

EMPRESS

THE DUTCH POWERHOUSE



TECHNICAL DATASHEET

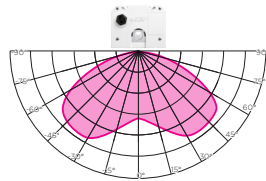
Light output

HIGH EFFICIENT

Code	Spectra	Optical properties*1				Spectral specifications*1				Imparted heat	
		PhotonFlux (μmol/s)*2	Consumed Power (W)	Efficacy @ 100% (μmol/J)	Efficacy dimmed to 50%*3	blue 400-500	mid 500-600	red 600-700	far-red >700	W	BTU/hr
G.AACA.01	Low Blue	2430	710	3.42	3.71	4.6	0.1	95.0	0.3	256	874
G.AACE.01	Low Blue White	2325	710	3.27	3.54	5.6	5.0	89.1	0.3	269	918
G.AADK.01	Low Blue White + Far-red	2185	710	3.08	3.34	4.8	9.6	76	9.6	297	1013
G.AADC.01	Medium Blue	2400	710	3.38	3.66	7.8	0.2	91.8	0.2	254	866
G.AADG.01	Medium Blue White	2310	710	3.25	3.51	7.2	5.0	87.5	0.3	269	918
G.AACI.01	Broad Spectrum	2110	710	2.97	3.20	10.9	15.4	73.3	0.4	293	999

Light distribution

Wide Beam



Other spectrum variations on request.

- *1 Electrical and optical properties have a tolerance of ± 5%.
- *2 Output is defined as the total photon flux between 400-800nm. Typical values for stable operation at 77°F | 25°C cooling water temperature.
- *3 All values mentioned in the table are based on 100% power, except for this column; 50% power.



Product features

Housing material and finishing	Aluminium (IK10). Anodized / antifouling powder coating RAL 9010 (dirt repellent)
LED protection cover	High transmission glass (transmission >98%) (IK07)
Beam angle	Wide Beam: 140°
Ingress Protection LED compartment	IP67 (dust- and watertight). Fixtures can be cleaned by using pressurized water, the complete electrical circuit is sealed waterproof.
Lifespan and warranty	L90 B05 - 50,000 hours, 5 year full warranty

Technical data

Power factor	> 0.96 @ 400 VAC
Total Harmonic Distortion (THD)	< 8%
Voltage range	277 - 480 VAC
Current range	2.6 - 1.5 A
Frequency range	50/60 Hz
Inrush energy	1,55 A ² s
Inrush current peak	20A @ 480 VAC
Leakage current	< 0.7 mA @ 480 VAC
Isolation class	Class I
Connector	Integrated: 3 pole connector Male (Wieland RST20i3 black)
Operation conditions	32 to 113°F 0 to 45°C / 95% RH
Storage conditions	32 to 140°F 0 to 60°C / 85% RH

Cooling liquid and circuit

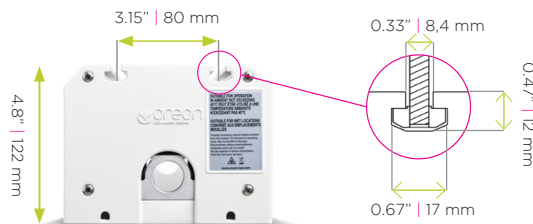
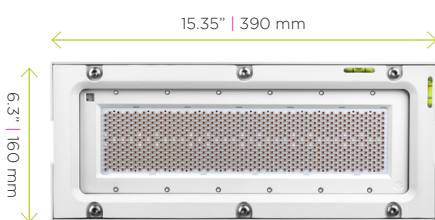
Cooling liquid	Water (pH 4-8)
Cooling liquid temperature	From dew point to 113°F 45°C
Water connection	Pipe thread ISO 228-G 3/4" (2x)
Required flow velocity	Flow velocity must be at least 0.3 m/s and should not exceed 1.5 m/sec. (inner Ø 24.1 mm)
Flow velocity formula	$v = Q \cdot n / 19000$ (velocity in m/s, channel inner diameter 24.1 mm) v: minimally required flow velocity of water in the cooling channel of the lamp (m/s) Q: heat imparted per fixture (Watt), n: number of fixtures in series on a cooling pipe

Mounting

Top side has two dedicated T-shaped grooves. Suspension of fixture by 4x M6 bolt & T-nut or custom made bracket.

Weight and dimensions

Nett weight	19.0 lb 8,6 kg
Product dimensions (L x W x H)	15.35" x 6.3" x 4.8" 390 mm x 160 mm x 122 mm
Carton dimensions (L x W x H)	21.65" x 8.66" x 6.89" 550 mm x 220 mm x 175 mm



Logistic specifications

Quantity per pallet
Gross weight per pallet
Pallet dimensions (EUR)
HS-code

Air freight

49 pcs.
1069.2 lb 485 kg
31.5" x 47.24" x 56.69"
800 x 1200 x 1440 mm
9405 4099 90

Sea/Road freight

63 pcs.
1358 lb 616 kg
31.5" x 47.24" x 71.26"
800 x 1200 x 1810 mm
9405 4099 90

Compliance

Conforms to/Certified to ANSI/CAN/UL 8800



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