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.AAHA.02	Low Blue	2650	710	3.7	4.0	5.2	0.1	94.4	0.3	215	733
G.AAHB.02	Low Blue White	2540	710	3.6	3.8	5.1	5.0	89.6	0.4	230	784
G.AAHC.02	Low Blue White + Far-red	2370	710	3.3	3.6	5.1	10.3	74.8	9.8	263	897
G.AAHD.02	Medium Blue	2610	710	3.7	3.9	7.8	0.1	91.8	0.3	216	737
G.AAHE.02	Medium Blue White	2500	710	3.5	3.8	9.1	5.0	85.6	0.3	231	788
G.AAHF.02	Broad Spectrum	2280	710	3.2	3.4	8.6	17.3	73.5	0.5	263	897

ECONOMIC

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.AAHG.02	Low Blue	2520	710	3.6	3.9	5.1	0.1	94.5	0.3	240	818
G.AAHH.02	Low Blue White	2420	710	3.4	3.7	5.0	4.8	89.9	0.3	254	866
G.AAHI.02	Low Blue White + Far-red	2240	710	3.2	3.5	5.0	10.1	75.5	9.4	287	979
G.AAHJ.02	Medium Blue	2490	710	3.5	3.8	7.7	0.1	91.9	0.3	240	818
G.AAHK.02	Medium Blue White	2380	710	3.4	3.7	8.9	4.9	85.9	0.3	254	866
G.AAHL.02	Broad Spectrum	2170	710	3.1	3.3	8.5	17.0	74.0	0.5	284	968

Other spectrum variations on request.

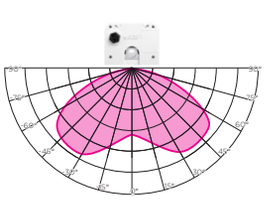
*1 Electrical and optical properties have a tolerance of ± 5%.

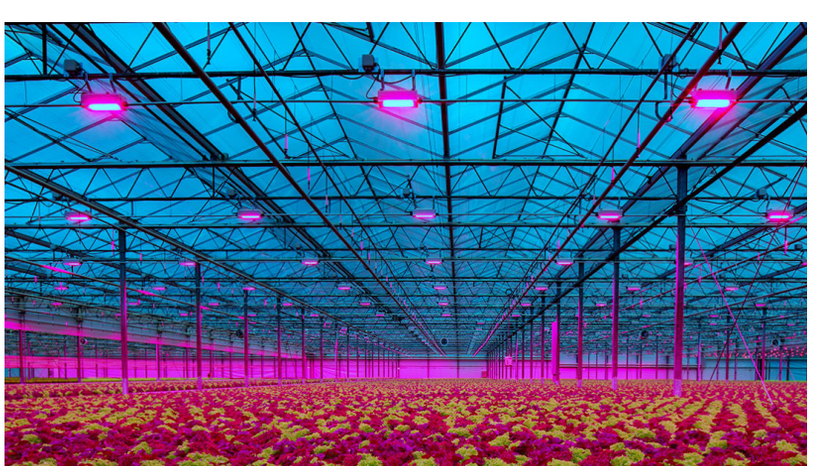
*2 Output is defined as the total photon flux between 400-800nm.
Typical values for stable operation at 77°F | 25°C cooling water temperature.

*3 All values mentioned in the tabel are based on 100% power, except for this column; 50% power.

Light distribution

Wide Beam





oreon
LED. LIGHT. GROW.

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^2s
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

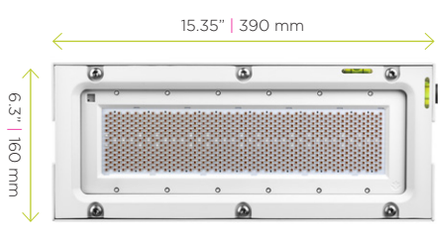
Cooling liquid	Water (pH 4-8)
Cooling liquid temperature	From dew point to 113°F | 45°C
Water connection	Pipe thread ISO 228-G 3/4" (2x)
Required flow velocity	Flow velocity must be at least 0.3 m/s and should not exceed 1.5 m/sec. (inner Ø 24.1 mm)
Flow velocity formula	v = Q*n/19000 (velocity in m/s, 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

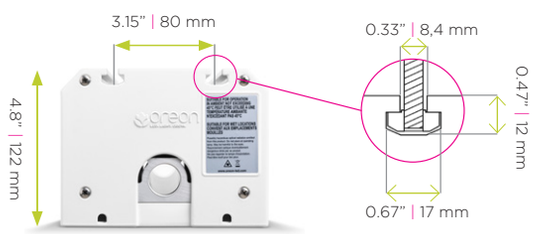
Mounting

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	Air freight	Sea/Road freight
Quantity per pallet	49 pcs.	63 pcs.
Gross weight per pallet	1069.2 lb | 485 kg	1358 lb | 616 kg
Pallet dimensions (EUR)	31.5" x 47.24" x 56.69" 800 x 1200 x 1440 mm	31.5" x 47.24" x 71.26" 800 x 1200 x 1810 mm
HS-code	9405 4099 90	9405 4099 90

Compliance

Conforms to/Certified to ANSI/CAN/UL 8800

Intertek 5022622

Subject to printing and typing errors.

V230210E

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