die Hinweise zur Messung, Beurteilung und Minderung von Lichtimmissionen der Bund/Länder-Arbeitsgemeinschaft für Immissionsschutz (LAI) vom 08.10.2012 [2]. Welche ferner auch als Lichtleitlinie oder Lichtrichtlinie bezeichnet wird. In Nordrhein-Westfalen und Brandenburg gilt sie zum Beispiel in Form ministerieller Erlasse. Der LAI-Beschluss baut in seinen wesentlichen Inhalten auf der Veröffentlichung des Arbeitskreises "Lichtimmissionen" der Deutschen Lichttechnischen Gesellschaft (LiTG) e. V., Berlin, "Messung und Beurteilung von Lichtimmissionen künstlicher Lichtquellen" vom September 1996 auf [3].

Als Licht emittierende Anlagen zählen künstliche Lichtquellen aller Art, wie z.B. Scheinwerfer zur Beleuchtung von Sportstätten oder Verladeplätzen.

Die Vorschrift beinhaltet Maßstäbe und Immissionsrichtwerte zur Beurteilung, ob von einer gewerblichen künstlichen Lichtquelle bzw. Beleuchtungsanlage schädliche Umwelteinwirkungen, d. h. zumeist erhebliche Belästigungen mit Störung des Wohn- und Schlafbedürfnisses von Anwohnern, ausgehen.

Gesundheitsschäden durch Licht emittierende Anlagen sind im Allgemeinen nicht zu erwarten. Schädliche Umwelteinwirkungen können aber auch durch erhebliche Belästigungen der Nachbarschaft hervorgerufen werden. Um dies zu vermeiden, sind in der Lichtleitlinie [2] Immissionsrichtwerte bezüglich der zulässigen Raumaufhellung im Inneren von Wohnbereichen und der Blendung durch einzelne Lichtquellen geregelt.

3.1.1 Raumaufhellung

Mess- und Beurteilungsgröße für die Raumaufhellung ist die mittlere Beleuchtungsstärke E_F in der Fensterebene von Wohnungen bzw. bei Balkonen bzw. Terrassen an den Begrenzungsflächen der Wohnnutzungen. Die Werte gelten für die Situation bei geöffnetem Fenster, parallel zur Normalen der Wandflächen und bei ausgeschalteter Zimmerbeleuchtung. Die folgenden Immissionsrichtwerte der mittleren Beleuchtungsstärke E_F sind einzuhalten.

Tabelle 3.1: Immissionsrichtwerte der Beleuchtungsstärke* gem. Lichtleitlinie [2]

Immissionsort	Beleuchtungsstärke E_F in lux [lx]	
	06.00 – 22.00 Uhr	22.00 – 06.00 Uhr
Kurgebiete, Krankenhäuser, Pflegeanstalten	1	1
Reine, allgemeine, besondere Wohngebiete, Kernsiedlungsgebiete, Erholungsgebiete	3	1
Dorfgebiete, Mischgebiete	5	1
Kerngebiete, Gewerbegebiete, Industriegebiete	15	5

*In vorliegender Untersuchung anzuwendende Richtwerte sind blaugrau hervorgehoben

Wird die mittlere Beleuchtungsstärke am Immissionsort maßgeblich durch andere Lichtquellen bestimmt, sollen Maßnahmen an der zu beurteilenden Beleuchtungsanlage so lange ausgesetzt werden, wie die Anlage nicht wesentlich zur Gesamt-Beleuchtungsstärke beiträgt.

Die Immissionsrichtwerte beziehen sich auf zeitlich konstantes und weißes oder annähernd weißes Licht, das mehrmals in der Woche jeweils länger als eine Stunde eingeschaltet ist. Wird die Anlage seltener oder kürzer betrieben, bzw. über Bewegungsmelder geschaltet, sind Einzelfallbetrachtungen anzustellen. Besondere Regelungen sieht die Lichtleitlinie [2] für wechselnde Betriebszustände (Wechsellichtsituationen), intensiv farbiges Licht und sonstige Auffälligkeiten vor. So ist die mittlere Beleuchtungsstärke am Immissionsort bei farbigem Licht zum Vergleich mit den Immissionsrichtwerten zu verdoppeln.

Die Beleuchtungsstärke E_F kann durch Messung vor Ort oder durch Simulation über eine geeignete Software bestimmt werden. Im vorliegenden Fall wird die Beleuchtungsstärke simuliert und anhand der vorab genannten Immissionsrichtwerte beurteilt. Eine Notwendigkeit zur Einzelfallbetrachtung durch seltene oder kurze Betriebszeiten ist im vorliegenden Fall nicht gegeben. Ebenfalls ist eine Anpassung der Beurteilungsrichtwerte durch farbiges Licht nicht notwendig.

3.1.2 Blendung

Als Bewertungsmaßstab zur Beurteilung der Blendung wird die maximal tolerable mittlere Leuchtdichte einer Blendlichtquelle L_{\max} definiert zu:

$$L_{\max} = k \sqrt{\frac{L_u}{\Omega_s}}$$

Darin bedeuten:

- L_{\max} = Immissionsrichtwert: maximal tolerable Leuchtdichte einer Blendlichtquelle in cd/m^2 , gemittelt über den zugehörigen Raumwinkel Ω_s
- k = Proportionalitätsfaktor
- L_u = maßgebende Leuchtdichte in der Umgebung der Blendlichtquelle in cd/m^2 ; $L_u \geq 0,5 \text{ cd/m}^2$
- Ω_s = Raumwinkel der vom Immissionsort aus gesehenen Blendlichtquelle in sr

Dabei werden folgende Werte des Proportionalitätsfaktors k zur Festlegung der Immissionsrichtwerte herangezogen:

Tabelle 3.2: Proportionalitätsfaktoren zur Ermittlung der maximal tolerablen Leuchtdichte* gem. Lichtleitlinie [2]

Immissionsort	Proportionalitätsfaktor k		
	06.00 – 20.00 Uhr	20.00 – 22.00 Uhr	22.00 – 06.00 Uhr
Kurgebiete, Krankenhäuser, Pflegeanstalten	32	32	32
Reine, allgemeine, besondere Wohngebiete, Kernsiedlungsgebiete, Erholungsgebiete	96	64	32
Dorfgebiete, Mischgebiete	160	160	32
Kerngebiete, Gewerbegebiete, Industriegebiete	-	-	160

*In vorliegender Untersuchung anzuwendende Richtwerte sind blaugrau hervorgehoben

Auch bezüglich der Blendung sind besondere Regelungen für geringe Einschaltdauer oder Einschalthäufigkeit, Wechsellicht, besondere auffällige Situationen oder blitzlichtartige Vorgänge vorgesehen.

Grundsätzlich sieht die Lichtleitlinie die Ermittlung der gemittelten Leuchtdichte jeder einzelnen Blendlichtquelle für jeden Immissionsort durch Messung vor. Im vorliegenden Fall wird im Rahmen der Planung eine rechnerische Ermittlung der mittleren Leuchtdichte über die Lichtstärke der geplanten Scheinwerfer vorgenommen.

Im Fall von Überschreitungen der zulässigen Beleuchtungsstärke in Fensterebene oder der maximal tolerablen mittleren Leuchtdichte von Blendlichtquellen schlägt die Lichtleitlinie folgende Minderungsmaßnahmen als Möglichkeiten vor:

- (1) Optimierte Wahl des Scheinwerferstandortes zur Minimierung der Lichtimmissionen in der Nachbarschaft;
- (2) Vermeidung einer direkten Blickverbindung zwischen Scheinwerfer und Immissionsorten;
- (3) Ggf. Vorsehung von Blenden an den Scheinwerfern;
- (4) Verwendung von Scheinwerfern mit asymmetrischer Lichtverteilung, insbesondere für größere Sportplätze;
- (5) Vermeidung von zeitlich veränderlichem Licht, z. B. bei Leuchtreklamen, soweit dies mit dem Zweck der Anlage zu vereinbaren ist;
- (6) Abdunkelung von Lichtimmissionen aus Gebäuden, z. B. aus beleuchteten Arbeitsräumen und Gewächshäusern, durch Abdunkelungsmaßnahmen wie Rollos, Jalousien, etc.

4 Durchführung der Lichtimmissionsprognose

4.1 Vorbemerkungen

Die Lichtimmissionen an den nächstgelegenen Nutzungen im Umfeld erfolgt mithilfe eines digitalen Simulations- und Ausbreitungsmodells mit dem Programm Calculux Area 6.7.2. In dem digitalen Simulationsmodell, das in der Anlage 5 bzw. ebenso Anlage 6 beschrieben ist, sind die Beleuchtungseinrichtungen und die maßgebende nächstgelegene Bebauung enthalten. Die Topografie bzw. Geländehöhen wurden ebenfalls berücksichtigt. Immissionsseitig auf der sicheren Seite liegend bleiben Abschirmungen durch Pflanzen wie Bäume und Sträucher unberücksichtigt.

4.2 Leuchtendaten

Für die Simulation wurden die von der Philips Lighting GmbH (über das Ingenieurbüro Nordhorn [5]) zur Verfügung gestellten Leuchtendateien verwendet. Hierbei handelt es sich um Sonderausführungen der Leuchtenmodelle:

- Philips Optiflood MVP506
und
- Philips Optivision MVP507

mit jeweils angepasster Optik und Lampenanzahl.

Zur Verwendung kommen folgende Lampentypen:

- SON-TPP600W mit 90000 Lumen und 647 W Anschlussleistung
- SON-TPP150W mit 17500 Lumen und 169 W Anschlussleistung
- SON-TPP100W mit 10700 Lumen und 114 W Anschlussleistung
(Softwarebedingt in Anlage 5 & 6 als SON-TPP150W dargestellt)

Die Lage der entsprechenden Leuchten ist der Anlage 2 zu entnehmen. Die Wahl der Leuchten erfolgte schon auf Grundlage von Vorermittlungen, mit dem Ziel die Immissionen im Umfeld zu minimieren.

5 Ergebnisse

5.1 Raumaufhellung

Zur Raumaufhellung sind in der Lichtleitlinie [2] Immissionsrichtwerte in Abhängigkeit von der Gebietsfestsetzung definiert (siehe Tabelle 3.1). Hier bestehen in den für diese Untersuchungen zum KV-Terminal zu berücksichtigenden Wohngebieten (ausgewählte IO) für den Nachtzeitraum, d.h. zwischen 22.00 Uhr und 6.00 Uhr die strengsten Anforderungen (max. 1 lux).

Die Ergebnisse der Berechnung der Beleuchtungsstärke (mittleren Beleuchtungsstärke E_F) an den gewählten Immissionsorten in den umliegenden Wohngebieten sind in der nachfolgenden Tabelle 5.1 zusammengestellt.

Tabelle 5.1: Berechnungsergebnisse Beleuchtungsstärke

Immissionsort (IO)	Bezeichnung	Richtung	Immissionsrichtwert Beleuchtungsstärke E_F [lx]		Berechnete Beleuchtungsstärke E_F [lx]		Einhaltung Immissionsrichtwert	
			Tag	Nacht	Tag	Nacht	Tag	Nacht
01	Kirchstraße 2-6	S	3	1	0,10		Ja	Ja
02	Gartenwea 6	SW			0,08		Ja	Ja
03	Dammwea 8	SW			0,40		Ja	Ja
04	Kirchstraße 46	S			0,02		Ja	Ja
05	Hafenstraße 1	NO			0,34		Ja	Ja
06	Lauchhammerstraße 19-25	NO			0,26		Ja	Ja
07	Hafenstraße 2	NO			0,21		Ja	Ja
		NW			0,20		Ja	Ja
08	Hafenstraße 4	NO			0,03		Ja	Ja
		NW			0,02		Ja	Ja
09	Heinrich-Lorenz-Str. 2	NO			0,04		Ja	Ja
		NW			0,01		Ja	Ja
10	Paul-Greifzu-Straße 1a	NO			0,17		Ja	Ja
		NW			0,06		Ja	Ja
11	Paul-Greifzu-Straße 1b	NO			0,13		Ja	Ja
12	Paul-Greifzu-Straße 3 / 3a	NO			0,10		Ja	Ja

Aus der Tabelle 5.1 geht hervor, dass die zulässigen Immissionsrichtwerte der Beleuchtungsstärke, an den Immissionsorten ausnahmslos eingehalten werden. Die detaillierten Ergebnisse der Simulationsberechnung sind den CalcuLux-Ergebnissen (Anlage 5 unter Punkt 2.3) zu entnehmen.

5.2 Ergebnisse Blendung

Analog zur Bewertung der Beleuchtungsstärke / Raumaufhellung sind auch zur Blendung in der Lichtleitlinie [2] Immissionsrichtwerte in Abhängigkeit von der Gebietsfestsetzung definiert (siehe Tabelle 3.2, Seite 7). Auch hier bestehen für die Untersuchungen zum KV-Terminal zu berücksichtigenden Wohngebieten (ausgewählte IO) für den Nachtzeitraum, d.h. zwischen 22.00 Uhr und 6.00 Uhr die strengsten Anforderungen.

Um die vorliegende Blendwirkung der geplanten Beleuchtung bewerten zu können, wird der vorhandene Proportionalitätsfaktor k für die maßgebenden Immissionsorte in der Umgebung der Beleuchtungsanlage berechnet.

Die Bewertung für die umliegende Bebauung erfolgt durch einen Vergleich mit der aus der Lichtstärke und dem Raumwinkel bestimmten Leuchtdichte der Scheinwerfer mit dem Immissionsrichtwert der maximal tolerablen Leuchtdichte gem. Lichtleitlinie [2]. Ausgangspunkt ist dabei eine Schutzbedürftigkeit gem. den Anforderungen für Wohngebiete (vgl. Tabelle 3.2, Seite 7).

In der nachfolgenden Tabelle 5.2 sind die vorhandenen Proportionalitätsfaktoren k an den Immissionsorten im Umfeld für die maßgebenden Leuchten dargestellt.

Tabelle 5.2: Berechnungsergebnisse Proportionalitätsfaktoren

Immissionsort IO		Proportionalitätsfaktor k						Einhaltung Immissionsrichtwert		
		k _{max}			k _{vorrh}			Nutzungszeit		
		Tag		Nacht	Tag		Nacht	Tag		Nacht
		6-20	20-22	22-6	6-20	20-22	22-6	6-20	20-22	22-6
01	Kirchstraße 2-6	96	64	32	21			Ja	Ja	Ja
02	Gartenweg 6				16			Ja	Ja	Ja
03	Dammweg 8				77			Ja	Nein	Nein
04	Kirchstraße 46				10			Ja	Ja	Ja
05	Hafenstraße 1				38			Ja	Ja	Nein
06	Lauchhammerstraße 19-25				30			Ja	Ja	Ja
07	Hafenstraße 2				26			Ja	Ja	Ja
08	Hafenstraße 4				6			Ja	Ja	Ja
09	Heinrich-Lorenz-Str. 2				14			Ja	Ja	Ja
10	Paul-Greifzu-Straße 1a				18			Ja	Ja	Ja
11	Paul-Greifzu-Straße 1b				18			Ja	Ja	Ja
12	Paul-Greifzu-Straße 3 / 3a				19			Ja	Ja	Ja

Wie aus der Tabelle 5.2 ersichtlich ist, werden die Anforderungen an die Begrenzung der Blendwirkung gemäß der Lichtleitlinie [2] an dem Großteil der untersuchten Immissionsorte eingehalten. Die Überschreitung der Anforderungen für die Abendstunden bzw. Nachtstunden an den Immissionsorten 03 und 05 sind in der Ausrichtung einzelner Scheinwerfer begründet.

Eine detaillierte Übersicht der Ergebnisse ist Anlage 3 zu entnehmen.

6 Ergebnisse Variantenberechnung

Um eine Einhaltung an allen Immissionsorten zu erzielen, wurde eine Variantenberechnung mit geringfügig veränderten Neigungseinstellungen einzelner Scheinwerfer vorgenommen.

Die für die Überschreitung der Blendungsanforderungen verantwortlichen Scheinwerfer sind die drei westlich angebrachten Scheinwerfer am Mast mit der Kennzeichnung A (siehe Anlage 2) sowie die drei südlich angebrachten Scheinwerfer am Mast mit der Kennzeichnung B (siehe Anlage 2).

Die angepasste Gehäuseneigung, abweichend zur ursprünglichen Planung, ist bei den Scheinwerfern am Mast A eine positive Neigung von 5° und am Mast B eine negative Neigung von 3°.

Tabelle 6.1: Berechnungsergebnisse Beleuchtungsstärke - Variante

Im- missions- ort (IO)	Bezeichnung	Richtung	Immissionsricht- wert Be- leuchtungsstärke E_f [lx]		Berechnete Beleuchtungs- stärke E_f [lx]		Einhaltung Immissionsricht- wert	
			Taq	Nacht	Taq	Nacht	Taq	Nacht
01	Kirchstraße 2-6	S	3	1	0,11		Ja	Ja
02	Gartenweg 6	SW			0,09		Ja	Ja
03	Dammweg 8	SW			0,25		Ja	Ja
04	Kirchstraße 46	S			0,02		Ja	Ja
05	Hafenstraße 1	NO			0,30		Ja	Ja
06	Lauchhammerstraße 19-25	NO			0,25		Ja	Ja
07	Hafenstraße 2	NO			0,21		Ja	Ja
		NW			0,19		Ja	Ja
08	Hafenstraße 4	NO			0,03		Ja	Ja
		NW			0,02		Ja	Ja
09	Heinrich-Lorenz-Str. 2	NO			0,04		Ja	Ja
		NW			0,01		Ja	Ja
10	Paul-Greifzu-Straße 1a	NO			0,17		Ja	Ja
		NW			0,06		Ja	Ja
11	Paul-Greifzu-Straße 1b	NO			0,13		Ja	Ja
12	Paul-Greifzu-Straße 3 / 3a	NO			0,10		Ja	Ja

Die detaillierten Ergebnisse der Simulationsberechnung sind den CalcuLux-Ergebnissen (Anlage 6 unter Punkt 2.3) zu entnehmen.

Tabelle 6.2: Berechnungsergebnisse Proportionalitätsfaktoren - Variante

Immissionsort IO		Proportionalitätsfaktor k						Einhaltung Immissionsrichtwert		
		k _{max}			k _{vorh}			Nutzungszeit		
		Tag		Nacht	Tag		Nacht	Tag		Nacht
		6-20	20-22	22-6	6-20	20-22	22-6	6-20	20-22	22-6
01	Kirchstraße 2-6	96	64	32	23			Ja	Ja	Ja
02	Gartenweg 6				16			Ja	Ja	Ja
03	Dammweg 8				26			Ja	Ja	Ja
04	Kirchstraße 46				10			Ja	Ja	Ja
05	Hafenstraße 1				30			Ja	Ja	Ja
06	Lauchhammerstraße 19-25				30			Ja	Ja	Ja
07	Hafenstraße 2				19			Ja	Ja	Ja
08	Hafenstraße 4				6			Ja	Ja	Ja
09	Heinrich-Lorenz-Str. 2				14			Ja	Ja	Ja
10	Paul-Greifzu-Straße 1a				18			Ja	Ja	Ja
11	Paul-Greifzu-Straße 1b				18			Ja	Ja	Ja
12	Paul-Greifzu-Straße 3 / 3a				19			Ja	Ja	Ja

Die Ergebnisse der Berechnungen zu den k-Werten sind der Anlage 4 zu entnehmen. Bei diesen Lampenneigungen werden auch die Anforderungen an die Blendung bezogen auf den Nachtzeitraum an allen Immissionsorten eingehalten.

7 Zusammenfassung

Für das geplante Container-Terminal am Südufer des "Alten Hafens" Riesa wurde auf Grundlage der bestehenden Lichtplanung eine Lichtimmissionsprognose durchgeführt.

Untersucht wurden 12 maßgebliche Immissionsorte innerhalb der nahe gelegenen Wohn-nachbarschaft.

Bei Umsetzung der vorgelegten Lichtplanung kam es zu geringen Überschreitungen an zwei Immissionsorten bezüglich der Blendungsanforderungen im Abend- bzw. Nachtzeitraum. Hierfür sind insgesamt sechs Scheinwerfer an zwei 37m Masten im östlichen Teil der geplanten Terminalanlage verantwortlich.

Es wurde jedoch mittels einer Variantenberechnung (Kapitel 6) nachgewiesen, dass bei einer geringen Neigungsänderung der betreffenden Scheinwerfer von 5° bzw. 3° dann die Anforderungen der LAI Lichtleitlinie [2] an allen Immissionsorten eingehalten werden können. Eine entsprechende angepasste Neigung ist dann bei der Aufstellung der Scheinwerfer zu berücksichtigen.

Dieser Bericht besteht aus 17 Seiten und 6 Anlagen mit Datenanhängen.

Peutz Consult GmbH



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8 Bearbeitungsgrundlagen, zitierte Normen und Richtlinien

	Titel / Beschreibung / Bemerkung	Kat.	Datum
[1]	BImSchG Bundes-Immissionsschutzgesetz	G	Aktuelle Fassung
[2]	Lichtimmissionen, Messung, Beurteilung und Verminderung Bund/Länder-Arbeitsgemeinschaft für Immissionsschutz (LAI)	Lit	08.10.2012
[3]	Empfehlungen für die Messung, Beurteilung und Minderung von Lichtimmissionen künstlicher Lichtquellen	Lit.	Jan 1991 - Mai 2011
[4]	Planunterlagen (Grundrisse, Übersichtspläne, etc.)	P	Stand: April 2014
[5]	Lichtplanung	Lit	08.05.2014

Kategorien:

G	Gesetz	N	Norm
V	Verordnung	RIL	Richtlinie
VV	Verwaltungsvorschrift	Lit	Buch, Aufsatz, Bericht
RdErl.	Runderlass	P	Planunterlagen / Betriebsangaben

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+ Datenanhang

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Anlage 4.1 Darstellung der max. vorhandenen und zulässigen Proportionalitätsfaktoren k_{vorh}

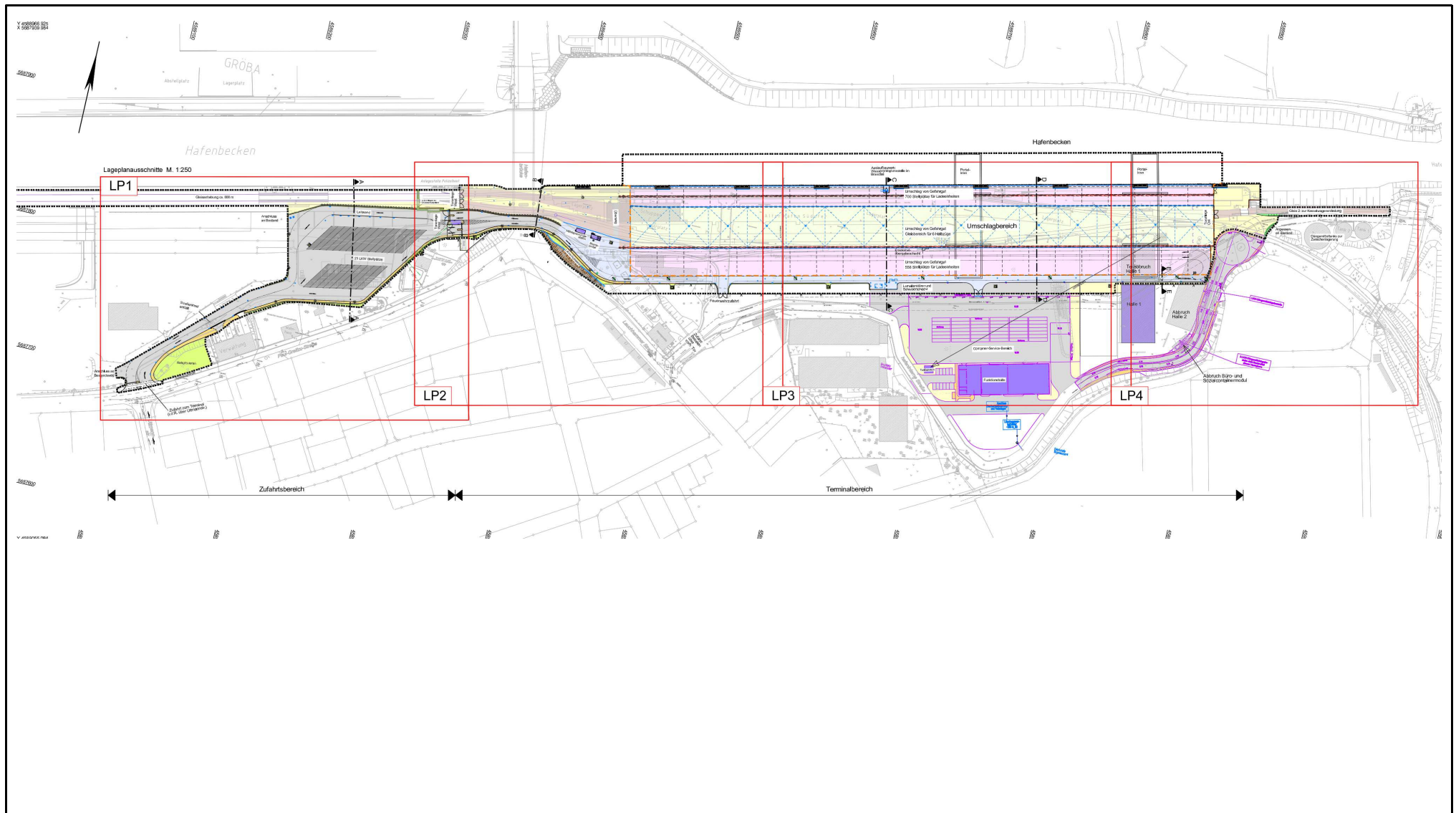
Anlage 4.2 Gegenüberstellung der vorhandenen mittleren Leuchtdichte L_{vorh} mit der maximalen Leuchtdichte L_{max}

+ Datenanhang

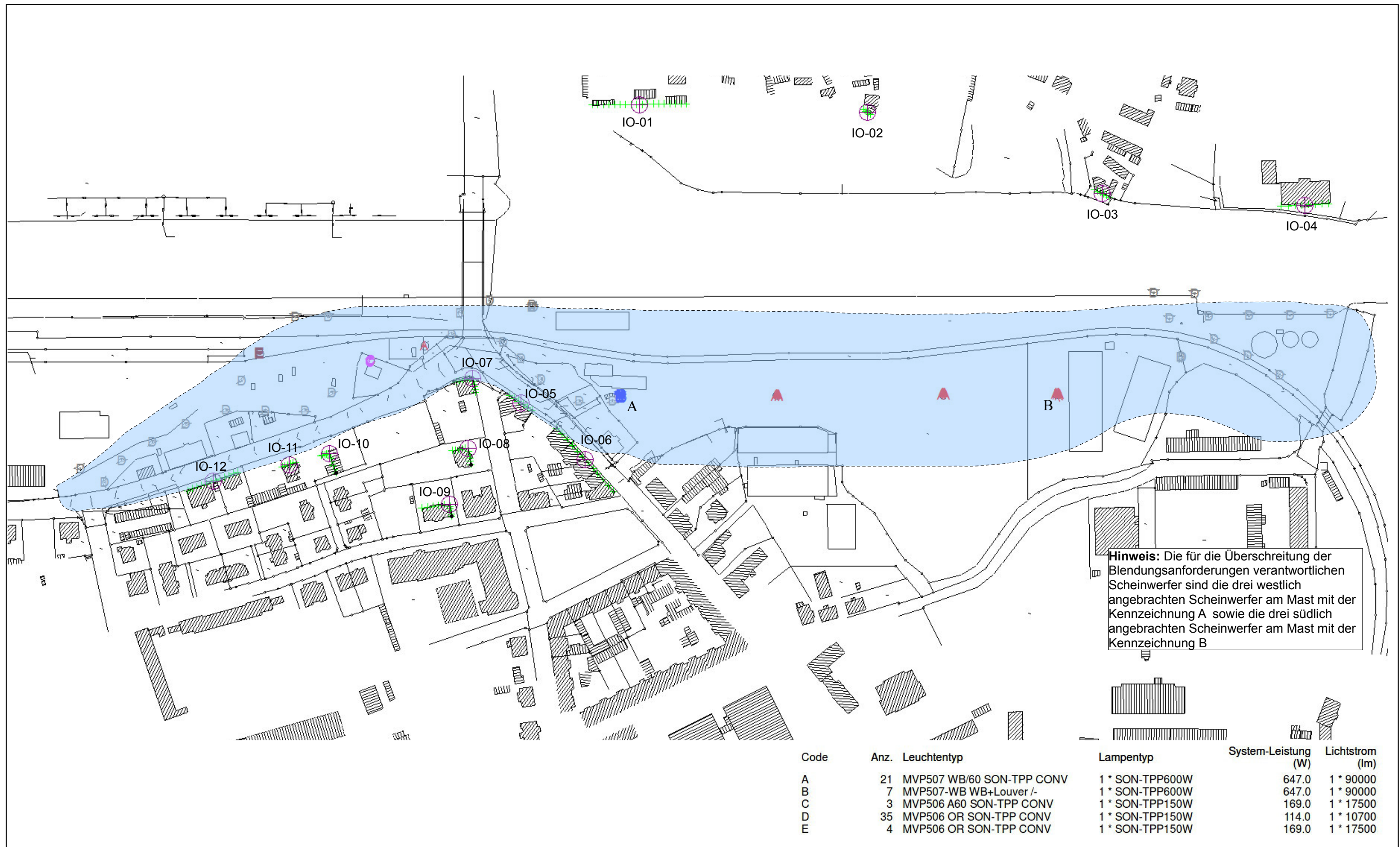
Anlage 5 Calculux-Ergebnisse

Anlage 6 Calculux-Ergebnisse - Varianten

Übersichtslageplan zum geplanten Neubau eines KV-Terminals im Hafen Riesa

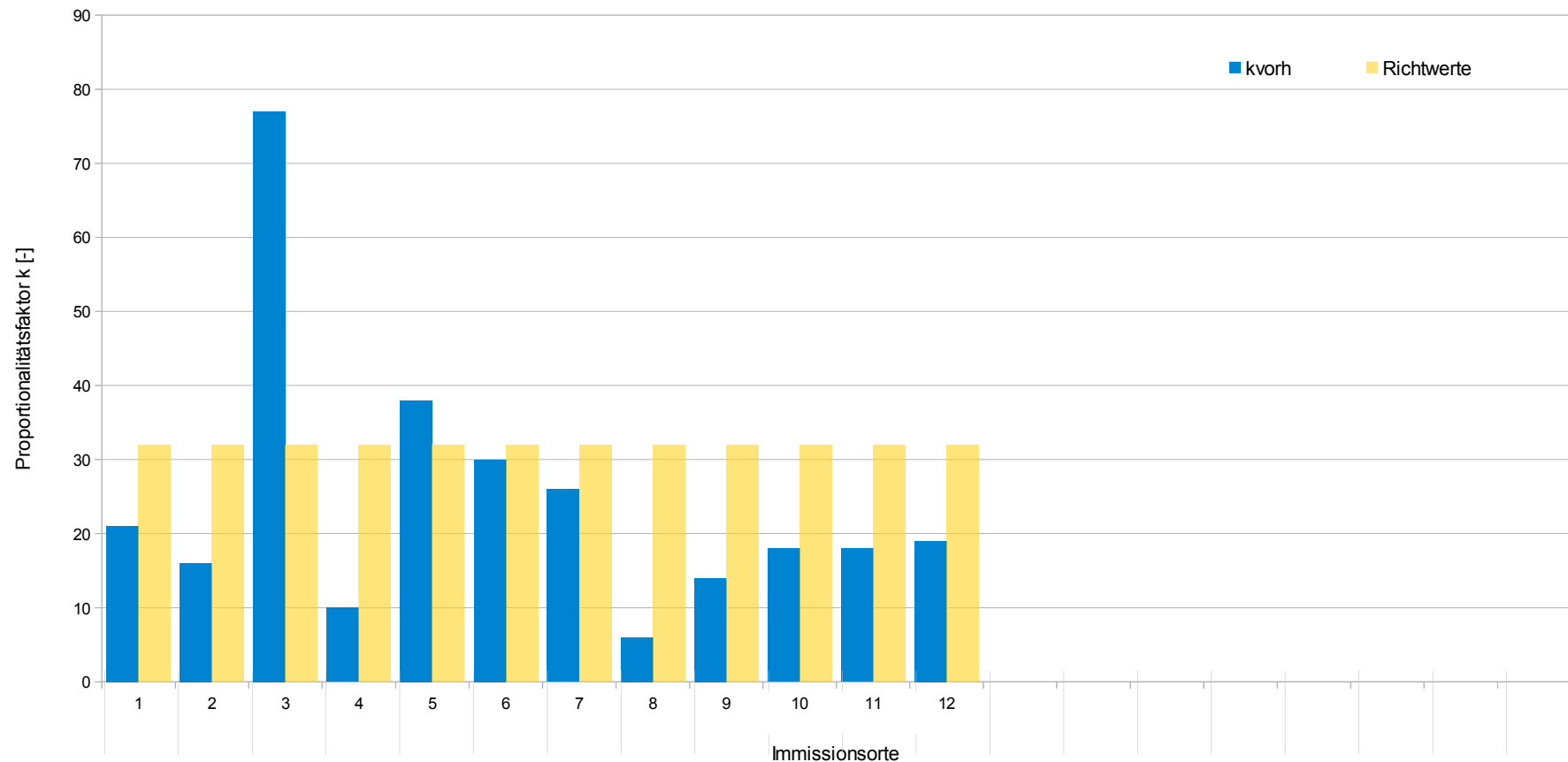






Referenzszenario

Darstellung der maximal vorhandenen und zulässigen Proportionalitätsfaktoren k_{vorh}

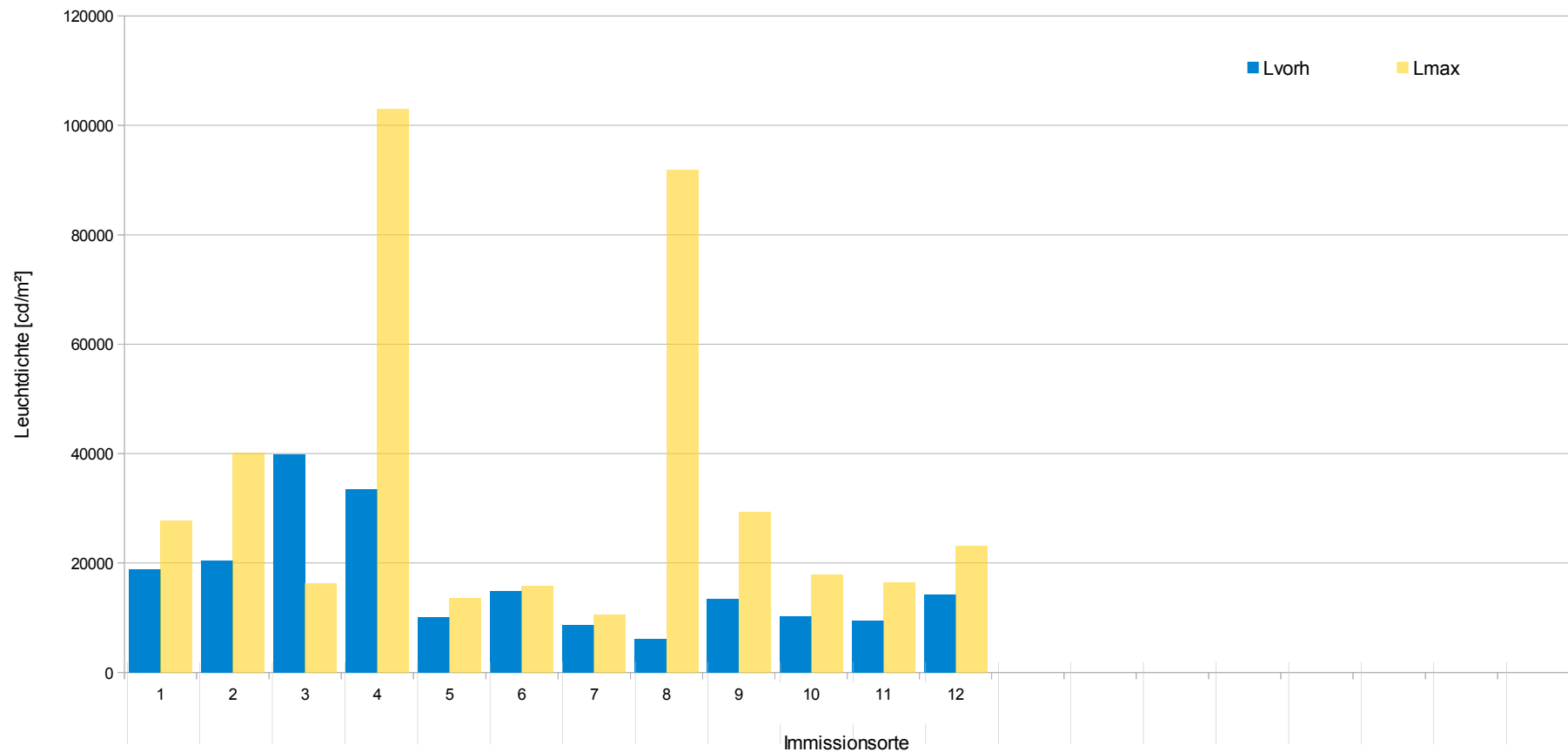


Immissionsort	1	2	3	4	5	6	7	8	9	10	11	12							
k_{vorh}	21	16	77	10	38	30	26	6	14	18	18	19							
Richtwerte	32	32	32	32	32	32	32	32	32	32	32	32							

(hier nur die strengste Anforderung - in der Zeit von 22:00 Uhr bis 6:00 Uhr - aufgelistet)

Referenzszenario

Gegenüberstellung der vorhandenen mittleren Leuchtdichte L_{vorh} mit der maximalen Leuchtdichte L_{max}



Immissionsort	1	2	3	4	5	6	7	8	9	10	11	12							
L _{vorh}	18767	20423	39776	33424	10029	14841	8706	6167	13342	10234	9494	14164							
L _{max}	27828	40080	16339	102988	13609	15816	10520	91812	29331	17815	16416	23120							

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
1	IO-01	*	32	0.5	27353	631	18667	21	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
1	IO-01	*	32	0.5	27336	630	18642	21	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
1	IO-01	*	32	0.5	27600	629	18729	21	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
1	IO-01	*	32	0.5	27828	627	18767	21	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
1	IO-01	*	32	0.5	37616	232	13184	11	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
1	IO-01	*	32	0.5	35374	194	10597	9	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
1	IO-01	*	32	0.5	37861	137	7320	6	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
1	IO-01	*	32	0.5	33782	114	5927	5	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
1	IO-01	*	32	0.5	27811	159	4758	5	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
1	IO-01	*	32	0.5	27565	158	4699	5	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
1	IO-01	*	32	0.5	36963	114	6004	5	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
1	IO-01	*	32	0.5	79203	198	11911	4	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
1	IO-01	*	32	0.5	31334	119	3814	3	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
1	IO-01	*	32	0.5	42478	72	5032	3	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
1	IO-01	*	32	0.5	34492	51	4012	3	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
1	IO-01	*	32	0.5	31421	107	3421	3	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
1	IO-01	*	32	0.5	31259	90	2870	2	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
1	IO-01	*	32	0.5	31293	90	2872	2	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
1	IO-01	*	32	0.5	88472	38	7332	2	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
1	IO-01	*	32	0.5	67353	57	4280	2	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
1	IO-01	*	32	0.5	78159	33	4929	2	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
1	IO-01	*	32	0.5	74048	49	3912	1	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
1	IO-01	*	32	0.5	92239	20	4140	1	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
1	IO-01	*	32	0.5	46357	41	1695	1	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
1	IO-01	*	32	0.5	46392	41	1691	1	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
1	IO-01	*	32	0.5	46444	41	1685	1	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
1	IO-01	*	32	0.5	46538	40	1675	1	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
1	IO-01	*	32	0.5	101915	24	3187	1	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
1	IO-01	*	32	0.5	126689	15	3913	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
1	IO-01	*	32	0.5	127218	15	3904	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
1	IO-01	*	32	0.5	31490	23	734	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
1	IO-01	*	32	0.5	56547	5	1114	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
1	IO-01	*	32	0.5	31665	13	428	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
1	IO-01	*	32	0.5	147440	6	1496	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
1	IO-01	*	32	0.5	127036	5	1218	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
1	IO-01	*	32	0.5	127565	5	1218	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
1	IO-01	*	32	0.5	161702	6	1473	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
1	IO-01	*	32	0.5	183535	5	1381	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
1	IO-01	*	32	0.5	54871	2	404	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
1	IO-01	*	32	0.5	198433	4	1370	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
1	IO-01	*	32	0.5	215871	4	1347	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
1	IO-01	*	32	0.5	190041	2	1174	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
1	IO-01	*	32	0.5	222122	3	1213	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
1	IO-01	*	32	0.5	61606	3	131	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
1	IO-01	*	32	0.5	61643	3	127	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
1	IO-01	*	32	0.5	61707	2	121	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
1	IO-01	*	32	0.5	61898	1	72	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
1	IO-01	*	32	0.5	62121	1	56	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
1	IO-01	*	32	0.5	47737	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
1	IO-01	*	32	0.5	49999	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
1	IO-01	*	32	0.5	152365	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	137809	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	164255	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	149645	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	195072	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	46917	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
1	IO-01	*	32	0.5	46739	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
1	IO-01	*	32	0.5	126192	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
1	IO-01	*	32	0.5	81197	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	231307	1	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
1	IO-01	*	32	0.5	72984	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	62298	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
1	IO-01	*	32	0.5	179340	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
1	IO-01	*	32	0.5	62361	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
1	IO-01	*	32	0.5	59212	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
1	IO-01	*	32	0.5	85040	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
1	IO-01	*	32	0.5	106358	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
1	IO-01	*	32	0.5	1442315	0	0	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
2	IO-02	*	32	0.5	39773	536	20378	16	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
2	IO-02	*	32	0.5	40080	535	20423	16	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
2	IO-02	*	32	0.5	39671	496	18820	15	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
2	IO-02	*	32	0.5	39876	494	18789	15	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
2	IO-02	*	32	0.5	40284	495	18947	15	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
2	IO-02	*	32	0.5	40182	493	18853	15	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
2	IO-02	*	32	0.5	58689	176	11150	6	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
2	IO-02	*	32	0.5	27303	138	4011	4	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
2	IO-02	*	32	0.5	27145	137	3966	4	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
2	IO-02	*	32	0.5	27163	137	3964	4	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
2	IO-02	*	32	0.5	27876	131	3870	4	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
2	IO-02	*	32	0.5	27879	131	3870	4	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
2	IO-02	*	32	0.5	28013	130	3852	4	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
2	IO-02	*	32	0.5	28017	130	3852	4	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
2	IO-02	*	32	0.5	55279	114	7530	4	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
2	IO-02	*	32	0.5	53698	124	6782	4	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
2	IO-02	*	32	0.5	53063	110	5972	3	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
2	IO-02	*	32	0.5	55048	84	5821	3	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
2	IO-02	*	32	0.5	27277	95	2777	3	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
2	IO-02	*	32	0.5	27445	93	2713	3	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
2	IO-02	*	32	0.5	27102	90	2610	3	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
2	IO-02	*	32	0.5	27825	90	2656	3	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
2	IO-02	*	32	0.5	33846	93	3117	2	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
2	IO-02	*	32	0.5	34008	93	3130	2	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
2	IO-02	*	32	0.5	33914	92	3109	2	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
2	IO-02	*	32	0.5	34025	92	3095	2	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
2	IO-02	*	32	0.5	34179	91	3092	2	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
2	IO-02	*	32	0.5	59966	61	4501	2	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
2	IO-02	*	32	0.5	161365	26	7556	1	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
2	IO-02	*	32	0.5	143517	26	6030	1	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
2	IO-02	*	32	0.5	77368	23	3166	1	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
2	IO-02	*	32	0.5	77406	23	3159	1	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
2	IO-02	*	32	0.5	90100	27	3364	1	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
2	IO-02	*	32	0.5	112053	37	3896	1	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
2	IO-02	*	32	0.5	121266	34	3739	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
2	IO-02	*	32	0.5	217360	7	3900	0	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
2	IO-02	*	32	0.5	28183	16	463	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
2	IO-02	*	32	0.5	219044	8	2973	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
2	IO-02	*	32	0.5	219750	8	2969	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
2	IO-02	*	32	0.5	205418	6	1740	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
2	IO-02	*	32	0.5	195517	6	1489	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
2	IO-02	*	32	0.5	219325	3	1218	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
2	IO-02	*	32	0.5	220030	3	1218	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
2	IO-02	*	32	0.5	300946	3	1274	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
2	IO-02	*	32	0.5	126587	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
2	IO-02	*	32	0.5	535406	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
2	IO-02	*	32	0.5	92258	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	141294	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	301664	1	0	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
2	IO-02	*	32	0.5	345729	1	0	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
2	IO-02	*	32	0.5	68803	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	129329	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
2	IO-02	*	32	0.5	67985	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
2	IO-02	*	32	0.5	116786	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	65762	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
2	IO-02	*	32	0.5	81093	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	61377	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
2	IO-02	*	32	0.5	62440	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
2	IO-02	*	32	0.5	120818	1	0	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
2	IO-02	*	32	0.5	104145	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	79725	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	34354	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
2	IO-02	*	32	0.5	286023	1	0	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
2	IO-02	*	32	0.5	34464	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
2	IO-02	*	32	0.5	472815	1	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
2	IO-02	*	32	0.5	152848	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
2	IO-02	*	32	0.5	163280	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
2	IO-02	*	32	0.5	494115	1	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
3	IO-03	*	32	0.5	16339	1922	39776	77	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
3	IO-03	*	32	0.5	16478	1863	38764	75	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
3	IO-03	*	32	0.5	16437	1050	21810	42	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
3	IO-03	*	32	0.5	16211	445	9153	18	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
3	IO-03	*	32	0.5	16298	440	9085	17	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
3	IO-03	*	32	0.5	16162	357	7324	14	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
3	IO-03	*	32	0.5	16218	353	7276	14	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
3	IO-03	*	32	0.5	64766	508	26729	13	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
3	IO-03	*	32	0.5	65059	508	26805	13	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
3	IO-03	*	32	0.5	22363	186	4740	6	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
3	IO-03	*	32	0.5	22261	184	4668	6	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
3	IO-03	*	32	0.5	22267	184	4669	6	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
3	IO-03	*	32	0.5	22348	182	4632	6	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
3	IO-03	*	32	0.5	29530	52	4772	5	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
3	IO-03	*	32	0.5	79196	202	12396	5	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
3	IO-03	*	32	0.5	81879	202	12680	4	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
3	IO-03	*	32	0.5	65399	140	7434	3	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
3	IO-03	*	32	0.5	64812	138	7272	3	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
3	IO-03	*	32	0.5	65445	138	7325	3	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
3	IO-03	*	32	0.5	65152	137	7243	3	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
3	IO-03	*	32	0.5	40365	62	2356	1	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
3	IO-03	*	32	0.5	40411	62	2351	1	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
3	IO-03	*	32	0.5	40438	62	2348	1	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
3	IO-03	*	32	0.5	40600	44	1674	1	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
3	IO-03	*	32	0.5	40793	44	1665	1	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
3	IO-03	*	32	0.5	97660	46	3905	1	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
3	IO-03	*	32	0.5	107704	30	3533	1	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
3	IO-03	*	32	0.5	253062	21	8248	1	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
3	IO-03	*	32	0.5	103101	26	3315	1	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
3	IO-03	*	32	0.5	112121	23	3178	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
3	IO-03	*	32	0.5	233403	16	5160	0	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
3	IO-03	*	32	0.5	186069	15	2537	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
3	IO-03	*	32	0.5	198592	14	2435	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
3	IO-03	*	32	0.5	223683	10	2192	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
3	IO-03	*	32	0.5	164352	6	1535	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
3	IO-03	*	32	0.5	256372	11	2135	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
3	IO-03	*	32	0.5	329289	5	2491	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
3	IO-03	*	32	0.5	330144	5	2489	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
3	IO-03	*	32	0.5	205227	4	1352	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
3	IO-03	*	32	0.5	329452	3	1623	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
3	IO-03	*	32	0.5	330306	3	1623	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
3	IO-03	*	32	0.5	321516	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
3	IO-03	*	32	0.5	343318	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
3	IO-03	*	32	0.5	285792	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
3	IO-03	*	32	0.5	146211	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
3	IO-03	*	32	0.5	313962	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	795258	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
3	IO-03	*	32	0.5	909602	1	0	0	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
3	IO-03	*	32	0.5	153718	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
3	IO-03	*	32	0.5	270597	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
3	IO-03	*	32	0.5	221680	1	0	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
3	IO-03	*	32	0.5	84439	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
3	IO-03	*	32	0.5	88717	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
3	IO-03	*	32	0.5	333788	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	40940	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
3	IO-03	*	32	0.5	26672	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	23412	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
3	IO-03	*	32	0.5	19953	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	49225	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
3	IO-03	*	32	0.5	22515	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
3	IO-03	*	32	0.5	22662	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
3	IO-03	*	32	0.5	60161	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	29636	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	48272	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	57852	0	0	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
3	IO-03	*	32	0.5	38024	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
3	IO-03	*	32	0.5	77968	0	0	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
3	IO-03	*	32	0.5	97025	0	0	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
4	IO-04	*	32	0.5	102681	467	33373	10	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
4	IO-04	*	32	0.5	102988	467	33424	10	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
4	IO-04	*	32	0.5	28160	68	4832	5	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
4	IO-04	*	32	0.5	29739	118	3630	3	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
4	IO-04	*	32	0.5	29788	117	3623	3	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
4	IO-04	*	32	0.5	29796	104	3217	3	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
4	IO-04	*	32	0.5	29940	104	3232	3	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
4	IO-04	*	32	0.5	108627	155	10160	2	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
4	IO-04	*	32	0.5	111879	132	8855	2	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
4	IO-04	*	32	0.5	30009	65	2018	2	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
4	IO-04	*	32	0.5	30100	63	1957	2	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
4	IO-04	*	32	0.5	103402	77	5557	1	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
4	IO-04	*	32	0.5	103509	77	5505	1	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
4	IO-04	*	32	0.5	102788	76	5463	1	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
4	IO-04	*	32	0.5	103202	76	5458	1	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
4	IO-04	*	32	0.5	44405	47	1907	1	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
4	IO-04	*	32	0.5	44438	47	1903	1	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
4	IO-04	*	32	0.5	44493	47	1897	1	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
4	IO-04	*	32	0.5	136252	41	3893	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
4	IO-04	*	32	0.5	145941	31	3726	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
4	IO-04	*	32	0.5	358732	18	8830	0	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
4	IO-04	*	32	0.5	332780	12	4920	0	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
4	IO-04	*	32	0.5	166262	13	2392	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
4	IO-04	*	32	0.5	30242	14	428	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
4	IO-04	*	32	0.5	177419	12	2274	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
4	IO-04	*	32	0.5	266618	12	2430	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
4	IO-04	*	32	0.5	283436	14	2523	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
4	IO-04	*	32	0.5	257626	9	1876	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
4	IO-04	*	32	0.5	271651	8	1777	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
4	IO-04	*	32	0.5	261605	4	1354	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
4	IO-04	*	32	0.5	450074	4	2275	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
4	IO-04	*	32	0.5	451029	4	2274	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
4	IO-04	*	32	0.5	450210	3	1623	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
4	IO-04	*	32	0.5	451166	3	1623	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
4	IO-04	*	32	0.5	347620	2	1174	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
4	IO-04	*	32	0.5	474237	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	110165	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
4	IO-04	*	32	0.5	498195	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	31248	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	179784	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
4	IO-04	*	32	0.5	726613	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
4	IO-04	*	32	0.5	328805	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
4	IO-04	*	32	0.5	346383	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
4	IO-04	*	32	0.5	303287	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
4	IO-04	*	32	0.5	170685	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
4	IO-04	*	32	0.5	26753	0	0	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
4	IO-04	*	32	0.5	518334	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
4	IO-04	*	32	0.5	712788	0	0	0	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
4	IO-04	*	32	0.5	344234	0	0	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
4	IO-04	*	32	0.5	71488	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
4	IO-04	*	32	0.5	71481	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
4	IO-04	*	32	0.5	71612	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
4	IO-04	*	32	0.5	71830	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
4	IO-04	*	32	0.5	72055	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
4	IO-04	*	32	0.5	72199	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
4	IO-04	*	32	0.5	43267	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	18158	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	18510	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	44668	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
4	IO-04	*	32	0.5	44866	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
4	IO-04	*	32	0.5	45008	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
4	IO-04	*	32	0.5	24360	0	0	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
4	IO-04	*	32	0.5	21306	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	27526	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
4	IO-04	*	32	0.5	24403	0	0	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
4	IO-04	*	32	0.5	38488	0	0	0	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
4	IO-04	*	32	0.5	37582	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
4	IO-04	*	32	0.5	114355	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
5	IO-05	*	32	0.5	6120	676	7371	38	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
5	IO-05	*	32	0.5	6207	599	6600	34	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
5	IO-05	*	32	0.5	6188	594	6531	33	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
5	IO-05	*	32	0.5	6362	550	6160	30	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
5	IO-05	*	32	0.5	13609	153	10029	23	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
5	IO-05	*	32	0.5	15275	48	4023	8	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
5	IO-05	*	32	0.5	9896	24	2363	7	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
5	IO-05	*	32	0.5	22291	184	4681	6	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
5	IO-05	*	32	0.5	22344	184	4686	6	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
5	IO-05	*	32	0.5	22474	180	4599	6	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
5	IO-05	*	32	0.5	29078	44	5042	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
5	IO-05	*	32	0.5	24382	40	3246	4	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
5	IO-05	*	32	0.5	36265	44	4413	3	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	24809	33	2785	3	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
5	IO-05	*	32	0.5	22630	87	2233	3	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
5	IO-05	*	32	0.5	44386	31	3559	2	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	19287	9	1436	2	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
5	IO-05	*	32	0.5	56858	25	3835	2	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
5	IO-05	*	32	0.5	57333	24	3813	2	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
5	IO-05	*	32	0.5	84119	100	5510	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
5	IO-05	*	32	0.5	52963	27	3286	1	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
5	IO-05	*	32	0.5	86941	25	3236	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
5	IO-05	*	32	0.5	56949	13	2021	1	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
5	IO-05	*	32	0.5	46761	40	1651	1	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
5	IO-05	*	32	0.5	57424	13	2016	1	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
5	IO-05	*	32	0.5	46828	39	1644	1	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
5	IO-05	*	32	0.5	114986	42	3904	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
5	IO-05	*	32	0.5	122740	41	3930	1	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
5	IO-05	*	32	0.5	130735	39	3910	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
5	IO-05	*	32	0.5	46995	27	1116	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
5	IO-05	*	32	0.5	57773	5	1169	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
5	IO-05	*	32	0.5	6429	10	108	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
5	IO-05	*	32	0.5	6342	9	101	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
5	IO-05	*	32	0.5	73135	4	1163	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
5	IO-05	*	32	0.5	175861	6	1489	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	193066	5	1457	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	214469	4	1356	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{soff}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
5	IO-05	*	32	0.5	232936	4	1339	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	251920	4	1323	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	233343	3	1216	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
5	IO-05	*	32	0.5	270956	3	1310	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
5	IO-05	*	32	0.5	87654	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
5	IO-05	*	32	0.5	103111	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
5	IO-05	*	32	0.5	100411	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
5	IO-05	*	32	0.5	60228	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
5	IO-05	*	32	0.5	13729	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
5	IO-05	*	32	0.5	21055	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
5	IO-05	*	32	0.5	9438	1	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
5	IO-05	*	32	0.5	33612	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
5	IO-05	*	32	0.5	22798	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
5	IO-05	*	32	0.5	22754	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
5	IO-05	*	32	0.5	30666	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
5	IO-05	*	32	0.5	29954	1	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
5	IO-05	*	32	0.5	89217	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
5	IO-05	*	32	0.5	57788	1	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
5	IO-05	*	32	0.5	47416	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
5	IO-05	*	32	0.5	47357	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
5	IO-05	*	32	0.5	47196	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
5	IO-05	*	32	0.5	17089	1	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
5	IO-05	*	32	0.5	21281	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
5	IO-05	*	32	0.5	118197	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
5	IO-05	*	32	0.5	67519	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
5	IO-05	*	32	0.5	67451	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
5	IO-05	*	32	0.5	67444	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
5	IO-05	*	32	0.5	67269	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
5	IO-05	*	32	0.5	66904	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
5	IO-05	*	32	0.5	66855	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
5	IO-05	*	32	0.5	66780	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
6	IO-06	*	32	0.5	15816	733	14841	30	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
6	IO-06	*	32	0.5	23713	66	4821	6	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
6	IO-06	*	32	0.5	16163	122	2497	4	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
6	IO-06	*	32	0.5	61670	37	8496	4	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
6	IO-06	*	32	0.5	15899	94	1913	3	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
6	IO-06	*	32	0.5	16032	91	1863	3	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
6	IO-06	*	32	0.5	16243	87	1794	3	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
6	IO-06	*	32	0.5	16243	87	1794	3	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
6	IO-06	*	32	0.5	49354	45	4357	2	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	44926	32	3935	2	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
6	IO-06	*	32	0.5	77129	120	6697	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
6	IO-06	*	32	0.5	4264	41	349	2	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
6	IO-06	*	32	0.5	32768	18	2535	2	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
6	IO-06	*	32	0.5	4392	37	324	2	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
6	IO-06	*	32	0.5	56896	39	4094	2	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	37495	75	2685	2	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
6	IO-06	*	32	0.5	37585	74	2675	2	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
6	IO-06	*	32	0.5	65137	31	3673	1	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
6	IO-06	*	32	0.5	47338	19	2514	1	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
6	IO-06	*	32	0.5	4201	25	211	1	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
6	IO-06	*	32	0.5	4266	25	214	1	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
6	IO-06	*	32	0.5	4394	25	214	1	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
6	IO-06	*	32	0.5	4456	23	206	1	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
6	IO-06	*	32	0.5	88612	37	3944	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
6	IO-06	*	32	0.5	82989	17	3500	1	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
6	IO-06	*	32	0.5	83511	17	3480	1	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
6	IO-06	*	32	0.5	99599	47	3860	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
6	IO-06	*	32	0.5	106478	45	3888	1	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
6	IO-06	*	32	0.5	113536	43	3903	1	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
6	IO-06	*	32	0.5	33723	2	884	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
6	IO-06	*	32	0.5	132670	15	2539	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	83160	8	1553	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
6	IO-06	*	32	0.5	52198	2	974	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
6	IO-06	*	32	0.5	83681	8	1553	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
6	IO-06	*	32	0.5	146273	13	2367	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	157953	9	1944	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	55996	15	689	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
6	IO-06	*	32	0.5	172637	8	1769	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	159067	6	1523	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
6	IO-06	*	32	0.5	187755	7	1600	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	203084	6	1548	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
6	IO-06	*	32	0.5	82512	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
6	IO-06	*	32	0.5	93402	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
6	IO-06	*	32	0.5	94293	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
6	IO-06	*	32	0.5	66392	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
6	IO-06	*	32	0.5	32879	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
6	IO-06	*	32	0.5	43541	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
6	IO-06	*	32	0.5	38657	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
6	IO-06	*	32	0.5	3348399	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
6	IO-06	*	32	0.5	82318	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
6	IO-06	*	32	0.5	40468	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
6	IO-06	*	32	0.5	37431	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
6	IO-06	*	32	0.5	15199	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
6	IO-06	*	32	0.5	13252	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
6	IO-06	*	32	0.5	89429	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
6	IO-06	*	32	0.5	38093	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
6	IO-06	*	32	0.5	38067	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
6	IO-06	*	32	0.5	37938	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
6	IO-06	*	32	0.5	37754	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
6	IO-06	*	32	0.5	90275	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
6	IO-06	*	32	0.5	34275	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
6	IO-06	*	32	0.5	56686	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
6	IO-06	*	32	0.5	56648	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
6	IO-06	*	32	0.5	56592	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
6	IO-06	*	32	0.5	56493	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
6	IO-06	*	32	0.5	56153	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
6	IO-06	*	32	0.5	56091	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
6	IO-06	*	32	0.5	473078	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
7	IO-07	*	32	0.5	10520	556	8706	26	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
7	IO-07	*	32	0.5	10404	478	7426	22	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
7	IO-07	*	32	0.5	10481	385	6012	18	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
7	IO-07	*	32	0.5	10673	354	5595	16	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
7	IO-07	*	32	0.5	12729	56	4826	12	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
7	IO-07	*	32	0.5	14259	52	4095	9	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
7	IO-07	*	32	0.5	13378	52	2855	6	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
7	IO-07	*	32	0.5	14884	47	3171	6	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
7	IO-07	*	32	0.5	5059	41	1001	6	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
7	IO-07	*	32	0.5	13396	47	2539	6	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
7	IO-07	*	32	0.5	26006	52	4835	5	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	19285	33	3484	5	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
7	IO-07	*	32	0.5	15608	23	2142	4	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
7	IO-07	*	32	0.5	28793	124	3751	4	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
7	IO-07	*	32	0.5	33996	33	3700	3	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	41208	30	3761	2	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
7	IO-07	*	32	0.5	41639	29	3741	2	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
7	IO-07	*	32	0.5	14558	8	1225	2	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
7	IO-07	*	32	0.5	28837	80	2409	2	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
7	IO-07	*	32	0.5	28505	17	2380	2	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
7	IO-07	*	32	0.5	33834	20	2718	2	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
7	IO-07	*	32	0.5	28970	76	2315	2	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
7	IO-07	*	32	0.5	43923	26	3197	2	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
7	IO-07	*	32	0.5	90168	91	5032	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
7	IO-07	*	32	0.5	41259	18	2293	1	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
7	IO-07	*	32	0.5	41690	18	2289	1	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
7	IO-07	*	32	0.5	45584	14	2301	1	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
7	IO-07	*	32	0.5	84861	18	2782	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
7	IO-07	*	32	0.5	126259	40	3927	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
7	IO-07	*	32	0.5	134397	38	3892	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
7	IO-07	*	32	0.5	142804	36	3810	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
7	IO-07	*	32	0.5	21860	3	581	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
7	IO-07	*	32	0.5	54975	17	792	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
7	IO-07	*	32	0.5	55035	17	786	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
7	IO-07	*	32	0.5	212701	4	1353	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	232438	4	1331	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	10788	4	57	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
7	IO-07	*	32	0.5	263148	3	1238	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	284258	3	1228	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	305956	3	1218	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	327534	2	1211	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
7	IO-07	*	32	0.5	309501	2	1089	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
7	IO-07	*	32	0.5	10712	2	30	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
7	IO-07	*	32	0.5	109868	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
7	IO-07	*	32	0.5	55813	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
7	IO-07	*	32	0.5	30683	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
7	IO-07	*	32	0.5	122476	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
7	IO-07	*	32	0.5	99964	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
7	IO-07	*	32	0.5	15461	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
7	IO-07	*	32	0.5	29347	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
7	IO-07	*	32	0.5	29284	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
7	IO-07	*	32	0.5	29140	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
7	IO-07	*	32	0.5	95251	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
7	IO-07	*	32	0.5	23355	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
7	IO-07	*	32	0.5	15242	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
7	IO-07	*	32	0.5	55667	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
7	IO-07	*	32	0.5	55593	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
7	IO-07	*	32	0.5	55416	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
7	IO-07	*	32	0.5	55204	1	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
7	IO-07	*	32	0.5	16211	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
7	IO-07	*	32	0.5	241824	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
7	IO-07	*	32	0.5	76758	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
7	IO-07	*	32	0.5	76677	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
7	IO-07	*	32	0.5	76689	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
7	IO-07	*	32	0.5	76480	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
7	IO-07	*	32	0.5	76100	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
7	IO-07	*	32	0.5	76054	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
7	IO-07	*	32	0.5	75986	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
8	IO-08	*	32	0.5	26968	79	5266	6	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	22096	41	3830	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
8	IO-08	*	32	0.5	19716	40	2968	4	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
8	IO-08	*	32	0.5	32446	60	4555	4	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	18710	35	2407	4	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
8	IO-08	*	32	0.5	30582	29	3837	4	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
8	IO-08	*	32	0.5	29974	116	3600	3	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
8	IO-08	*	32	0.5	45429	39	5267	3	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
8	IO-08	*	32	0.5	45838	39	5243	3	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{amb}	L _U	L _{max}	I	L _{amb}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
8	IO-08	*	32	0.5	40855	38	3871	3	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
8	IO-08	*	32	0.5	11654	54	901	2	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
8	IO-08	*	32	0.5	29417	18	2181	2	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
8	IO-08	*	32	0.5	31091	15	2204	2	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
8	IO-08	*	32	0.5	11615	49	822	2	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
8	IO-08	*	32	0.5	11767	47	799	2	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
8	IO-08	*	32	0.5	11958	47	807	2	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
8	IO-08	*	32	0.5	91812	110	6167	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
8	IO-08	*	32	0.5	68682	37	3972	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
8	IO-08	*	32	0.5	45616	13	1738	1	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
8	IO-08	*	32	0.5	46024	13	1739	1	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
8	IO-08	*	32	0.5	120923	44	3881	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
8	IO-08	*	32	0.5	128206	43	3884	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
8	IO-08	*	32	0.5	135657	41	3876	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
8	IO-08	*	32	0.5	38372	4	993	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
8	IO-08	*	32	0.5	30055	16	494	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
8	IO-08	*	32	0.5	30211	15	460	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
8	IO-08	*	32	0.5	30381	14	423	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
8	IO-08	*	32	0.5	56244	14	664	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
8	IO-08	*	32	0.5	56334	14	655	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
8	IO-08	*	32	0.5	176366	9	1858	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	191886	7	1674	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	207953	6	1501	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	224431	5	1478	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	218846	4	1369	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
8	IO-08	*	32	0.5	241331	5	1457	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	258335	5	1439	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
8	IO-08	*	32	0.5	11997	2	39	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
8	IO-08	*	32	0.5	11845	2	36	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
8	IO-08	*	32	0.5	56522	4	168	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
8	IO-08	*	32	0.5	18608	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
8	IO-08	*	32	0.5	64311	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
8	IO-08	*	32	0.5	61616	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
8	IO-08	*	32	0.5	73401	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
8	IO-08	*	32	0.5	75922	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
8	IO-08	*	32	0.5	51459	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
8	IO-08	*	32	0.5	18226	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
8	IO-08	*	32	0.5	17676	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
8	IO-08	*	32	0.5	23690	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
8	IO-08	*	32	0.5	13543	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
8	IO-08	*	32	0.5	30529	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
8	IO-08	*	32	0.5	30503	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
8	IO-08	*	32	0.5	81179	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
8	IO-08	*	32	0.5	96950	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
8	IO-08	*	32	0.5	137746	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
8	IO-08	*	32	0.5	120529	1	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
8	IO-08	*	32	0.5	56937	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
8	IO-08	*	32	0.5	56893	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
8	IO-08	*	32	0.5	56735	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
8	IO-08	*	32	0.5	142992	1	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
8	IO-08	*	32	0.5	16744	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
8	IO-08	*	32	0.5	57680	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
8	IO-08	*	32	0.5	78076	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
8	IO-08	*	32	0.5	78022	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
8	IO-08	*	32	0.5	77980	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
8	IO-08	*	32	0.5	77842	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
8	IO-08	*	32	0.5	77460	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
8	IO-08	*	32	0.5	77398	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
8	IO-08	*	32	0.5	77302	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
9	IO-09	*	32	0.5	29331	228	13342	14	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	33256	124	7917	7	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	31596	43	5361	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
9	IO-09	*	32	0.5	28357	44	4430	4	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
9	IO-09	*	32	0.5	25913	33	2835	3	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
9	IO-09	*	32	0.5	39978	45	4187	3	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
9	IO-09	*	32	0.5	49507	36	5066	3	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
9	IO-09	*	32	0.5	49869	35	5056	3	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
9	IO-09	*	32	0.5	34565	89	3030	2	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
9	IO-09	*	32	0.5	49451	21	3784	2	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
9	IO-09	*	32	0.5	95942	123	6971	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
9	IO-09	*	32	0.5	58974	47	4064	2	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
9	IO-09	*	32	0.5	44468	15	2347	1	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
9	IO-09	*	32	0.5	45643	13	2055	1	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
9	IO-09	*	32	0.5	121048	47	3856	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
9	IO-09	*	32	0.5	127748	45	3830	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
9	IO-09	*	32	0.5	134554	44	3860	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
9	IO-09	*	32	0.5	49794	9	1303	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
9	IO-09	*	32	0.5	50156	9	1305	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
9	IO-09	*	32	0.5	16063	19	396	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
9	IO-09	*	32	0.5	16073	19	385	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
9	IO-09	*	32	0.5	16466	18	385	0	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
9	IO-09	*	32	0.5	16274	18	380	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
9	IO-09	*	32	0.5	50335	5	1123	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
9	IO-09	*	32	0.5	166100	14	2512	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	179758	13	2371	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	191229	10	2045	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	205691	9	1898	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	195495	7	1569	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{amb}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
9	IO-09	*	32	0.5	220508	8	1756	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	235478	7	1624	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
9	IO-09	*	32	0.5	16256	3	57	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
9	IO-09	*	32	0.5	16457	3	57	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
9	IO-09	*	32	0.5	61154	4	175	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
9	IO-09	*	32	0.5	61267	3	164	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
9	IO-09	*	32	0.5	25605	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
9	IO-09	*	32	0.5	41862	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
9	IO-09	*	32	0.5	25313	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
9	IO-09	*	32	0.5	55906	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
9	IO-09	*	32	0.5	43613	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
9	IO-09	*	32	0.5	47210	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
9	IO-09	*	32	0.5	49747	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
9	IO-09	*	32	0.5	58029	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
9	IO-09	*	32	0.5	61779	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
9	IO-09	*	32	0.5	48079	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
9	IO-09	*	32	0.5	23889	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
9	IO-09	*	32	0.5	34802	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
9	IO-09	*	32	0.5	74030	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
9	IO-09	*	32	0.5	23599	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
9	IO-09	*	32	0.5	35126	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
9	IO-09	*	32	0.5	35126	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
9	IO-09	*	32	0.5	35020	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
9	IO-09	*	32	0.5	34848	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
9	IO-09	*	32	0.5	34674	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
9	IO-09	*	32	0.5	101164	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
9	IO-09	*	32	0.5	61854	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
9	IO-09	*	32	0.5	61832	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
9	IO-09	*	32	0.5	61686	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
9	IO-09	*	32	0.5	61471	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
9	IO-09	*	32	0.5	24329	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
9	IO-09	*	32	0.5	25531	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
9	IO-09	*	32	0.5	83210	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
9	IO-09	*	32	0.5	83176	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
9	IO-09	*	32	0.5	83094	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
9	IO-09	*	32	0.5	83007	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
9	IO-09	*	32	0.5	82622	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
9	IO-09	*	32	0.5	82547	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
9	IO-09	*	32	0.5	82429	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
10	IO-10	*	32	0.5	17815	142	10234	18	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
10	IO-10	*	32	0.5	12660	138	7269	18	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
10	IO-10	*	32	0.5	18001	134	9719	17	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
10	IO-10	*	32	0.5	16780	173	8268	15	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	16036	114	5275	10	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{soff}	k _{soff}	Leuchte	x	y	z	DrehC	NeigA	NeigB
10	IO-10	*	32	0.5	16470	72	5104	9	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
10	IO-10	*	32	0.5	13756	47	2819	6	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
10	IO-10	*	32	0.5	13290	48	2702	6	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
10	IO-10	*	32	0.5	26866	77	5128	6	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
10	IO-10	*	32	0.5	30759	86	5658	5	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
10	IO-10	*	32	0.5	18084	31	2289	4	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
10	IO-10	*	32	0.5	18269	31	2280	3	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
10	IO-10	*	32	0.5	42292	45	4412	3	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
10	IO-10	*	32	0.5	62427	29	6246	3	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
10	IO-10	*	32	0.5	109875	106	5980	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
10	IO-10	*	32	0.5	28167	33	993	1	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
10	IO-10	*	32	0.5	28078	32	978	1	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
10	IO-10	*	32	0.5	28261	32	966	1	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
10	IO-10	*	32	0.5	28532	32	968	1	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
10	IO-10	*	32	0.5	145362	43	3865	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
10	IO-10	*	32	0.5	152812	41	3855	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
10	IO-10	*	32	0.5	160405	40	3857	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
10	IO-10	*	32	0.5	51586	26	1141	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
10	IO-10	*	32	0.5	227039	6	1549	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	243881	6	1521	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	263310	5	1442	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	280902	5	1425	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	298888	4	1409	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	286967	3	1304	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
10	IO-10	*	32	0.5	316887	4	1395	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
10	IO-10	*	32	0.5	51677	2	103	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
10	IO-10	*	32	0.5	51861	2	85	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
10	IO-10	*	32	0.5	28439	1	39	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
10	IO-10	*	32	0.5	28621	1	39	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
10	IO-10	*	32	0.5	32917	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
10	IO-10	*	32	0.5	128404	1	0	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
10	IO-10	*	32	0.5	21430	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
10	IO-10	*	32	0.5	166687	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
10	IO-10	*	32	0.5	51603	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
10	IO-10	*	32	0.5	207324	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
10	IO-10	*	32	0.5	28061	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
10	IO-10	*	32	0.5	33019	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
10	IO-10	*	32	0.5	45026	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
10	IO-10	*	32	0.5	50649	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
10	IO-10	*	32	0.5	33367	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
10	IO-10	*	32	0.5	35136	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
10	IO-10	*	32	0.5	18378	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
10	IO-10	*	32	0.5	32009	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
10	IO-10	*	32	0.5	139352	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
10	IO-10	*	32	0.5	52258	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
10	IO-10	*	32	0.5	52219	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
10	IO-10	*	32	0.5	52067	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
10	IO-10	*	32	0.5	114998	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
10	IO-10	*	32	0.5	33433	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
10	IO-10	*	32	0.5	34401	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
10	IO-10	*	32	0.5	83081	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
10	IO-10	*	32	0.5	83028	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
10	IO-10	*	32	0.5	82844	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
10	IO-10	*	32	0.5	82602	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
10	IO-10	*	32	0.5	82391	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
10	IO-10	*	32	0.5	82292	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
10	IO-10	*	32	0.5	106841	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
10	IO-10	*	32	0.5	106778	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
10	IO-10	*	32	0.5	106737	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
10	IO-10	*	32	0.5	106576	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
10	IO-10	*	32	0.5	106152	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
10	IO-10	*	32	0.5	106084	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
10	IO-10	*	32	0.5	105980	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
11	IO-11	*	32	0.5	16416	139	9494	18	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
11	IO-11	*	32	0.5	16336	138	9404	18	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
11	IO-11	*	32	0.5	18341	172	8392	14	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	13408	84	5535	13	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
11	IO-11	*	32	0.5	17465	119	5609	10	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	35415	122	7745	6	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
11	IO-11	*	32	0.5	31307	104	6681	6	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
11	IO-11	*	32	0.5	18615	51	3486	5	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
11	IO-11	*	32	0.5	18947	51	3540	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
11	IO-11	*	32	0.5	20204	38	2933	4	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
11	IO-11	*	32	0.5	33591	53	4673	4	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
11	IO-11	*	32	0.5	16723	31	2147	4	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
11	IO-11	*	32	0.5	16643	31	2136	4	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
11	IO-11	*	32	0.5	77747	27	6650	2	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
11	IO-11	*	32	0.5	115342	107	6055	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
11	IO-11	*	32	0.5	24560	3	983	1	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
11	IO-11	*	32	0.5	34192	28	955	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
11	IO-11	*	32	0.5	34099	28	945	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
11	IO-11	*	32	0.5	34296	27	937	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
11	IO-11	*	32	0.5	34586	27	939	0	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
11	IO-11	*	32	0.5	151785	43	3859	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
11	IO-11	*	32	0.5	159186	41	3852	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
11	IO-11	*	32	0.5	166713	40	3841	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
11	IO-11	*	32	0.5	58822	8	406	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
11	IO-11	*	32	0.5	237747	6	1559	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
11	IO-11	*	32	0.5	254523	6	1532	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	273642	5	1456	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	291096	5	1439	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	308923	4	1423	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	298339	3	1318	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
11	IO-11	*	32	0.5	326757	4	1409	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
11	IO-11	*	32	0.5	189151	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
11	IO-11	*	32	0.5	155115	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
11	IO-11	*	32	0.5	44988	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
11	IO-11	*	32	0.5	490567	0	0	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
11	IO-11	*	32	0.5	34679	1	0	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
11	IO-11	*	32	0.5	13803	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
11	IO-11	*	32	0.5	25342	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
11	IO-11	*	32	0.5	15467	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
11	IO-11	*	32	0.5	132850	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
11	IO-11	*	32	0.5	18006	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
11	IO-11	*	32	0.5	23521	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
11	IO-11	*	32	0.5	33743	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
11	IO-11	*	32	0.5	40400	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
11	IO-11	*	32	0.5	27794	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
11	IO-11	*	32	0.5	37716	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
11	IO-11	*	32	0.5	34482	1	0	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
11	IO-11	*	32	0.5	120470	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
11	IO-11	*	32	0.5	39881	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
11	IO-11	*	32	0.5	59523	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
11	IO-11	*	32	0.5	59484	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
11	IO-11	*	32	0.5	59327	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
11	IO-11	*	32	0.5	59112	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
11	IO-11	*	32	0.5	58919	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
11	IO-11	*	32	0.5	40210	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
11	IO-11	*	32	0.5	91488	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
11	IO-11	*	32	0.5	91435	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
11	IO-11	*	32	0.5	91247	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
11	IO-11	*	32	0.5	90998	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
11	IO-11	*	32	0.5	90778	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
11	IO-11	*	32	0.5	90673	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
11	IO-11	*	32	0.5	115942	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
11	IO-11	*	32	0.5	115881	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
11	IO-11	*	32	0.5	115833	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
11	IO-11	*	32	0.5	115675	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
11	IO-11	*	32	0.5	115239	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
11	IO-11	*	32	0.5	115168	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
11	IO-11	*	32	0.5	115058	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0
12	IO-12	*	32	0.5	23120	264	14164	19	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0

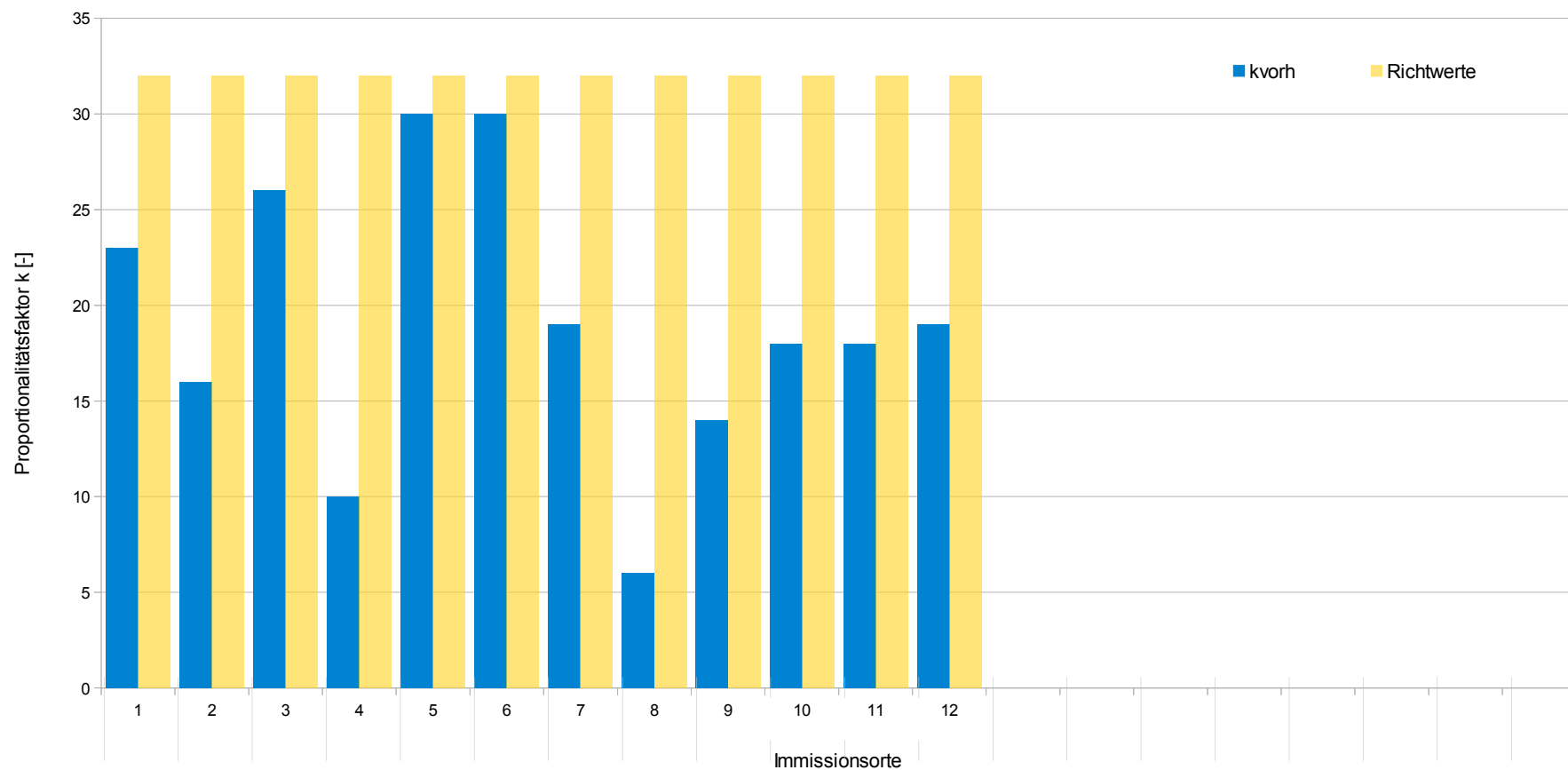
Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
12	IO-12	*	32	0.5	26369	208	12211	14	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	20950	84	6727	10	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
12	IO-12	*	32	0.5	21068	83	6718	10	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
12	IO-12	*	32	0.5	18844	88	6008	10	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
12	IO-12	*	32	0.5	32996	104	9756	9	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
12	IO-12	*	32	0.5	40048	178	10884	8	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
12	IO-12	*	32	0.5	44353	187	11446	8	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
12	IO-12	*	32	0.5	16980	44	3919	7	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
12	IO-12	*	32	0.5	37075	28	3259	2	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
12	IO-12	*	32	0.5	21275	21	1716	2	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
12	IO-12	*	32	0.5	34155	27	2751	2	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
12	IO-12	*	32	0.5	21392	21	1714	2	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
12	IO-12	*	32	0.5	30939	15	2201	2	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
12	IO-12	*	32	0.5	109252	22	6681	1	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
12	IO-12	*	32	0.5	125547	108	6132	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
12	IO-12	*	32	0.5	164169	43	3848	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
12	IO-12	*	32	0.5	171520	42	3845	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
12	IO-12	*	32	0.5	178977	40	3828	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
12	IO-12	*	32	0.5	46441	21	890	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	0.0	0.0
12	IO-12	*	32	0.5	46338	21	880	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	0.0	0.0
12	IO-12	*	32	0.5	46558	21	872	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	0.0	0.0
12	IO-12	*	32	0.5	46880	21	872	0	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
12	IO-12	*	32	0.5	259772	6	1564	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	276597	6	1539	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	295672	5	1469	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	313059	5	1453	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	330793	5	1437	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	323636	4	1331	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
12	IO-12	*	32	0.5	348516	4	1424	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
12	IO-12	*	32	0.5	52302	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
12	IO-12	*	32	0.5	51193	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
12	IO-12	*	32	0.5	175331	0	0	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
12	IO-12	*	32	0.5	65974	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
12	IO-12	*	32	0.5	46983	1	0	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
12	IO-12	*	32	0.5	146722	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
12	IO-12	*	32	0.5	27421	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
12	IO-12	*	32	0.5	48506	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
12	IO-12	*	32	0.5	18555	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
12	IO-12	*	32	0.5	130681	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
12	IO-12	*	32	0.5	15618	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
12	IO-12	*	32	0.5	13286	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
12	IO-12	*	32	0.5	16837	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
12	IO-12	*	32	0.5	23423	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
12	IO-12	*	32	0.5	17829	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
12	IO-12	*	32	0.5	46763	1	0	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
12	IO-12	*	32	0.5	40467	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
12	IO-12	*	32	0.5	203087	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
12	IO-12	*	32	0.5	166103	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
12	IO-12	*	32	0.5	73938	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
12	IO-12	*	32	0.5	73899	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
12	IO-12	*	32	0.5	73731	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
12	IO-12	*	32	0.5	73500	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
12	IO-12	*	32	0.5	73291	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
12	IO-12	*	32	0.5	73184	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
12	IO-12	*	32	0.5	107952	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
12	IO-12	*	32	0.5	107899	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
12	IO-12	*	32	0.5	107703	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
12	IO-12	*	32	0.5	107439	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
12	IO-12	*	32	0.5	107205	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
12	IO-12	*	32	0.5	107092	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
12	IO-12	*	32	0.5	133666	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	0.0	0.0
12	IO-12	*	32	0.5	133605	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
12	IO-12	*	32	0.5	133549	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	0.0	0.0
12	IO-12	*	32	0.5	133391	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
12	IO-12	*	32	0.5	132934	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
12	IO-12	*	32	0.5	132858	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
12	IO-12	*	32	0.5	132740	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	0.0	0.0

Prognoseszenario

Darstellung der maximal vorhandenen und zulässigen Proportionalitätsfaktoren k_{vorh}

Variantenberechnung mit teilweise veränderter Leuchtenneigung



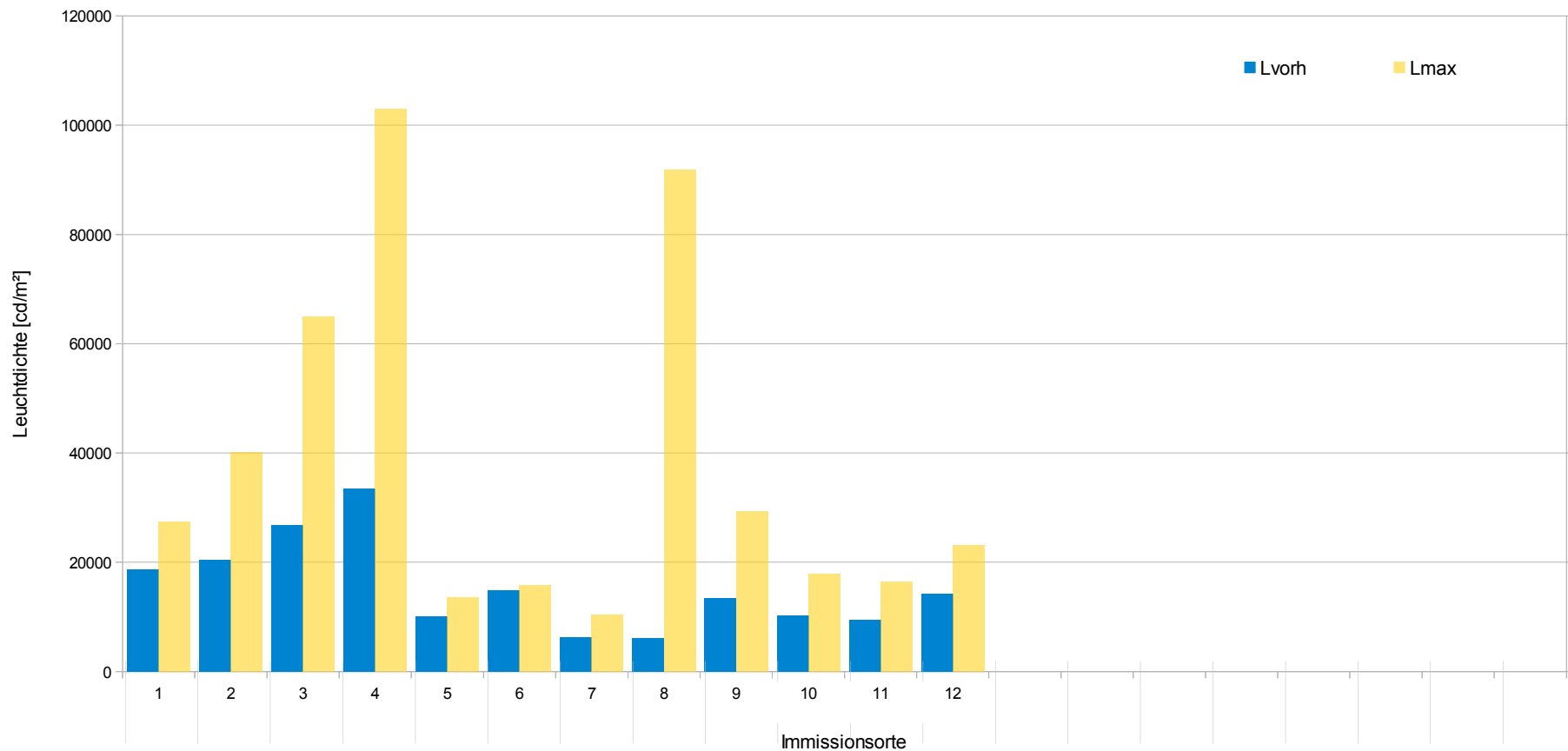
Immissionsort	1	2	3	4	5	6	7	8	9	10	11	12							
k_{vorh}	23	16	26	10	30	30	19	6	14	18	18	19							
Richtwerte	32	32	32	32	32	32	32	32	32	32	32	32							

(hier nur die strengste Anforderung - in der Zeit von 22:00 Uhr bis 6:00 Uhr – aufgelistet)

Prognoseszenario

Gegenüberstellung der vorhandenen mittleren Leuchtdichte L_{vorh} mit der maximalen Leuchtdichte L_{max}

Variantenberechnung mit teilweise veränderter Leuchtenneigung



Immissionsort	1	2	3	4	5	6	7	8	9	10	11	12							
Lvorh	18642	20423	26805	33424	10029	14841	6315	6167	13342	10234	9494	14164							
Lmax	27336	40080	65059	102988	13609	15816	10350	91812	29331	17815	16416	23120							

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
21	IO-01	*	32	0.5	21930	849	16150	23	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
21	IO-01	*	32	0.5	22104	846	16153	23	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
21	IO-01	*	32	0.5	22263	842	16135	23	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
21	IO-01	*	32	0.5	27336	630	18642	21	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
21	IO-01	*	32	0.5	37616	232	13184	11	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
21	IO-01	*	32	0.5	35374	194	10597	9	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
21	IO-01	*	32	0.5	37861	137	7320	6	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
21	IO-01	*	32	0.5	33782	114	5927	5	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
21	IO-01	*	32	0.5	27811	159	4758	5	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
21	IO-01	*	32	0.5	27565	158	4699	5	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
21	IO-01	*	32	0.5	36963	114	6004	5	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
21	IO-01	*	32	0.5	79203	198	11911	4	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
21	IO-01	*	32	0.5	31334	119	3814	3	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
21	IO-01	*	32	0.5	42478	72	5032	3	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
21	IO-01	*	32	0.5	34492	51	4012	3	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
21	IO-01	*	32	0.5	31421	107	3421	3	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
21	IO-01	*	32	0.5	31259	90	2870	2	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
21	IO-01	*	32	0.5	31293	90	2872	2	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
21	IO-01	*	32	0.5	88472	38	7332	2	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
21	IO-01	*	32	0.5	67353	57	4280	2	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
21	IO-01	*	32	0.5	78159	33	4929	2	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
21	IO-01	*	32	0.5	74048	49	3912	1	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
21	IO-01	*	32	0.5	92239	20	4140	1	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
21	IO-01	*	32	0.5	46357	41	1695	1	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
21	IO-01	*	32	0.5	46392	41	1691	1	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
21	IO-01	*	32	0.5	46444	41	1685	1	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
21	IO-01	*	32	0.5	46538	40	1675	1	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
21	IO-01	*	32	0.5	101915	24	3187	1	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
21	IO-01	*	32	0.5	126689	15	3913	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
21	IO-01	*	32	0.5	127218	15	3904	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
21	IO-01	*	32	0.5	31490	23	734	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
21	IO-01	*	32	0.5	56547	5	1114	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
21	IO-01	*	32	0.5	31665	13	428	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
21	IO-01	*	32	0.5	147440	6	1496	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
21	IO-01	*	32	0.5	127036	5	1218	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
21	IO-01	*	32	0.5	127565	5	1218	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
21	IO-01	*	32	0.5	161702	6	1473	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
21	IO-01	*	32	0.5	183535	5	1381	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
21	IO-01	*	32	0.5	54871	2	404	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
21	IO-01	*	32	0.5	198433	4	1370	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
21	IO-01	*	32	0.5	215871	4	1347	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
21	IO-01	*	32	0.5	190041	2	1174	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
21	IO-01	*	32	0.5	222122	3	1213	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
21	IO-01	*	32	0.5	61606	3	131	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
21	IO-01	*	32	0.5	61643	3	127	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
21	IO-01	*	32	0.5	61898	1	72	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{soff}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
21	IO-01	*	32	0.5	62121	1	56	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
21	IO-01	*	32	0.5	164255	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	47737	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
21	IO-01	*	32	0.5	49999	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
21	IO-01	*	32	0.5	152365	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	137809	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	149645	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	179340	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	195072	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	46917	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
21	IO-01	*	32	0.5	46739	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
21	IO-01	*	32	0.5	126192	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
21	IO-01	*	32	0.5	81197	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	231307	1	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
21	IO-01	*	32	0.5	72984	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
21	IO-01	*	32	0.5	54655	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
21	IO-01	*	32	0.5	59212	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
21	IO-01	*	32	0.5	54731	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
21	IO-01	*	32	0.5	1442315	0	0	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
21	IO-01	*	32	0.5	85040	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
21	IO-01	*	32	0.5	106358	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
21	IO-01	*	32	0.5	96529	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
22	IO-02	*	32	0.5	39773	536	20378	16	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
22	IO-02	*	32	0.5	40080	535	20423	16	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
22	IO-02	*	32	0.5	32119	642	15855	15	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
22	IO-02	*	32	0.5	32378	643	15910	15	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
22	IO-02	*	32	0.5	32331	641	15868	15	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
22	IO-02	*	32	0.5	39671	496	18820	15	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
22	IO-02	*	32	0.5	58689	176	11150	6	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
22	IO-02	*	32	0.5	27303	138	4011	4	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
22	IO-02	*	32	0.5	27145	137	3966	4	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
22	IO-02	*	32	0.5	27163	137	3964	4	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
22	IO-02	*	32	0.5	27876	131	3870	4	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
22	IO-02	*	32	0.5	27879	131	3870	4	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
22	IO-02	*	32	0.5	28013	130	3852	4	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
22	IO-02	*	32	0.5	28017	130	3852	4	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
22	IO-02	*	32	0.5	55279	114	7530	4	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
22	IO-02	*	32	0.5	53698	124	6782	4	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
22	IO-02	*	32	0.5	53063	110	5972	3	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
22	IO-02	*	32	0.5	55048	84	5821	3	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
22	IO-02	*	32	0.5	27277	95	2777	3	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
22	IO-02	*	32	0.5	27445	93	2713	3	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
22	IO-02	*	32	0.5	27102	90	2610	3	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
22	IO-02	*	32	0.5	27825	90	2656	3	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
22	IO-02	*	32	0.5	33846	93	3117	2	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
22	IO-02	*	32	0.5	34008	93	3130	2	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{amb}	L _U	L _{max}	I	L _{amb}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
22	IO-02	*	32	0.5	33914	92	3109	2	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
22	IO-02	*	32	0.5	34179	91	3092	2	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
22	IO-02	*	32	0.5	59966	61	4501	2	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
22	IO-02	*	32	0.5	161365	26	7556	1	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
22	IO-02	*	32	0.5	143517	26	6030	1	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
22	IO-02	*	32	0.5	77368	23	3166	1	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
22	IO-02	*	32	0.5	77406	23	3159	1	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
22	IO-02	*	32	0.5	90100	27	3364	1	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
22	IO-02	*	32	0.5	112053	37	3896	1	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
22	IO-02	*	32	0.5	121266	34	3739	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
22	IO-02	*	32	0.5	217360	7	3900	0	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
22	IO-02	*	32	0.5	28183	16	463	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
22	IO-02	*	32	0.5	219044	8	2973	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
22	IO-02	*	32	0.5	219750	8	2969	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
22	IO-02	*	32	0.5	205418	6	1740	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
22	IO-02	*	32	0.5	195517	6	1489	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
22	IO-02	*	32	0.5	219325	3	1218	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
22	IO-02	*	32	0.5	220030	3	1218	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
22	IO-02	*	32	0.5	300946	3	1274	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
22	IO-02	*	32	0.5	535406	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
22	IO-02	*	32	0.5	126587	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
22	IO-02	*	32	0.5	494115	1	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
22	IO-02	*	32	0.5	92258	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	163280	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
22	IO-02	*	32	0.5	301664	1	0	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
22	IO-02	*	32	0.5	286023	1	0	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
22	IO-02	*	32	0.5	68803	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	129329	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
22	IO-02	*	32	0.5	67985	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
22	IO-02	*	32	0.5	116786	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	141294	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	345729	1	0	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
22	IO-02	*	32	0.5	81093	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	62440	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
22	IO-02	*	32	0.5	120818	1	0	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
22	IO-02	*	32	0.5	104145	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	79725	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	33325	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
22	IO-02	*	32	0.5	472815	1	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
22	IO-02	*	32	0.5	33448	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
22	IO-02	*	32	0.5	61377	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
22	IO-02	*	32	0.5	65762	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
22	IO-02	*	32	0.5	152848	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
22	IO-02	*	32	0.5	42843	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
23	IO-03	*	32	0.5	17237	630	14395	26	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
23	IO-03	*	32	0.5	17670	594	14378	26	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
23	IO-03	*	32	0.5	17831	545	13272	23	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
23	IO-03	*	32	0.5	16211	445	9153	18	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
23	IO-03	*	32	0.5	16298	440	9085	17	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
23	IO-03	*	32	0.5	16162	357	7324	14	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
23	IO-03	*	32	0.5	16218	353	7276	14	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
23	IO-03	*	32	0.5	64766	508	26729	13	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
23	IO-03	*	32	0.5	65059	508	26805	13	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
23	IO-03	*	32	0.5	22363	186	4740	6	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
23	IO-03	*	32	0.5	22261	184	4668	6	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
23	IO-03	*	32	0.5	22267	184	4669	6	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
23	IO-03	*	32	0.5	22348	182	4632	6	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
23	IO-03	*	32	0.5	29530	52	4772	5	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
23	IO-03	*	32	0.5	79196	202	12396	5	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
23	IO-03	*	32	0.5	81879	202	12680	4	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
23	IO-03	*	32	0.5	55468	167	6366	3	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
23	IO-03	*	32	0.5	55573	164	6268	3	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
23	IO-03	*	32	0.5	64812	138	7272	3	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
23	IO-03	*	32	0.5	55391	163	6203	3	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
23	IO-03	*	32	0.5	40365	62	2356	1	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
23	IO-03	*	32	0.5	40411	62	2351	1	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
23	IO-03	*	32	0.5	40438	62	2348	1	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
23	IO-03	*	32	0.5	40600	44	1674	1	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
23	IO-03	*	32	0.5	40793	44	1665	1	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
23	IO-03	*	32	0.5	97660	46	3905	1	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
23	IO-03	*	32	0.5	107704	30	3533	1	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
23	IO-03	*	32	0.5	253062	21	8248	1	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
23	IO-03	*	32	0.5	103101	26	3315	1	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
23	IO-03	*	32	0.5	112121	23	3178	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
23	IO-03	*	32	0.5	233403	16	5160	0	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
23	IO-03	*	32	0.5	186069	15	2537	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
23	IO-03	*	32	0.5	198592	14	2435	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
23	IO-03	*	32	0.5	223683	10	2192	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
23	IO-03	*	32	0.5	164352	6	1535	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
23	IO-03	*	32	0.5	256372	11	2135	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
23	IO-03	*	32	0.5	329289	5	2491	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
23	IO-03	*	32	0.5	330144	5	2489	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
23	IO-03	*	32	0.5	205227	4	1352	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
23	IO-03	*	32	0.5	329452	3	1623	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
23	IO-03	*	32	0.5	330306	3	1623	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
23	IO-03	*	32	0.5	321516	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
23	IO-03	*	32	0.5	343318	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
23	IO-03	*	32	0.5	285792	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
23	IO-03	*	32	0.5	146211	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
23	IO-03	*	32	0.5	313962	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	795258	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
23	IO-03	*	32	0.5	909602	1	0	0	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
23	IO-03	*	32	0.5	153718	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
23	IO-03	*	32	0.5	270597	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
23	IO-03	*	32	0.5	221680	1	0	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
23	IO-03	*	32	0.5	84439	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
23	IO-03	*	32	0.5	88717	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
23	IO-03	*	32	0.5	333788	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	40940	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
23	IO-03	*	32	0.5	26672	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	23412	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
23	IO-03	*	32	0.5	19953	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	49225	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
23	IO-03	*	32	0.5	22515	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
23	IO-03	*	32	0.5	22662	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
23	IO-03	*	32	0.5	48272	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	29636	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	97025	0	0	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
23	IO-03	*	32	0.5	57852	0	0	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
23	IO-03	*	32	0.5	38024	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
23	IO-03	*	32	0.5	77968	0	0	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
23	IO-03	*	32	0.5	60161	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	102681	467	33373	10	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
24	IO-04	*	32	0.5	102988	467	33424	10	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
24	IO-04	*	32	0.5	28160	68	4832	5	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
24	IO-04	*	32	0.5	29739	118	3630	3	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
24	IO-04	*	32	0.5	29788	117	3623	3	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
24	IO-04	*	32	0.5	108627	155	10160	2	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
24	IO-04	*	32	0.5	111879	132	8855	2	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
24	IO-04	*	32	0.5	30009	65	2018	2	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
24	IO-04	*	32	0.5	30100	63	1957	2	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
24	IO-04	*	32	0.5	102788	76	5463	1	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
24	IO-04	*	32	0.5	88402	83	4382	1	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
24	IO-04	*	32	0.5	88601	83	4348	1	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
24	IO-04	*	32	0.5	88445	82	4317	1	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
24	IO-04	*	32	0.5	44405	47	1907	1	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
24	IO-04	*	32	0.5	44438	47	1903	1	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
24	IO-04	*	32	0.5	44493	47	1897	1	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
24	IO-04	*	32	0.5	136252	41	3893	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
24	IO-04	*	32	0.5	28700	27	771	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
24	IO-04	*	32	0.5	145941	31	3726	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
24	IO-04	*	32	0.5	358732	18	8830	0	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
24	IO-04	*	32	0.5	37059	12	554	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
24	IO-04	*	32	0.5	332780	12	4920	0	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
24	IO-04	*	32	0.5	166262	13	2392	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
24	IO-04	*	32	0.5	37265	11	513	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
24	IO-04	*	32	0.5	177419	12	2274	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
24	IO-04	*	32	0.5	266618	12	2430	0	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sch}	L _U	L _{max}	I	L _{sch}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
24	IO-04	*	32	0.5	283436	14	2523	0	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
24	IO-04	*	32	0.5	257626	9	1876	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
24	IO-04	*	32	0.5	271651	8	1777	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
24	IO-04	*	32	0.5	261605	4	1354	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
24	IO-04	*	32	0.5	450074	4	2275	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
24	IO-04	*	32	0.5	451029	4	2274	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
24	IO-04	*	32	0.5	450210	3	1623	0	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
24	IO-04	*	32	0.5	451166	3	1623	0	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
24	IO-04	*	32	0.5	347620	2	1174	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
24	IO-04	*	32	0.5	474237	0	0	0	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	110165	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
24	IO-04	*	32	0.5	498195	0	0	0	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	24360	0	0	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
24	IO-04	*	32	0.5	179784	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
24	IO-04	*	32	0.5	726613	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
24	IO-04	*	32	0.5	328805	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
24	IO-04	*	32	0.5	346383	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
24	IO-04	*	32	0.5	303287	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
24	IO-04	*	32	0.5	170685	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
24	IO-04	*	32	0.5	37582	0	0	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
24	IO-04	*	32	0.5	518334	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
24	IO-04	*	32	0.5	712788	0	0	0	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
24	IO-04	*	32	0.5	27526	0	0	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	71488	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
24	IO-04	*	32	0.5	71481	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
24	IO-04	*	32	0.5	71612	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
24	IO-04	*	32	0.5	71830	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
24	IO-04	*	32	0.5	72055	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
24	IO-04	*	32	0.5	72199	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
24	IO-04	*	32	0.5	18158	0	0	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	38488	0	0	0	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
24	IO-04	*	32	0.5	18510	0	0	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	44668	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
24	IO-04	*	32	0.5	44866	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
24	IO-04	*	32	0.5	45008	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
24	IO-04	*	32	0.5	344234	0	0	0	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
24	IO-04	*	32	0.5	21306	0	0	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	114355	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
24	IO-04	*	32	0.5	24403	0	0	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
24	IO-04	*	32	0.5	31248	0	0	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
24	IO-04	*	32	0.5	28753	0	0	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
24	IO-04	*	32	0.5	43267	0	0	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	6362	550	6160	30	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
25	IO-05	*	32	0.5	6233	524	5841	29	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
25	IO-05	*	32	0.5	13609	153	10029	23	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
25	IO-05	*	32	0.5	6175	408	4535	23	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0

Nr	Immissionsort	Schaltstufe	k _{amb}	L _U	L _{max}	I	L _{amb}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
25	IO-05	*	32	0.5	6274	302	3397	17	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
25	IO-05	*	32	0.5	15275	48	4023	8	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
25	IO-05	*	32	0.5	9896	24	2363	7	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
25	IO-05	*	32	0.5	22291	184	4681	6	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
25	IO-05	*	32	0.5	22344	184	4686	6	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
25	IO-05	*	32	0.5	22474	180	4599	6	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
25	IO-05	*	32	0.5	29078	44	5042	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
25	IO-05	*	32	0.5	24382	40	3246	4	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
25	IO-05	*	32	0.5	36265	44	4413	3	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	24809	33	2785	3	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
25	IO-05	*	32	0.5	22630	87	2233	3	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
25	IO-05	*	32	0.5	44386	31	3559	2	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	19287	9	1436	2	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
25	IO-05	*	32	0.5	56858	25	3835	2	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
25	IO-05	*	32	0.5	57333	24	3813	2	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
25	IO-05	*	32	0.5	84119	100	5510	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
25	IO-05	*	32	0.5	52963	27	3286	1	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
25	IO-05	*	32	0.5	86941	25	3236	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
25	IO-05	*	32	0.5	56949	13	2021	1	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
25	IO-05	*	32	0.5	46761	40	1651	1	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
25	IO-05	*	32	0.5	57424	13	2016	1	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
25	IO-05	*	32	0.5	46828	39	1644	1	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
25	IO-05	*	32	0.5	114986	42	3904	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
25	IO-05	*	32	0.5	122740	41	3930	1	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
25	IO-05	*	32	0.5	130735	39	3910	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
25	IO-05	*	32	0.5	46995	27	1116	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
25	IO-05	*	32	0.5	57773	5	1169	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
25	IO-05	*	32	0.5	6429	10	108	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
25	IO-05	*	32	0.5	6342	9	101	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
25	IO-05	*	32	0.5	73135	4	1163	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
25	IO-05	*	32	0.5	175861	6	1489	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	193066	5	1457	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	214469	4	1356	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	232936	4	1339	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	251920	4	1323	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	233343	3	1216	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
25	IO-05	*	32	0.5	270956	3	1310	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
25	IO-05	*	32	0.5	87654	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
25	IO-05	*	32	0.5	103111	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
25	IO-05	*	32	0.5	100411	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
25	IO-05	*	32	0.5	60228	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
25	IO-05	*	32	0.5	13729	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
25	IO-05	*	32	0.5	118197	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
25	IO-05	*	32	0.5	21055	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
25	IO-05	*	32	0.5	33612	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
25	IO-05	*	32	0.5	22798	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
25	IO-05	*	32	0.5	22754	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
25	IO-05	*	32	0.5	30666	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
25	IO-05	*	32	0.5	29954	1	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
25	IO-05	*	32	0.5	89217	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
25	IO-05	*	32	0.5	57788	1	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
25	IO-05	*	32	0.5	47416	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
25	IO-05	*	32	0.5	47357	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
25	IO-05	*	32	0.5	47196	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
25	IO-05	*	32	0.5	17089	1	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
25	IO-05	*	32	0.5	9438	1	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
25	IO-05	*	32	0.5	21281	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
25	IO-05	*	32	0.5	53867	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
25	IO-05	*	32	0.5	67451	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
25	IO-05	*	32	0.5	53824	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
25	IO-05	*	32	0.5	67269	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
25	IO-05	*	32	0.5	66904	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
25	IO-05	*	32	0.5	66855	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
25	IO-05	*	32	0.5	94913	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
26	IO-06	*	32	0.5	15816	733	14841	30	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
26	IO-06	*	32	0.5	23713	66	4821	6	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
26	IO-06	*	32	0.5	16163	122	2497	4	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
26	IO-06	*	32	0.5	61670	37	8496	4	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
26	IO-06	*	32	0.5	15899	94	1913	3	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
26	IO-06	*	32	0.5	16032	91	1863	3	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
26	IO-06	*	32	0.5	16243	87	1794	3	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
26	IO-06	*	32	0.5	16243	87	1794	3	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
26	IO-06	*	32	0.5	49354	45	4357	2	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	44926	32	3935	2	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
26	IO-06	*	32	0.5	77129	120	6697	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
26	IO-06	*	32	0.5	4264	41	349	2	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
26	IO-06	*	32	0.5	32768	18	2535	2	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
26	IO-06	*	32	0.5	4392	37	324	2	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
26	IO-06	*	32	0.5	56896	39	4094	2	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	37495	75	2685	2	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
26	IO-06	*	32	0.5	37585	74	2675	2	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
26	IO-06	*	32	0.5	65137	31	3673	1	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
26	IO-06	*	32	0.5	47338	19	2514	1	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
26	IO-06	*	32	0.5	4456	23	206	1	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
26	IO-06	*	32	0.5	88612	37	3944	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
26	IO-06	*	32	0.5	82989	17	3500	1	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
26	IO-06	*	32	0.5	83511	17	3480	1	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
26	IO-06	*	32	0.5	99599	47	3860	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
26	IO-06	*	32	0.5	106478	45	3888	1	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
26	IO-06	*	32	0.5	113536	43	3903	1	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
26	IO-06	*	32	0.5	4487	14	139	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
26	IO-06	*	32	0.5	4566	13	124	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0

Nr	Immissionsort	Schaltstufe	k _{amb}	L _U	L _{max}	I	L _{amb}	k _{ref}	Leuchte	x	y	z	DrehC	NeigA	NeigB
26	IO-06	*	32	0.5	4711	13	127	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
26	IO-06	*	32	0.5	33723	2	884	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
26	IO-06	*	32	0.5	132670	15	2539	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	83160	8	1553	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
26	IO-06	*	32	0.5	52198	2	974	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
26	IO-06	*	32	0.5	83681	8	1553	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
26	IO-06	*	32	0.5	146273	13	2367	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	157953	9	1944	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	172637	8	1769	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	159067	6	1523	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
26	IO-06	*	32	0.5	187755	7	1600	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	203084	6	1548	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
26	IO-06	*	32	0.5	89429	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
26	IO-06	*	32	0.5	82512	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
26	IO-06	*	32	0.5	93402	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
26	IO-06	*	32	0.5	94293	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
26	IO-06	*	32	0.5	66392	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
26	IO-06	*	32	0.5	90275	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
26	IO-06	*	32	0.5	3348399	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
26	IO-06	*	32	0.5	473078	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
26	IO-06	*	32	0.5	38657	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
26	IO-06	*	32	0.5	82318	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
26	IO-06	*	32	0.5	40468	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
26	IO-06	*	32	0.5	43541	0	0	0	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
26	IO-06	*	32	0.5	34275	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
26	IO-06	*	32	0.5	32879	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
26	IO-06	*	32	0.5	13252	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
26	IO-06	*	32	0.5	38093	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
26	IO-06	*	32	0.5	38067	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
26	IO-06	*	32	0.5	37938	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
26	IO-06	*	32	0.5	37754	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
26	IO-06	*	32	0.5	15199	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
26	IO-06	*	32	0.5	37431	0	0	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
26	IO-06	*	32	0.5	45810	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
26	IO-06	*	32	0.5	56648	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
26	IO-06	*	32	0.5	45748	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
26	IO-06	*	32	0.5	56493	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
26	IO-06	*	32	0.5	56153	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
26	IO-06	*	32	0.5	56091	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
26	IO-06	*	32	0.5	72662	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
27	IO-07	*	32	0.5	10350	417	6315	19	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
27	IO-07	*	32	0.5	10673	354	5595	16	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
27	IO-07	*	32	0.5	10252	355	5352	16	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
27	IO-07	*	32	0.5	10344	304	4622	14	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
27	IO-07	*	32	0.5	12729	56	4826	12	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
27	IO-07	*	32	0.5	14259	52	4095	9	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
27	IO-07	*	32	0.5	13378	52	2855	6	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
27	IO-07	*	32	0.5	14884	47	3171	6	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
27	IO-07	*	32	0.5	5059	41	1001	6	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
27	IO-07	*	32	0.5	13396	47	2539	6	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
27	IO-07	*	32	0.5	26006	52	4835	5	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	19285	33	3484	5	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
27	IO-07	*	32	0.5	15608	23	2142	4	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
27	IO-07	*	32	0.5	28793	124	3751	4	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
27	IO-07	*	32	0.5	33996	33	3700	3	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	41208	30	3761	2	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
27	IO-07	*	32	0.5	41639	29	3741	2	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
27	IO-07	*	32	0.5	14558	8	1225	2	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
27	IO-07	*	32	0.5	28837	80	2409	2	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
27	IO-07	*	32	0.5	28505	17	2380	2	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
27	IO-07	*	32	0.5	33834	20	2718	2	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
27	IO-07	*	32	0.5	28970	76	2315	2	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
27	IO-07	*	32	0.5	43923	26	3197	2	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
27	IO-07	*	32	0.5	90168	91	5032	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
27	IO-07	*	32	0.5	41259	18	2293	1	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
27	IO-07	*	32	0.5	41690	18	2289	1	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
27	IO-07	*	32	0.5	45584	14	2301	1	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
27	IO-07	*	32	0.5	84861	18	2782	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
27	IO-07	*	32	0.5	126259	40	3927	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
27	IO-07	*	32	0.5	134397	38	3892	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
27	IO-07	*	32	0.5	142804	36	3810	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
27	IO-07	*	32	0.5	21860	3	581	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
27	IO-07	*	32	0.5	54975	17	792	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
27	IO-07	*	32	0.5	55035	17	786	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
27	IO-07	*	32	0.5	212701	4	1353	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	232438	4	1331	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	10788	4	57	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
27	IO-07	*	32	0.5	263148	3	1238	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	284258	3	1228	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	305956	3	1218	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	327534	2	1211	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
27	IO-07	*	32	0.5	309501	2	1089	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
27	IO-07	*	32	0.5	10712	2	30	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
27	IO-07	*	32	0.5	109868	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
27	IO-07	*	32	0.5	55813	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
27	IO-07	*	32	0.5	30683	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
27	IO-07	*	32	0.5	122476	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
27	IO-07	*	32	0.5	99964	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
27	IO-07	*	32	0.5	15242	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
27	IO-07	*	32	0.5	29347	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
27	IO-07	*	32	0.5	29284	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
27	IO-07	*	32	0.5	29140	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
27	IO-07	*	32	0.5	95251	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
27	IO-07	*	32	0.5	23355	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
27	IO-07	*	32	0.5	241824	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
27	IO-07	*	32	0.5	55667	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
27	IO-07	*	32	0.5	55593	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
27	IO-07	*	32	0.5	55416	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
27	IO-07	*	32	0.5	55204	1	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
27	IO-07	*	32	0.5	16211	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
27	IO-07	*	32	0.5	15461	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
27	IO-07	*	32	0.5	60496	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
27	IO-07	*	32	0.5	76677	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
27	IO-07	*	32	0.5	60460	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
27	IO-07	*	32	0.5	76480	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
27	IO-07	*	32	0.5	76100	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
27	IO-07	*	32	0.5	76054	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
27	IO-07	*	32	0.5	115533	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
28	IO-08	*	32	0.5	26968	79	5266	6	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	22096	41	3830	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
28	IO-08	*	32	0.5	19716	40	2968	4	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
28	IO-08	*	32	0.5	32446	60	4555	4	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	18710	35	2407	4	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
28	IO-08	*	32	0.5	30582	29	3837	4	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
28	IO-08	*	32	0.5	29974	116	3600	3	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
28	IO-08	*	32	0.5	45429	39	5267	3	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
28	IO-08	*	32	0.5	45838	39	5243	3	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
28	IO-08	*	32	0.5	40855	38	3871	3	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
28	IO-08	*	32	0.5	29417	18	2181	2	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
28	IO-08	*	32	0.5	31091	15	2204	2	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
28	IO-08	*	32	0.5	11958	47	807	2	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
28	IO-08	*	32	0.5	91812	110	6167	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
28	IO-08	*	32	0.5	12294	40	753	1	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
28	IO-08	*	32	0.5	12275	39	719	1	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
28	IO-08	*	32	0.5	68682	37	3972	1	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
28	IO-08	*	32	0.5	12459	37	696	1	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
28	IO-08	*	32	0.5	45616	13	1738	1	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
28	IO-08	*	32	0.5	46024	13	1739	1	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
28	IO-08	*	32	0.5	120923	44	3881	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
28	IO-08	*	32	0.5	128206	43	3884	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
28	IO-08	*	32	0.5	135657	41	3876	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
28	IO-08	*	32	0.5	38372	4	993	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
28	IO-08	*	32	0.5	30055	16	494	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
28	IO-08	*	32	0.5	30211	15	460	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
28	IO-08	*	32	0.5	30381	14	423	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
28	IO-08	*	32	0.5	56244	14	664	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
28	IO-08	*	32	0.5	56334	14	655	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
28	IO-08	*	32	0.5	176366	9	1858	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{amb}	L _U	L _{max}	I	L _{amb}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
28	IO-08	*	32	0.5	191886	7	1674	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	207953	6	1501	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	224431	5	1478	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	218846	4	1369	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
28	IO-08	*	32	0.5	241331	5	1457	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	258335	5	1439	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
28	IO-08	*	32	0.5	11997	2	39	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
28	IO-08	*	32	0.5	11845	2	36	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
28	IO-08	*	32	0.5	56522	4	168	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
28	IO-08	*	32	0.5	120529	1	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
28	IO-08	*	32	0.5	64311	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
28	IO-08	*	32	0.5	61616	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
28	IO-08	*	32	0.5	73401	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
28	IO-08	*	32	0.5	75922	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
28	IO-08	*	32	0.5	51459	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
28	IO-08	*	32	0.5	18226	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
28	IO-08	*	32	0.5	18608	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
28	IO-08	*	32	0.5	23690	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
28	IO-08	*	32	0.5	13543	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
28	IO-08	*	32	0.5	30529	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
28	IO-08	*	32	0.5	30503	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
28	IO-08	*	32	0.5	81179	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
28	IO-08	*	32	0.5	96950	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
28	IO-08	*	32	0.5	137746	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
28	IO-08	*	32	0.5	17676	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
28	IO-08	*	32	0.5	56937	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
28	IO-08	*	32	0.5	56893	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
28	IO-08	*	32	0.5	56735	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
28	IO-08	*	32	0.5	142992	1	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
28	IO-08	*	32	0.5	16744	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
28	IO-08	*	32	0.5	57680	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
28	IO-08	*	32	0.5	60802	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
28	IO-08	*	32	0.5	78022	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
28	IO-08	*	32	0.5	60746	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
28	IO-08	*	32	0.5	77842	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
28	IO-08	*	32	0.5	77460	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
28	IO-08	*	32	0.5	77398	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
28	IO-08	*	32	0.5	112187	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
29	IO-09	*	32	0.5	29331	228	13342	14	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	33256	124	7917	7	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	31596	43	5361	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
29	IO-09	*	32	0.5	28357	44	4430	4	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
29	IO-09	*	32	0.5	25913	33	2835	3	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
29	IO-09	*	32	0.5	39978	45	4187	3	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
29	IO-09	*	32	0.5	49507	36	5066	3	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
29	IO-09	*	32	0.5	49869	35	5056	3	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
29	IO-09	*	32	0.5	34565	89	3030	2	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
29	IO-09	*	32	0.5	49451	21	3784	2	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
29	IO-09	*	32	0.5	95942	123	6971	2	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
29	IO-09	*	32	0.5	58974	47	4064	2	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
29	IO-09	*	32	0.5	44468	15	2347	1	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
29	IO-09	*	32	0.5	45643	13	2055	1	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
29	IO-09	*	32	0.5	121048	47	3856	1	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
29	IO-09	*	32	0.5	127748	45	3830	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
29	IO-09	*	32	0.5	134554	44	3860	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
29	IO-09	*	32	0.5	49794	9	1303	0	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
29	IO-09	*	32	0.5	50156	9	1305	0	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
29	IO-09	*	32	0.5	16466	18	385	0	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
29	IO-09	*	32	0.5	50335	5	1123	0	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
29	IO-09	*	32	0.5	18117	14	379	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
29	IO-09	*	32	0.5	18068	14	372	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
29	IO-09	*	32	0.5	18383	14	378	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
29	IO-09	*	32	0.5	166100	14	2512	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	179758	13	2371	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	191229	10	2045	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	205691	9	1898	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	195495	7	1569	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
29	IO-09	*	32	0.5	220508	8	1756	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	235478	7	1624	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
29	IO-09	*	32	0.5	16256	3	57	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
29	IO-09	*	32	0.5	16457	3	57	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
29	IO-09	*	32	0.5	61154	4	175	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
29	IO-09	*	32	0.5	61267	3	164	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
29	IO-09	*	32	0.5	25605	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
29	IO-09	*	32	0.5	41862	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
29	IO-09	*	32	0.5	25313	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
29	IO-09	*	32	0.5	55906	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
29	IO-09	*	32	0.5	23599	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
29	IO-09	*	32	0.5	47210	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
29	IO-09	*	32	0.5	49747	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
29	IO-09	*	32	0.5	58029	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
29	IO-09	*	32	0.5	61779	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
29	IO-09	*	32	0.5	48079	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
29	IO-09	*	32	0.5	74030	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
29	IO-09	*	32	0.5	34802	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
29	IO-09	*	32	0.5	23889	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
29	IO-09	*	32	0.5	43613	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
29	IO-09	*	32	0.5	35126	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
29	IO-09	*	32	0.5	35126	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
29	IO-09	*	32	0.5	35020	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
29	IO-09	*	32	0.5	34848	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
29	IO-09	*	32	0.5	34674	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
29	IO-09	*	32	0.5	101164	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
29	IO-09	*	32	0.5	61854	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
29	IO-09	*	32	0.5	61832	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
29	IO-09	*	32	0.5	61686	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
29	IO-09	*	32	0.5	61471	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
29	IO-09	*	32	0.5	24329	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
29	IO-09	*	32	0.5	25531	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
29	IO-09	*	32	0.5	63895	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
29	IO-09	*	32	0.5	83176	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
29	IO-09	*	32	0.5	63823	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
29	IO-09	*	32	0.5	83007	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
29	IO-09	*	32	0.5	82622	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
29	IO-09	*	32	0.5	82547	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
29	IO-09	*	32	0.5	117212	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
30	IO-10	*	32	0.5	17815	142	10234	18	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
30	IO-10	*	32	0.5	12660	138	7269	18	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
30	IO-10	*	32	0.5	18001	134	9719	17	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
30	IO-10	*	32	0.5	16780	173	8268	15	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	16036	114	5275	10	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	16470	72	5104	9	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
30	IO-10	*	32	0.5	13756	47	2819	6	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
30	IO-10	*	32	0.5	13290	48	2702	6	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
30	IO-10	*	32	0.5	26866	77	5128	6	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
30	IO-10	*	32	0.5	30759	86	5658	5	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
30	IO-10	*	32	0.5	18084	31	2289	4	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
30	IO-10	*	32	0.5	18269	31	2280	3	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
30	IO-10	*	32	0.5	42292	45	4412	3	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
30	IO-10	*	32	0.5	62427	29	6246	3	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
30	IO-10	*	32	0.5	109875	106	5980	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
30	IO-10	*	32	0.5	28532	32	968	1	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
30	IO-10	*	32	0.5	29896	28	950	1	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
30	IO-10	*	32	0.5	29857	28	938	1	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
30	IO-10	*	32	0.5	30108	27	928	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
30	IO-10	*	32	0.5	145362	43	3865	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
30	IO-10	*	32	0.5	152812	41	3855	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
30	IO-10	*	32	0.5	160405	40	3857	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
30	IO-10	*	32	0.5	51586	26	1141	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
30	IO-10	*	32	0.5	227039	6	1549	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	243881	6	1521	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	263310	5	1442	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	280902	5	1425	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	298888	4	1409	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	286967	3	1304	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
30	IO-10	*	32	0.5	316887	4	1395	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
30	IO-10	*	32	0.5	51677	2	103	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
30	IO-10	*	32	0.5	51861	2	85	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{amb}	L _U	L _{max}	I	L _{amb}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
30	IO-10	*	32	0.5	28439	1	39	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
30	IO-10	*	32	0.5	28621	1	39	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
30	IO-10	*	32	0.5	32917	0	0	0	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
30	IO-10	*	32	0.5	128404	1	0	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
30	IO-10	*	32	0.5	21430	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
30	IO-10	*	32	0.5	166687	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
30	IO-10	*	32	0.5	51603	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
30	IO-10	*	32	0.5	207324	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
30	IO-10	*	32	0.5	28061	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
30	IO-10	*	32	0.5	33019	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
30	IO-10	*	32	0.5	45026	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
30	IO-10	*	32	0.5	50649	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
30	IO-10	*	32	0.5	33367	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
30	IO-10	*	32	0.5	35136	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
30	IO-10	*	32	0.5	18378	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
30	IO-10	*	32	0.5	32009	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
30	IO-10	*	32	0.5	139352	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
30	IO-10	*	32	0.5	52258	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
30	IO-10	*	32	0.5	52219	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
30	IO-10	*	32	0.5	52067	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
30	IO-10	*	32	0.5	114998	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
30	IO-10	*	32	0.5	33433	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
30	IO-10	*	32	0.5	34401	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
30	IO-10	*	32	0.5	83081	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
30	IO-10	*	32	0.5	83028	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
30	IO-10	*	32	0.5	82844	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
30	IO-10	*	32	0.5	82602	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
30	IO-10	*	32	0.5	82391	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
30	IO-10	*	32	0.5	82292	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
30	IO-10	*	32	0.5	79676	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
30	IO-10	*	32	0.5	106778	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
30	IO-10	*	32	0.5	79620	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
30	IO-10	*	32	0.5	106576	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
30	IO-10	*	32	0.5	106152	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
30	IO-10	*	32	0.5	106084	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
30	IO-10	*	32	0.5	180107	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
31	IO-11	*	32	0.5	16416	139	9494	18	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
31	IO-11	*	32	0.5	16336	138	9404	18	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
31	IO-11	*	32	0.5	18341	172	8392	14	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	13408	84	5535	13	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
31	IO-11	*	32	0.5	17465	119	5609	10	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	35415	122	7745	6	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
31	IO-11	*	32	0.5	31307	104	6681	6	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
31	IO-11	*	32	0.5	18615	51	3486	5	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
31	IO-11	*	32	0.5	18947	51	3540	5	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
31	IO-11	*	32	0.5	20204	38	2933	4	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
31	IO-11	*	32	0.5	33591	53	4673	4	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
31	IO-11	*	32	0.5	16723	31	2147	4	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
31	IO-11	*	32	0.5	16643	31	2136	4	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
31	IO-11	*	32	0.5	77747	27	6650	2	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
31	IO-11	*	32	0.5	115342	107	6055	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
31	IO-11	*	32	0.5	24560	3	983	1	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
31	IO-11	*	32	0.5	34586	27	939	0	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
31	IO-11	*	32	0.5	151785	43	3859	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
31	IO-11	*	32	0.5	36729	23	893	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
31	IO-11	*	32	0.5	159186	41	3852	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
31	IO-11	*	32	0.5	36699	22	881	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
31	IO-11	*	32	0.5	36983	22	870	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
31	IO-11	*	32	0.5	166713	40	3841	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
31	IO-11	*	32	0.5	58822	8	406	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
31	IO-11	*	32	0.5	237747	6	1559	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	254523	6	1532	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	273642	5	1456	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	291096	5	1439	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	308923	4	1423	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	298339	3	1318	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
31	IO-11	*	32	0.5	326757	4	1409	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
31	IO-11	*	32	0.5	490567	0	0	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
31	IO-11	*	32	0.5	155115	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
31	IO-11	*	32	0.5	44988	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0
31	IO-11	*	32	0.5	25342	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
31	IO-11	*	32	0.5	34679	1	0	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
31	IO-11	*	32	0.5	13803	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
31	IO-11	*	32	0.5	189151	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
31	IO-11	*	32	0.5	15467	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
31	IO-11	*	32	0.5	132850	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
31	IO-11	*	32	0.5	18006	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
31	IO-11	*	32	0.5	23521	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
31	IO-11	*	32	0.5	33743	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
31	IO-11	*	32	0.5	40400	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
31	IO-11	*	32	0.5	27794	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
31	IO-11	*	32	0.5	37716	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
31	IO-11	*	32	0.5	34482	1	0	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
31	IO-11	*	32	0.5	120470	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
31	IO-11	*	32	0.5	39881	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
31	IO-11	*	32	0.5	59523	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
31	IO-11	*	32	0.5	59484	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
31	IO-11	*	32	0.5	59327	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
31	IO-11	*	32	0.5	59112	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
31	IO-11	*	32	0.5	58919	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
31	IO-11	*	32	0.5	40210	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
31	IO-11	*	32	0.5	91488	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _u	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
31	IO-11	*	32	0.5	91435	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
31	IO-11	*	32	0.5	91247	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
31	IO-11	*	32	0.5	90998	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
31	IO-11	*	32	0.5	90778	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
31	IO-11	*	32	0.5	90673	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
31	IO-11	*	32	0.5	85332	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
31	IO-11	*	32	0.5	115881	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
31	IO-11	*	32	0.5	85274	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
31	IO-11	*	32	0.5	115675	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
31	IO-11	*	32	0.5	115239	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
31	IO-11	*	32	0.5	115168	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
31	IO-11	*	32	0.5	204996	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0
32	IO-12	*	32	0.5	23120	264	14164	19	D - MVP506 1xSON-TPP100W OR	85.00	78.65	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	26369	208	12211	14	D - MVP506 1xSON-TPP100W OR	110.00	78.65	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	20950	84	6727	10	E - MVP506 1xSON-TPP150W OR	57.73	50.23	16.00	-90.0	0.0	0.0
32	IO-12	*	32	0.5	21068	83	6718	10	E - MVP506 1xSON-TPP150W OR	58.87	50.23	16.00	-90.0	0.0	0.0
32	IO-12	*	32	0.5	18844	88	6008	10	D - MVP506 1xSON-TPP100W OR	-77.36	-36.21	8.00	-60.0	10.0	0.0
32	IO-12	*	32	0.5	32996	104	9756	9	C - MVP506 1xSON-TPP150W A60	141.33	45.50	16.00	140.0	2.0	0.0
32	IO-12	*	32	0.5	40048	178	10884	8	D - MVP506 1xSON-TPP100W OR	209.60	81.39	8.00	180.0	10.0	0.0
32	IO-12	*	32	0.5	44353	187	11446	8	D - MVP506 1xSON-TPP100W OR	232.37	90.86	8.00	180.0	10.0	0.0
32	IO-12	*	32	0.5	16980	44	3919	7	D - MVP506 1xSON-TPP100W OR	44.78	30.01	8.00	-51.5	5.0	0.0
32	IO-12	*	32	0.5	37075	28	3259	2	C - MVP506 1xSON-TPP150W A60	142.20	46.00	16.00	90.0	1.0	0.0
32	IO-12	*	32	0.5	21275	21	1716	2	E - MVP506 1xSON-TPP150W OR	57.73	51.37	16.00	90.0	0.0	0.0
32	IO-12	*	32	0.5	34155	27	2751	2	C - MVP506 1xSON-TPP150W A60	141.33	44.50	16.00	-160.0	0.0	0.0
32	IO-12	*	32	0.5	21392	21	1714	2	E - MVP506 1xSON-TPP150W OR	58.87	51.37	16.00	90.0	0.0	0.0
32	IO-12	*	32	0.5	30939	15	2201	2	D - MVP506 1xSON-TPP100W OR	112.99	21.10	8.00	135.0	10.0	0.0
32	IO-12	*	32	0.5	109252	22	6681	1	D - MVP506 1xSON-TPP100W OR	263.63	86.10	12.00	-150.0	0.0	0.0
32	IO-12	*	32	0.5	125547	108	6132	1	D - MVP506 1xSON-TPP100W OR	754.65	48.25	8.00	180.0	10.0	0.0
32	IO-12	*	32	0.5	164169	43	3848	0	D - MVP506 1xSON-TPP100W OR	780.09	61.78	8.00	-120.0	10.0	0.0
32	IO-12	*	32	0.5	171520	42	3845	0	D - MVP506 1xSON-TPP100W OR	805.60	49.21	8.00	-120.0	10.0	0.0
32	IO-12	*	32	0.5	178977	40	3828	0	D - MVP506 1xSON-TPP100W OR	829.79	34.72	8.00	-120.0	10.0	0.0
32	IO-12	*	32	0.5	46880	21	872	0	B - MVP507-WB 600W mit Raster	332.45	19.80	37.00	90.0	0.0	0.0
32	IO-12	*	32	0.5	50840	16	801	0	B - MVP507-WB 600W mit Raster	330.95	17.20	37.00	90.0	5.0	0.0
32	IO-12	*	32	0.5	50829	16	788	0	B - MVP507-WB 600W mit Raster	330.20	18.50	37.00	90.0	5.0	0.0
32	IO-12	*	32	0.5	51172	15	776	0	B - MVP507-WB 600W mit Raster	330.95	19.80	37.00	90.0	5.0	0.0
32	IO-12	*	32	0.5	259772	6	1564	0	D - MVP506 1xSON-TPP100W OR	734.65	96.67	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	276597	6	1539	0	D - MVP506 1xSON-TPP100W OR	765.59	96.16	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	295672	5	1469	0	D - MVP506 1xSON-TPP100W OR	776.01	79.15	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	313059	5	1453	0	D - MVP506 1xSON-TPP100W OR	806.80	79.63	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	330793	5	1437	0	D - MVP506 1xSON-TPP100W OR	837.46	79.99	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	323636	4	1331	0	D - MVP506 1xSON-TPP100W OR	746.35	77.33	8.00	-87.0	10.0	0.0
32	IO-12	*	32	0.5	348516	4	1424	0	D - MVP506 1xSON-TPP100W OR	868.00	80.59	8.00	-90.0	10.0	0.0
32	IO-12	*	32	0.5	52302	0	0	0	D - MVP506 1xSON-TPP100W OR	242.56	59.29	8.00	65.0	10.0	0.0
32	IO-12	*	32	0.5	51193	0	0	0	D - MVP506 1xSON-TPP100W OR	271.19	31.30	8.00	45.0	10.0	0.0
32	IO-12	*	32	0.5	175331	0	0	0	D - MVP506 1xSON-TPP100W OR	265.37	86.10	12.00	-30.0	5.0	0.0
32	IO-12	*	32	0.5	65974	0	0	0	D - MVP506 1xSON-TPP100W OR	203.55	65.31	8.00	95.0	10.0	0.0

Nr	Immissionsort	Schaltstufe	k _{sonn}	L _U	L _{max}	I	L _{sonn}	k _{rel}	Leuchte	x	y	z	DrehC	NeigA	NeigB
32	IO-12	*	32	0.5	203087	0	0	0	D - MVP506 1xSON-TPP100W OR	264.50	87.60	12.00	90.0	5.0	0.0
32	IO-12	*	32	0.5	146722	0	0	0	D - MVP506 1xSON-TPP100W OR	300.00	14.75	8.00	90.0	10.0	0.0
32	IO-12	*	32	0.5	27421	0	0	0	D - MVP506 1xSON-TPP100W OR	92.52	7.86	8.00	88.0	10.0	0.0
32	IO-12	*	32	0.5	48506	0	0	0	D - MVP506 1xSON-TPP100W OR	256.01	47.31	8.00	45.0	10.0	0.0
32	IO-12	*	32	0.5	18555	0	0	0	D - MVP506 1xSON-TPP100W OR	62.46	7.52	8.00	88.0	10.0	0.0
32	IO-12	*	32	0.5	130681	0	0	0	D - MVP506 1xSON-TPP100W OR	755.65	48.25	8.00	0.0	10.0	0.0
32	IO-12	*	32	0.5	15618	0	0	0	D - MVP506 1xSON-TPP100W OR	32.98	7.97	8.00	105.0	10.0	0.0
32	IO-12	*	32	0.5	13286	0	0	0	D - MVP506 1xSON-TPP100W OR	2.53	-2.43	8.00	115.0	10.0	0.0
32	IO-12	*	32	0.5	16837	0	0	0	D - MVP506 1xSON-TPP100W OR	-23.14	-16.13	8.00	115.0	10.0	0.0
32	IO-12	*	32	0.5	23423	0	0	0	D - MVP506 1xSON-TPP100W OR	-46.32	-29.98	8.00	120.0	10.0	0.0
32	IO-12	*	32	0.5	17829	0	0	0	D - MVP506 1xSON-TPP100W OR	-59.27	-46.56	8.00	170.0	10.0	0.0
32	IO-12	*	32	0.5	40467	0	0	0	A - MVP507 1xSON-TPP600W WB_60	182.70	56.70	12.00	132.0	1.0	0.0
32	IO-12	*	32	0.5	46983	1	0	0	B - MVP507-WB 600W mit Raster	333.20	18.50	37.00	15.0	0.0	0.0
32	IO-12	*	32	0.5	46763	1	0	0	B - MVP507-WB 600W mit Raster	332.45	17.20	37.00	15.0	0.0	0.0
32	IO-12	*	32	0.5	166103	0	0	0	D - MVP506 1xSON-TPP100W OR	325.00	14.75	8.00	90.0	10.0	0.0
32	IO-12	*	32	0.5	73938	0	0	0	A - MVP507 1xSON-TPP600W WB_60	451.10	18.50	37.00	35.0	0.0	0.0
32	IO-12	*	32	0.5	73899	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.81	19.38	37.00	36.0	0.0	0.0
32	IO-12	*	32	0.5	73731	0	0	0	A - MVP507 1xSON-TPP600W WB_60	450.06	19.93	37.00	72.0	0.0	0.0
32	IO-12	*	32	0.5	73500	0	0	0	A - MVP507 1xSON-TPP600W WB_60	449.14	19.93	37.00	108.0	0.0	0.0
32	IO-12	*	32	0.5	73291	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.39	19.38	37.00	108.0	0.0	0.0
32	IO-12	*	32	0.5	73184	0	0	0	A - MVP507 1xSON-TPP600W WB_60	448.10	18.50	37.00	155.0	0.0	0.0
32	IO-12	*	32	0.5	107952	0	0	0	A - MVP507 1xSON-TPP600W WB_60	577.00	19.60	37.00	35.0	0.0	0.0
32	IO-12	*	32	0.5	107899	0	0	0	A - MVP507 1xSON-TPP600W WB_60	576.71	20.48	37.00	36.0	0.0	0.0
32	IO-12	*	32	0.5	107703	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.96	21.03	37.00	72.0	0.0	0.0
32	IO-12	*	32	0.5	107439	0	0	0	A - MVP507 1xSON-TPP600W WB_60	575.04	21.03	37.00	108.0	0.0	0.0
32	IO-12	*	32	0.5	107205	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.29	20.48	37.00	144.0	0.0	0.0
32	IO-12	*	32	0.5	107092	0	0	0	A - MVP507 1xSON-TPP600W WB_60	574.00	19.60	37.00	145.0	0.0	0.0
32	IO-12	*	32	0.5	96105	0	0	0	A - MVP507 1xSON-TPP600W WB_60	663.20	19.80	37.00	25.0	-3.0	0.0
32	IO-12	*	32	0.5	133605	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	20.68	37.00	72.0	0.0	0.0
32	IO-12	*	32	0.5	96045	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.91	18.92	37.00	25.0	-3.0	0.0
32	IO-12	*	32	0.5	133391	0	0	0	A - MVP507 1xSON-TPP600W WB_60	662.16	21.23	37.00	72.0	0.0	0.0
32	IO-12	*	32	0.5	132934	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.68	21.23	37.00	108.0	0.0	0.0
32	IO-12	*	32	0.5	132858	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.49	20.68	37.00	108.0	0.0	0.0
32	IO-12	*	32	0.5	263517	0	0	0	A - MVP507 1xSON-TPP600W WB_60	660.20	19.80	37.00	145.0	-3.0	0.0

Containerterminal Riesa

Lichtimmissionsuntersuchung

Projektcode: FA 6335 - Anlage 5

Datum: 04-11-2014

Bearbeitung: DH

Die nachfolgenden Werte basieren auf exakten Berechnungen an kalibrierten Lampen, Leuchten und deren Anordnung. In der Praxis können graduelle Abweichungen auftreten auf Grund von mechanischen, geometrischen, elektrischen und lichttechnischen Toleranzen.

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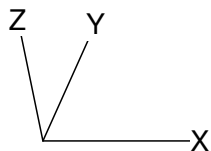
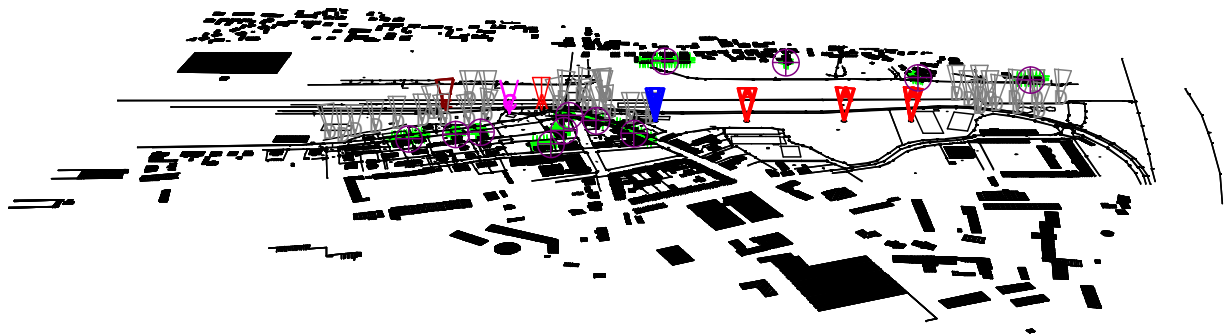
E-Mail: dus@peutz.de






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1. Projekt - Ansichten

1.1 3 D Ansicht



A		MVP507 WB/60 SON-TPP CO	B		MVP507-WB WB+Louver /-
C		MVP506 A60 SON-TPP CONV	D		MVP506 OR SON-TPP CONV
E		MVP506 OR SON-TPP CONV			

2. Zusammenfassung

2.1 Allgemeine Information

Der Verminderungsfaktor für dieses Projekt ist 1.00.

2.2 Projektleuchten

Code	Anz.	Leuchtentyp	Lampentyp	System-Leistung (W)	Lichtstrom (lm)
A	21	MVP507 WB/60 SON-TPP CONV	1 * SON-TPP600W	647.0	1 * 90000
B	7	MVP507-WB WB+Louver /-	1 * SON-TPP600W	647.0	1 * 90000
C	3	MVP506 A60 SON-TPP CONV	1 * SON-TPP150W	169.0	1 * 17500
D	35	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	114.0	1 * 10700
E	4	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	169.0	1 * 17500

Die insgesamt installierte Leistung 23.29 kW

Leuchtenanzahl pro Anordnung

Anordnung	Leuchtencode/-Anzahl					Leistung (kW)
	A	B	C	D	E	
00 Einzellleuchten	0	0	0	12	0	1.37
01 Mast 37m -1	0	7	0	0	0	4.53
02 Mast 12m -2	0	0	0	3	0	0.34
03 Mast 12m -1	1	0	0	0	0	0.65
04 Mast 16m -2	0	0	0	0	4	0.68
05 Rangierfl Einzeim 8m	0	0	0	20	0	2.28
06 Mast 16m -03	0	0	3	0	0	0.51
07 Mast 37m -2	7	0	0	0	0	4.53
08 Mast 37m -3	6	0	0	0	0	3.88
09 Mast 37m -4	7	0	0	0	0	4.53

2.3 Berechnungsergebnisse

Beleuchtungsstärke / Leuchtdichte:

Berechnung	Typ		Mitt	Min	Max
IO-01 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.09	0.07	0.10
IO-02 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.07	0.06	0.08
IO-03 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.24	0.11	0.40
IO-04 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.01	0.01	0.02
IO-05 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.20	0.11	0.34
IO-06 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.12	0.05	0.26
IO-07 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.07	0.01	0.21
IO-07 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.09	0.05	0.20
IO-08 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.02	0.01	0.03
IO-08 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.01	0.01	0.02
IO-09 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.03	0.01	0.04
IO-09 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.01	0.00	0.01
IO-10 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.09	0.05	0.17

Berechnung	Typ		Mitt	Min	Max
IO-10 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.03	0.02	0.06
IO-11 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.08	0.05	0.13
IO-12 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.04	0.02	0.10

Lichtimmissionsberechnung:

Der Lichtanteil Aufwärts (ULR) ist 0.00.

3. Berechnungsergebnisse

3.1 IO-01 Fassade: Tabelle

Raster	: IO-01 Fassade												
Berechnung	: Beleuchtungsstärke auf der Fläche (lx)												
AB (m)	0.00	4.18	8.35	12.53	16.71	20.88	25.06	29.24	33.42	37.59	41.77	45.95	50.12
AC (m)													
7.00	0.07<	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08
5.60	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
4.20	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09
2.80	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
1.40	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
0.00	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Fortsetzung >

(310.00, 238.40, 8.00) C-----D (381.00, 239.40, 8.00)
| |
(310.00, 238.40, 1.00) A-----B (381.00, 239.40, 1.00)

Mittel
0.09

Minimum
0.07

Maximum
0.10

Verminderungsfaktor
1.00

< Fortsetzung

Raster : IO-01 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	54.30	58.48	62.65	66.83	71.01
AC (m)					
7.00	0.08	0.08	0.08	0.08	0.08
5.60	0.08	0.08	0.08	0.08	0.08
4.20	0.09	0.09	0.09	0.09	0.09
2.80	0.09	0.09	0.09	0.09	0.09
1.40	0.10	0.10	0.10	0.10	0.10
0.00	0.10	0.10	0.10>	0.10	0.10

(310.00, 238.40, 8.00) C-----D (381.00, 239.40, 8.00)
| |
(310.00, 238.40, 1.00) A-----B (381.00, 239.40, 1.00)

Mittel
0.09

Minimum
0.07

Maximum
0.10

Verminderungsfaktor
1.00

3.2 IO-02 Fassade: Tabelle

Raster : IO-02 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.17	4.35	6.52
AC (m)				
7.00	0.06<	0.06	0.06	0.06
5.60	0.06	0.07	0.07	0.07
4.20	0.07	0.07	0.07	0.07
2.80	0.07	0.07	0.07	0.07
1.40	0.08	0.08	0.08	0.08
0.00	0.08	0.08	0.08	0.08>

(515.00, 235.00, 8.00) C-----D (520.50, 231.50, 8.00)
| |
(515.00, 235.00, 1.00) A-----B (520.50, 231.50, 1.00)

Mittel
0.07

Minimum
0.06

Maximum
0.08

Verminderungsfaktor
1.00

3.3 IO-03 Fassade: Tabelle

Raster : IO-03 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.64	5.28	7.92	10.55	13.19
AC (m)						
7.00	0.11<	0.12	0.12	0.12	0.12	0.12
5.60	0.16	0.17	0.17	0.16	0.16	0.15
4.20	0.21	0.22	0.21	0.21	0.20	0.19
2.80	0.26	0.26	0.26	0.25	0.24	0.22
1.40	0.32	0.32	0.31	0.30	0.29	0.28
0.00	0.40	0.40>	0.40	0.40	0.40	0.39

(689.60, 174.40, 8.00) C-----D (701.40, 168.50, 8.00)
| |
(689.60, 174.40, 1.00) A-----B (701.40, 168.50, 1.00)

Mittel
0.24

Minimum
0.11

Maximum
0.40

Verminderungsfaktor
1.00

3.4 IO-04 Fassade: Tabelle

Raster	: IO-04 Fassade							
Berechnung	: Beleuchtungsstärke auf der Fläche (lx)							
AB (m)	0.00	5.15	10.30	15.45	20.59	25.74	30.89	36.04
AC (m)								
7.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01<
5.60	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4.20	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2.80	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1.40	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.02>	0.02	0.01	0.01	0.01	0.01	0.01	0.01

(831.00, 162.00, 8.00) C-----D (867.00, 163.70, 8.00)
 | |
 (831.00, 162.00, 1.00) A-----B (867.00, 163.70, 1.00)

Mittel
0.01

Minimum
0.01

Maximum
0.02

Verminderungsfaktor
1.00

3.5 IO-05 Fassade: Tabelle

Raster : IO-05 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	4.05	8.10	12.15	16.20	20.25
AC (m)						
7.00	0.11	0.13	0.14	0.18	0.15	0.11<
5.60	0.13	0.14	0.15	0.18	0.16	0.13
4.20	0.16	0.16	0.19	0.18	0.17	0.14
2.80	0.19	0.19	0.23	0.21	0.18	0.16
1.40	0.23	0.25	0.28	0.26	0.24	0.19
0.00	0.28	0.34>	0.33	0.33	0.31	0.28

(264.30, 7.40, 8.00) C-----D (247.50, 18.70, 8.00)
| |
(264.30, 7.40, 1.00) A-----B (247.50, 18.70, 1.00)

Mittel
0.20

Minimum
0.11

Maximum
0.34

Verminderungsfaktor
1.00

3.6 IO-06 Fassade: Tabelle

Raster : IO-06 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	5.86	11.71	17.57	23.43	29.29	35.14	41.00	46.86	52.71	58.57	64.43
AC (m)												
7.00	0.12	0.11	0.10	0.08	0.07	0.06	0.05<	0.05	0.05	0.07	0.09	0.10
5.60	0.15	0.13	0.11	0.10	0.08	0.07	0.06	0.06	0.06	0.08	0.10	0.11
4.20	0.18	0.16	0.13	0.11	0.09	0.08	0.07	0.07	0.07	0.09	0.10	0.12
2.80	0.20	0.19	0.17	0.14	0.11	0.09	0.08	0.07	0.08	0.10	0.11	0.13
1.40	0.23	0.22	0.21	0.19	0.15	0.13	0.10	0.09	0.09	0.11	0.12	0.14
0.00	0.26>	0.25	0.25	0.23	0.20	0.17	0.13	0.11	0.11	0.12	0.13	0.17

(326.00, -53.60, 8.00) C-----D (282.80, -5.80, 8.00)
| |
(326.00, -53.60, 1.00) A-----B (282.80, -5.80, 1.00)

Mittel
0.12

Minimum
0.05

Maximum
0.26

Verminderungsfaktor
1.00

3.7 IO-07 NO Fassade: Tabelle

Raster : IO-07 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.59	5.18	7.77	10.35	12.94
AC (m)						
7.00	0.01<	0.01	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.03
4.20	0.02	0.03	0.04	0.03	0.03	0.03
2.80	0.04	0.06	0.07	0.06	0.05	0.05
1.40	0.07	0.10	0.11	0.11	0.11	0.12
0.00	0.12	0.15	0.17	0.17	0.18	0.21>

(219.40, 31.70, 8.00) C-----D (206.70, 29.20, 8.00)
| |
(219.40, 31.70, 1.00) A-----B (206.70, 29.20, 1.00)

Mittel
0.07

Minimum
0.01

Maximum
0.21

Verminderungsfaktor
1.00

3.8 IO-07 NW Fassade: Tabelle

Raster : IO-07 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.15	4.30	6.45	8.60	10.75
AC (m)						
7.00	0.05<	0.05	0.05	0.05	0.05	0.06
5.60	0.05	0.06	0.06	0.06	0.07	0.07
4.20	0.06	0.07	0.07	0.08	0.09	0.10
2.80	0.07	0.08	0.09	0.09	0.11	0.13
1.40	0.09	0.09	0.10	0.11	0.13	0.16
0.00	0.11	0.12	0.13	0.15	0.17	0.20>

(221.70, 21.20, 8.00) C-----D (219.40, 31.70, 8.00)
| |
(221.70, 21.20, 1.00) A-----B (219.40, 31.70, 1.00)

Mittel
0.09

Minimum
0.05

Maximum
0.20

Verminderungsfaktor
1.00

3.9 IO-08 NO Fassade: Tabelle

Raster : IO-08 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.39	4.79	7.18	9.57	11.97
AC (m)						
7.00	0.01<	0.01	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.02
4.20	0.02	0.02	0.02	0.02	0.02	0.02
2.80	0.02	0.02	0.02	0.02	0.02	0.03
1.40	0.02	0.02	0.03	0.03	0.03	0.03
0.00	0.03	0.03	0.03	0.03	0.03	0.03>

(216.00, -21.00, 8.00) C-----D (204.20, -23.00, 8.00)
| |
(216.00, -21.00, 1.00) A-----B (204.20, -23.00, 1.00)

Mittel
0.02

Minimum
0.01

Maximum
0.03

Verminderungsfaktor
1.00

3.10 IO-08 NW Fassade: Tabelle

Raster : IO-08 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.52	5.04	7.56	10.07	12.59
AC (m)						
7.00	0.01<	0.01	0.01	0.01	0.01	0.01
5.60	0.01	0.01	0.01	0.01	0.01	0.01
4.20	0.01	0.01	0.01	0.01	0.01	0.02
2.80	0.01	0.01	0.01	0.02	0.02	0.02
1.40	0.01	0.01	0.02	0.02	0.02	0.02
0.00	0.01	0.02	0.02	0.02	0.02	0.02>

(218.20, -33.40, 8.00) C-----D (216.00, -21.00, 8.00)
| |
(218.20, -33.40, 1.00) A-----B (216.00, -21.00, 1.00)

Mittel
0.01

Minimum
0.01

Maximum
0.02

Verminderungsfaktor
1.00

3.11 IO-09 NO Fassade: Tabelle

Raster : IO-09 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	4.24	8.49	12.73	16.97	21.21
AC (m)						
7.00	0.01<	0.02	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.02
4.20	0.02	0.02	0.02	0.02	0.03	0.03
2.80	0.02	0.02	0.03	0.03	0.03	0.03
1.40	0.03	0.03	0.03	0.03	0.03	0.03
0.00	0.03	0.03	0.03	0.03	0.04	0.04>

(202.00, -63.40, 8.00) C-----D (181.00, -66.40, 8.00)
| |
(202.00, -63.40, 1.00) A-----B (181.00, -66.40, 1.00)

Mittel
0.03

Minimum
0.01

Maximum
0.04

Verminderungsfaktor
1.00

3.12 IO-09 NW Fassade: Tabelle

Raster : IO-09 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	1.84	3.69	5.53	7.38	9.22
AC (m)						
7.00	0.00<	0.00	0.00	0.00	0.00	0.00
5.60	0.00	0.00	0.00	0.00	0.00	0.00
4.20	0.00	0.00	0.01	0.01	0.01	0.01
2.80	0.01	0.01	0.01	0.01	0.01	0.01
1.40	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.01	0.01	0.01	0.01	0.01	0.01>

(203.50, -72.50, 8.00) C-----D (202.00, -63.40, 8.00)
| |
(203.50, -72.50, 1.00) A-----B (202.00, -63.40, 1.00)

Mittel
0.01

Minimum
0.00

Maximum
0.01

Verminderungsfaktor
1.00

3.13 IO-10 NO Fassade: Tabelle

Raster : IO-10 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	1.24	2.47	3.71	4.95	6.18
AC (m)						
7.00	0.05	0.05	0.05	0.05	0.05	0.05<
5.60	0.06	0.06	0.06	0.06	0.06	0.06
4.20	0.07	0.07	0.07	0.07	0.07	0.07
2.80	0.09	0.09	0.09	0.09	0.09	0.09
1.40	0.12	0.12	0.12	0.12	0.12	0.12
0.00	0.17>	0.16	0.16	0.16	0.16	0.16

(111.00, -25.30, 8.00) C-----D (105.00, -26.80, 8.00)
| |
(111.00, -25.30, 1.00) A-----B (105.00, -26.80, 1.00)

Mittel
0.09

Minimum
0.05

Maximum
0.17

Verminderungsfaktor
1.00

3.14 IO-10 NW Fassade: Tabelle

Raster : IO-10 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	3.11	6.21	9.32	12.42	15.53
AC (m)						
7.00	0.02<	0.02	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.03
4.20	0.02	0.02	0.02	0.03	0.03	0.03
2.80	0.02	0.03	0.03	0.03	0.03	0.04
1.40	0.03	0.03	0.03	0.04	0.04	0.04
0.00	0.03	0.04	0.04	0.05	0.06	0.06>

(116.00, -40.00, 8.00) C-----D (111.00, -25.30, 8.00)
| |
(116.00, -40.00, 1.00) A-----B (111.00, -25.30, 1.00)

Mittel
0.03

Minimum
0.02

Maximum
0.06

Verminderungsfaktor
1.00

3.15 IO-11 Fassade: Tabelle

Raster : IO-11 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.15	4.30	6.45	8.61	10.76
AC (m)						
7.00	0.05	0.05	0.05	0.05	0.05	0.05<
5.60	0.06	0.06	0.06	0.06	0.06	0.06
4.20	0.06	0.06	0.06	0.06	0.06	0.06
2.80	0.08	0.08	0.08	0.08	0.08	0.08
1.40	0.11	0.10	0.10	0.10	0.10	0.10
0.00	0.13>	0.13	0.12	0.12	0.12	0.12

(85.60, -32.00, 8.00) C-----D (75.30, -35.10, 8.00)
| |
(85.60, -32.00, 1.00) A-----B (75.30, -35.10, 1.00)

Mittel
0.08

Minimum
0.05

Maximum
0.13

Verminderungsfaktor
1.00

3.16 IO-12 Fassade: Tabelle

Raster : IO-12 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	3.67	7.34	11.02	14.69	18.36	22.03	25.71	29.38	33.05	36.72	40.39
AC (m)												
7.00	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02<
5.60	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
4.20	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02
2.80	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03
1.40	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
0.00	0.10>	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.06

(42.00, -39.30, 8.00) C-----D (4.00, -53.00, 8.00)
| |
(42.00, -39.30, 1.00) A-----B (4.00, -53.00, 1.00)

Mittel
0.04

Minimum
0.02

Maximum
0.10

Verminderungsfaktor
1.00

4. Leuchtendaten

4.1 Projektleuchten

MVP507 WB SON-TPP CONV 1xSON-TPP600W

Leuchtenbetriebswirkungsgrade

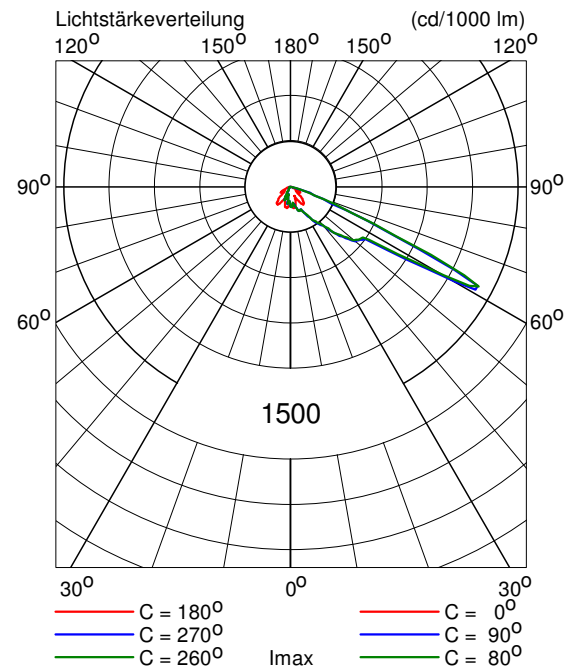
unterer Halbraum	: 0.77
oberer Halbraum	: 0.00
Total	: 0.77

Lampenlichtstrom : 90000 lm

Anschlußleistung der Leuchte : 647.0 W

Meßprotokollcode : LVMA114901

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.



MVP507-WB WB+Louver 1xSON-TPP600W

Leuchtenbetriebswirkungsgrade

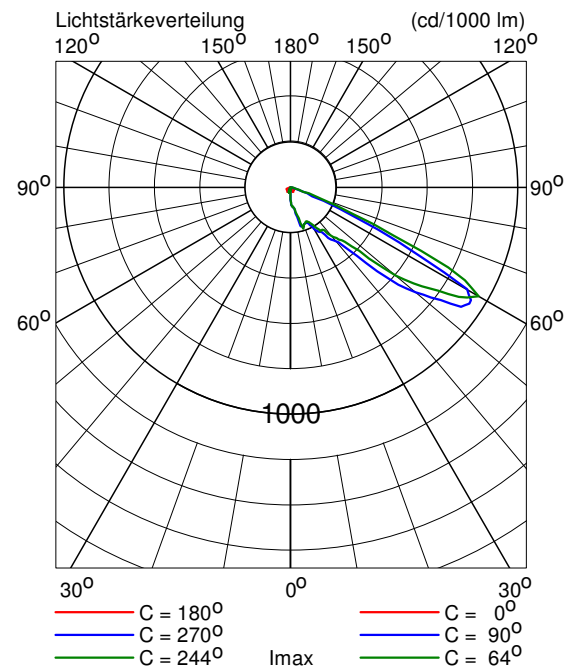
unterer Halbraum	: 0.59
oberer Halbraum	: 0.00
Total	: 0.59

Lampenlichtstrom : 90000 lm

Anschlußleistung der Leuchte : 647.0 W

Meßprotokollcode : 14000044-6

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.

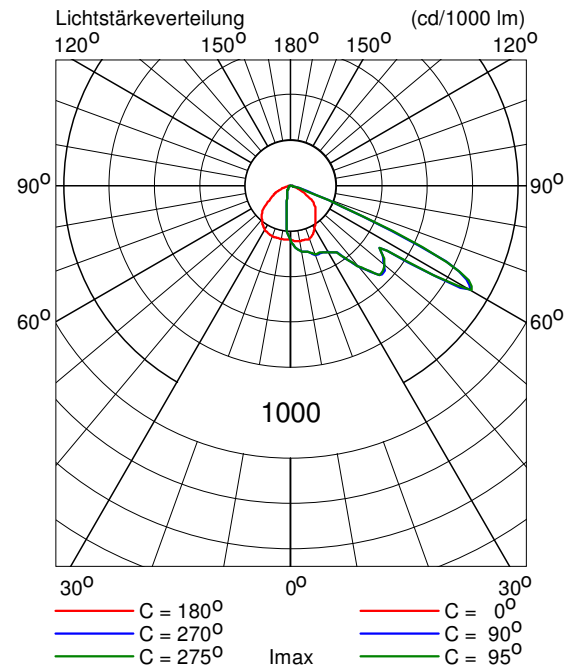


MVP506 A60 SON-TPP CONV 1xSON-TPP150W

Leuchtenbetriebswirkungsgrade

unterer Halbraum	: 0.83
oberer Halbraum	: 0.00
Total	: 0.83
Lampenlichtstrom	: 17500 lm
Anschlußleistung der Leuchte	: 169.0 W
Meßprotokollcode	: LVMA428112

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.

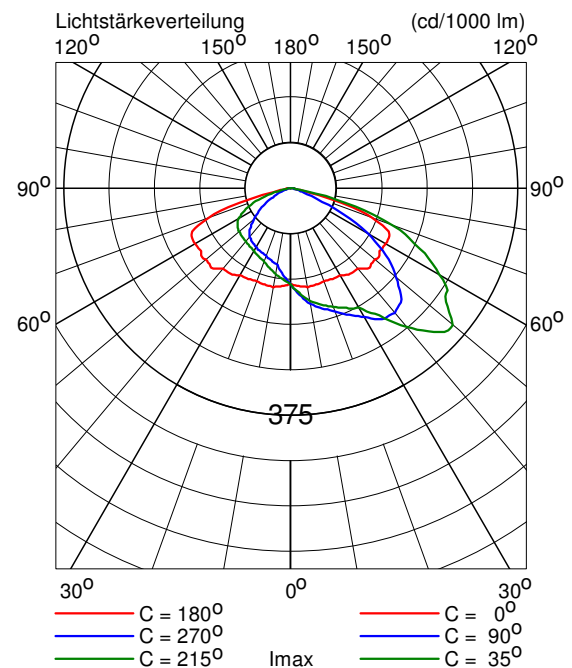


MVP506 OR SON-TPP CONV 1xSON-TPP150W

Leuchtenbetriebswirkungsgrade

unterer Halbraum	: 0.75
oberer Halbraum	: 0.00
Total	: 0.75
Lampenlichtstrom	: 10700 lm
Anschlußleistung der Leuchte	: 114.0 W
Meßprotokollcode	: LVM0671911

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.

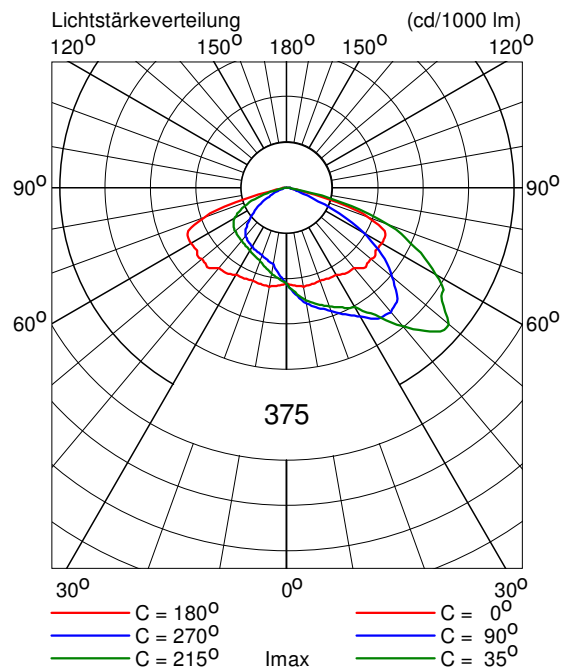


MVP506 OR SON-TPP CONV 1xSON-TPP150W

Leuchtenbetriebswirkungsgrade

unterer Halbraum : 0.75
oberer Halbraum : 0.00
Total : 0.75
Lampenlichtstrom : 17500 lm
Anschlußleistung der Leuchte : 169.0 W
Meßprotokollcode : LVM0671911

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.



5. Installationsdaten

5.1 Legende

Projektleuchten:

Code	Anzahl	Leuchtentyp	Lampentyp	Lichtstrom (lm)
A	21	MVP507 WB/60 SON-TPP CONV	1 * SON-TPP600W	1 * 90000
B	7	MVP507-WB WB+Louver /-	1 * SON-TPP600W	1 * 90000
C	3	MVP506 A60 SON-TPP CONV	1 * SON-TPP150W	1 * 17500
D	35	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	1 * 10700
E	4	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	1 * 17500

Anordnungen:

Code	Anordnung
1	00 Einzellleuchten
2	01 Mast 37m -1
3	02 Mast 12m -2
4	03 Mast 12m -1
5	04 Mast 16m -2
6	05 Rangierfl Einzeilm 8m
7	06 Mast 16m -03
8	07 Mast 37m -2
9	08 Mast 37m -3
10	09 Mast 37m -4

5.2 Leuchtenanordnung und Ausrichtung

Anz. * Code	Position			Ausrichtwinkel			ULR	Anord.
	X (m)	Y (m)	Z (m)	Dreh.C	Neig.A	Neig.B		
1 * D	734.65	96.67	8.00	-90.0	10.0	0.0	0.00	1
1 * D	746.35	77.33	8.00	-87.0	10.0	0.0	0.00	1
1 * D	754.65	48.25	8.00	180.0	10.0	0.0	0.00	1
1 * D	755.65	48.25	8.00	0.0	10.0	0.0	0.00	1
1 * D	765.59	96.16	8.00	-90.0	10.0	0.0	0.00	1
1 * D	776.01	79.15	8.00	-90.0	10.0	0.0	0.00	1
1 * D	780.09	61.78	8.00	-120.0	10.0	0.0	0.00	1
1 * D	805.60	49.21	8.00	-120.0	10.0	0.0	0.00	1
1 * D	806.80	79.63	8.00	-90.0	10.0	0.0	0.00	1
1 * D	829.79	34.72	8.00	-120.0	10.0	0.0	0.00	1
1 * D	837.46	79.99	8.00	-90.0	10.0	0.0	0.00	1
1 * D	868.00	80.59	8.00	-90.0	10.0	0.0	0.00	1
1 * B	330.20	18.50	37.00	90.0	0.0	0.0	0.00	2
1 * B	330.95	17.20	37.00	90.0	0.0	0.0	0.00	2
1 * B	330.95	19.80	37.00	90.0	0.0	0.0	0.00	2
2 * B	332.45	17.20	37.00	15.0	0.0	0.0	0.00	2
1 * B	332.45	19.80	37.00	90.0	0.0	0.0	0.00	2
1 * B	333.20	18.50	37.00	15.0	0.0	0.0	0.00	2
1 * D	263.63	86.10	12.00	-150.0	0.0	0.0	0.00	3
1 * D	264.50	87.60	12.00	90.0	5.0	0.0	0.00	3
1 * D	265.37	86.10	12.00	-30.0	5.0	0.0	0.00	3
1 * A	182.70	56.70	12.00	132.0	1.0	0.0	0.00	4
1 * E	57.73	50.23	16.00	-90.0	0.0	0.0	0.00	5
1 * E	57.73	51.37	16.00	90.0	0.0	0.0	0.00	5
1 * E	58.87	50.23	16.00	-90.0	0.0	0.0	0.00	5
1 * E	58.87	51.37	16.00	90.0	0.0	0.0	0.00	5

Anz. * Code	Position			Ausrichtwinkel			ULR	Anord.
	X (m)	Y (m)	Z (m)	Dreh.C	Neig.A	Neig.B		
1 * D	-77.36	-36.21	8.00	-60.0	10.0	0.0	0.00	6
1 * D	-59.27	-46.56	8.00	170.0	10.0	0.0	0.00	6
1 * D	-46.32	-29.98	8.00	120.0	10.0	0.0	0.00	6
1 * D	-23.14	-16.13	8.00	115.0	10.0	0.0	0.00	6
1 * D	2.53	-2.43	8.00	115.0	10.0	0.0	0.00	6
1 * D	32.98	7.97	8.00	105.0	10.0	0.0	0.00	6
1 * D	44.78	30.01	8.00	-51.5	5.0	0.0	0.00	6
1 * D	62.46	7.52	8.00	88.0	10.0	0.0	0.00	6
1 * D	85.00	78.65	8.00	-90.0	10.0	0.0	0.00	6
1 * D	92.52	7.86	8.00	88.0	10.0	0.0	0.00	6
1 * D	110.00	78.65	8.00	-90.0	10.0	0.0	0.00	6
1 * D	112.99	21.10	8.00	135.0	10.0	0.0	0.00	6
1 * D	203.55	65.31	8.00	95.0	10.0	0.0	0.00	6
1 * D	209.60	81.39	8.00	180.0	10.0	0.0	0.00	6
1 * D	232.37	90.86	8.00	180.0	10.0	0.0	0.00	6
1 * D	242.56	59.29	8.00	65.0	10.0	0.0	0.00	6
1 * D	256.01	47.31	8.00	45.0	10.0	0.0	0.00	6
1 * D	271.19	31.30	8.00	45.0	10.0	0.0	0.00	6
1 * D	300.00	14.75	8.00	90.0	10.0	0.0	0.00	6
1 * D	325.00	14.75	8.00	90.0	10.0	0.0	0.00	6
1 * C	141.33	44.50	16.00	-160.0	0.0	0.0	0.00	7
1 * C	141.33	45.50	16.00	140.0	2.0	0.0	0.00	7
1 * C	142.20	46.00	16.00	90.0	1.0	0.0	0.00	7
1 * A	448.10	18.50	37.00	155.0	0.0	0.0	0.00	8
1 * A	448.39	19.38	37.00	108.0	0.0	0.0	0.00	8
1 * A	449.14	19.93	37.00	108.0	0.0	0.0	0.00	8
2 * A	450.06	19.93	37.00	72.0	0.0	0.0	0.00	8
1 * A	450.81	19.38	37.00	36.0	0.0	0.0	0.00	8
1 * A	451.10	18.50	37.00	35.0	0.0	0.0	0.00	8
1 * A	574.00	19.60	37.00	145.0	0.0	0.0	0.00	9
1 * A	574.29	20.48	37.00	144.0	0.0	0.0	0.00	9
1 * A	575.04	21.03	37.00	108.0	0.0	0.0	0.00	9
1 * A	575.96	21.03	37.00	72.0	0.0	0.0	0.00	9
1 * A	576.71	20.48	37.00	36.0	0.0	0.0	0.00	9
1 * A	577.00	19.60	37.00	35.0	0.0	0.0	0.00	9
1 * A	660.20	19.80	37.00	145.0	0.0	0.0	0.00	10
1 * A	660.49	20.68	37.00	108.0	0.0	0.0	0.00	10
1 * A	660.68	21.23	37.00	108.0	0.0	0.0	0.00	10
1 * A	662.16	21.23	37.00	72.0	0.0	0.0	0.00	10
1 * A	662.91	18.92	37.00	25.0	0.0	0.0	0.00	10
1 * A	662.91	20.68	37.00	72.0	0.0	0.0	0.00	10
1 * A	663.20	19.80	37.00	25.0	0.0	0.0	0.00	10

Containerterminal Riesa

Lichtimmissionsuntersuchung (optimiert)

Projektcode: FA 6335 - Anlage 6

Datum: 04-11-2014

Bearbeitung: DH

Beschreibung: Variantenberechnung mit geringfügig optimierter Leuchtenstellung.

Die nachfolgenden Werte basieren auf exakten Berechnungen an kalibrierten Lampen, Leuchten und deren Anordnung. In der Praxis können graduelle Abweichungen auftreten auf Grund von mechanischen, geometrischen, elektrischen und lichttechnischen Toleranzen.

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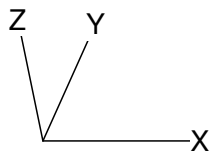
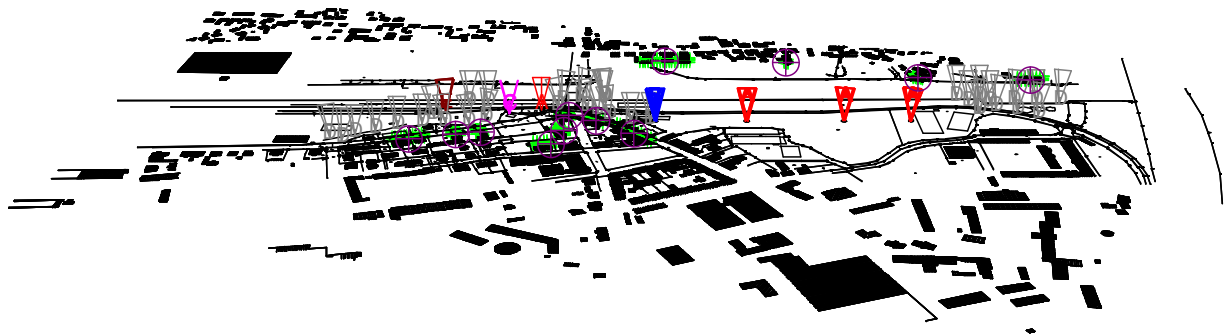
E-Mail: dus@peutz.de






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1. Projekt - Ansichten

1.1 3 D Ansicht



A		MVP507 WB/60 SON-TPP CO	B		MVP507-WB WB+Louver /-
C		MVP506 A60 SON-TPP CONV	D		MVP506 OR SON-TPP CONV
E		MVP506 OR SON-TPP CONV			

2. Zusammenfassung

2.1 Allgemeine Information

Der Verminderungsfaktor für dieses Projekt ist 1.00.

2.2 Projektleuchten

Code	Anz.	Leuchtentyp	Lampentyp	System-Leistung (W)	Lichtstrom (lm)
A	21	MVP507 WB/60 SON-TPP CONV	1 * SON-TPP600W	647.0	1 * 90000
B	7	MVP507-WB WB+Louver /-	1 * SON-TPP600W	647.0	1 * 90000
C	3	MVP506 A60 SON-TPP CONV	1 * SON-TPP150W	169.0	1 * 17500
D	35	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	114.0	1 * 10700
E	4	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	169.0	1 * 17500

Die insgesamt installierte Leistung 23.29 kW

Leuchtenanzahl pro Anordnung

Anordnung	Leuchtencode/-Anzahl					Leistung (kW)
	A	B	C	D	E	
00 Einzellleuchten	0	0	0	12	0	1.37
01 Mast 37m -1	0	7	0	0	0	4.53
02 Mast 12m -2	0	0	0	3	0	0.34
03 Mast 12m -1	1	0	0	0	0	0.65
04 Mast 16m -2	0	0	0	0	4	0.68
05 Rangierfl Einzeim 8m	0	0	0	20	0	2.28
06 Mast 16m -03	0	0	3	0	0	0.51
07 Mast 37m -2	7	0	0	0	0	4.53
08 Mast 37m -3	6	0	0	0	0	3.88
09 Mast 37m -4	7	0	0	0	0	4.53

2.3 Berechnungsergebnisse

Beleuchtungsstärke / Leuchtdichte:

Berechnung	Typ		Mitt	Min	Max
IO-01 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.10	0.08	0.11
IO-02 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.08	0.07	0.09
IO-03 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.14	0.07	0.25
IO-04 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.01	0.00	0.02
IO-05 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.17	0.09	0.30
IO-06 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.11	0.05	0.25
IO-07 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.07	0.01	0.21
IO-07 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.09	0.05	0.19
IO-08 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.02	0.01	0.03
IO-08 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.01	0.01	0.02
IO-09 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.02	0.01	0.04
IO-09 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.00	0.00	0.01
IO-10 NO Fassade	Beleuchtungsstärke auf der Fläche	lx	0.09	0.05	0.17

Berechnung	Typ		Mitt	Min	Max
IO-10 NW Fassade	Beleuchtungsstärke auf der Fläche	lx	0.03	0.02	0.06
IO-11 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.08	0.05	0.13
IO-12 Fassade	Beleuchtungsstärke auf der Fläche	lx	0.04	0.02	0.10

Lichtimmissionsberechnung:

Der Lichtanteil Aufwärts (ULR) ist 0.00.

3. Berechnungsergebnisse

3.1 IO-01 Fassade: Tabelle

Raster : IO-01 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	4.18	8.35	12.53	16.71	20.88	25.06	29.24	33.42	37.59	41.77	45.95	50.12
AC (m)													
7.00	0.08<	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09
5.60	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
4.20	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10
2.80	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
1.40	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11
0.00	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11

Fortsetzung >

(310.00, 238.40, 8.00) C-----D (381.00, 239.40, 8.00)
| |
(310.00, 238.40, 1.00) A-----B (381.00, 239.40, 1.00)

Mittel
0.10

Minimum
0.08

Maximum
0.11

Verminderungsfaktor
1.00

< Fortsetzung

Raster : IO-01 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	54.30	58.48	62.65	66.83	71.01
AC (m)					
7.00	0.09	0.09	0.09	0.09	0.09
5.60	0.09	0.09	0.09	0.09	0.09
4.20	0.10	0.10	0.10	0.10	0.10
2.80	0.10	0.10	0.10	0.10	0.10
1.40	0.11	0.11	0.11	0.11	0.11
0.00	0.11	0.11	0.11>	0.11	0.11

(310.00, 238.40, 8.00) C-----D (381.00, 239.40, 8.00)
| |
(310.00, 238.40, 1.00) A-----B (381.00, 239.40, 1.00)

Mittel	Minimum	Maximum	Verminderungsfaktor
0.10	0.08	0.11	1.00

3.2 IO-02 Fassade: Tabelle

Raster : IO-02 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.17	4.35	6.52
AC (m)				
7.00	0.07<	0.07	0.07	0.07
5.60	0.07	0.07	0.07	0.07
4.20	0.07	0.07	0.07	0.07
2.80	0.08	0.08	0.08	0.08
1.40	0.08	0.08	0.08	0.08
0.00	0.08	0.09	0.09	0.09>

(515.00, 235.00, 8.00) C-----D (520.50, 231.50, 8.00)
| |
(515.00, 235.00, 1.00) A-----B (520.50, 231.50, 1.00)

Mittel
0.08

Minimum
0.07

Maximum
0.09

Verminderungsfaktor
1.00

3.3 IO-03 Fassade: Tabelle

Raster : IO-03 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.64	5.28	7.92	10.55	13.19
AC (m)						
7.00	0.07<	0.07	0.08	0.08	0.08	0.08
5.60	0.09	0.09	0.09	0.09	0.09	0.09
4.20	0.10	0.10	0.11	0.11	0.11	0.11
2.80	0.13	0.13	0.14	0.14	0.14	0.14
1.40	0.19	0.19	0.19	0.19	0.18	0.18
0.00	0.25>	0.25	0.24	0.24	0.23	0.23

(689.60, 174.40, 8.00) C-----D (701.40, 168.50, 8.00)
| |
(689.60, 174.40, 1.00) A-----B (701.40, 168.50, 1.00)

Mittel
0.14

Minimum
0.07

Maximum
0.25

Verminderungsfaktor
1.00

3.4 IO-04 Fassade: Tabelle

Raster	: IO-04 Fassade							
Berechnung	: Beleuchtungsstärke auf der Fläche (lx)							
AB (m)	0.00	5.15	10.30	15.45	20.59	25.74	30.89	36.04
AC (m)								
7.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00<
5.60	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
4.20	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2.80	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1.40	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.02>	0.01	0.01	0.01	0.01	0.01	0.01	0.01

(831.00, 162.00, 8.00) C-----D (867.00, 163.70, 8.00)
 | |
 (831.00, 162.00, 1.00) A-----B (867.00, 163.70, 1.00)

Mittel
0.01

Minimum
0.00

Maximum
0.02

Verminderungsfaktor
1.00

3.5 IO-05 Fassade: Tabelle

Raster : IO-05 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	4.05	8.10	12.15	16.20	20.25
AC (m)						
7.00	0.09<	0.10	0.12	0.14	0.15	0.12
5.60	0.13	0.10	0.13	0.15	0.17	0.14
4.20	0.17	0.12	0.14	0.15	0.17	0.15
2.80	0.20	0.14	0.16	0.18	0.18	0.16
1.40	0.21	0.20	0.20	0.23	0.21	0.19
0.00	0.24	0.26	0.27	0.30>	0.27	0.25

(264.30, 7.40, 8.00) C-----D (247.50, 18.70, 8.00)
| |
(264.30, 7.40, 1.00) A-----B (247.50, 18.70, 1.00)

Mittel
0.17

Minimum
0.09

Maximum
0.30

Verminderungsfaktor
1.00

3.6 IO-06 Fassade: Tabelle

Raster : IO-06 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	5.86	11.71	17.57	23.43	29.29	35.14	41.00	46.86	52.71	58.57	64.43
AC (m)												
7.00	0.12	0.11	0.09	0.08	0.07	0.06	0.05<	0.05	0.05	0.06	0.07	0.08
5.60	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.06	0.06	0.08	0.09
4.20	0.18	0.15	0.13	0.11	0.09	0.08	0.06	0.06	0.06	0.07	0.09	0.10
2.80	0.20	0.19	0.17	0.14	0.11	0.08	0.07	0.07	0.07	0.08	0.09	0.11
1.40	0.23	0.22	0.21	0.18	0.15	0.12	0.09	0.08	0.08	0.09	0.10	0.13
0.00	0.25>	0.25	0.24	0.23	0.20	0.16	0.13	0.10	0.09	0.10	0.12	0.15

(326.00, -53.60, 8.00) C-----D (282.80, -5.80, 8.00)
| |
(326.00, -53.60, 1.00) A-----B (282.80, -5.80, 1.00)

Mittel
0.11

Minimum
0.05

Maximum
0.25

Verminderungsfaktor
1.00

3.7 IO-07 NO Fassade: Tabelle

Raster : IO-07 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.59	5.18	7.77	10.35	12.94
AC (m)						
7.00	0.01<	0.01	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.03
4.20	0.02	0.03	0.04	0.03	0.03	0.03
2.80	0.04	0.06	0.07	0.06	0.05	0.05
1.40	0.07	0.10	0.11	0.11	0.11	0.12
0.00	0.12	0.15	0.17	0.17	0.18	0.21>

(219.40, 31.70, 8.00) C-----D (206.70, 29.20, 8.00)
| |
(219.40, 31.70, 1.00) A-----B (206.70, 29.20, 1.00)

Mittel
0.07

Minimum
0.01

Maximum
0.21

Verminderungsfaktor
1.00

3.8 IO-07 NW Fassade: Tabelle

Raster : IO-07 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.15	4.30	6.45	8.60	10.75
AC (m)						
7.00	0.05	0.05<	0.05	0.05	0.05	0.06
5.60	0.06	0.05	0.06	0.06	0.06	0.07
4.20	0.07	0.06	0.07	0.07	0.08	0.09
2.80	0.08	0.07	0.08	0.09	0.10	0.11
1.40	0.09	0.09	0.09	0.10	0.12	0.14
0.00	0.11	0.11	0.12	0.14	0.16	0.19>

(221.70, 21.20, 8.00) C-----D (219.40, 31.70, 8.00)
| |
(221.70, 21.20, 1.00) A-----B (219.40, 31.70, 1.00)

Mittel
0.09

Minimum
0.05

Maximum
0.19

Verminderungsfaktor
1.00

3.9 IO-08 NO Fassade: Tabelle

Raster : IO-08 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.39	4.79	7.18	9.57	11.97
AC (m)						
7.00	0.01<	0.01	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.02
4.20	0.02	0.02	0.02	0.02	0.02	0.02
2.80	0.02	0.02	0.02	0.02	0.02	0.03
1.40	0.02	0.02	0.02	0.03	0.03	0.03
0.00	0.03	0.03	0.03	0.03	0.03	0.03>

(216.00, -21.00, 8.00) C-----D (204.20, -23.00, 8.00)
| |
(216.00, -21.00, 1.00) A-----B (204.20, -23.00, 1.00)

Mittel
0.02

Minimum
0.01

Maximum
0.03

Verminderungsfaktor
1.00

3.10 IO-08 NW Fassade: Tabelle

Raster : IO-08 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.52	5.04	7.56	10.07	12.59
AC (m)						
7.00	0.01<	0.01	0.01	0.01	0.01	0.01
5.60	0.01	0.01	0.01	0.01	0.01	0.01
4.20	0.01	0.01	0.01	0.01	0.01	0.01
2.80	0.01	0.01	0.01	0.01	0.01	0.02
1.40	0.01	0.01	0.01	0.02	0.02	0.02
0.00	0.01	0.01	0.02	0.02	0.02	0.02>

(218.20, -33.40, 8.00) C-----D (216.00, -21.00, 8.00)
| |
(218.20, -33.40, 1.00) A-----B (216.00, -21.00, 1.00)

Mittel
0.01

Minimum
0.01

Maximum
0.02

Verminderungsfaktor
1.00

3.11 IO-09 NO Fassade: Tabelle

Raster : IO-09 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	4.24	8.49	12.73	16.97	21.21
AC (m)						
7.00	0.01<	0.02	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.02
4.20	0.02	0.02	0.02	0.02	0.03	0.03
2.80	0.02	0.02	0.03	0.03	0.03	0.03
1.40	0.02	0.03	0.03	0.03	0.03	0.03
0.00	0.03	0.03	0.03	0.03	0.04	0.04>

(202.00, -63.40, 8.00) C-----D (181.00, -66.40, 8.00)
| |
(202.00, -63.40, 1.00) A-----B (181.00, -66.40, 1.00)

Mittel
0.02

Minimum
0.01

Maximum
0.04

Verminderungsfaktor
1.00

3.12 IO-09 NW Fassade: Tabelle

Raster : IO-09 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	1.84	3.69	5.53	7.38	9.22
AC (m)						
7.00	0.00<	0.00	0.00	0.00	0.00	0.00
5.60	0.00	0.00	0.00	0.00	0.00	0.00
4.20	0.00	0.00	0.00	0.00	0.00	0.00
2.80	0.00	0.00	0.00	0.01	0.01	0.01
1.40	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.01	0.01	0.01	0.01	0.01	0.01>

(203.50, -72.50, 8.00) C-----D (202.00, -63.40, 8.00)
| |
(203.50, -72.50, 1.00) A-----B (202.00, -63.40, 1.00)

Mittel
0.00

Minimum
0.00

Maximum
0.01

Verminderungsfaktor
1.00

3.13 IO-10 NO Fassade: Tabelle

Raster : IO-10 NO Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	1.24	2.47	3.71	4.95	6.18
AC (m)						
7.00	0.05	0.05	0.05	0.05	0.05	0.05<
5.60	0.06	0.06	0.06	0.06	0.06	0.06
4.20	0.07	0.07	0.07	0.07	0.07	0.07
2.80	0.09	0.09	0.09	0.09	0.09	0.09
1.40	0.12	0.12	0.12	0.12	0.12	0.12
0.00	0.17>	0.16	0.16	0.16	0.16	0.16

(111.00, -25.30, 8.00) C-----D (105.00, -26.80, 8.00)
| |
(111.00, -25.30, 1.00) A-----B (105.00, -26.80, 1.00)

Mittel
0.09

Minimum
0.05

Maximum
0.17

Verminderungsfaktor
1.00

3.14 IO-10 NW Fassade: Tabelle

Raster : IO-10 NW Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	3.11	6.21	9.32	12.42	15.53
AC (m)						
7.00	0.02<	0.02	0.02	0.02	0.02	0.02
5.60	0.02	0.02	0.02	0.02	0.02	0.03
4.20	0.02	0.02	0.02	0.03	0.03	0.03
2.80	0.02	0.03	0.03	0.03	0.03	0.04
1.40	0.03	0.03	0.03	0.04	0.04	0.04
0.00	0.03	0.04	0.04	0.05	0.06	0.06>

(116.00, -40.00, 8.00) C-----D (111.00, -25.30, 8.00)
| |
(116.00, -40.00, 1.00) A-----B (111.00, -25.30, 1.00)

Mittel
0.03

Minimum
0.02

Maximum
0.06

Verminderungsfaktor
1.00

3.15 IO-11 Fassade: Tabelle

Raster : IO-11 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	2.15	4.30	6.45	8.61	10.76
AC (m)						
7.00	0.05	0.05	0.05	0.05	0.05	0.05<
5.60	0.06	0.06	0.06	0.06	0.06	0.06
4.20	0.06	0.06	0.06	0.06	0.06	0.06
2.80	0.08	0.08	0.08	0.08	0.08	0.08
1.40	0.11	0.10	0.10	0.10	0.10	0.10
0.00	0.13>	0.13	0.12	0.12	0.12	0.12

(85.60, -32.00, 8.00) C-----D (75.30, -35.10, 8.00)
| |
(85.60, -32.00, 1.00) A-----B (75.30, -35.10, 1.00)

Mittel
0.08

Minimum
0.05

Maximum
0.13

Verminderungsfaktor
1.00

3.16 IO-12 Fassade: Tabelle

Raster : IO-12 Fassade
Berechnung : Beleuchtungsstärke auf der Fläche (lx)

AB (m)	0.00	3.67	7.34	11.02	14.69	18.36	22.03	25.71	29.38	33.05	36.72	40.39
AC (m)												
7.00	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02<
5.60	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
4.20	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02
2.80	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03
1.40	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
0.00	0.10>	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.06

(42.00, -39.30, 8.00) C-----D (4.00, -53.00, 8.00)
| |
(42.00, -39.30, 1.00) A-----B (4.00, -53.00, 1.00)

Mittel
0.04

Minimum
0.02

Maximum
0.10

Verminderungsfaktor
1.00

4. Leuchtendaten

4.1 Projektleuchten

MVP507 WB SON-TPP CONV 1xSON-TPP600W

Leuchtenbetriebswirkungsgrade

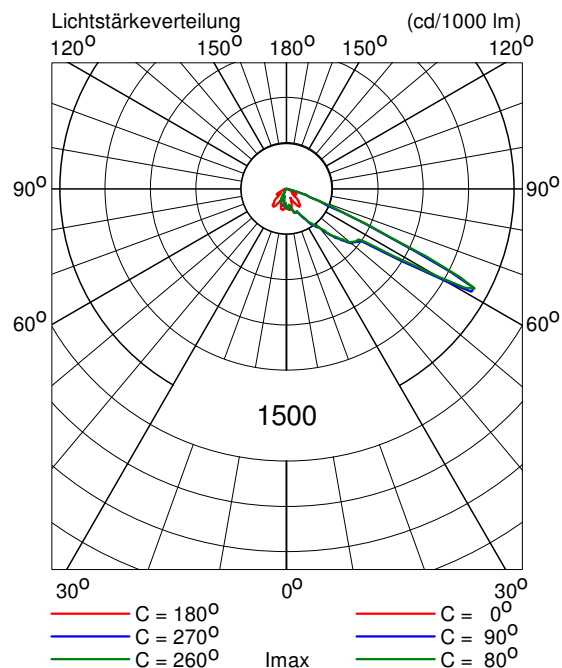
unterer Halbraum	: 0.77
oberer Halbraum	: 0.00
Total	: 0.77

Lampenlichtstrom : 90000 lm

Anschlußleistung der Leuchte : 647.0 W

Meßprotokollcode : LVMA114901

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.



MVP507-WB WB+Louver 1xSON-TPP600W

Leuchtenbetriebswirkungsgrade

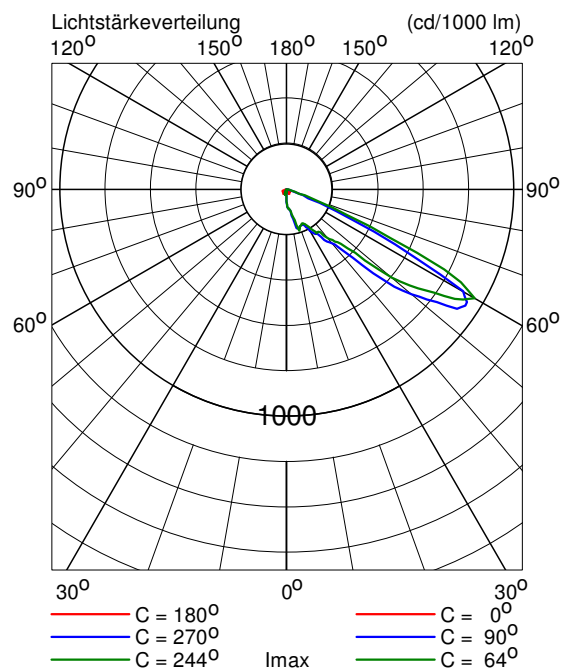
unterer Halbraum	: 0.59
oberer Halbraum	: 0.00
Total	: 0.59

Lampenlichtstrom : 90000 lm

Anschlußleistung der Leuchte : 647.0 W

Meßprotokollcode : 14000044-6

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.

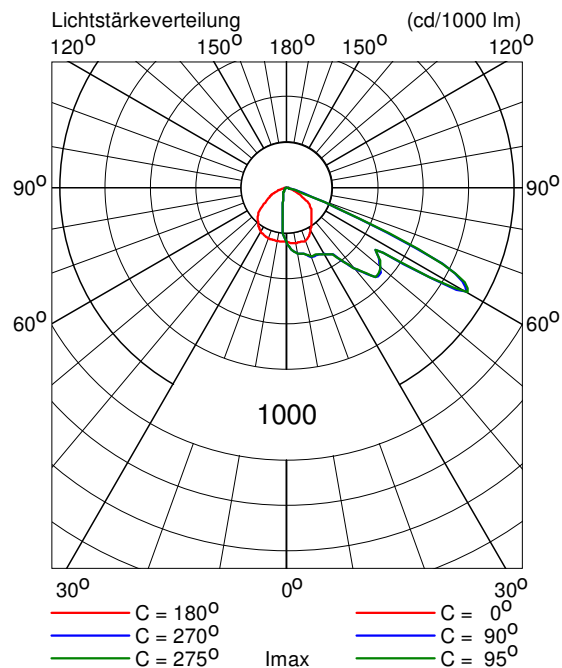


MVP506 A60 SON-TPP CONV 1xSON-TPP150W

Leuchtenbetriebswirkungsgrade

unterer Halbraum : 0.83
oberer Halbraum : 0.00
Total : 0.83
Lampenlichtstrom : 17500 lm
Anschlußleistung der Leuchte : 169.0 W
Meßprotokollcode : LVMA428112

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.

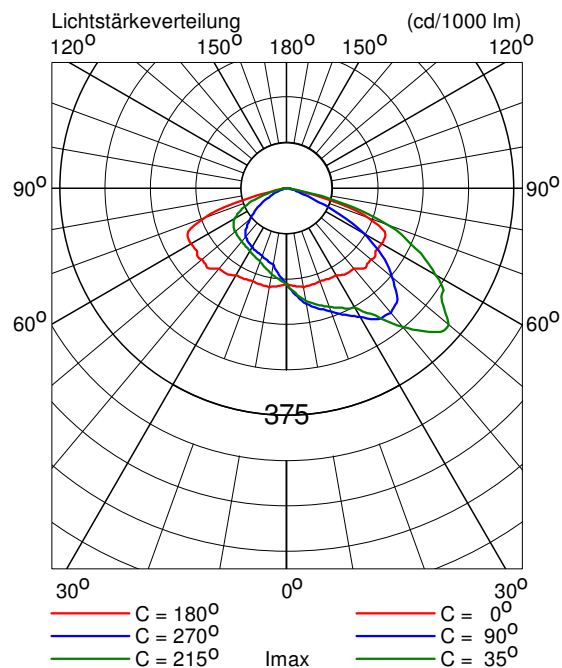


MVP506 OR SON-TPP CONV 1xSON-TPP150W

Leuchtenbetriebswirkungsgrade

unterer Halbraum : 0.75
oberer Halbraum : 0.00
Total : 0.75
Lampenlichtstrom : 10700 lm
Anschlußleistung der Leuchte : 114.0 W
Meßprotokollcode : LVM0671911

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.

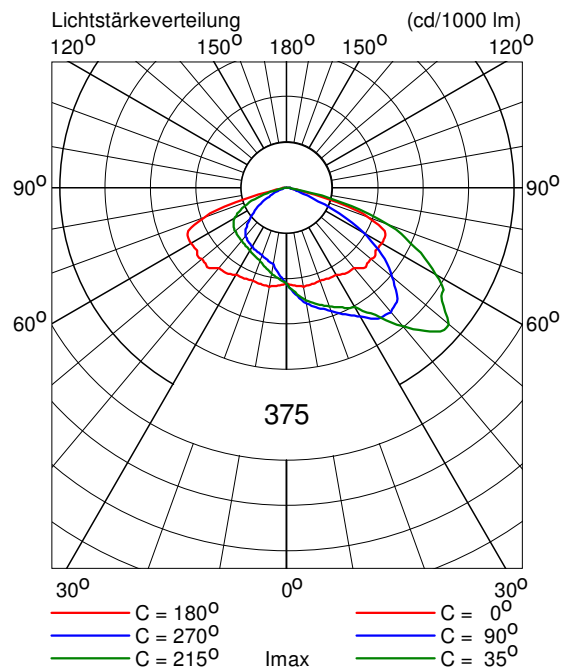


MVP506 OR SON-TPP CONV 1xSON-TPP150W

Leuchtenbetriebswirkungsgrade

unterer Halbraum : 0.75
oberer Halbraum : 0.00
Total : 0.75
Lampenlichtstrom : 17500 lm
Anschlußleistung der Leuchte : 169.0 W
Meßprotokollcode : LVM0671911

Anmerkung: Leuchtendaten nicht aus der Standard-Datenbank.



5. Installationsdaten

5.1 Legende

Projektleuchten:

Code	Anzahl	Leuchtentyp	Lampentyp	Lichtstrom (lm)
A	21	MVP507 WB/60 SON-TPP CONV	1 * SON-TPP600W	1 * 90000
B	7	MVP507-WB WB+Louver /-	1 * SON-TPP600W	1 * 90000
C	3	MVP506 A60 SON-TPP CONV	1 * SON-TPP150W	1 * 17500
D	35	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	1 * 10700
E	4	MVP506 OR SON-TPP CONV	1 * SON-TPP150W	1 * 17500

Anordnungen:

Code	Anordnung
1	00 Einzellleuchten
2	01 Mast 37m -1
3	02 Mast 12m -2
4	03 Mast 12m -1
5	04 Mast 16m -2
6	05 Rangierfl Einzeilm 8m
7	06 Mast 16m -03
8	07 Mast 37m -2
9	08 Mast 37m -3
10	09 Mast 37m -4

5.2 Leuchtenanordnung und Ausrichtung

Anz. * Code	Position			Ausrichtwinkel			ULR	Anord.
	X (m)	Y (m)	Z (m)	Dreh.C	Neig.A	Neig.B		
1 * D	734.65	96.67	8.00	-90.0	10.0	0.0	0.00	1
1 * D	746.35	77.33	8.00	-87.0	10.0	0.0	0.00	1
1 * D	754.65	48.25	8.00	180.0	10.0	0.0	0.00	1
1 * D	755.65	48.25	8.00	0.0	10.0	0.0	0.00	1
1 * D	765.59	96.16	8.00	-90.0	10.0	0.0	0.00	1
1 * D	776.01	79.15	8.00	-90.0	10.0	0.0	0.00	1
1 * D	780.09	61.78	8.00	-120.0	10.0	0.0	0.00	1
1 * D	805.60	49.21	8.00	-120.0	10.0	0.0	0.00	1
1 * D	806.80	79.63	8.00	-90.0	10.0	0.0	0.00	1
1 * D	829.79	34.72	8.00	-120.0	10.0	0.0	0.00	1
1 * D	837.46	79.99	8.00	-90.0	10.0	0.0	0.00	1
1 * D	868.00	80.59	8.00	-90.0	10.0	0.0	0.00	1
1 * B	330.20	18.50	37.00	90.0	5.0	0.0	0.00	2
1 * B	330.95	17.20	37.00	90.0	5.0	0.0	0.00	2
1 * B	330.95	19.80	37.00	90.0	5.0	0.0	0.00	2
2 * B	332.45	17.20	37.00	15.0	0.0	0.0	0.00	2
1 * B	332.45	19.80	37.00	90.0	0.0	0.0	0.00	2
1 * B	333.20	18.50	37.00	15.0	0.0	0.0	0.00	2
1 * D	263.63	86.10	12.00	-150.0	0.0	0.0	0.00	3
1 * D	264.50	87.60	12.00	90.0	5.0	0.0	0.00	3
1 * D	265.37	86.10	12.00	-30.0	5.0	0.0	0.00	3
1 * A	182.70	56.70	12.00	132.0	1.0	0.0	0.00	4
1 * E	57.73	50.23	16.00	-90.0	0.0	0.0	0.00	5
1 * E	57.73	51.37	16.00	90.0	0.0	0.0	0.00	5
1 * E	58.87	50.23	16.00	-90.0	0.0	0.0	0.00	5
1 * E	58.87	51.37	16.00	90.0	0.0	0.0	0.00	5

Anz. * Code	Position			Ausrichtwinkel			ULR	Anord.
	X (m)	Y (m)	Z (m)	Dreh.C	Neig.A	Neig.B		
1 * D	-77.36	-36.21	8.00	-60.0	10.0	0.0	0.00	6
1 * D	-59.27	-46.56	8.00	170.0	10.0	0.0	0.00	6
1 * D	-46.32	-29.98	8.00	120.0	10.0	0.0	0.00	6
1 * D	-23.14	-16.13	8.00	115.0	10.0	0.0	0.00	6
1 * D	2.53	-2.43	8.00	115.0	10.0	0.0	0.00	6
1 * D	32.98	7.97	8.00	105.0	10.0	0.0	0.00	6
1 * D	44.78	30.01	8.00	-51.5	5.0	0.0	0.00	6
1 * D	62.46	7.52	8.00	88.0	10.0	0.0	0.00	6
1 * D	85.00	78.65	8.00	-90.0	10.0	0.0	0.00	6
1 * D	92.52	7.86	8.00	88.0	10.0	0.0	0.00	6
1 * D	110.00	78.65	8.00	-90.0	10.0	0.0	0.00	6
1 * D	112.99	21.10	8.00	135.0	10.0	0.0	0.00	6
1 * D	203.55	65.31	8.00	95.0	10.0	0.0	0.00	6
1 * D	209.60	81.39	8.00	180.0	10.0	0.0	0.00	6
1 * D	232.37	90.86	8.00	180.0	10.0	0.0	0.00	6
1 * D	242.56	59.29	8.00	65.0	10.0	0.0	0.00	6
1 * D	256.01	47.31	8.00	45.0	10.0	0.0	0.00	6
1 * D	271.19	31.30	8.00	45.0	10.0	0.0	0.00	6
1 * D	300.00	14.75	8.00	90.0	10.0	0.0	0.00	6
1 * D	325.00	14.75	8.00	90.0	10.0	0.0	0.00	6
1 * C	141.33	44.50	16.00	-160.0	0.0	0.0	0.00	7
1 * C	141.33	45.50	16.00	140.0	2.0	0.0	0.00	7
1 * C	142.20	46.00	16.00	90.0	1.0	0.0	0.00	7
1 * A	448.10	18.50	37.00	155.0	0.0	0.0	0.00	8
1 * A	448.39	19.38	37.00	108.0	0.0	0.0	0.00	8
1 * A	449.14	19.93	37.00	108.0	0.0	0.0	0.00	8
2 * A	450.06	19.93	37.00	72.0	0.0	0.0	0.00	8
1 * A	450.81	19.38	37.00	36.0	0.0	0.0	0.00	8
1 * A	451.10	18.50	37.00	35.0	0.0	0.0	0.00	8
1 * A	574.00	19.60	37.00	145.0	0.0	0.0	0.00	9
1 * A	574.29	20.48	37.00	144.0	0.0	0.0	0.00	9
1 * A	575.04	21.03	37.00	108.0	0.0	0.0	0.00	9
1 * A	575.96	21.03	37.00	72.0	0.0	0.0	0.00	9
1 * A	576.71	20.48	37.00	36.0	0.0	0.0	0.00	9
1 * A	577.00	19.60	37.00	35.0	0.0	0.0	0.00	9
1 * A	660.20	19.80	37.00	145.0	-3.0	0.0	0.00	10
1 * A	660.49	20.68	37.00	108.0	0.0	0.0	0.00	10
1 * A	660.68	21.23	37.00	108.0	0.0	0.0	0.00	10
1 * A	662.16	21.23	37.00	72.0	0.0	0.0	0.00	10
1 * A	662.91	18.92	37.00	25.0	-3.0	0.0	0.00	10
1 * A	662.91	20.68	37.00	72.0	-0.0	0.0	0.00	10
1 * A	663.20	19.80	37.00	25.0	-3.0	0.0	0.00	10