

LS-CU301-160W**Preliminary****High Brightness LED Power Module****FEATURES**

- Cu based PCB, with Rayben MHE301 technology 1.0 mm thickness
- CREE XML LED
- Shiny white surface
- 160 W multichip LED, maximum 11742 lm for cool white, 10840 lm for natural white, and 9032 lm for warm white at 3000 mA driving current
- CRI: minimum 65 for cool white, 75 for natural white, 80 for warm white
- Color temperature: 2600K – 8300K
- Angle of half intensity: $\pm 63^\circ$

DESCRIPTION:

LS-CU301-160W is a high brightness LED modules. Totally 16 pieces 10 W multichip power LEDs are soldered on a Cu plate. The Cu plate with Rayben MHE301 technology guarantees best heat removal and distribution.

LS-CU301-W160 has a wide range of color temperature available.

Additional to the modules a suitable LED driver is available.

APPLICATIONS

- Internal lighting in buildings
- Tunnel lights
- High Bay, Low Bay
- General lighting application

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Parts Table			
P/N	Color	LUMINOUS FLUX (at $I_F = 2000$ mA typ.)	Color Temperature K
LS-CU301-160W-830	Warm white	6865	2600-3700
LS-CU301-160W-740	Natural white	8238	3700-5000
LS-CU301-160W-650	Cool white	8926	5000-8300

ABSOLUTE MAXIMUM RATINGS			
PARAMETER	SYMBOL	VALUE	UNIT
Forward current	I_F	3000	mA
Power dissipation	P	152	W
Junction temperature	T_j	150	°C
Operating temperature range	T_{amb}	-40 to +80	°C
Storage temperature range	T_{stg}	-40 to + 100	°C

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Electro-Optical characteristics (Warm White, 3000K)					
PARAMETER	Symbol	Value			Unit
		Min @ 700mA	Typ. @ 2000mA	Max @ 3000mA	
Luminous Flux	Φ_V	2777	6865	9032	Lm
Correlated Color Temperature	CCT	2600		3700	K
CRI	Ra	80			
Operating Voltage	V _{opt}	43.5	49	50.5	V
Power Dissipation	PD	30.5	98	151.5	W

Note: all parameter are measured at T_j = 85C using Warm White 3000K

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Electro-Optical characteristics (Natural White, 4000K)					
PARAMETER	Symbol	Value			Unit
		Min @ 700mA	Typ. @ 2000mA	Max @ 3000mA	
Luminous Flux	Φ_V	3333	8238	10840	Lm
Correlated Color Temperature	CCT	3700		5000	K
CRI	Ra	75			
Operating Voltage	V _{opt}	43.5	49	50.5	V
Power Dissipation	PD	30.5	98	151.5	W

Note: all parameter are measured at T_j = 85C using Natural White 4000K

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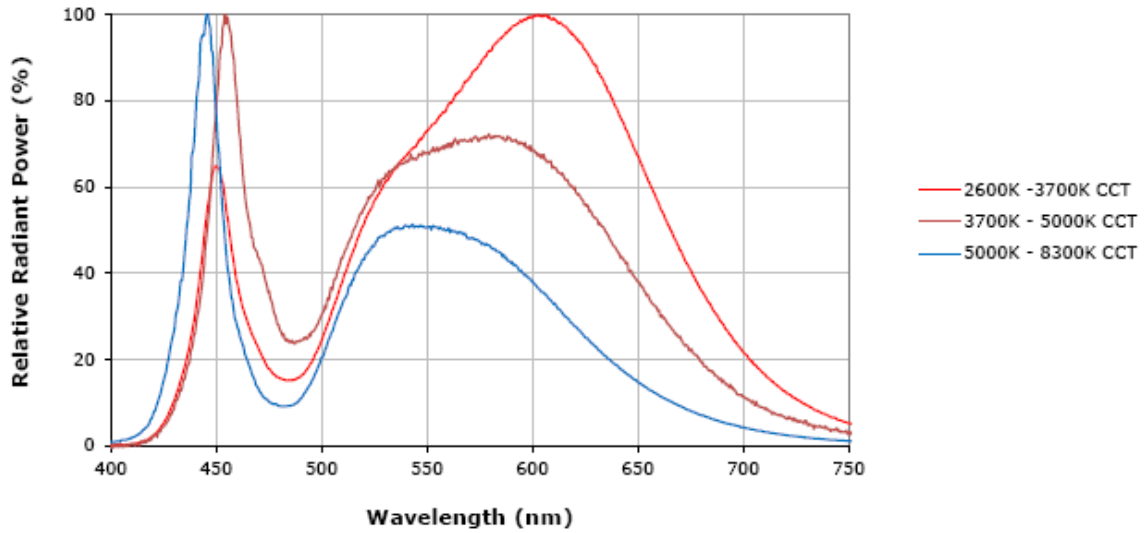
Electro-Optical characteristics (Cool White, 5700K)					
PARAMETER	Symbol	Value			Unit
		Min @ 700mA	Typ. @ 2000mA	Max @ 3000mA	
Luminous Flux	Φ_V	3611	8926	11742	Lm
Correlated Color Temperature	CCT	5000		8300	K
CRI	Ra	65			
Operating Voltage	V _{opt}	43.5	49	50.5	V
Power Dissipation	PD	30.5	98	151.5	W

Note: all parameter are measured at T_j = 85C using Cool White 5700K

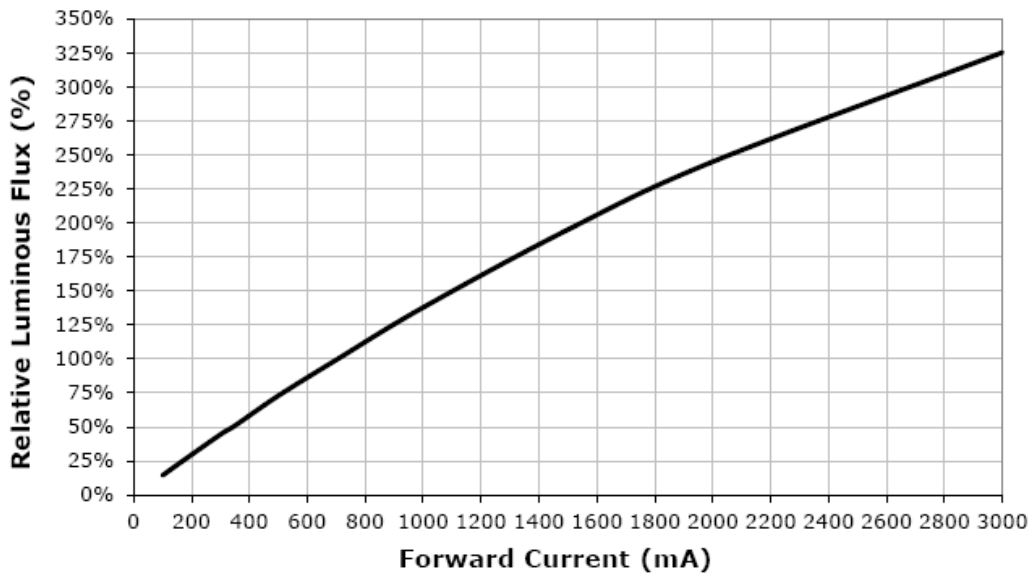
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Relative Spectral Power Distribution



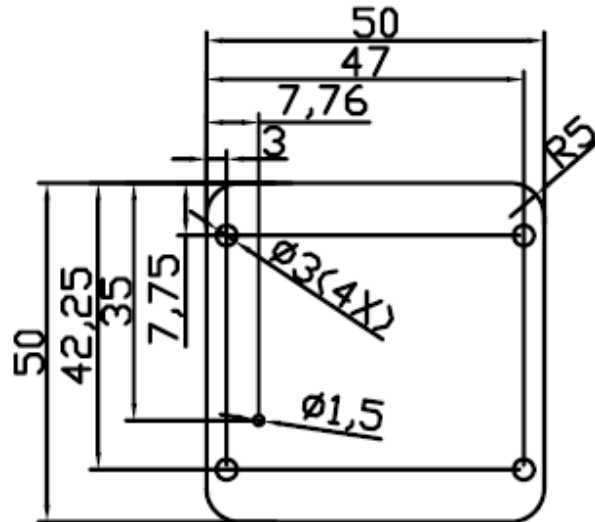
Relative Flux VS Current (Tj = 25C)



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Outline Dimension:



* Notes:

[1] All dimensions are in millimeters.

[2] Scale : none

Packaging Dimension:

