

LAY-IN LUMINAIRES WITH HIGH PROTECTION TYPE IP65

Recessed modular luminaires

#### A CLEAN MODEL WITH 1P65

The term "a clean model" has more than one meaning when used in connection with the new PARLEDO. The admiration does not only apply to the luminaire itself, which can undoubtedly serve as a model in terms of aesthetic reduction with a seemingly frameless appearance. The high degree of protection IP 65 on both sides of the luminaire and control gear predestines the easy-to-clean light surface with smooth opal or microprismatic PC diffuser for use with high hygienic requirements such as in the health care sector in treatment, examination and therapy rooms as well as in laboratories without colour testing. Thanks to its MultiLumen function and excellent glare control, PARLEDO is ideally suited for standard-compliant use at VDU workstations, even at high luminous flux levels. With PARLEDO you are well equipped in the future: The DALI versions are loT-ready and can be regulated via TouchDIM.

### **ADDITIONAL ADVANTAGES**

- For high hygienic requirements
- Diffuser with smooth surface on the room side for low sensitivity to dirt and easy cleaning
- ① Diffuser made of resistant polycarbonate (PC)
- ① Dust proof; protected against sprayed water (IP 65)
- Protection class IP 65 for luminaire and control gear on room and ceiling side
- (h) Impact protection IK06 for high impact resistance
- Frameless appearance in the modular ceiling thanks to the extra slim frame
- Diffuser microprismatic: ideal for office areas (UGR ≤ 19) and environments with computer screens in accordance with EN 12464-1
- Excellent glare control even with high luminous fluxes
- MultiLumen: 4 steps adjustable luminous flux
- ⊕ Luminous efficiency up to 147 lm/W
- LED rated life 60,000 h (L80)
- Colour consistency within 3-steps MacAdam (3 SDCM)
- Flicker: DALI ≤ 1%, MultiLumen < 5%</p>
- Easy to install thanks extended connection cable (2 m)
- Suitable for through wiring as standard
- DALI variants: IoT Ready and dimming via TouchDIM possible
- Suitable for use in the food and drink industry



















# Technology

Degree of protection IP 65, dustproof and **IP65** Protection class IP 65 for luminaire and control gear on room and ceiling side Diffuser made of resistant polycarbonate (PC) Frameless appearance in the modular ceiling thanks to the extra slim frame For high hygienic requirements Diffuser with smooth surface on the room side for low sensitivity to dirt and easy cleaning

Suitable for use in the food and drink industry



Easy to install thanks extended connection cable (2 m)

DALI variants: IoT Ready



### MultiLumen version:

The user can choose from four different luminous flux levels. This can be reversibly set manually on the external control gear.



Excellent glare control even with high luminous fluxes

Diffuser microprismatic: ideal for office areas (UGR ≤ 19) and environments with computer screens in accordance with EN 12464-1





### Lay-in luminaires | Parledo

Type of Protection: **IP 65**Protection Class: I
Impact Protection: IK06

LB LB HEL

Housing: sheet steel, powder-coated. Luminaire frame: aluminium, powder-coated. LED backlight technology for homogeneous illumination of the entire light-emitting surface. Smooth diffuser: plastic (polycarbonate), opal or microprismatic (suitable for use in environments with computer screens in accordance with EN 12464-1). External driver. Extended connection cable (2.0 m). Suitable for through wiring as standard. DALI variants IoT Ready and dimming via TouchDIM possible.

Available colour: 2 = white

MultiLumen version: 4 steps adjustable luminous flux. Factory-set to lowest luminous flux.

Reference number	Dimensions [mm]	Lamp	Light colour	Luminous flux [lm]	System power [W]	UGR	dimm- able
Recessed ceiling lum	ninaires for visible mounting rails	- Modul	e 600				Price Category 21
Diffuser: plastic (poly	carbonate), opal						
312567.002.790 *	L 595, B 595, HE 160, HEL 41	LED	840	45505600	3140	21,722,4	on/off
312568.002.76	L 595, B 595, HE 160, HEL 41	LED	840	4550	31	21,7	DALI
312569.002.76	L 595, B 595, HE 160, HEL 41	LED	840	5600	40	22,4	DALI
Diffuser plastic (poly	carbonate) microprismatic						
312570.002.790 *	L 595, B 595, HE 160, HEL 41	LED	840	40505000	3140	17,318,0	on/off
312571.002.76	L 595, B 595, HE 160, HEL 41	LED	840	4050	31	17,3	DALI
312572.002.76	L 595, B 595, HE 160, HEL 41	LED	840	5000	40	18,0	DALI

Recessed ceiling luminaires for visible mounting rails - Module 625						
ycarbonate), opal						
L 622, B 622, HE 160, HEL 41	LED	840	45005550	3140	21,322,0	on/off
L 622, B 622, HE 160, HEL 41	LED	840	4500	31	21,3	DALI
L 622, B 622, HE 160, HEL 41	LED	840	5550	40	22,0	DALI
carbonate) microprismatic						
L 622, B 622, HE 160, HEL 41	LED	840	41005100	3140	17,117,8	on/off
L 622, B 622, HE 160, HEL 41	LED	840	4100	31	17,1	DALI
L 622, B 622, HE 160, HEL 41	LED	840	5100	40	17,8	DALI
	/carbonate), opal L 622, B 622, HE 160, HEL 41 L 622, B 622, HE 160, HEL 41 L 622, B 622, HE 160, HEL 41 carbonate) microprismatic L 622, B 622, HE 160, HEL 41 L 622, B 622, HE 160, HEL 41	/carbonate), opal L 622, B 622, HE 160, HEL 41 LED L 622, B 622, HE 160, HEL 41 LED L 622, B 622, HE 160, HEL 41 LED carbonate) microprismatic L 622, B 622, HE 160, HEL 41 LED L 622, B 622, HE 160, HEL 41 LED L 622, B 622, HE 160, HEL 41 LED	Journal (1975)       Journ	/carbonate), opal L 622, B 622, HE 160, HEL 41 LED 840 45005550 L 622, B 622, HE 160, HEL 41 LED 840 4500 L 622, B 622, HE 160, HEL 41 LED 840 5550 carbonate) microprismatic L 622, B 622, HE 160, HEL 41 LED 840 41005100 L 622, B 622, HE 160, HEL 41 LED 840 4100	Carbonate), opal       L 622, B 622, HE 160, HEL 41     LED     840     45005550     3140       L 622, B 622, HE 160, HEL 41     LED     840     4500     31       L 622, B 622, HE 160, HEL 41     LED     840     5550     40       carbonate) microprismatic       L 622, B 622, HE 160, HEL 41     LED     840     41005100     3140       L 622, B 622, HE 160, HEL 41     LED     840     4100     31	Accordonate), opal         L         ED         840         45005550         3140         21,322,0           L         622, B         622, HE         160, HEL         41         LED         840         4500         31         21,3           L         622, B         622, HE         160, HEL         41         LED         840         5550         40         22,0           carbonate) microprismatic         L         622, B         622, HE         160, HEL         41         LED         840         41005100         3140         17,117,8           L         622, B         622, HE         160, HEL         41         LED         840         4100         31         17,1

<sup>\*</sup> MultiLumen version: Specification of the lowest and highest possible lumen output.

#### Accessories | Recessed mounting frame

Recessed mounting frame: sheet steel, powder-coated. For installation on suspended ceilings. Minimum recess depth: 300 mm. Ceiling thickness: 1-30 mm

Mounting frame for installation in suspended ceilings			Price Category 21
981941.002	L 624, B 624, H 2, HE 94	for module 600	
981942.002	L 649, B 649, H 2, HE 94	for module 625	



#### Comparison LED vs. conventional lamps

#### LED 31 W ≈

5 x 18 W T26 (130 W Psys) 5 x 14 W T16 (84 W Psys)

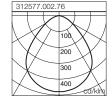
#### LED 40 W ≈

6 x 18 W T26 (156 W Psys) 6 x 14 W T16 (100 W Psys)



Rimless appearance.

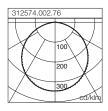
312577.002.76					
Floor 12 x 2,5 x 3m (0,2m)					
100 lx	150 lx 200 lx				
2	3	3			
Room 6 x 4 x 3 m (0,75 m)					
200 lx	300 lx 500 l				
2	2 3 5				



312578.002.76					
Floor 12 x 2,5 x 3m (0,2m)					
100 lx	150 lx	200 lx			
2	2 3				
Room 6 x 4 x 3 m (0,75 m)					
200 lx	300 lx	500 lx			
2	3	4			

312578.002.	76	
	100 200 300 400	1/klm

312574.002.76				
Floor 12 x 2,5 x 3m (0,2m)				
100 lx	150 lx	200 lx		
2	2 3			
Room 6 x 4 x 3 m (0,75 m)				
200 lx	300 lx	500 lx		
3	4	6		



## MultiLumen: Adjustable luminous flux

312567.002.790				
Step	Luminous flux [lm]	System power		
	4000 K	[W]		
1	4550	31		
2	4950	35		
3	5300	38		
4	5600	40		

312573.002.790					
Step	Luminous flux [lm]	System power			
	4000 K	[W]			
1	4500	31			
2	4900	35			
3	5250	38			
4	5550	40			

312570.002.790					
Step	Luminous flux [lm]	System power			
	4000 K	[W]			
1	4050	31			
2	4400	35			
3	4750	38			
4	5000	40			

312576.002.790					
Step	Luminous flux [lm]	System power			
	4000 K	[W]			
1	4100	31			
2	4500	35			
3	4800	38			
4	5100	40			

# LIGHT MANAGEMENT SYSTEMS

#### Overview

Smart+

free

world.

#### light control +3 Economy Multi DALI

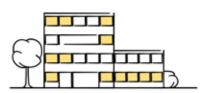
The unbeatable price/performance winner for smaller installations. The system combines simple commissioning via smartphone, low wiring effort and flexible configuration and is therefore ideal for **group offices**, **conference rooms and classrooms**. Programmable buttons and sensors can also be integrated via DALI connections in order to achieve even greater energy savings. The system has an integrated timer and can therefore be used to set up HCL.



#### Casambi smart+free

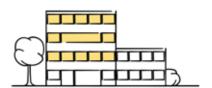
The wireless light management system for maximum functions and configuration options. Casambi smart+free solutions are perfect for **residential** 

**buildings, shop und hotel**, as 3-wire cabling is enough - also suitable as a module for subsequent installation into existing luminaires. The module is already integrated into luminaires with the article number ending .730. You can configure the system to your individual needs due to the wide range of accessories from the Casambi ecosystem. The integration here is very intuitive and can be completed by users without prior knowledge in just a few minutes.



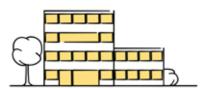
#### light control +3 Professional Control

The system is suitable for complex applications in warehouses, room and floor control and production areas; daylight dependant control, dynamic light control to circadian daylight simulation in Human Centric Lighting (HCL) and monitoring of energy data. In addition, the systems can be networked to make luminaire data available to other systems. light control+3 Professional is the perfect entry level lighting system for the loT



### light control +3 Professional Customised

Lighting management can integrate with your building management system in office buildings, production halls and terminals. In this way, you can combine trades such as heating, sanitation, ventilation, security and blinds with lighting in one control system and even add additional functions such as monitoring, predictive maintenance and energy reporting if desired. Other additional functions can be programmed and integrated as per your individual requirements. Our support team would be happy to help in this regard, from planning up to commissioning.



### You still haven't found the right system for you?

Along with the systems shown here, we would also be happy to create a customised control system for your project. Please contact your designated on-site sales employee or contact our Planning department via e-mail at Ims@rzb-leuchten.de or by phone at +49 951/79 09-396.

	light control + <sup>3</sup> Economy Multi DALI	Casambi smart+free	light control +3 Professional Control	light control +3 Professional Customised
	Economy Multi DALI	smart+ free	Professional Control	Professional Customised
Application	Group offices Conference rooms Classrooms	Residential buildings Shop Hotel	Warehouses Floor control Production areas	Office buildings Production halls Terminals
Integration of indoor/outdoor lighting	✓	✓	✓	✓
Can be combined with	smart + free		smart <sub>+</sub> free	smart+ free
Communication	wired	wireless	wired	wired + wireless
Infrastructure requirements	L, N, PE, DA, DA (5 wires cable)	L, N, PE (3 wires cable)	L, N, PE, DA, DA (5 wires cable)	L, N, PE, DA, DA (5 wires cable)
Commissioning	by electrician	by electrician	RZB service technician	RZB service technician
Configuration	App, Plug&Play	App, Remote access	PC-Tool, Remote access	RZB service technician
Operation	Switches, Buttons, App	Switches, Buttons, App	Switches, Buttons, App, Web access	Switches, Buttons, PC, Web access
Number of luminaires (1 EB) (Number of luminaires depends on on the number of EB in the luminaire)	32	1	256	any
Number of sensors (presence, motion)	4	1 per module	50	any
Dimmable	✓	✓	✓	✓
Motion/presence detection	✓	✓	✓	✓
Daylight-dependent control	✓	✓	✓	✓
Scenes/Groups	✓	✓	✓	✓
Timer/Calendar functions	✓	✓	✓	✓
HCL / Tunable White	✓	✓	✓	✓
RGB		✓	✓	✓
Network integration		✓	✓	✓
Remote access: programming, operation, maintenance		<b>✓</b>	✓	✓
loT ready		✓	✓	✓
Predictive maintenance, monitoring, read out luminaire data			✓	✓
Beacon for indoor navigation, tracking, asset management		✓		✓
Integration of additional sensors (CO <sub>2</sub> , temperature, gas)				✓
Integration of other trades (heating, air conditioning, security)				✓
Order number with extension	.76 (DALI)	.76 (DALI) .730 (smart+free)	.76 (DALI)	.76 (DALI)

# **CHEMICAL RESISTANCE**

to the plastics used in the manufactured luminaires

Chemical Agents	max. concen- tration	PC	PMMA
Acetone		-	-
Battery Acid		0	-
Aliphate. Hydrocarbons		+	0
Alcohol	30%	+	+
Alcohol concentrate		-	-
Aluminium sulphate	10%	+	
Formic acid	30%	-	0
Ammonia	5%	-	+
Ammonia	25%	-	+
Aniline		-	-
Aromatic hydrocarbons		-	-
Arsenic acid		+	+
Ether		-	-
Caustic potash		-	
Benzene		-	-
Beer		+	+
Blood		+	+
Bromic acid		-	-
Calcium Chloride		+	+
Chloroform		-	-
Chlorophenol		-	-
Chromic acid	40%	0	0
Diesel fuel	1070	0	+
Dioxane		-	<u> </u>
Acetic acid	5%	+	0
Acetic acid	30%	+	-
Ethyl acetate (ester)	3373	-	_
Ethanol	30%	+	0
Ethanol	50%	+	-
Ethyl acetate	3070	-	-
Ethyl alcohol		+	0
Mineral fat		_	+
Vegetable fat		_	+
Animal fat		_	+
Glycerin			
Glycol		0 +	+
Glysantin		+	+
Glycerine			
		0	+
Fuel oil	200/	-	0
Caustic potash	30%	-	+
Potassium nitrate		+	+
milk of lime		0	+
Ketone Salina salution	000/	-	-
Saline solution	20%	+	+

Chemical Agents	max. concen- tration	PC	PMMA
Carbon dioxide		+	+
Carbon monoxide		+	+
Hydrocarbons		-	0
Lye		0	+
Lysol		-	-
Sea water		+	+
Methanol		-	-
Methyl chloride		-	-
Lactic acid, aqueous	10%	+	+
Mineral oils		+	+
Sodium hydroxide solution	2%	-	+
Sodium hydroxide solution	10%	-	+
Regular petrol (ROZ 91)		0	-
Petroleum ether		0	+
Phenol		-	-
Nitric acid	10%	+	+
Nitric acid	20%	0	0
Hydrochloric acid	5%	+	+
Hydrochloric acid	15%	+	+
Hydrochloric acid	20%	0	+
Sulfur dioxide		0	-
Sulphuric acid	30%	+	+
Sulphuric acid	50%	+	+
Sulphuric acid	70%	0	0
Hydrogen sulfide		+	+
Soap sud		+	+
Silicone oils		+	0
Soda bleach		+	+
Premium petrol		-	+
Turpentine oil		0	0
Carbon tetrachloride		-	-
Toluene		-	-
Trichloroethylene		-	-
Hydrogen peroxide	30%	0	-
Hydrogen sulfide		+	+
Xylene / Dimethylbenzene		-	-
Citric acid	20%	+	+

<sup>+</sup> resistant

o partially resistant

<sup>-</sup> non-resistant

# Discover the possibilities...

# FURTHER LUMINAIRES FOR OFFICE LIGHTING:









⊕ Sonis EVO

⊕ Sidelite®

⊕ Sidelite® Round

⊕ Sidelite® Ellypsoid

# LIGHT MANAGEMENT SYSTEMS, MATCHING THIS SERIES:



light control +3 Economy Multi DALI



Casambi smart+free



light control +3 Professional Control



 → light control +³ Professional Customised

### HIGHEST PRODUCT AND CONSULTING OUALITY

# **RELIABILITY**

We are your reliable partner. From the first idea to the implementation and far beyond, we accompany your project. Personal, passionate and individual. Thanks to our excellent expertise, top product quality and services such as light planning, economic efficiency analysis and commissioning, we meet the high demands of all parties involved in the planning process.

- ✓ availability of BIM files
- ✓ easy and quick installation
- ✓ quality and long warranty

# **WARRANTY**

The creation of high quality lighting solutions is our passion. Our products are developed and manufactured with the utmost care.

In addition to SMART TECHNOLOGY and EXCELLENT DESIGN, we are dedicated to manufacture luminaires of highest quality throughout the entire value chain through to After Sales Service.

Because of this, we confidently grant you a 5 years warranty on LED luminaires and 2 years warranty on emergency luminaires with effect of the date of invoice without prior registration of your project.

Warranty terms to be found under

rzb.de/en/service/led-luminaire-warranty

#### RZB - FOR A TANGIBLE ADDED VALUE.











