

Datasheet

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

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 (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (5000k) Voltage 1200 (5000k) 1670 (5000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (4000k) 1220 (5000k) Nominal Lifetime (h) 30000 30000 30000 Lifetime (L70B50) (h) 54000 54000 54000 Lifetime (L30) (h) 54000 42000 42000 Lifetime (L90) (h) 42000 42000 42000 Blue Light Hazard RG1 RG1 RG1	Product Code	K2DC9-18STD/4P-SCT		
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 (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (5000k) Nominal Lifetime (h) 30000 30000 30000 Lifetime (L70B50) (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	Voltage	220-240Vac 50/60Hz		
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 (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (5000k) Nominal Lifetime (h) 30000 30000 30000 Lifetime (L70B50) (h) 54000 54000 54000 Lifetime (L80) (h) 54000 54000 42000 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	Current (mA)	47	60	87
Power Factor 0.84 0.87 0.90 In-rush current (A) 2.85 / 40μs 2.85 / 40μs 2.85 / 40μs Luminous Flux (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 2660 (5000k) Nominal Lifetime (h) 30000 30000 30000 Lifetime (L70B50) (h) 54000 54000 54000 Lifetime (L80) (h) 54000 54000 42000 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	Rated Power (W)	9	12	18
In-rush current (A) 2.85 / 40µs 2.85 / 40µs 2.85 / 40µs Luminous Flux (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 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	Power Factor	0.84	0.87	0.90
Luminous Flux (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 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	In-rush current (A)	2 85 / 40us	2 85 / 40us	2 85 / 40us
Literime (h) 100 (000k) 1670 (4000k) 2660 (4000k) 1220 (4000k) 1670 (4000k) 2660 (4000k) 1220 (5000k) 1670 (5000k) 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	Luminous Flux (Im)	1180 (3000k)	1600 (3000k)	2500 (3000k)
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		1220 (4000k)	1670 (4000k)	2660 (4000k)
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		1220 (5000k)	1670 (5000k)	2660 (5000k)
Lifetime (L70B50) (h) 54000 54000 54000 Lifetime (L80) (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	Nominal Lifetime (h)	30000	30000	30000
Lifetime (L70530) (h) 34000 34000 34000 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	Lifotimo (L70B50) (b)	54000	50000	50000
Lifetime (L90) (h) 42000 42000 42000 Blue Light Hazard RG1 RG1 Glow Wire Temperature (°C) 650 650 Dimensions (LxWxD) (mm) 22 x 252ø 22 x 252ø 22 x 252ø	Lifetime (L80) (h)	54000	54000	54000
Blue Light Hazard RG1 RG1 Glow Wire Temperature (°C) 650 650 650 Dimensions (LxWxD) (mm) 22 x 252ø 22 x 252ø 22 x 252ø	Lifetime (L90) (h)	42000	42000	42000
Glow Wire Temperature (°C) 650 650 650 Dimensions (LxWxD) (mm) 22 x 252ø 22 x 252ø 22 x 252ø	Blue Light Hazard	RG1	RG1	RG1
Dimensions (LxWxD) (mm) 22 x 252ø 22 x 252ø 22 x 252ø	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	Weight (Kg)	0.192	0.192	0.192
Lighting Technology used LED LED LED	Lighting Technology used	LED	LED	LED
Directional / Non-Directional NDLS NDLS NDLS	Directional / Non-Directional	NDLS	NDLS	NDLS
Cap Type / interface GR10q GR10q GR10q	Cap Type / interface	GR10q	GR10q	GR10q
Mains / Non-Mains MLS MLS MLS	Mains / Non-Mains	MLS	MLS	MLS
Connected Light Source No No No	Connected Light Source	No	No	No
Colour l'uneable Lightsource No No No	Colour Tuneable Lightsource	No	No	No
High luminance light source No No No	High luminance light source	No	No	No
Anti-glare shield No No No	Anti-glare shield	No	No	No
Dimmable No No No	Dimmable	No	No	No
CCT 3000k Warm White 3000k Warm White 3000k Warm White	ССТ	3000k Warm White	3000k Warm White	3000k Warm White
4000k Cool White 4000k Cool White 4000k Cool White		4000k Cool White	4000k Cool White	4000k Cool White
5000k Day Light 5000k Day Light 5000k Day Light		5000k Day Light	5000k Day Light	5000k Day Light
Energy Consumption 9 12 18	Energy Consumption	9	12	18
In on-mode (KWn/1000h)	In on-mode (KWN/1000n)	D	D	D
Liseful Luminous Elux (Im) 1180 (3000k) 1600 (3000k) 2500 (3000k)	Liseful Luminous Flux (Im)	1180 (3000k)	1600 (3000k)	2500 (3000k)
1220 (4000k) 1670 (3000k) 2660 (4000k)		1220 (4000k)	1670 (4000k)	2660 (4000k)
1220 (4000k) 1070 (4000k) 2660 (4000k)		1220 (4000k)	1670 (4000k)	2660 (5000k)
Beam Angle Correspondence (°) 360 360 360 360	Beam Angle Correspondence (°)	360	360	360
On-mode power (Pon) (W) 9 12 18	On-mode power (Pon) (W)	9	12	18
Standby power (Psb) (W) 0 0 0	Standby power (Psb) (W)	0	0	0
Networked standby pwr (CLS) (Pnet) N/A N/A N/A	Networked standby pwr (CLS) (Pnet)	N/A	N/A	N/A
CRI 82 82 82		82	82	82
Claim of equivalent power No No No	Claim of equivalent power	No	No	No
Equivalent power N/A N/A N/A	Fauivalent nower	N/A	N/A	N/A
Chromaticity Coordinates $0.44(x) 0.405(y) (3000k) 0.44(x) 0.405(y) (3000k) 0.44(x) 0.405(y) (3000k)$	Chromaticity Coordinates	0.44(x) = 0.405(y) (3000k)	0.44(x) = 0.405(y) (3000k)	0.44(x) = 0.405(y) (3000k)
0.388(x)	on onationy ocordinates	0.388(x) = 0.38(y) (3000k)	0.388(x), 0.38(y), (3000k)	0.388(x), 0.38(y), (3000k)
0.368(x), 0.362(y) (4000k) = 0.368(x), 0.36(y) (4000k) = 0.368(x), 0.360(x), 0.36(y) (4000k) = 0.348(x), 0.362(y) (5000k) = 0.348(x), 0.362(y)		0.348(x) = 0.362(y) (4000k)	0.348(x), 0.362(y) (4000k)	0.368(x), 0.362(y) (4000k)
Beak luminous intensity (DLS) (cd) N/A N/A	Peak luminous intensity (DLS) (cd)	N/A	N/A	N/A
$\frac{1}{100} = \frac{1}{100} = \frac{1}$	Room angle (DLS) (°)	N/A		
Beam angle (DL3) () IV/R IV/R IV/R B0 CPL value (LED/OLED) 12 (2000k) 12 (2000k) 12 (2000k)	Beam angle (DLS) ()	12 (2000k)	12 (2000k)	12 (2000k)
R9 CRI value (LED/OLED) 13 (3000k) 13 (3000k) 18 (4000k) 18 (4000k) 19 (4000k)	R9 CRI Value (LED/OLED)	13 (3000k) 18 (4000k)	13 (3000k) 18 (4000k)	18 (4000k)
10 (4000k) 10 (4000k) 10 (4000k) 1 (5000k) 1 (500k) 1 (500k) 1 (500k) 1 (500k) 1 (500k) 1 (500		18 (4000K)	18 (4000k) 1 (5000k)	16 (4000K) 1 (E000K)
-1 (5000k) -1 (5000k) -1 (5000k)	Current Footon	-1 (5000k)	-1 (5000k)	-1 (5000k)
Survival Factor 0.9 0.9 0.9	Survival Factor	0.9	0.9	0.9
Lumen mameriance factor 0.30 0.30 0.30 Displacement factor (Mains LED/OLED) 0.92 0.95 0.07	Displacement factor (Mains LED/OLED)	0.30	0.50	0.30
Colour consistency in meadam ellipses 6 6 6	Colour consistency in more dom ollinger	6	6	6
(Mains LED/OLED)	(Mains LED/OLED)	0	0	8
LED light source rep. a fluorescent light No No No No particular wattage (Mains LED/OLED)	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	Rep. W claim (Mains LED/OLED)	N/A	N/A	N/A
Flicker (pst LM) (Mains LED/OLED)0.20.2	Flicker (pst LM) (Mains LED/OLED)	0.2	0.2	0.2



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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)	EMDD02 (standard)	EMDD02 (standard)
	CEC02LBL/S (self-test)	CEC02LBL/S (self-test)	CEC02LBL/S (self-test)
Emergency Luminous Flux (Im)	180	180	180

Dimensions



Photometric Information





3000k







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.

