RAYN Growing Systems

LYDA Luminaire

Horticultural Lighting Systems

LYDA LUMINAIRES

The LYDA luminaire is a cost-effective bar equipped with the latest generation white + deep red LEDs suitable for horticultural applications.

The solid-state, long-life LYDA luminaire has a narrow design to limit shading of crops when used in greenhouses. It can be used as overhead lighting, or mounted horizontally for interlighting applications. Luminaires are IP66 rated and convection cooled.

Multiple LYDA luminaires may be ganged together to make arrays of any arbitrary size, with no de-rating of capacity.

The lamp head operates at 100% intensity when installed on a switch or relay. When used with the DMX Adapter accessory or a third-party 0-10 V controller the lamp head can be dimmed from 10-100%, or dimmed-to-off. A lamp head when dimmed-to-off results in a minimum quiescent standby power of less than 0.5 W.

Lightweight and compact, LYDA luminaires may be easily suspended from wires or built into a shelving system. Units may be hung to project light downwards or sideways with equally effective cooling, operation and water resistance.

*IP66 rating: no dust ingress; sustained water spray from all directions.

ORDERING INFORMATION

MODEL	DESCRIPTION
LYDA WDR	LYDA luminaire, white + deep red with driver
L-LNN	LYDA narrow lens (30°)
L-LNM	LYDA medium lens (60°)
L-LNW	LYDA wide lens (90°)
L-LN00	LYDA flat lens (120°)
L-DRIVER	LYDA LED driver (replacement)
L-DMX	LYDA DMX adapter
MXLR5TERM	DMX Terminator, 5-pin XLR plug
L-DCBE	0–10 V dimming cable, bare ends
L-PCBEIEC	Power cable, bare ends IEC color code, 0.5 m (1 ft 7 in) length
L-PCEU	Power cable, Shuko CEE 7/7, 0.5 m (1 ft 7 in) length
L-PCUK	Power cable, UK 13 A BS1363, 0.5 m (1 ft 7 in) length
L-PCBEUS	Power Cable, bare ends US Color Code, 0.5 m (1 ft 7 in) length
L-PCUS	Power Cable, US NEMA 5-15P, 0.5 m (1 ft 7 in) length

SPECIFICATIONS

MODEL	µmol/s	µmol/J	Power (W)
LYDA WDR	518	2.24	240

Light Distribution: 120° (bare optic) 30°, 60°, 90° versions available.

Driver

- 1–10 V economical driver for one luminaire
- Dimming from 10–100%, true cut-off for control at zero
- Class I fully isolated, for wet locations with flying lead connections to IP67
- Optional DMX adapter accessory (see ordering information on page 1)

PHYSICAL AND ELECTRICAL INFORMATION

LYDA Luminaire and LED Driver

- Power 240 W max at 230 V
- 100–277 VAC, 50/60 Hz input
- Total harmonic distortion: <10%
- Power factor: 0.99
- Driver location: External
- The LED Driver is provided with a suitable power input cable. The power input cable is available with bare ends (US or IEC models available) or with a regional specific connector.
- IP66, for damp locations
- LYDA lamp head 2.3 kg (5.0 lb) dims 1027x104x75 mm (40.4x4x3 in)
- LED Driver 1.05 kg (2.3 lb) dims 218x68x39 mm (8.6x2.7x1.5 in) Includes mounting flange
- DMX Adapter 0.2 kg (0.4 lb) 90x38x27 mm (3.5x1.5x1.0 in) Includes mounting flange

ENVIRONMENTAL INFORMATION

LYDA Luminaire

- Ambient: -10°C to 35°C (14°F to 95°F) storage maximum is 45°C (113°F)
- 20–100% relative humidity, including condensing, non-corrosive, sulfur residue free
- Ingress: minimum IP66
- Suitable for damp locations
- Convection cooled, no fans or moving parts

LYDA Drivers

- Ambient: -40°C to 55°C (-40°F to 131°F) storage maximum is 85°C (185°F)
- 10–100% relative humidity, including condensing, non-corrosive
- Ingress: IP67
- Suitable for damp locations
- Convection cooled, no fans or moving parts
- Product finish: Powder-coated paint

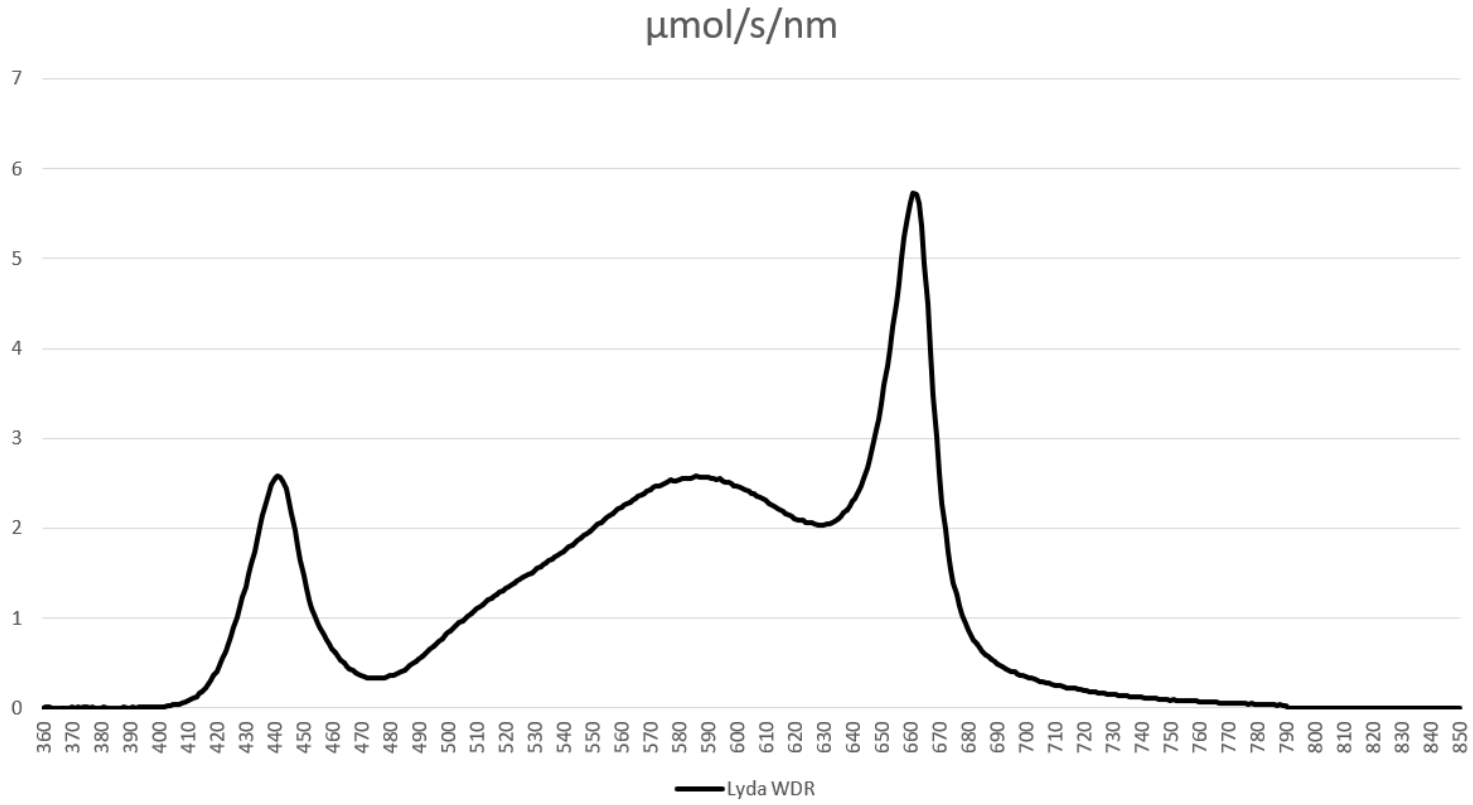
DMX Adapter

- Conforms to ANSI E1.11 USITT DMX512-A
- Converts a DMX control signal to 0-10 V dimming signal and connects to the LED Driver for dimming control (10%-100% or dim-to-off) of the LYDA lamp head
- Connects to and is powered by the LED Driver using a specialized control cable provided
- Includes XLR 5-pin input and through connections

Regulatory and Compliance

- cULus Listed to ANSI/UL STD. 8800, 1598 and CSA C22.2 No.: 250.0
- CE Compliant
- UKCA Compliant
- EN60598-1, EN60598-2-1, EN62471, EN55015, EN61547 & EN61000-3-2

LYDA WDR SPECTRAL INFORMATION



Principal Wavebands

Color	nm	µmol/s	%
UVA	360–399	0.21	0%
Blue	400–499	81.67	16%
Green	500–599	190.86	37%
Red	600–699	233.37	45%
Far Red	700–799	11.88	2%
Amber	570–640	166.11	32%
IR	800–999	0.00	0%
360–999 Total		518.00	100%
400–700 PAR		505.91	98%
FR / PAR			2%

PHYSICAL