

LED luminaires for professional horticultural cultivation

DEMETER



Spectrum adjustment in three ranges

Efficiency of 3,5 $\mu\text{mol}/\text{J}$

Wireless control system

Different types of optical systems

Manufactured in Poland



SOLUTIONS FOR:

greenhouses, vertical farms,
specialized cultivation halls,
indoor growing facilities

Advantages of the system

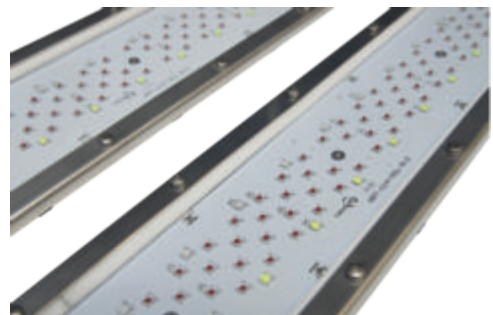
- Efficiency of 3,5 $\mu\text{mol}/\text{J}$
- Customized spectrum
- Spectrum and brightness adjustment

User safety and satisfaction

- Manufactured in Poland, short lead time
- Long lifetime thanks to the highest quality LEDs and a design that ensures optimal cooling
- 5-year warranty
- Operation at high ambient temperature and in harsh conditions. IP rating of luminaires – IP65
- The highest quality components supplied by renowned manufacturers
- Maintaining a constant flux of light without any strobing.

Convenience for installers and the maintenance team

- Professional technical support
- Simple and quick installation of the luminaires
- Less frequent technical inspections and cleaning of the luminaire.





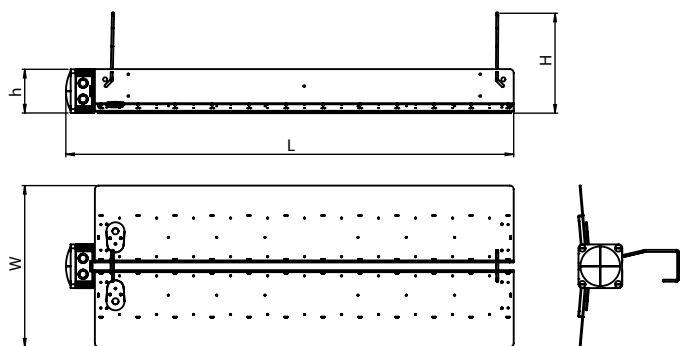
1200 W power supply block DM1 luminaires

Technical parameters

Source of light	LEDs
LED lifetime	L70 > 100 000 h (ta = 25°C)
Correlated colour temperature	Adjustable
Wavelength	640/560/445 nm
Supply voltage	400 VAC
Operating temperature (ta)	od -25°C do +35°C

IP rating	IP65
Electrical insulation class	class I
Power factor	cos Φ > 0,98
Power supply efficiency	η = 95%
Brightness control	0-10 V, BT Mesh (options)

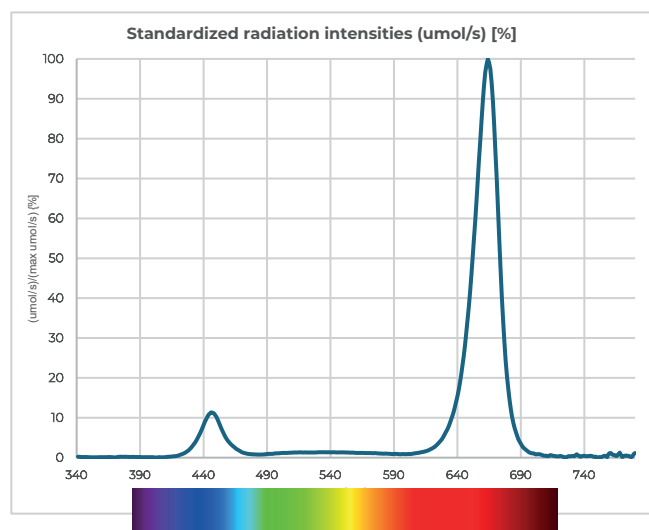
Dimensions and weight



	h	H	L	W	weight*
Luminaire type	[mm]	[mm]	[mm]	[mm]	[kg]
DM1 – 600 b S1...	85	195	872	315	4,0
DM1 – 300 b K1...	85	195	503	315	2,0

*) concerns a single luminaire, without a power supply block

Spectral distribution (spectrum 9550)



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Selection of luminaire power

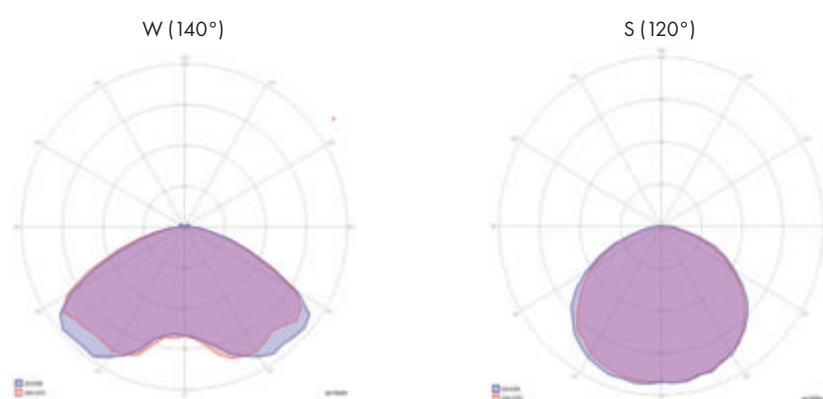
luminaire version	DM1-600NS1A9A00AS0 600W, 2 colours, no control	DM1-1K2ZS2B9555AW1 1200W, 3 colours, single-channel control	DM1-1K2BS2B8A50AW3 1200W, 3 colours, three-channel control	DM1-1K2NK4B6CB0AS0 1200W, 3 colours, no control
Total PPF	2000 $\mu\text{mol/s}$	4000 $\mu\text{mol/s}$	4000 $\mu\text{mol/s}$	3600 $\mu\text{mol/s}$
Red PPF	1800 $\mu\text{mol/s}$	3600 $\mu\text{mol/s}$	3400 $\mu\text{mol/s}$	2350 $\mu\text{mol/s}$
Blue PPF	200 $\mu\text{mol/s}$	200 $\mu\text{mol/s}$	400 $\mu\text{mol/s}$	700 $\mu\text{mol/s}$
White PPF	-	200 $\mu\text{mol/s}$	200 $\mu\text{mol/s}$	550 $\mu\text{mol/s}$

application	greenhouses, vertical farms, specialized cultivation halls, and indoor growing facilities
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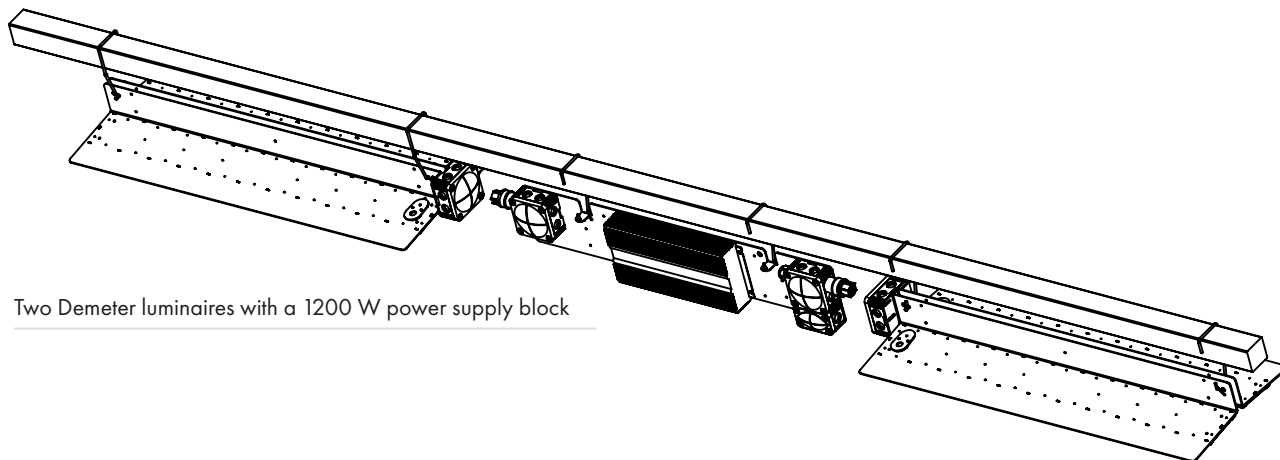
Specific types of luminaires are selected based on the lighting design.

Light distribution curve adjustment

Special optical design can be used to shape the light distribution curve to meet specific user requirements.



Fast and easy installation



Two Demeter luminaires with a 1200 W power supply block

Demeter luminaire series coding

DM1 – PSP b LNc TTTT MOdxx

DM1 product code – Demeter luminaire

PSP power supply output [W]
600 – 600 W
1k2 – 1200 W

b power supply control
N – no control
Z – 0-10V
B – BT Mesh
C – constant current control

L length of the luminaire
K – 503 mm
S – 872 mm

N number of modules
1 – single luminaire
2 – set of two luminaires
4 – set of four luminaires

c spectrum range
A – red, blue
B – red, blue, white

TTTT spectrum ratio
9A00 – 90% red, 10% blue
8A50 – 85% red, 10% blue, 5% white
9550 – 90% red, 5% blue, 5% white
6CB0 – 65% red, 20% blue, 15% white

M type of external diffuser
A – PMMA
Y – PC

O LED light distribution curve
S – standard (120°)
W – wide (140°)

d number of control channels
0 – no control
1 – 1 channel
2 – 2 channels
3 – 3 channels
4 – 4 channels

xx internal code

Coding example

DM1 – 1K2BS2B8A50AW3

DM1 Demeter luminaire version: DM1
1K2 power supply output: 1200 W
B BT mesh
S LED luminaire length: 872 mm
2 set of two luminaires with a power supply block
B spectrum range components: red, blue, white
8A50 spectrum ratio: 85% red, 10% blue, 5% white
A PMMA diffuser
W wide distribution
3 3 control channels

Technical specification is subject to change
260420V03

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DEMETER

   	DEMETER	 600/1200 W	 L = 50/87 cm		 HORTI	
	DM1 400 VAC	 >100.000 h	 2.0 - 13.0 kg	 IP65	 640/540/445 nm	
		 .. 3,5 µmol/J	 NS/0-10 V/ BT Mesh	 IK02	 -25° ... +35°C	

Company details

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