Datasheet

Switchable LED DD Lamp

Variable Wattage and CCT 4-pin LED DD Lamp with Emergency Option

Overview

Kosnic's latest LED DD sensor lamp takes a fresh approach to functional lighting with a design that offers selectable 9W, 12W or 18W output and 3000K, 4000K or 5000K CCT options on a single lamp. The lamps are recommended for the Ossa and Visio fittings and compatible with Kosnic plug-in emergency modules. The products bring the energy saving capabilities of LED technology to the commercial environment and the lamps may quickly replace existing fluorescent lamps with no rewiring where space allows.

Features

- Selectable 9W, 12W or 18W option
- Selectable 3000K, 4000K or 5000K option
- Save energy up to 65% compared with a fluorescent lamp with magnetic ballast
- Single side high lumen output for light only where it's needed
- Long life of 30,000h
- Compatible with Kosnic standard and self-test emergency modules
- Instant start
- Negligible UV output
- Mercury free

Emergency Module Compatible

The LED lamp is compatible with the standard and self-test Kosnic emergency modules, which provide power in the event of a cut in the supply and must be wired to an un-switched supply. The LEDs can switch to the battery supply for more than 3 hours during an emergency or test, dimming the output and isolating the LEDs from the normal mains supply.

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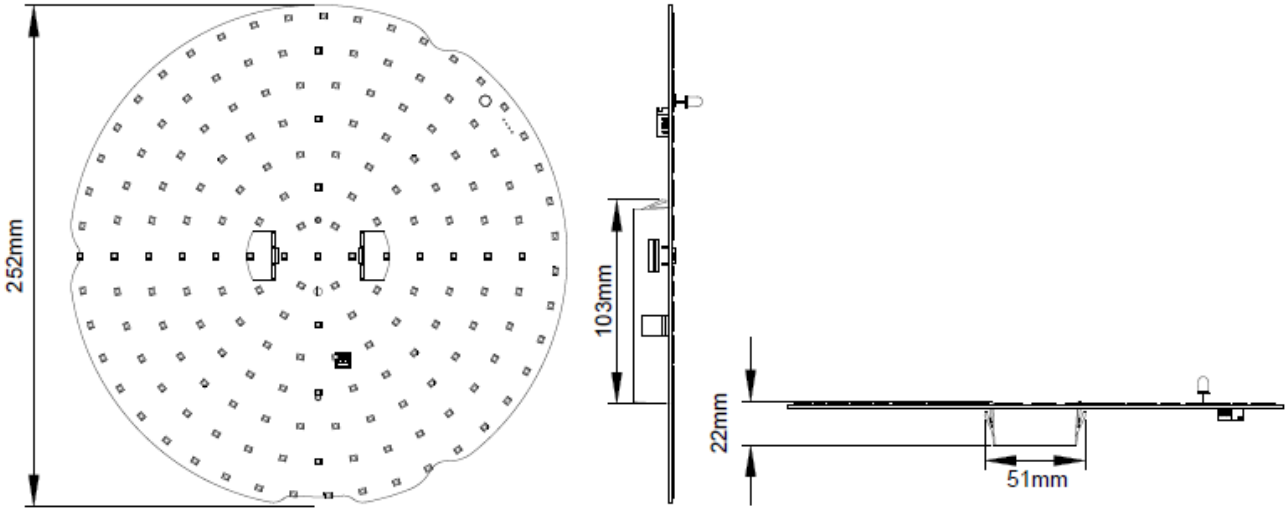
Specifications

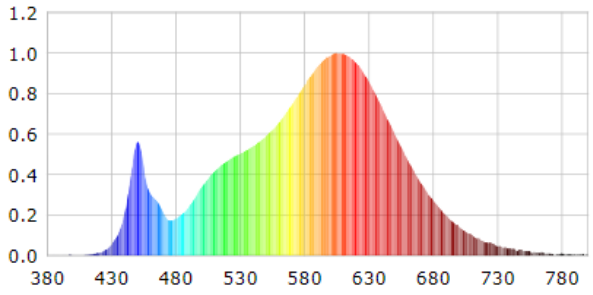
Product Code	**K2DC9-18STD/4P-SCT**		
Voltage	220-240Vac 50/60Hz		
Current (mA)	47	60	87
Rated Power (W)	9	12	18
Power Factor	0.84	0.87	0.90
In-rush current (A)	2.85 / 40µs	2.85 / 40µs	2.85 / 40µs
Luminous Flux (lm)	1180 (3000k) 1220 (4000k) 1220 (5000k)	1600 (3000k) 1670 (4000k) 1670 (5000k)	2500 (3000k) 2660 (4000k) 2660 (5000k)
Nominal Lifetime (h)	30000	30000	30000
Lifetime (L70B50) (h)	54000	54000	54000
Lifetime (L80) (h)	54000	54000	54000
Lifetime (L90) (h)	42000	42000	42000
Blue Light Hazard	RG1	RG1	RG1
Glow Wire Temperature (°C)	650	650	650
Dimensions (LxWxD) (mm)	22 x 252ø	22 x 252ø	22 x 252ø
Weight (Kg)	0.192	0.192	0.192
Lighting Technology used	LED	LED	LED
Directional / Non-Directional	NDLS	NDLS	NDLS
Cap Type / interface	GR10q	GR10q	GR10q
Mains / Non-Mains	MLS	MLS	MLS
Connected Light Source	No	No	No
Colour Tuneable Lightsource	No	No	No
High luminance light source	No	No	No
Anti-glare shield	No	No	No
Dimmable	No	No	No
CCT	3000k Warm White 4000k Cool White 5000k Day Light	3000k Warm White 4000k Cool White 5000k Day Light	3000k Warm White 4000k Cool White 5000k Day Light
Energy Consumption in on-mode (kWh/1000h)	9	12	18
Energy Efficiency Class	D	D	D
Useful Luminous Flux (lm)	1180 (3000k) 1220 (4000k) 1220 (5000k)	1600 (3000k) 1670 (4000k) 1670 (5000k)	2500 (3000k) 2660 (4000k) 2660 (5000k)
Beam Angle Correspondence (°)	360	360	360
On-mode power (Pon) (W)	9	12	18
Standby power (Psb) (W)	0	0	0
Networked standby pwr (CLS) (Pnet)	N/A	N/A	N/A
CRI	82	82	82
Claim of equivalent power	No	No	No
Equivalent power	N/A	N/A	N/A
Chromaticity Coordinates	0.44(x), 0.405(y) (3000k) 0.388(x), 0.38(y) (4000k) 0.348(x), 0.362(y) (5000k)	0.44(x), 0.405(y) (3000k) 0.388(x), 0.38(y) (4000k) 0.348(x), 0.362(y) (5000k)	0.44(x), 0.405(y) (3000k) 0.388(x), 0.38(y) (4000k) 0.348(x), 0.362(y) (5000k)
Peak luminous intensity (DLS) (cd)	N/A	N/A	N/A
Beam angle (DLS) (°)	N/A	N/A	N/A
R9 CRI value (LED/OLED)	13 (3000k) 18 (4000k) -1 (5000k)	13 (3000k) 18 (4000k) -1 (5000k)	13 (3000k) 18 (4000k) -1 (5000k)
Survival Factor	0.9	0.9	0.9
Lumen maintenance factor	0.96	0.96	0.96
Displacement factor (Mains LED/OLED)	0.92	0.95	0.97
Colour consistency in mcadam ellipses (Mains LED/OLED)	6	6	6
LED light source rep. a fluorescent light source without integrated ballast of a particular wattage (Mains LED/OLED)	No	No	No
Rep. W claim (Mains LED/OLED)	N/A	N/A	N/A
Flicker (pst LM) (Mains LED/OLED)	0.2	0.2	0.2

Stroboscopic effect metric (SVM)	0.2	0.2	0.2
Ambient Temperature (°C)	-20 to 40	-20 to 40	-20 to 40
Emergency Module	EMDD02 (standard) CEC02LBL/S (self-test)	EMDD02 (standard) CEC02LBL/S (self-test)	EMDD02 (standard) CEC02LBL/S (self-test)
Emergency Luminous Flux (lm)	180	180	180

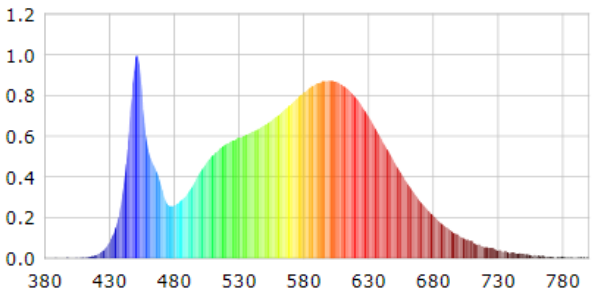
Dimensions



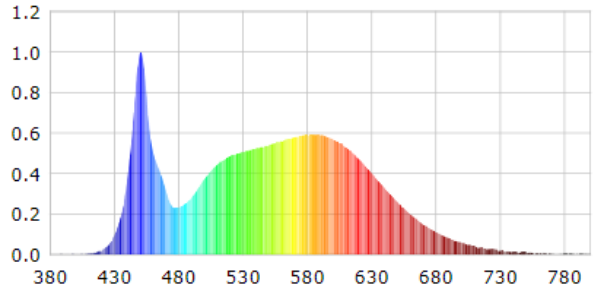
Photometric Information



3000k



4000k



5000k

Fitting Conversion

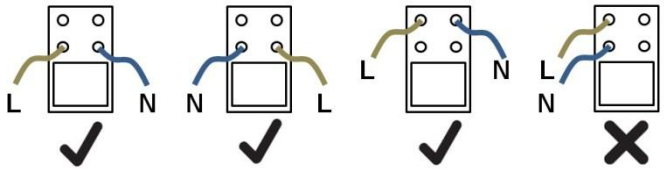
The lamps are designed to run directly from the mains in a fitting without a ballast. Where space allows, the LED DD lamp may replace an existing fluorescent lamp. The existing fitting must be switched off and isolated at the mains before commencing electrical work. It is the responsibility of the converter to ensure the fitting continues to meet safety requirements. If in doubt consult a qualified electrician. For maximum energy savings, bypass all control gear and wire from the mains to the lampholder as for an electronic high frequency ballast conversion.

Magnetic Ballast (Choke):

- Remove the starter and any power factor capacitor. The capacitor may be left in place, but the energy savings will not be so good.
- Plug the LED DD lamp directly into the lampholder.

Electronic Ballast (High Frequency) Conversion:

- The electronic ballast is not required so it must be removed or bypassed.
- Wire the Live and Neutral directly from the supply to the lampholder terminals as per below.
- The Live and Neutral must be wired to opposite terminals on the lampholder and not be wired to terminals on the same side.



Add an indelible warning label, visible when changing the lamp, showing the substance of:
Warning - not for use with fluorescent lamp, use only Kosnic LED DD lamp.

Optional Emergency Module

An optional emergency module for the LED DD lamp can be installed within the fitting to provide a back-up supply in the event of a power cut. The emergency module requires a permanent live un-switched supply to maintain the battery charge. In the event of a power cut the battery within the emergency module will supply the LED DD lamp at a reduced voltage through the supplementary socket provided for this purpose. The supplementary socket also connects the emergency module to the green charging indicator on the LED DD lamp.