



The **UGR** (unified glare rating) is an international unified measure developed by the CIE (Commission International de l'Eclairage) to assess the direct glare generated by a lighting system. The European standard regulating the lighting of indoor work places (**UNI-EN 12464-1**) recommends a specific UGR value for different applications ranging between **10 and 30; the lower the UGR value, the lower the glare**. The exact value of this index differs by project type because it depends on the position of the luminaires, room characteristics (dimensions, reflections) and on the point of observation of viewers.

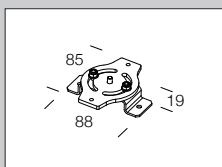
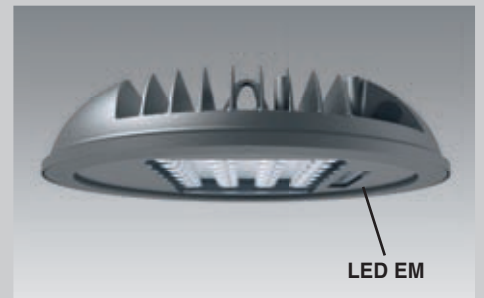
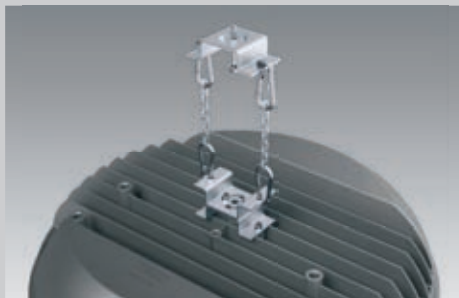
**Classification of UGR values by applications**

<b>UGR</b>	≤ 16	Very demanding applications (technical drawings)
	≤ 19	Offices and schools (reading, business meetings, computer work)
	≤ 22	Industrial applications, craftsmen
	≤ 25	Transit areas
	> 28	High glare

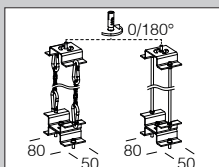
Below are some examples of industrial environments requiring the installation of fixtures with UGR<22 in compliance with standard **UNI-EN 12464-1**:

- General areas inside buildings – storage areas
- Industrial and manufacturing activities
- Chemical and pharmaceutical industry
- Mechanical, electronic and electro-technical industry
- Paper mills

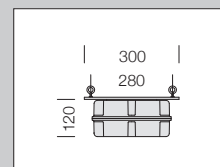
**Accessories**



**acc. 533**  
**adjustable connector**  
 993975-00  
 Adjustable connector  
 - 120°



**acc. 538 suspension**  
**for ceiling fitting**  
 993976-00  
 In stainless steel. Adjustable suspension (0/180°) to allow proper mounting of the Astro. Purchase separately chain/tiges. Ideal for elliptical beam Astro version.



**acc. 1175 Box**  
 997658-00  
 To be used when purchasing Astro EM version, with sub-code -07.



**Housing/Frame:** in die-cast aluminium with cooling fins integrated into the cover and designed with a very small surface exposed to wind.

**Diffuser:** tempered glass, 4 mm thick, resistant to thermal shocks and impacts (UNI-EN 12150-1: 2001).


**Coating:** polyester resin for powder coating, resistant to corrosion and saline environments.

**Standard supply:** temperature control inside the device with automatic resetting. complete with quick connection.

**Dimmable:** Standard 1-10V dimmer, dimmable from 10% to 100%.

**LED:** power factor  $\geq 0,95$ .

Luminous flux maintenance Ta = -40°C ÷ +40°C		
90%	100.000h (L90B10)	12-16-24 LED
90%	80.000h (L90B10)	32 LED

 electronic safety device to protect the LED module and the related ballast compliant with EN 61547.

It works in two modes:  
 - differential mode: surge between power cables and between the phase and neutral.  
 - common mode: surge between power, L/N and ground cables or between the fixture's body if it is of class II and installed on a metal pole.

**On request:** for **Class II** fixtures, protection up to 10KV.

Low Optical Flicker  
 Less Than 1%  
 Up to 1000 Hz





The UL Verified Mark is identified with the "Low Flicker Risk" logo that includes a maximum flicker value of 8% at frequencies of  $\geq 400$  Hz.



On request



On request:	
	version with <b>LED AMBER 2200K</b> with subcode <b>-73</b>
	version with <b>LED 6500K</b> with subcode <b>-0083</b>



**On request:** ideal version for spaces with a high concentration of particular volatile chemicals around the luminaires (see chemical compatibility table in chapter *legend and Info*).

**On request:** possibility for the various options for managing the supply point (see table on p. XVII). Presence sensor or light sensor to wall or ceiling (see chapter *dimmmable fixture control kit*).



**Presence sensors - DIMM 1/10V**

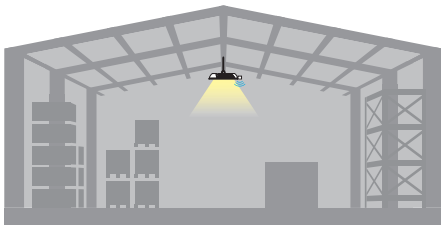
**On request with sub-code -19:** Astro with easy-to-use, safe and convenient **DIMM 1-10V** (with the option to dim lights depending on the amount of daylight).

**TECHNICAL SPECIFICATIONS**

Rated supply voltage	220-240 Vac - 50/60Hz
High frequency	5.8GHz±75MHz, ISM wave band, <0.5mW
Detection angle	ceiling: 360° - wall: 150°
Detection area	8 max (choice)
Detection motion speed	0.5~3m/s
Installing height	ceiling: 3-15 m max.
Power consumption	≤0.5W (standby), <1W (operation)
IP degree	IP65
Technology	Microwave
Operating temperature (sensor)	-35 ... +70 °C
Hold time (choice)	5s / 30s / 90s / 3min / 20min / 30min
Ambient light (choice)	5lux / 15lux / 30lux / 50lux / 100lux / 150lux / Disable
Stand-by period (choice)	5s / 5min / 10min / 30min / 1h / ∞
Stand-by DIMM level (choice)	10% / 20% / 30% / 50%

(Optional) remote control to change parameters after installation, without opening the fixture

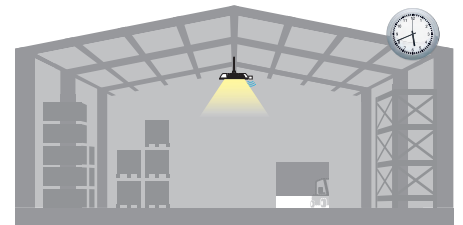
**EXAMPLE OF THE 2-STEP DIMMING FUNCTION**



If the sensor does not detect motion, lights stay on constant for a pre-set time.



As soon as the sensor detects motion in the scan area, lights will automatically increase to 100%.



If no motion is detected after a certain amount of time, the sensor will dim back to the set level.



**Presence and light sensors - DIMM DALI**

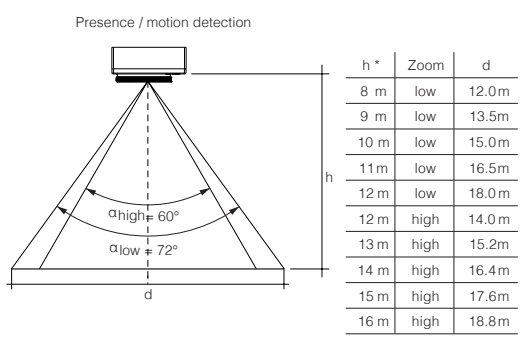
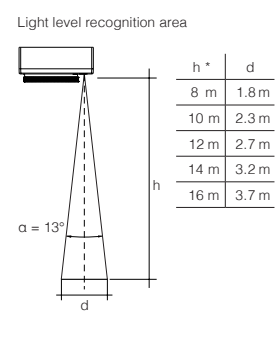
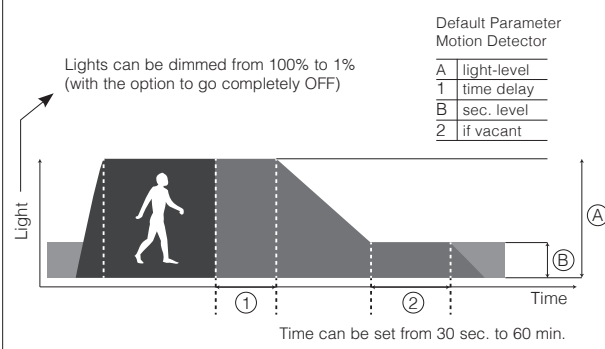
**On request with sub-code -0061:** Astro DALI version with easy-to-use, safe and convenient automatic presence and light sensor.

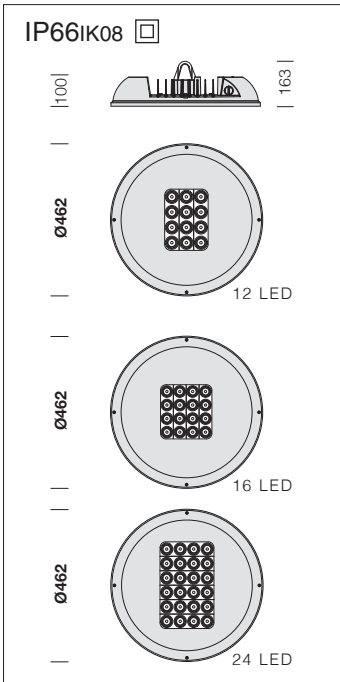
**TECHNICAL SPECIFICATIONS**

Rated supply voltage	220-240 Vac - 50/60Hz	
Power consumption	2 W	
Output, stand-by	0,5 W	
Operating temperature (sensor)	0 ... +60 °C	
IP degree	IP65	
Time delay (regolabile)	min: 30sec - max: 60min	
Technology	PIR	
Max. installation height	16m	
Light detection angle	13 °	
Motion detection angle	high	low
	72°	60°

Momentary-action switch input for on/off switching and dimming

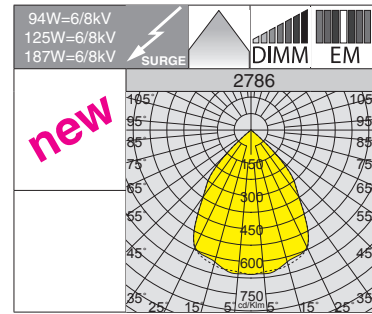
All functions can be set by request or with the (optional) remote control





Below are some examples of industrial environments requiring the installation of fixtures with UGR<22 in compliance with standard UNI-EN 12464-1:

- General areas inside buildings – storage areas
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- Chemical and pharmaceutical industry
- Mechanical, electronic and electro-technical industry
- Paper mills

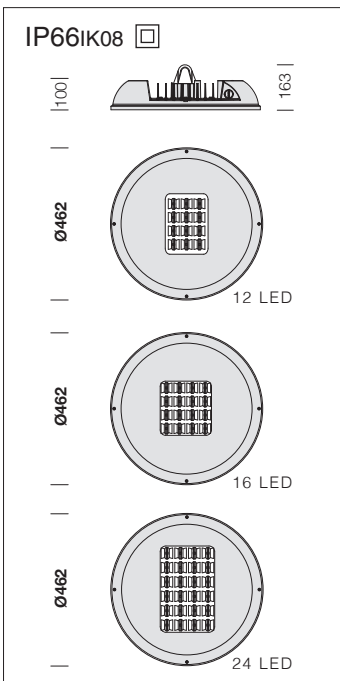


Optics : in high-performance metallic V0 polycarbonate with micro-faceted finish.



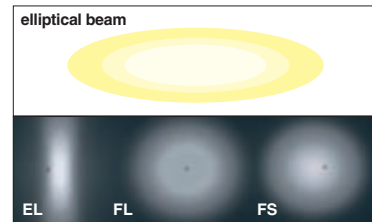
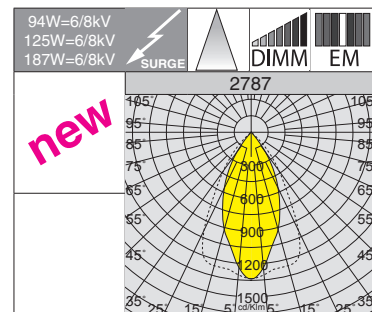
2786 Astro - UGR<22 - wide beam						
wattage (700mA)	colour	CLD CELL-D (1-10V)		CLD CELL-D-E	W	LED (Tj=85°C)
		weight	code	code		K - ølm 700mA - CRI
LED	s. silver	11.10	330160-00	330160-07	94	4000K - 12960lm - CRI 80
LED	graphite	11.10	330164-00	330164-07		4000K - 12960lm - CRI 80
LED	s. silver	11.10	330161-00	330161-07	125	4000K - 17280lm - CRI 80
LED	graphite	11.10	330165-00	330165-07		4000K - 17280lm - CRI 80
LED	s. silver	12.00	330162-00	330162-07	187	4000K - 25920lm - CRI 80
LED	graphite	12.00	330166-00	330166-07		4000K - 25920lm - CRI 80

Emergency version: acc. 1175 (997658-00) to be purchased separately.  
On request: Astro with emergency wiring with centralized power supply CLD CELL-EC (sub-code -0050).



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- Paper mills



2787 Astro - UGR<22 - elliptical beam						
wattage (700mA)	colour	CLD CELL-D (1-10V)		CLD CELL-D-E	W	LED (Tj=85°C)
		weight	code	code		K - ølm 700mA - CRI
LED	s. silver	11.10	330170-00	330170-07	94	4000K - 12960lm - CRI 80
LED	graphite	11.10	330174-00	330174-07		4000K - 12960lm - CRI 80
LED	s. silver	11.10	330171-00	330171-07	125	4000K - 17280lm - CRI 80
LED	graphite	11.10	330175-00	330175-07		4000K - 17280lm - CRI 80
LED	s. silver	12.00	330172-00	330172-07	187	4000K - 25920lm - CRI 80
LED	graphite	12.00	330176-00	330176-07		4000K - 25920lm - CRI 80

Emergency version: acc. 1175 (997658-00) to be purchased separately.  
On request: Astro with emergency wiring with centralized power supply CLD CELL-EC (sub-code -0050).

**RG0**  
**Ethr**

**EM DIMM**

**SURGE**

94W=6/8kV  
125W=6/8kV  
187W=6/8kV  
250W=6/8kV

**1788**

**Optics** : made of PMMA with high temperature resistance and UV rays.

**LED AMBER**



**IP66IK08**

1788 Astro - narrow beam						
		CLD CELL-D (1-10V)		CLD CELLD-E	LED (Tj=85°C)	
wattage (700mA)	colour	weight	code	code	W	K - ølm 700mA - CRI
LED	s. silver	11.10	330086-00	330086-07	94	4000K - 12960lm - CRI 80
LED	graphite	11.10	330087-00	330087-07		
LED	s. silver	11.10	330080-00	330080-07	125	4000K - 17280lm - CRI 80
LED	graphite	11.10	330083-00	330083-07		
LED	s. silver	12.00	330081-00	330081-07	187	4000K - 25920lm - CRI 80
LED	graphite	12.00	330084-00	330084-07		
LED *	s. silver	12.50	330082-00	330082-07	250	4000K - 34560lm - CRI 80
LED *	graphite	12.50	330085-00	330085-07		

\* 32 LED version with luminous flux maintenance 90%: 80.000h (L90B10).  
**Emergency version:** acc. 1175 (997658-00) to be purchased separately.  
**On request:** Astro with emergency wiring with centralized power supply **CLD CELL-EC (sub-code -0050)**.

**RG0**  
**Ethr**

**EM DIMM**

**SURGE**

94W=6/8kV  
125W=6/8kV  
187W=6/8kV  
230W=6/8kV  
250W=6/8kV

**1789**

**new**

**Optics** : made of PMMA with high temperature resistance and UV rays.

**LED AMBER**

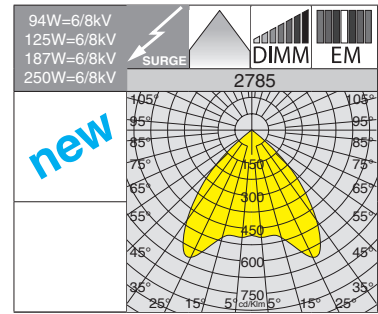
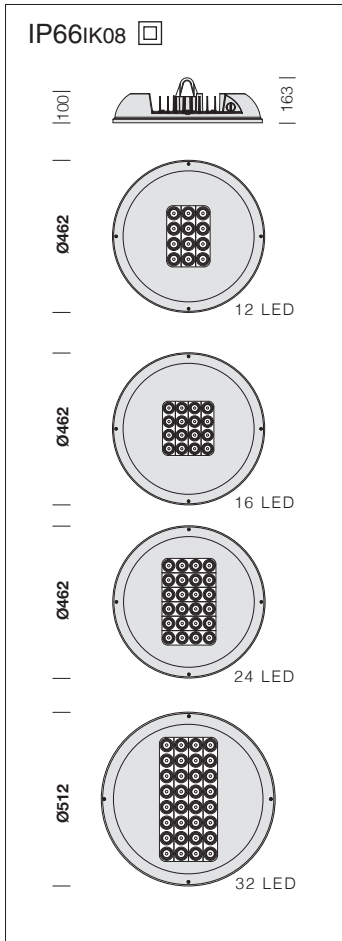


**IP66IK08**

1789 Astro - wide beam						
		CLD CELL-D (1-10V)		CLD CELLD-E	LED (Tj=85°C)	
wattage (700mA)	colour	weight	code	code	W	K - ølm 700mA - CRI
LED	s. silver	11.10	330096-00	330096-07	94	4000K - 12960lm - CRI 80
LED	graphite	11.10	330097-00	330097-07		
LED	s. silver	11.10	330090-00	330090-07	125	4000K - 17280lm - CRI 80
LED	graphite	11.10	330093-00	330093-07		
LED	s. silver	12.00	330091-00	330091-07	187	4000K - 25920lm - CRI 80
LED	graphite	12.00	330094-00	330094-07		
LED *	s. silver	12.50	330092-00	330092-07	250	4000K - 34560lm - CRI 80
LED *	graphite	12.50	330095-00	330095-07		

		CLD CELL-D (DALI)		CLD CELLD-DE	LED (Tj=85°C)	
potenza (850mA)	colour	weight	code	code	W	K - ølm 850mA - CRI
LED	s. silver	11.10	330088-00	330088-07	230	4000K - 30300lm - CRI 80
LED	graphite	11.10	330089-00	330089-07		

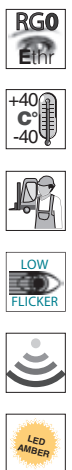
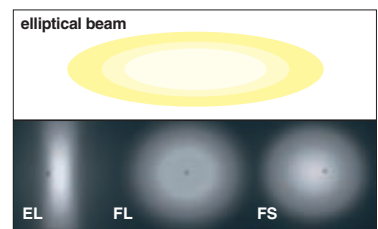
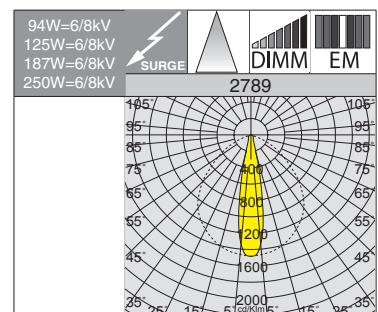
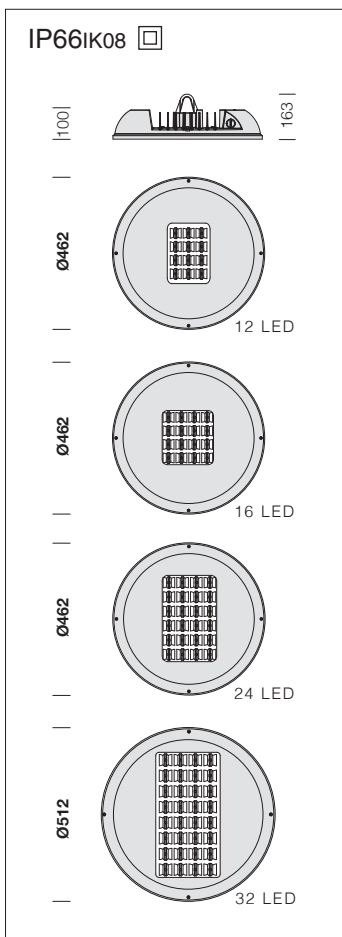


**Diffuser:** Injection moulded, in V2 self-extinguishing, UV stabilized, **vandal-resistant** clear polycarbonate, **ideal for the food industry.**

**On request:** version with diffuser in special polycarbonate material, ideal for the food industry with special processing methods.

2785 Astro - wide beam - with polycarbonate diffuser						
wattage (700mA)	colour	CLD CELL-D (1-10V)		CLD CELL-E	W	LED (Tj=85°C)
		weight	code	code		K - ølm 700mA - CRI
LED	s. silver	11.10	330156-00	330156-07	94	4000K - 12960lm - CRI 80
LED	graphite	11.10	330157-00	330157-07		
LED	s. silver	11.10	330150-00	330150-07	125	4000K - 17280lm - CRI 80
LED	graphite	11.10	330153-00	330153-07		
LED	s. silver	12.00	330151-00	330151-07	187	4000K - 25920lm - CRI 80
LED	graphite	12.00	330154-00	330154-07		
LED *	s. silver	12.50	330152-00	330152-07	250	4000K - 34560lm - CRI 80
LED *	graphite	12.50	330155-00	330155-07		

\* 32 LED version with luminous flux maintenance 90%: 80.000h (L90B10).  
**Emergency version:** acc. 1175 (997658-00) to be purchased separately.  
**On request:** Astro with emergency wiring with centralized power supply **CLD CELL-EC (sub-code -0050).**



2789 Astro - elliptical beam						
wattage (700mA)	colour	CLD CELL-D (1-10V)		CLD CELL-E	W	LED (Tj=85°C)
		weight	code	code		K - ølm 700mA - CRI
LED	s. silver	11.10	330143-00	330143-07	94	4000K - 12960lm - CRI 80
LED	graphite	11.10	330147-00	330147-07		
LED	s. silver	11.10	330140-00	330140-07	125	4000K - 17280lm - CRI 80
LED	graphite	11.10	330144-00	330144-07		
LED	s. silver	12.00	330141-00	330141-07	187	4000K - 25920lm - CRI 80
LED	graphite	12.00	330145-00	330145-07		
LED *	s. silver	12.50	330142-00	330142-07	250	4000K - 34560lm - CRI 80
LED *	graphite	12.50	330146-00	330146-07		

\* 32 LED version with luminous flux maintenance 90%: 80.000h (L90B10).  
**Emergency version:** acc. 1175 (997658-00) to be purchased separately.  
**On request:** Astro with emergency wiring with centralized power supply **CLD CELL-EC (sub-code -0050).**

Ideal version for warehouses and storage shelving. To be used with acc. 538.