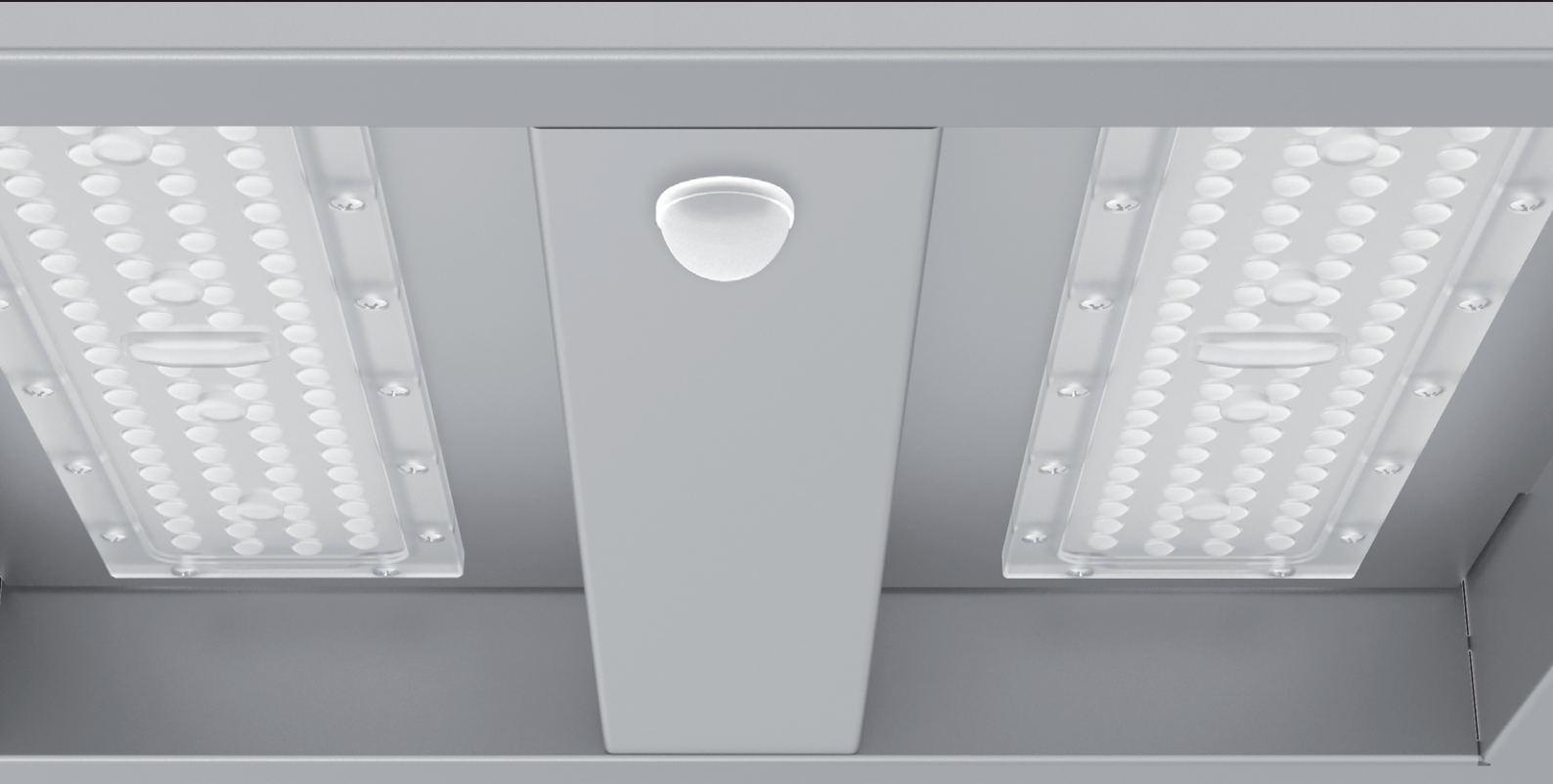


Pumplight

High Bay



Our mission is healthy light.

We create human and environment – friendly solutions: natural, comfortable to the eye, rendering genuine colours. We believe in timeless and universal aesthetics. We design lamps that are minimalist in their form, and which can complement both traditional and modern architecture. To draw up custom designs, we approach each interior from a fresh perspective.

Quality is at the core of our work. All of our products are manufactured in our own factory in Tarczyn, with the help of a team of lighting experts – technology and product engineers. For 20 years, we have completed a plethora of projects, and each of them represents how we understand the culture of light and the way light can be experienced in space. When considering the role of light in contemporary architecture, one cannot disregard the history of Bauhaus. The school, or rather a free, creative collective of architects, artists and artisans, is celebrating its centenary year.

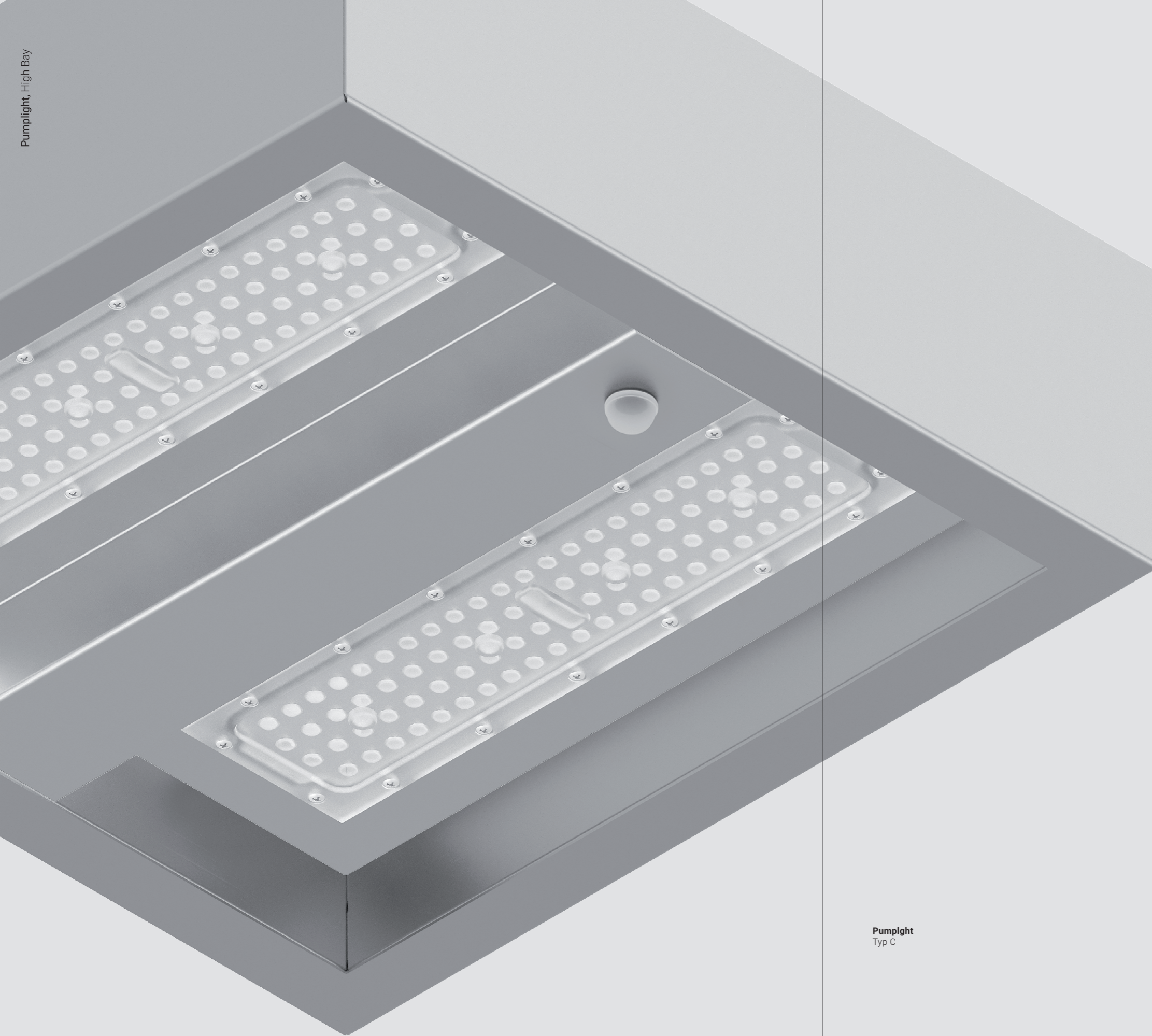
Light was of the building blocks of architecture in Modernism. In those times, as a result of technological progress electric light became just as important building material as concrete or steel. Shaping the experience of space through artificial light in buildings was an entirely new challenge for Bauhaus architects and designers. Their avant-garde approach to materials and forms, combined with the consolidation of modernist standards in terms of aesthetics and form in the middle of the 20th century, became the foundation for contemporary design.

Today, when looking at Infinite numbers of light fixtures and lamps, it is easy to forget that today's lighting culture has its roots in the school of Bauhaus and owe sit its shape.



Pumplight

High Bay



Modułowy system opraw typu High Bay dedykowany do stacji paliw oraz do rozwiązań przemysłowych i sportowych. Bardzo wysoka skuteczność świetlna opraw LED pozwala osiągnąć jeszcze większe oszczędności w zużyciu energii elektrycznej, zwiększając efektywność każdego projektu modernizacji oświetlenia.

Modular High Bay luminaire system dedicated to gas stations as well as industrial and sports solutions. The very high LED luminous efficiency of luminaires allows to achieve even greater savings in electricity consumption, increasing the efficiency of any lighting modernization project.

Modulares High Bay-Leuchtensystem für Tankstellen, Industrie- und Sportanlagen. Die sehr hohe Lichtausbeute der LED-Leuchten ermöglicht noch größere Einsparungen beim Stromverbrauch und steigert die Effizienz eines jeden Beleuchtungsprojekts.

Pumplight
Typ C

Pumplight

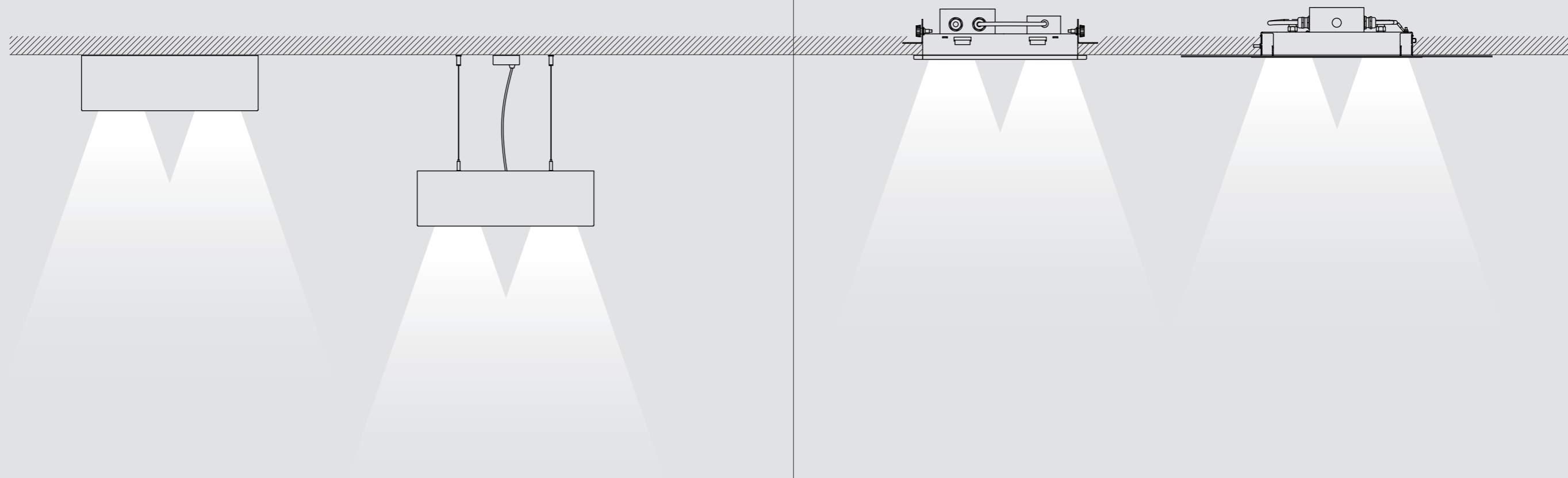
High Bay

Pumplight Type C / F / J
Nabudowany / Ceiling / Anbau

Pumplight Type C / F / J
with suspension kit
Zwieszany / Suspended / Abgependelt

Pumplight Type A / D / G
Wbudowany z ramką / Frame / Einbau mit Rahmen

Pumplight Type B / E / H
Wbudowany z ramką / Frame / Einbau mit Rahmen



Seria opraw Pumplight przystosowana jest do każdego typu montażu. Dostępne są również wersje wysłaniające dowolne otwory po demontowanych oprawach w modernizowanych wiatkach paliwowych.

The Pumplight series of luminaires is suitable for any type of installation. Versions are also available to cover up any holes left by dismantled luminaires in retrofitted fuel shelters.

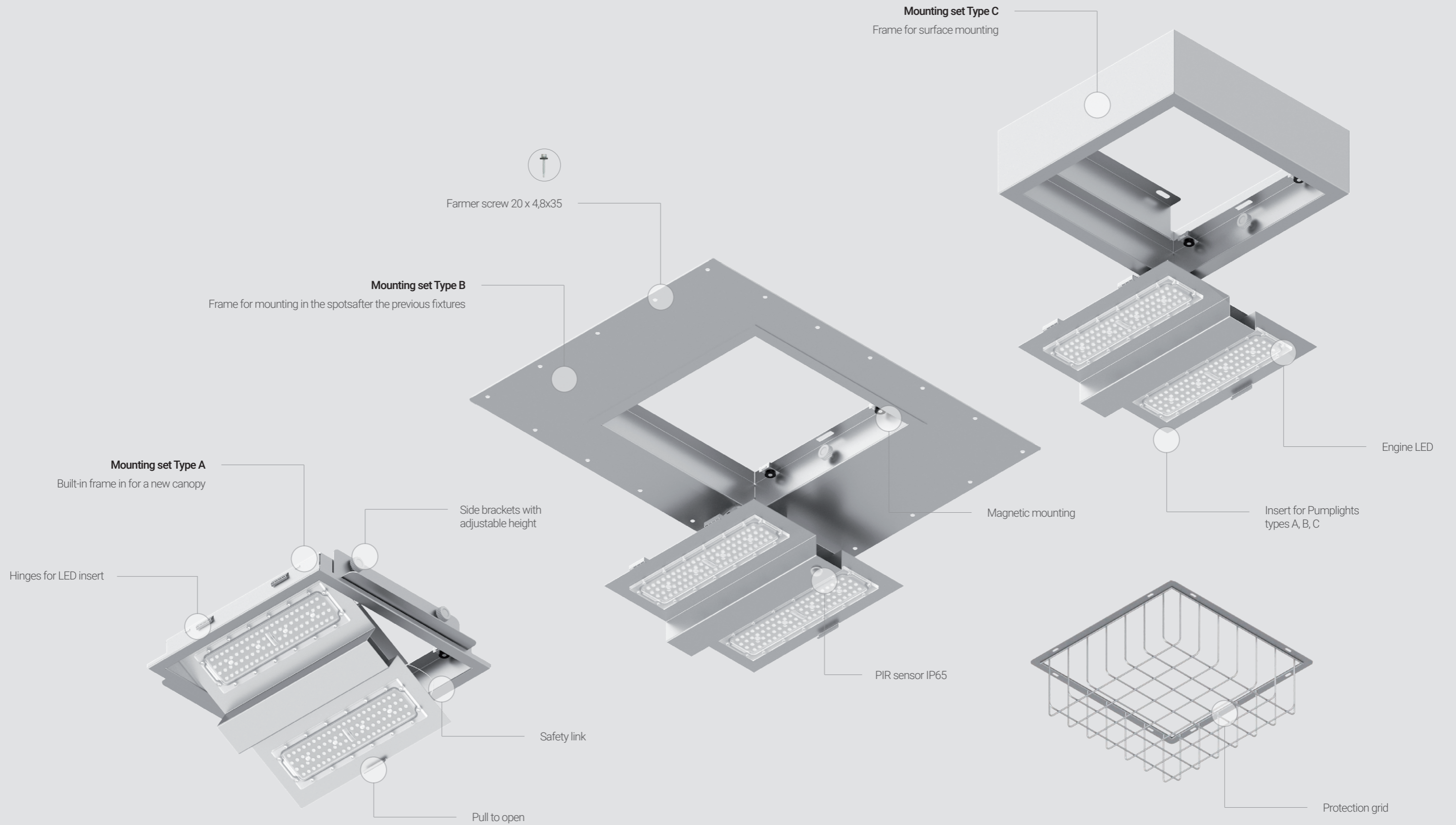
Die Pumplight-Leuchterserie ist für jede Art von Installation geeignet. Es sind auch Versionen erhältlich, um die Löcher zu schließen, die durch demontierte Leuchten in nachgerüsteten Treibstoffbehältern entstanden sind.





Pumplight

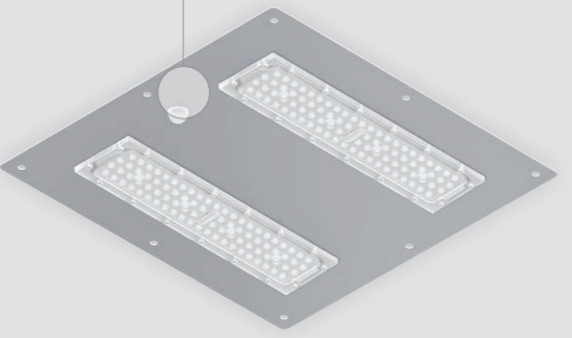
High Bay



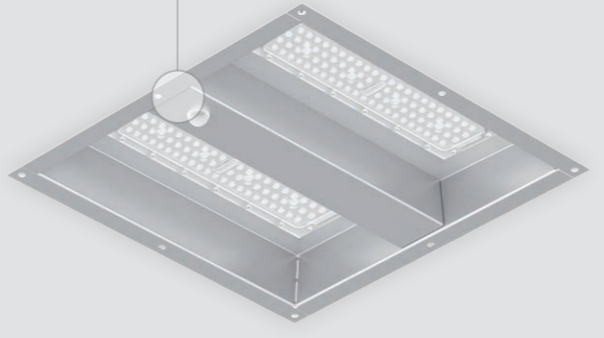
Pumplight

High Bay

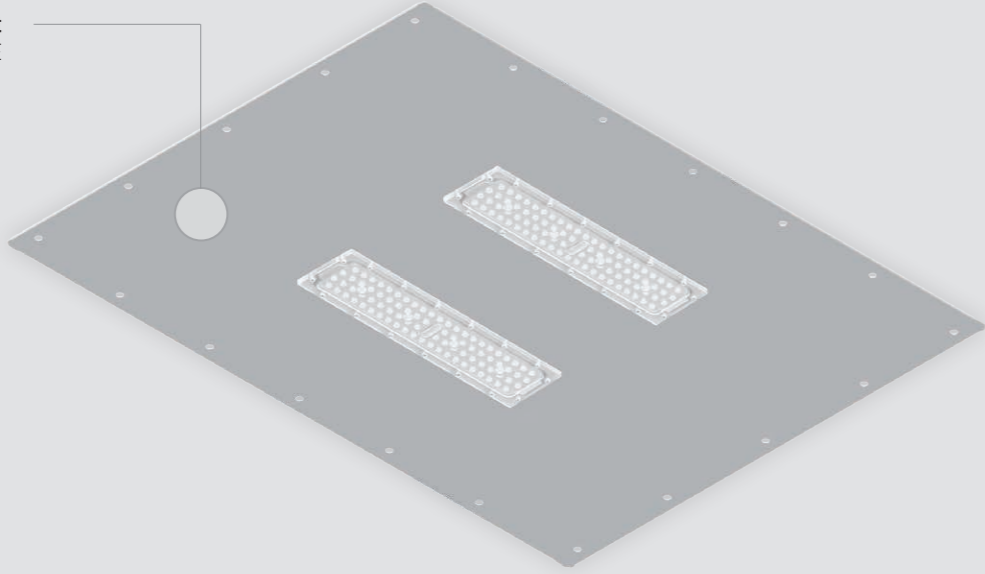
Pumplight
Type D



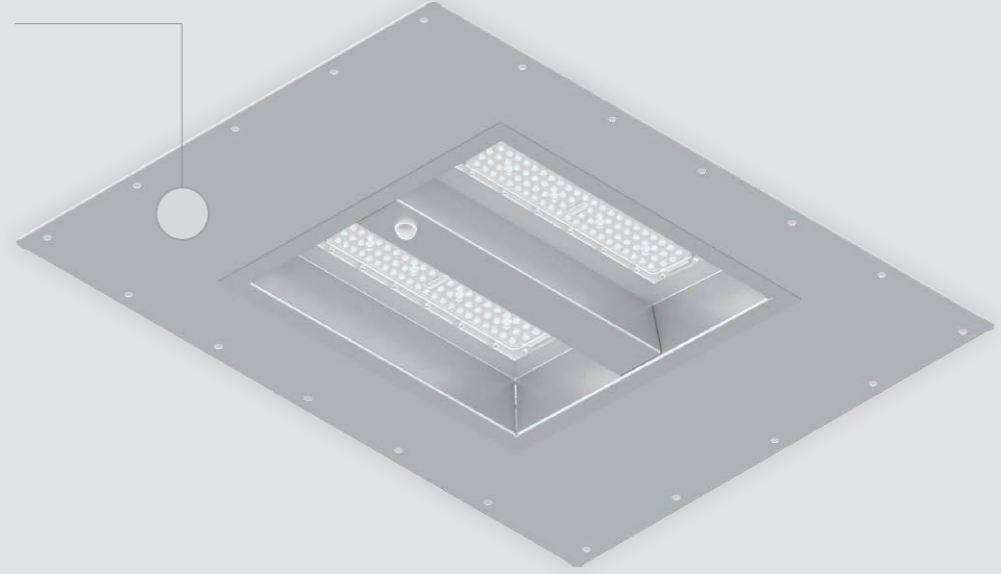
Pumplight
Type G



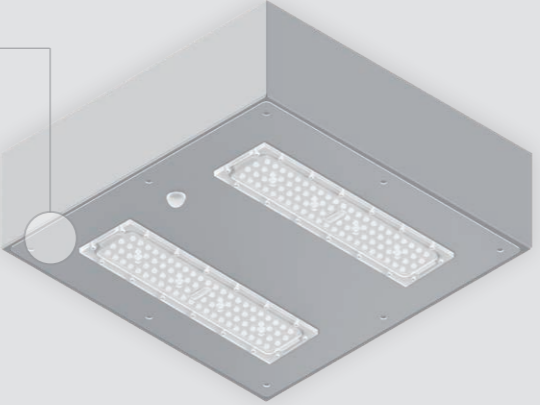
Pumplight
Type E



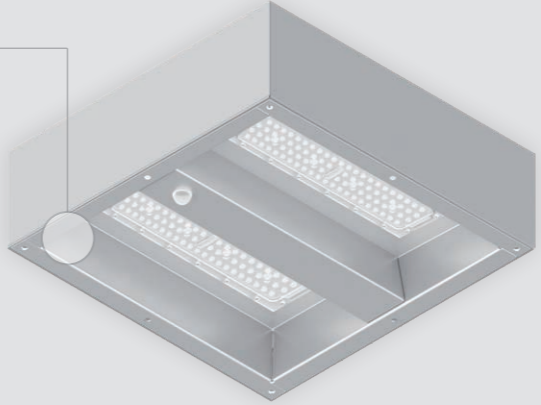
Pumplight
Type H



Pumplight
Type F

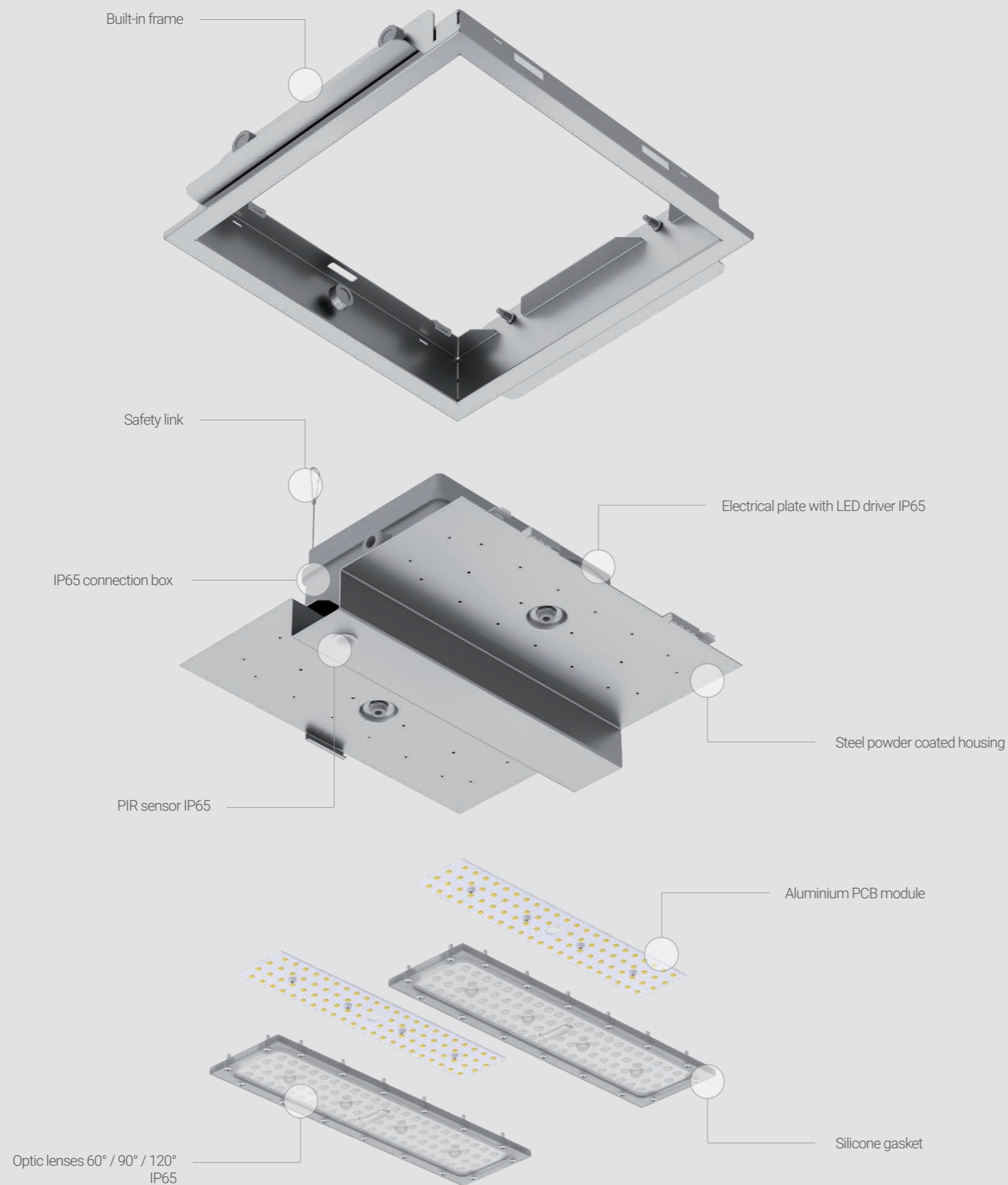


Pumplight
Type J



Pumplight

High Bay



Jeszcze wyższa wydajność

Skuteczność świetlna do **179 lm/W**
 CRI powyżej 80
 SDCM (MacAdam) ≤ 3
 Trwałość źródeł LED 61.000 h L80B10
 Niska obudowa od 7 do 12 cm.

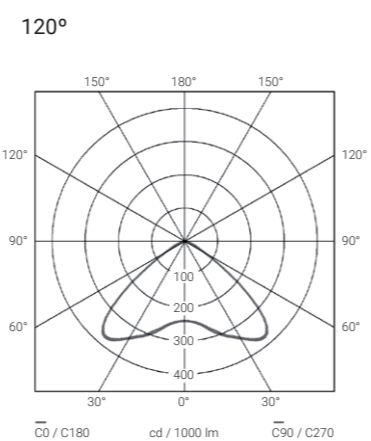
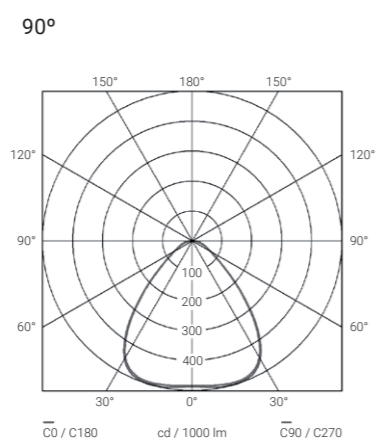
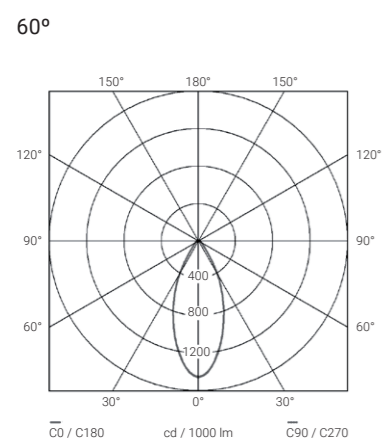
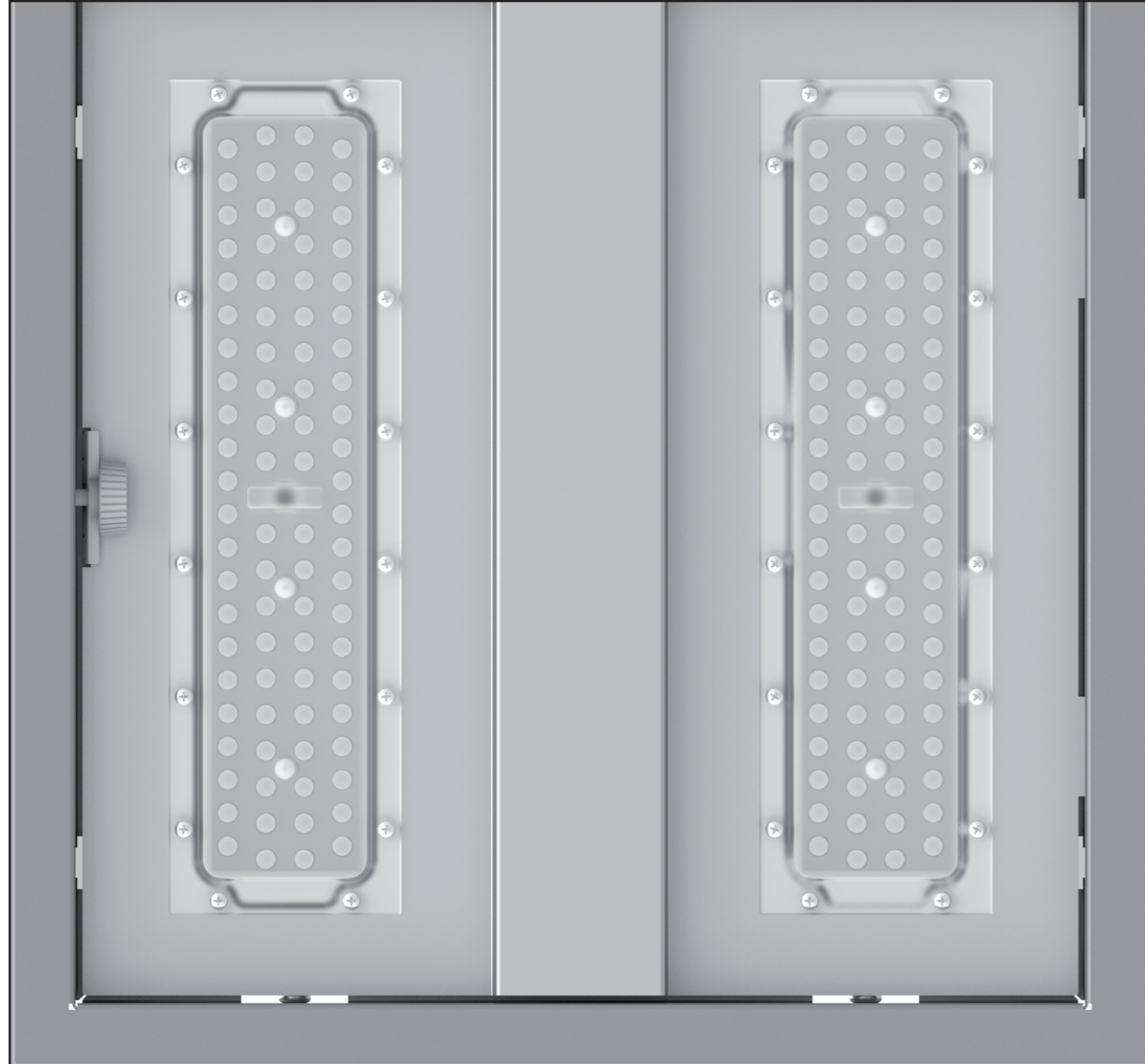
Even higher efficiency

Luminous efficiency up to **179 lm/W**
 CRI above 80
 SDCM (MacAdam) ≤ 3
 LED source lifetime 61.000 h L80B10
 Low housing from 7 to 12 cm.

Noch mehr Leistung

Lichtausbeute bis zu 179 lm/W
 CRI über 80
 SDCM (MacAdam) ≤ 3
 LED-Quelle Lebensdauer 61.000 h L80B10
 Niedriges Gehäuse von 7 bis 12 cm.





W serii Pumplight dostępnych jest trzy rodzaje optyk: wide (60°) rekomendowana do wysokości montażu opraw 7-12 m, medium-flood (90°) zalecana w przypadku montażu na wysokości 5-8 m, flood (120°) dedykowana do projektów, w których oprawy montowane są na wysokości 3-5 m.

There are three types of optics in the Pumplight series: Wide (60°) recommended for luminaire mounting heights of 7-12 m, Medium-flood (90°) recommended for mounting heights of 5-8 m, Flood (120°) dedicated to projects where luminaires are mounted at heights of 3-5 m.

In der Pumplight-Serie sind drei Optiken erhältlich: breit (60°), empfohlen für Montagehöhen von 7 bis 12 m, mittel (90°), empfohlen für Montagehöhen von 5 bis 8 m, und flood (120°) für Projekte, bei denen die Leuchten in einer Höhe von 3 bis 5 m montiert werden.



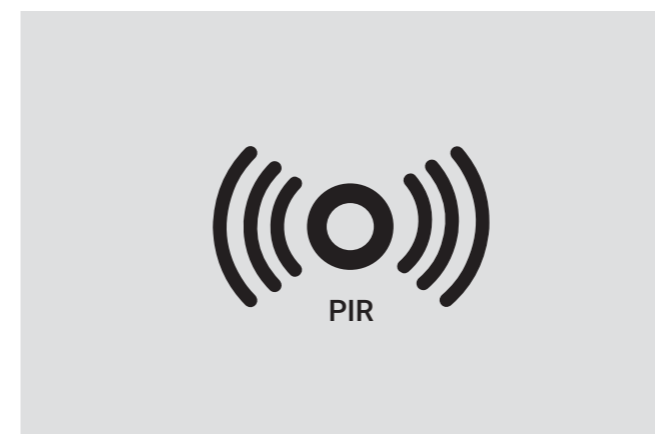
ON-OFF LED drivers

LED power supplies with the ability to program selected parameters, including the output current in the range of 70 mA to 1050 mA, which allows you to set a version of the power of the luminaire, and consequently the value of the luminous flux emitted by LEDs.



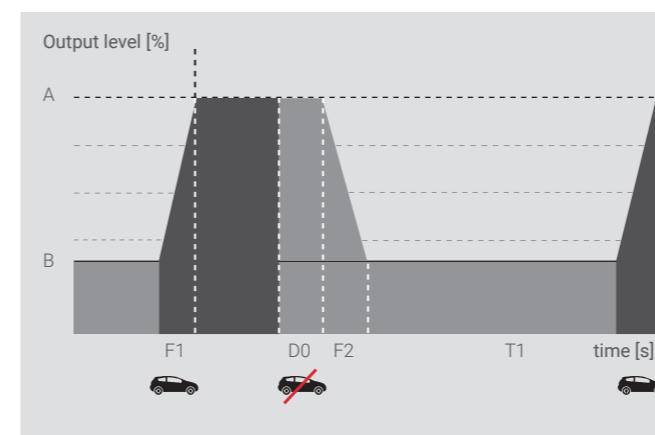
DALI LED drivers

The digital, addressable lighting control system, allowing for regulating the luminous flux emitted by fixtures. The DALI system is characterized by high functionality and exceptionally simple operating. It also allows for creating and configuring light scenes, adjusted to the user's needs. Each fixture operating in the DALI system is automatically given its own address, which allows both for individual control of fixtures and connecting them into groups.



DALI LED drivers with sensor

An automatic luminaire power reduction system that allows light intensity to be related to the presence or absence of objects in the detection area of the PIR presence sensor installed in the luminaire. The light intensity increases when an object enters the detection area, when it leaves it the light intensity is automatically reduced. The LED power supplies are programmable with six parameters that change the system's usage characteristics (see graph below).



System usage characteristics are defined by 6 parameters:

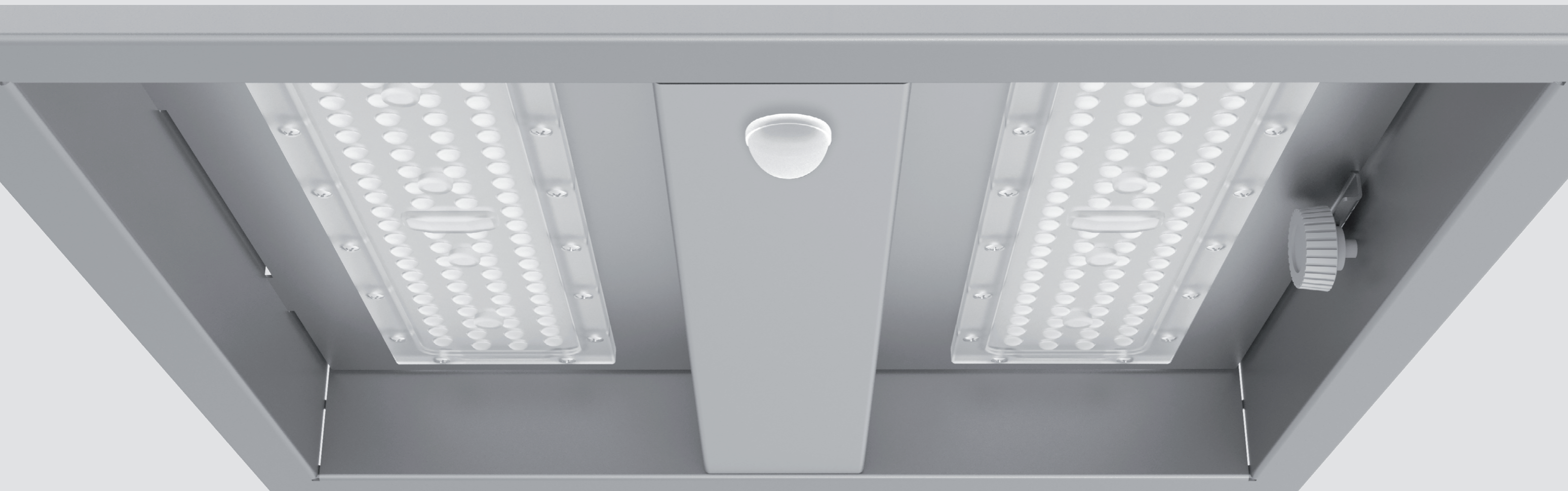
- A - Level of luminous flux emitted from the luminaire when the object is present (default: 100%)
- B - Level of luminous flux emitted from the luminaire when the object is absent
- D0 - Delay time (default: 3 min)
- T1 - Time to maintain reduced intensity level (infinitely long, until presence is detected*)
- F1 - Transition time from level B to A (default: 15 sec.)
- F2 - Transition time from level A to B (default: 30 sec.)

* factory-programmed "never off" function.



Pumplight

High Bay



Zróżnicowane wersje opraw serii Pumplight, uzupełnione o różnorodny wybór parametrów technicznych, pozwalają na ich wszechstronne zastosowanie i dostosowanie modelu oprawy do realizowanego projektu.

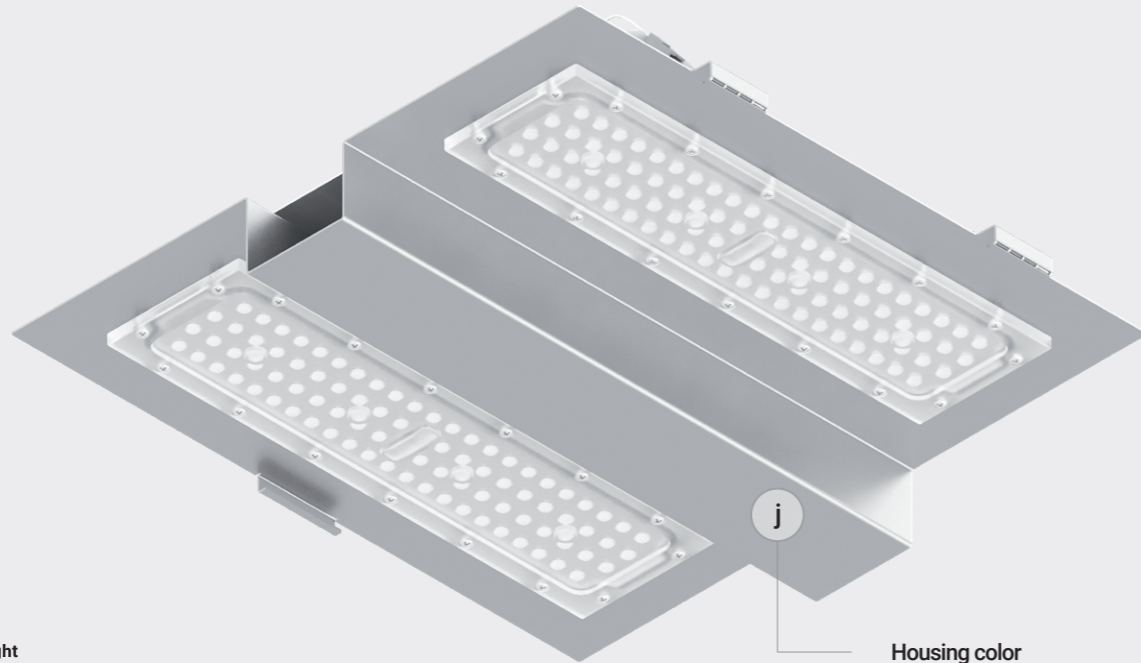
Diverse versions of Pumplight series luminaires, complemented by a various options of technical parameters, allow their versatile use and adaptation of the luminaire model to the implemented project.

Die verschiedenen Versionen der Pumplight-Serie, ergänzt durch eine vielfältige Auswahl an technischen Parametern, ermöglichen ihre Vielseitigkeit und die Anpassung des Leuchtenmodells an das jeweilige Projekt.



Pumplight

High Bay
Types A, B, C



Pumplight
Typ A

Housing color

Position in the catalog number: j



Cechy | Features | Eigenschaften

LED 4000K 5500K | CRI>80 | SDCM ≤ 3 | 61.000h L80 B10 | IP65 | ON/OFF, DALI SENSOR | 220 - 240V 50-60HZ | | **CE** | **RoHS**

PL

Montaż: wbudowany z ramką, nabudowany, zwieszany.

Źródło światła: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10.

Moc oprawy: high output (HO).

Optyka: soczewka 60° / 90° / 120°.

Rozsył światła: bezpośredni.

Obudowa: stal malowana proszkowo.

Sterowanie: ON/OFF lub DALI.

Stopień ochrony: IP65

EN

Mounting: recessed with frame, ceiling built-on, suspended.

Light source: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10

Luminaire power: high output (HO).

Optic: lens 60° / 90° / 120°.

Light distribution: direct.

Housing: powder coated steel.

Control: ON / OFF or DALI.

IP protection: IP65

DE

Installation: Eingebaut mit Rahmen, angebaut, abgependelt.

Lichtquelle: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10

Leuchtenleistung: high output (HO).

Optik: Linse 60° / 90° / 120°.

Lichtverteilung: Direkt.

Gehäuse: Stahl pulverbeschichtet.

Steuerung: EIN-AUS oder DALI.

Schutzart: IP65

Pumplight

DIRECT



Version with LED CC HO (High Output)

Type	Dimensions	Power	Luminaire flux *			Code
			Wide beam 60°	Medium-flood 90°	Flood beam 120°	
Pumplight A, B, C (insert)	300 x 300 mm	79 W	12840 lm	12983 lm	13012 lm	4.2001.0105.fg7i.j0

⚠ W celu instalacji wkładu należy dodatkowo zamówić ramkę lub obudowę montażową. For the installation of the insert, a mounting frame or housing must be ordered separately. Für den Einbau des Einsatzes muss zusätzlich ein Einbaurahmen oder Gehäuse bestellt werden.

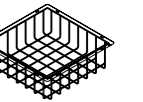
* Strumień świetlny oprawy podany dla 4000K. Fixture lumen output data refer to 4000K. Lichtstrom der Leuchte spezifiziert für 4000K.

Pumplight Accessories

Type	Dimensions	Cut out	Code	
Mounting sets	Pumplight type A mounting set (frame)	344 x 344 mm	312 x 312 x 200 mm	4.2021.01F0.0000.j0
	Pumplight type B mounting set (frame)	490 x 660 mm	335 x 335 x 200 mm	4.2022.02F0.0000.j0
	Pumplight type C mounting set (housing)	352 x 352 mm	-	4.2023.03C0.0000.j0
Suspensions kits	Pumplight type C suspensions kit	L 1500 mm	-	4.2031.01S0.f000.j0
	Pumplight type C suspensions kit	L 3000 mm	-	4.2031.02S0.f000.j0
Protection grid	Pumplight type C protection grid	415 x 415 mm	-	4.2032.0100.0000.j0

⚠ Zestaw do zwieszenia oprawy oraz siatka ochronna są kompatybilne wyłącznie z zestawem montażowym typu C. The luminaire suspension kit and protection grid are only compatible with the Type C mounting set. Das Leuchtenabhängeset und das Schutzgitter sind nur mit dem Montageset Typ C kompatibel.

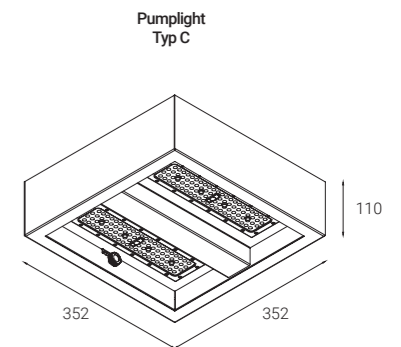
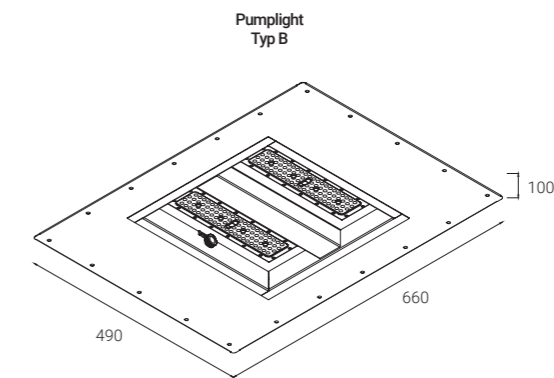
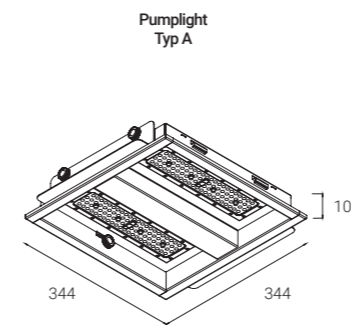
Protection grid



Power options

	Power	Current	Efficacy	Luminaire flux		
				Wide beam (60°)	Medium-flood beam (90°)	Flood beam (120°)
Standard version	79 W	1000 mA	176 lm/W	4000 K 5500 K	4000 K 5500 K	4000 K 5500 K
				12840 lm 13739 lm	12983 lm 13892 lm	13012 lm 13922 lm
Option version	75 W	980 mA	176 lm/W	12198 lm 13052 lm	12334 lm 13197 lm	12361 lm 13226 lm
	70 W	940 mA	178 lm/W	11466 lm 12269 lm	11594 lm 12406 lm	11620 lm 12432 lm
	65 W	880 mA	178 lm/W	10663 lm 11410 lm	10782 lm 11537 lm	10806 lm 11562 lm
	60 W	820 mA	179 lm/W	9917 lm 10611 lm	10027 lm 10730 lm	1050 lm 10753 lm
	55 W	750 mA	178 lm/W	9025 lm 9656 lm	9125 lm 9764 lm	9145 lm 9785 lm
	50 W	700 mA	176 lm/W	8122 lm 8691 lm	8213 lm 8788 lm	8231 lm 8806 lm

⚠ W standardzie oprawa Pumplight występuje w wersji mocy 79 W. Opcjonalne wersje mocy oprawy należy podać składając zamówienie. As the standard, the Pumplight luminaire is available in a 79 W watt version. Please specify optional luminaire wattages with your order. Standardmäßig ist die Pumplight-Leuchte in einer 79-Watt-Version erhältlich. Andere Leistungen der Leuchte müssen bei der Bestellung angegeben werden.

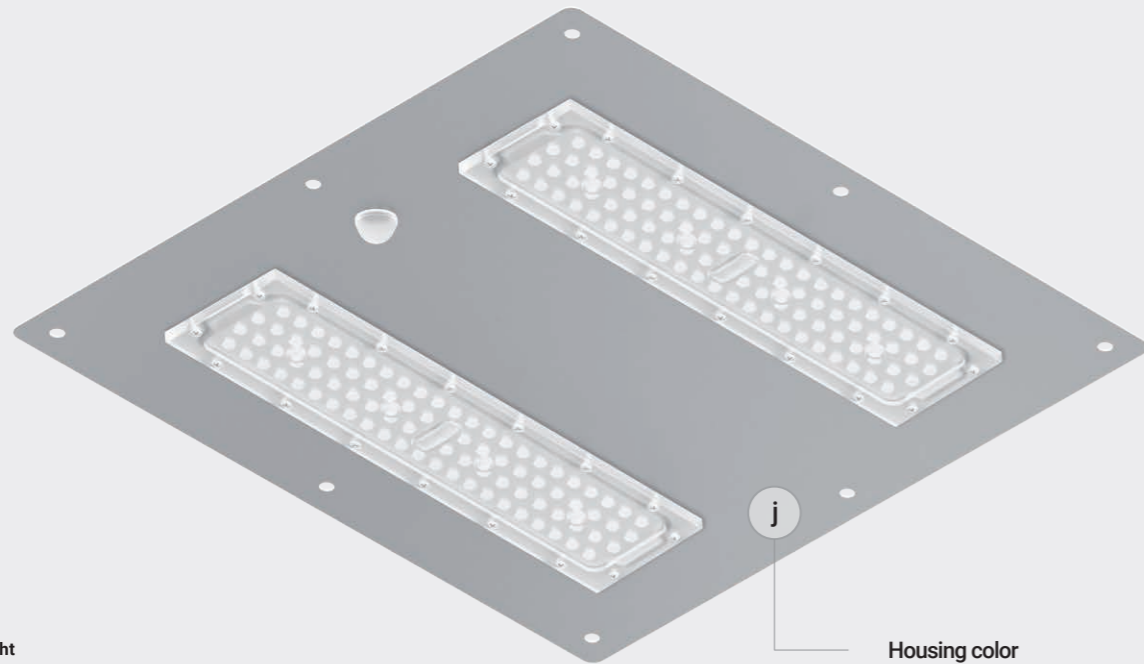


Control	f	LED color	g	Optic	i	Finishing	j
ON/OFF	1	840	3	Wide beam (60°)	W	white (RAL9010)	9
DALI	2	855	B	Medium-flood beam (90°)	D	black (RAL9005)	5
SENSOR	S			Flood beam (120°)	F	fog (RAL7038)	G
						graphite (RAL7024)	H



Pumplight

High Bay
Types D, E, F



Pumplight
Typ D

Housing color

Position in the catalog number: j



Cechy | Features | Eigenschaften

LED | 4000K / 5500K | CRI>80 | SDCM ≤ 3 | 61.000h L80 B10 | IP65 | ON/OFF, DALI SENSOR | 220 - 240V 50-60HZ | | **CE** | **RoHS**

PL

Montaż: wbudowany z ramką, nabudowany, zwieszany.

Źródło światła: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10.

Moc oprawy: high output (HO).

Optyka: soczewka 60° / 90° / 120°.

Rozsył światła: bezpośredni.

Obudowa: stal malowana proszkowo.

Sterowanie: ON/OFF lub DALI.

Stopień ochrony: IP65

EN

Mounting: recessed with frame, ceiling built-on, suspended.

Light source: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10

Luminaire power: high output (HO).

Optic: lens 60° / 90° / 120°.

Light distribution: direct.

Housing: powder coated steel.

Control: ON / OFF or DALI.

IP protection: IP65

DE

Installation: Eingebaut mit Rahmen, angebaut, abgependelt.

Lichtquelle: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10

Leuchtenleistung: high output (HO).

Optik: Linse 60° / 90° / 120°.

Lichtverteilung: Direkt.

Gehäuse: Stahl pulverbeschichtet.

Steuerung: EIN-AUS oder DALI.

Schutzart: IP65

Pumplight DIRECT



Version with
LED CC HO
(High Output)

Type	Dimensions	Power	Luminaire flux *			Code
			Wide beam 60°	Medium-flood 90°	Flood beam 120°	
Pumplight type D	344 x 344 mm	79 W	12840 lm	12983 lm	13012 lm	4.2004.01F5.fg7i.j0
Pumplight type E	490 x 660 mm	79 W	12840 lm	12983 lm	13012 lm	4.2005.02F5.fg7i.j0
Pumplight type F	352 x 352 mm	79 W	12840 lm	12983 lm	13012 lm	4.2006.03C5.fg7i.j0

Type D / E: 260 x 260 mm | Hmin = 170 mm

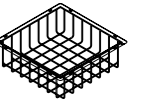
* Strumień świetlny oprawy podany dla 4000K.
Fixture lumen output data refer to 4000K.
Lichtstrom der Leuchte spezifiziert für 4000K.

Pumplight Accessories

Type	Dimensions	Cut out	Code	
Suspensions kits	Pumplight type F suspensions kit	L 1500 mm	-	4.2031.01S0.f000.j0
	Pumplight type F suspensions kit	L 3000 mm	-	4.2031.02S0.f000.j0
Protection grid	Pumplight type F protection grid	415 x 415 mm	-	4.2032.0100.0000.j0

Zestaw do zwieszenia oprawy oraz siatka ochronna są kompatybilne wyłącznie dla typu F.
The luminaire suspension kit and protection grid are only compatible for Type F.
Leuchtaufhängung und Schutzgitter sind nur mit dem Typ F kompatibel.

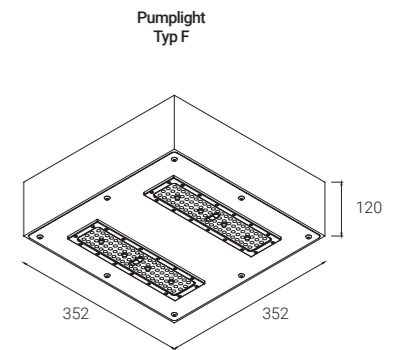
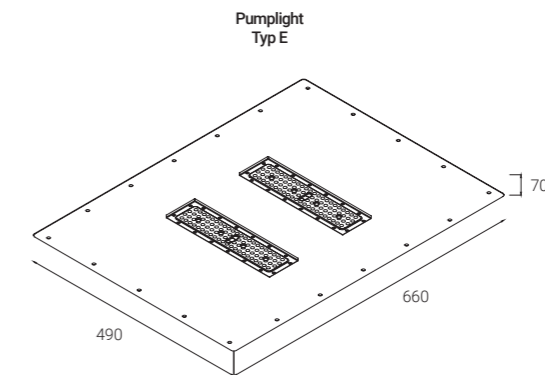
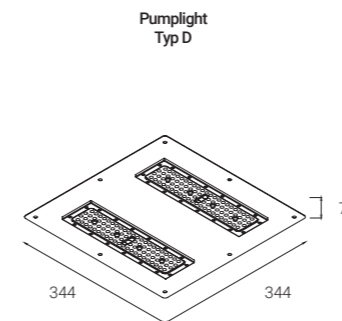
Protetion grid



Power options

	Power	Current	Efficacy up to	Luminaire flux		Luminaire flux		Luminaire flux	
				Wide beam (60°) 4000 K 5500 K	Medium-flood beam (90°) 4000 K 5500 K	Flood beam (120°) 4000 K 5500 K			
Standard version	79 W	1000 mA	176 lm/W	12840 lm 13052 lm	12983 lm 13892 lm	13012 lm 13922 lm			
Option version	75 W	980 mA	176 lm/W	12198 lm 13052 lm	12334 lm 13197 lm	12361 lm 13226 lm			
	70 W	940 mA	178 lm/W	11466 lm 12269 lm	11594 lm 12406 lm	11620 lm 12432 lm			
	65 W	880 mA	178 lm/W	10663 lm 11410 lm	10782 lm 11537 lm	10806 lm 11562 lm			
	60 W	820 mA	179 lm/W	9917 lm 10611 lm	10027 lm 10730 lm	1050 lm 10753 lm			
	55 W	750 mA	178 lm/W	9025 lm 9656 lm	9125 lm 9764 lm	9145 lm 9785 lm			
	50 W	700 mA	176 lm/W	8122 lm 8691 lm	8213 lm 8788 lm	8231 lm 8806 lm			

W standardzie oprawa Pumplight występuje w wersji mocy 79 W. Opcjonalne wersje mocy oprawy należy podać składając zamówienie.
As the standard, the Pumplight luminaire is available in a 79 W watt version. Please specify optional luminaire wattages with your order.
Standardmäßig ist die Pumplight-Leuchte in einer 79-Watt-Version erhältlich. Andere Leistungen der Leuchte müssen bei der Bestellung angegeben werden.

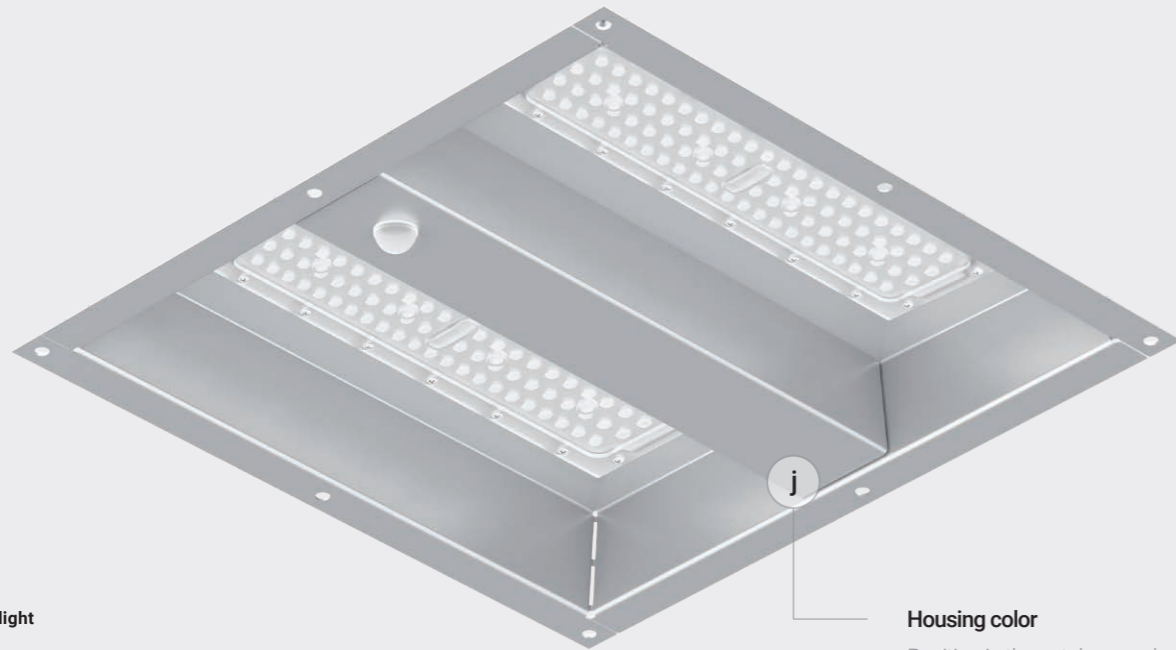


Control	f	LED color	g	Optic	i	Finishing	j
ON/OFF	1	840	3	Wide beam (60°)	W	white (RAL9010)	9
DALI	2	855	B	Medium-flood beam (90°)	D	black (RAL9005)	5
SENSOR	S			Flood beam (120°)	F	fog (RAL7038)	G
						graphite (RAL7024)	H



Pumplight

High Bay
Types G,H, J



Pumplight
Typ G

Housing color

Position in the catalog number: j



Cechy | Features | Eigenschaften

LED | 4000K / 5500K | CRI>80 | SDCM ≤ 3 | 61.000h L80 B10 | IP65 | ON/OFF, DALI SENSOR | 220 - 240V 50-60HZ | | **CE** | **RoHS**

PL

Montaż: wbudowany z ramką, nabudowany, zwieszany.

Źródło światła: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10.

Moc oprawy: high output (HO).

Optyka: soczewka 60° / 90° / 120°.

Rozsył światła: bezpośredni.

Obudowa: stal malowana proszkowo.

Sterowanie: ON/OFF lub DALI.

Stopień ochrony: IP65

EN

Mounting: recessed with frame, ceiling built-on, suspended.

Light source: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10

Luminaire power: high output (HO).

Optic: lens 60° / 90° / 120°.

Light distribution: direct.

Housing: powder coated steel.

Control: ON / OFF or DALI.

IP protection: IP65

DE

Installation: Eingebaut mit Rahmen, angebaut, abgependelt.

Lichtquelle: PCB LED, 5000K / 5500K, CRI> 80, MacAdam ≤ 3, 61.000h L80B10

Leuchtenleistung: high output (HO).

Optik: Linse 60° / 90° / 120°.

Lichtverteilung: Direkt.

Gehäuse: Stahl pulverbeschichtet.

Steuerung: EIN-AUS oder DALI.

Schutzart: IP65

Pumplight

DIRECT



Version with LED CC HO (High Output)

Type	Dimensions	Power	Luminaire flux *			Code
			Wide beam 60°	Medium-flood 90°	Flood beam 120°	
Pumplight type G	344 x 344mm	79 W	12840 lm	12983 lm	13012 lm	4.2007.01F5.fg7i.j0
Pumplight type H	490 x 660mm	79 W	12840 lm	12983 lm	13012 lm	4.2008.02F5.fg7i.j0
Pumplight type J	352 x 352mm	79 W	12840 lm	12983 lm	13012 lm	4.2009.03C5.fg7i.j0

Type G: 312 x 312 mm | Hmin = 200 mm
Type H: 335 x 335 mm | Hmin = 200 mm

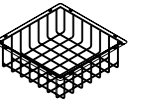
* Strumień świetlny oprawy podany dla 4000K. Fixture lumen output data refer to 4000K. Lichtstrom der Leuchte spezifiziert für 4000K.

Pumplight Accessories

Type	Dimensions	Cut out	Code	
Suspensions kits	Pumplight type J suspensions kit	L 1500 mm	-	4.2031.01S0.f000.j0
	Pumplight type J suspensions kit	L 3000 mm	-	4.2031.02S0.f000.j0
Protection grid	Pumplight type J protection grid	415 x 415 mm	-	4.2032.0100.0000.j0

⚠ Zestaw do zwieszenia oprawy oraz siatka ochronna są kompatybilne wyłącznie dla typu J.
The luminaire suspension kit and protection grid are only compatible for Type J.
Leuchtaufhängung und Schutzgitter sind nur mit dem Typ J kompatibel.

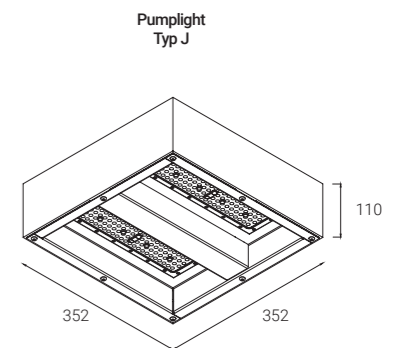
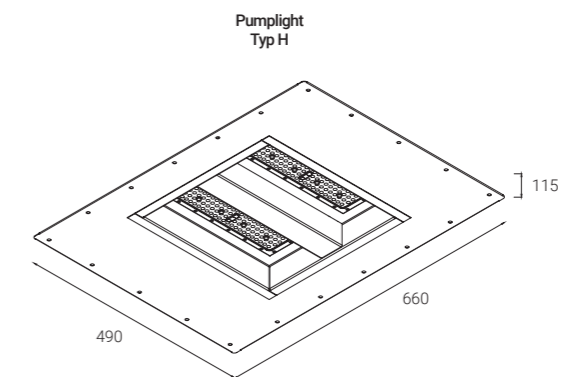
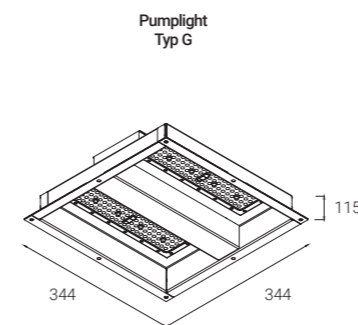
Protetion grid



Power options

Power	Current	Efficacy	Luminaire flux			
			Wide beam (60°)	Medium-flood beam (90°)	Flood beam (120°)	
		up to	4000 K 5500 K	4000 K 5500 K	4000 K 5500 K	
Standard version	79 W	1000 mA	176 lm/W	12840 lm 13739 lm	12983 lm 13892 lm	13012 lm 13922 lm
Option version	75 W	980 mA	176 lm/W	12198 lm 13052 lm	12334 lm 13197 lm	12361 lm 13226 lm
	70 W	940 mA	178 lm/W	11466 lm 12269 lm	11594 lm 12406 lm	11620 lm 12432 lm
	65 W	880 mA	178 lm/W	10663 lm 11410 lm	10782 lm 11537 lm	10806 lm 11562 lm
	60 W	820 mA	179 lm/W	9917 lm 10611 lm	10027 lm 10730 lm	1050 lm 10753 lm
	55 W	750 mA	178 lm/W	9025 lm 9656 lm	9125 lm 9764 lm	9145 lm 9785 lm
	50 W	700 mA	176 lm/W	8122 lm 8691 lm	8213 lm 8788 lm	8231 lm 8806 lm

⚠ W standardzie oprawa Pumplight występuje w wersji mocy 79 W. Opcjonalne wersje mocy oprawy należy podać składając zamówienie.
As the standard, the Pumplight luminaire is available in a 79 W watt version. Please specify optional luminaire wattages with your order.
Standardmäßig ist die Pumplight-Leuchte in einer 79-Watt-Version erhältlich. Andere Leistungen der Leuchte müssen bei der Bestellung angegeben werden.



Control	f	LED color	g	Optic	i	Finishing	j
ON/OFF	1	840	3	Wide beam (60°)	W	white (RAL9010)	9
DALI	2	855	B	Medium-flood beam (90°)	D	black (RAL9005)	5
SENSOR	S			Flood beam (120°)	F	fog (RAL7038)	G
						graphite (RAL7024)	H





Example calculations for a petrol station



Luminaire data

Pumplight 50 W
1 x LED 50 W / 8122 lm

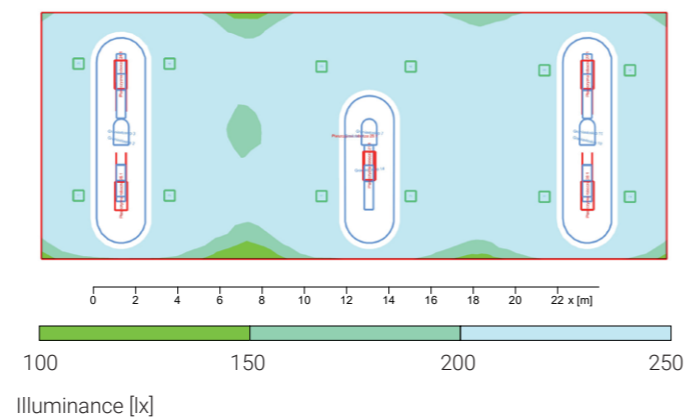
Data used for the calculations

Height (phot. centre) 4.6m
Maintenance factor 0.80

Results

Em 338 lx
Emin 149 lx
Emin/Em (Uo) 0.44

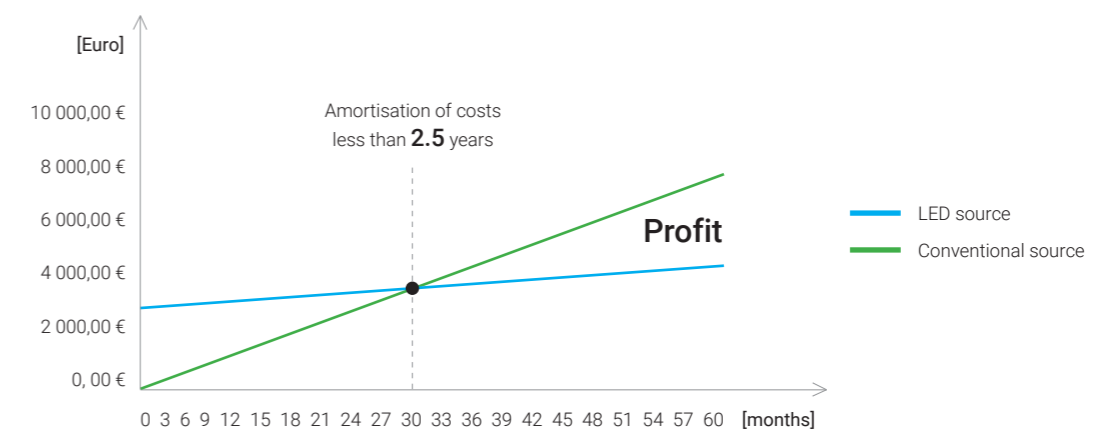
Visualisation of photometric calculations of illuminance and uniformity of illumination.



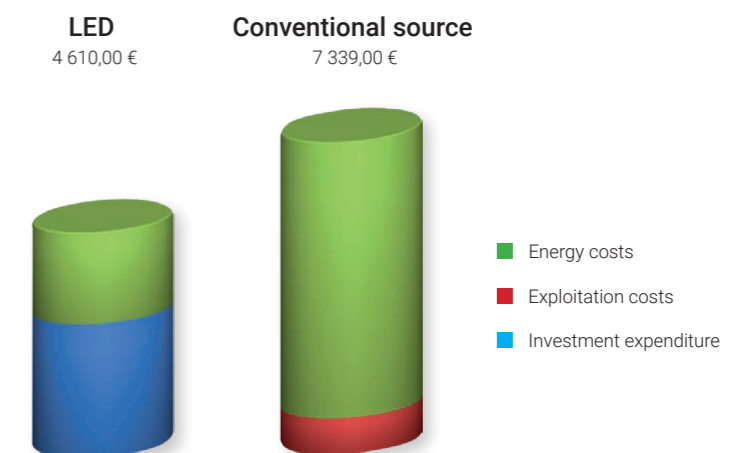
Estimated project savings

	Type of luminaire	Number of luminaires [pcs.]	Type of source	Source lifetime [h]	Power consumption (source + ignition system) [W]	Installed power [W]
Before modernisation	Luminaire with MH source	12	Metalhalogen source E27, E40	15 000	175	2100
After modernisation	PUMPLIGHT LED	12	LED	61 000	50	600
Energy savings:						71%

Payback on investment after **2.5 years** (30m)
Manufacturer's warranty **5 years**



Estimated costs over 5 years





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