

# LS-CU301-200W

Preliminary

## High Brightness LED Power Module



### FEATURES

- Cu based PCB, with Rayben MHE301 technology 1.0 mm thickness
- CREE XML LED
- Shiny white surface
- 200 W multichip LED, maximum 14,678 lm for cool white, 13,550 lm for natural white, and 11,290 lm for warm white at 6000 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-CU301-200W is a high brightness LED modules. Totally 20 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-CU301-200W 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

# LS-CU301-200W

Preliminary

<b>Parts Table</b>			
P/N	Color	<b>LUMINOUS FLUX</b> (at $I_F = 4000$ mA typ.)	Color Temperature K
LS-CU301-200W-830	Warm white	8,582	2600-3700
LS-CU301-200W-740	Natural white	10,298	3700-5000
LS-CU301-200W-650	Cool white	11,158	5000-8300

<b>ABSOLUTE MAXIMUM RATINGS</b>			
PARAMETER	SYMBOL	VALUE	UNIT
Forward current	$I_F$	6000	mA
Power dissipation	P	228	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

# LS-CU301-200W

Preliminary

Electro-Optical characteristics (Warm White, 3000K)					
PARAMETER	Symbol	Value			Unit
		Min @ 1400mA,	Typ. @ 4000mA	Max @ 6000mA	
Luminous Flux	$\Phi_V$	3,472	8,582	11,290	lm
Correlated Color Temperature	CCT	2600		3700	K
CRI	Ra	80			
Operating Voltage	V <sub>opt</sub>	32.7	36.8	37.9	V
Power Dissipation	PD	38.1	122.5	190	W

Note: all parameter are measured at T<sub>j</sub> = 85C using Warm White 3000K

# LS-CU301-200W

Preliminary

Electro-Optical characteristics (Natural White, 4000K)					
PARAMETER	Symbol	Value			Unit
		Min @ 700mA,	Typ. @ 4000mA	Max @ 6000mA	
Luminous Flux	$\Phi_V$	4,999	10,298	13,550	lm
Correlated Color Temperature	CCT	3700		5000	K
CRI	Ra	75			
Operating Voltage	V <sub>opt</sub>	32.7	36.8	37.9	V
Power Dissipation	PD	38.1	122.5	190	W

Note: all parameter are measured at T<sub>j</sub> = 85C using Natural White 4000K

# LS-CU301-200W

Preliminary

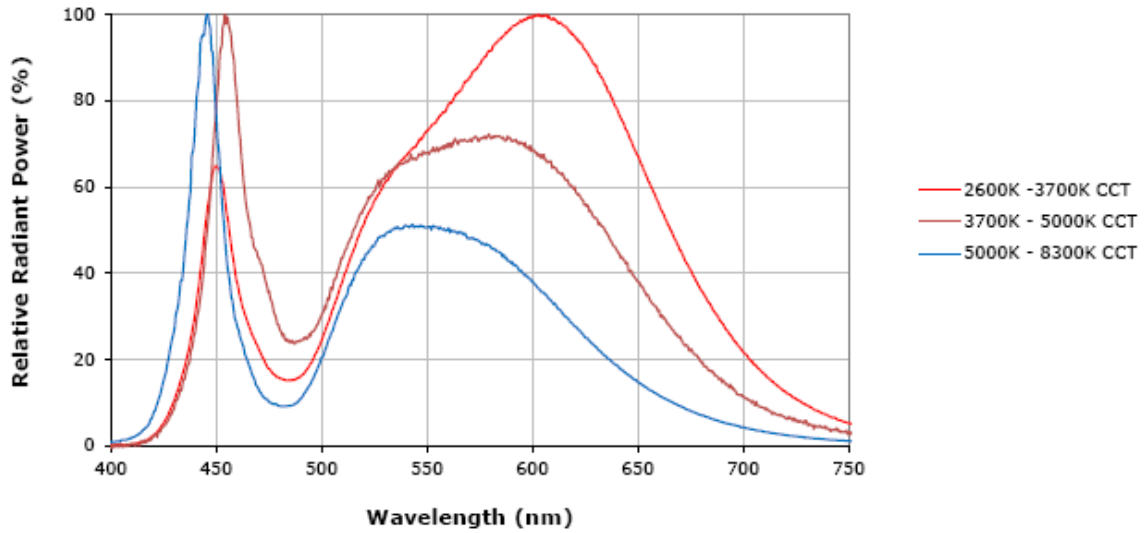
Electro-Optical characteristics (Cool White, 5700K)					
PARAMETER	Symbol	Value			Unit
		Min @ 700mA,	Typ. @ 4000mA	Max @ 6000mA	
Luminous Flux	$\Phi_V$	4,514	11,158	14,678	lm
Correlated Color Temperature	CCT	5000		8300	K
CRI	Ra	65			
Operating Voltage	V <sub>opt</sub>	32.7	36.8	37.9	V
Power Dissipation	PD	38.1	122.5	190	W

Note: all parameter are measured at T<sub>j</sub> = 85C using Cool White 5700K

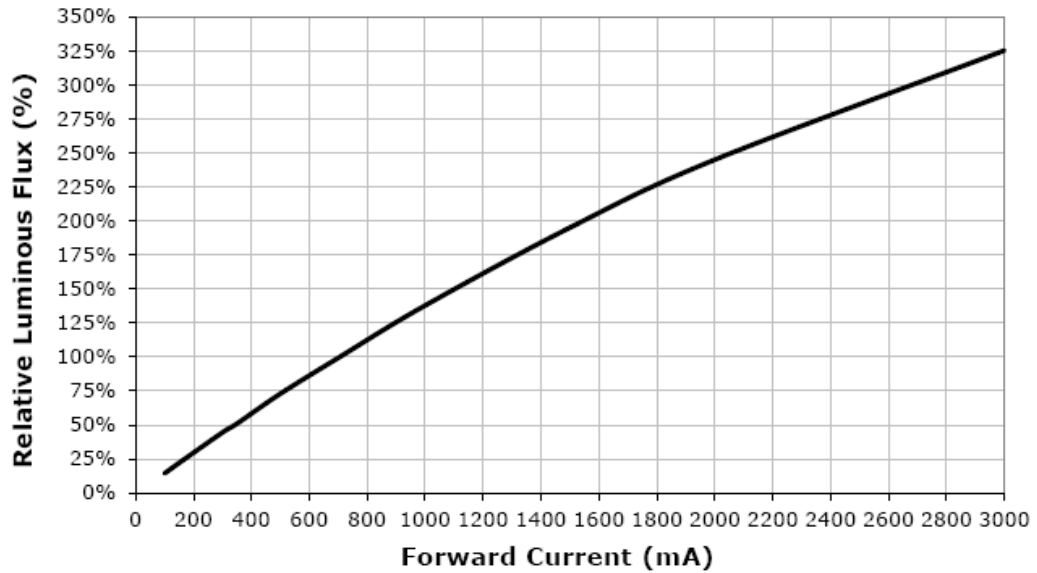
# LS-CU301-200W

Preliminary

## Relative Spectral Power Distribution



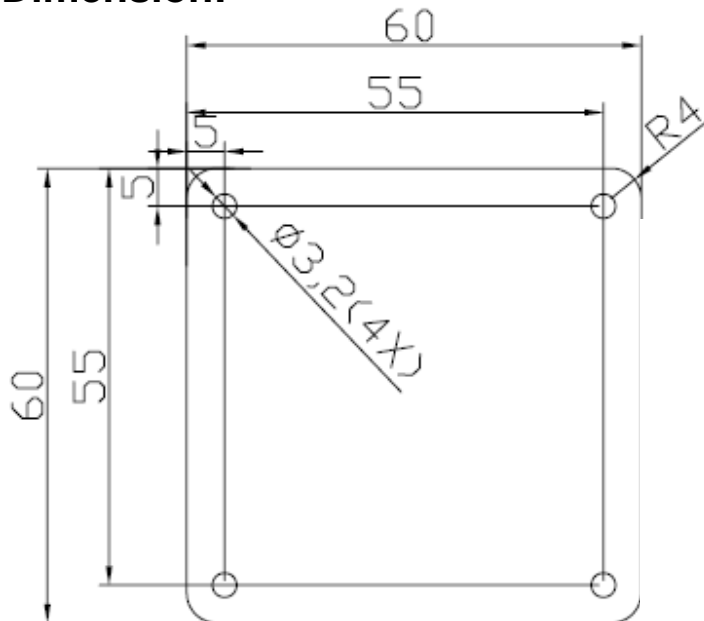
## Relative Flux VS Current (Tj = 25C)



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Preliminary

## Outline Dimension:



\* Notes:

[1] All dimensions are in millimeters.

[2] Scale : none

## Packaging Dimension:

