

**SPECIFICATION****MODEL : LX-ECO2S-xxx****( Cover - 120° Angle)****Powerd by Samsung LED**

Supplier		Customer
Written by	Approved by	Approved by

**NCLED CO., LTD**

## Characteristic

**CE, UL, KS CERTIFIED**

**HIGH EFFICIENCY SAMSUNG LED 5630 LED MOUNTED**

IP68 RATING

**120° COVER LENS APPLIED**

DAMP.PROOF DESIGN TO PREVENT DAMAGE FOR LED & OTHER PARTS

EXCELLENT PROTECTION RATE AGAINST RAIN, DIRECT LIGHT AND ULTRAVIOLET RAYS

COMPACT DESIGN AND CONVENIENT USABILITY

TRACEABILITY MANAGEMENT SYSTEM & QUALITY CONTROL MARKING SERIAL CODE

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50,000HOURS RATED LIFE TIME (L70)



## Application note

BEST SUBSTITUTE FOR GENERAL CHANNEL LETTER SIGNAGE

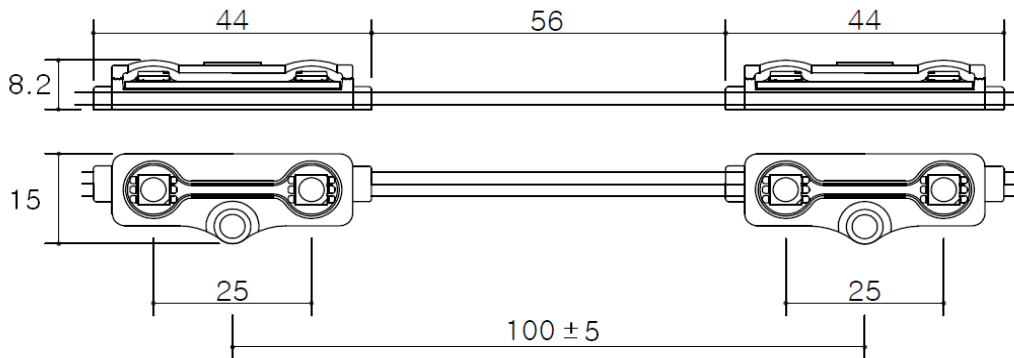
MODIFIED FOR THE BEST UNIFORMITY

BACK LIGHT FOR LIGHT BOX

## Product Image



**Dimension**



**Specification**

Item	Value								Unit
Model no	W12	W95	W65		W50		W30		
Power Dissipation	0.72W								Watt
Forward Voltage	12								VDC
Forward Current	60								mA
Driving System	Constant Voltage								-
Luminous Flux	47	47	50		50		47		lm
Luminance Efficiency	65	65	70		70		65		lm/W
CCT(K)	12000	9500	6500		5000		3000		Kelvin
CRI (Ra)	75	75	80		80		80		%
Viewing angle	120°								deg
LED	5630PKG x 2EA / Samsung LED								-
Module Pitch	98 ±3								mm
Size	38 x 15 x 9.6								mm
Weight	7								g
Max in series	50								EA
Operating Temp	-20 ~ 50								°C
Storage Temp	-30 ~ 70								°C
Waterproof	IP68								
Life Time	50,000								Hour
Cable	AWM2468-AWG18, UL								
LENS materials	PMMA, UL-94								
Case materials	PC/ABS, UL-94 , V-2								

**Photometric characteristics**

**Color Parameters:**

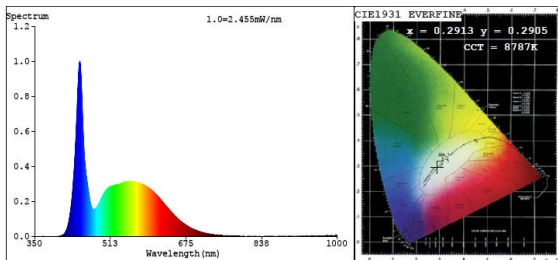
Chromaticity Coordinate:  $x=0.2913$   $y=0.2905/u'=0.1974$   $v'=0.4429$   
 CCT=8787K (Duv=-0.0054) Dominant WL:Ld =476.6nm Purity=18.3%  
 Ratio:R=13.0% G=80.8% B=6.2% Peak WL:Lp=447.0nm FWHM=18.7nm  
 Render Index:Ra=84.6

**Photo Parameters:**

Flux = 50.20 lm Eff. : 68.14 lm/W Fe = 178.6 mW

**Electrical parameters:**

V = 11.998 V I = 0.06140 A P = 0.7367 W PF = 1.000



**LED Specification**

**Absolute Maximum Rating**



Item	Symbol	Rating	Condition
LED junction temperature	T <sub>J</sub>	110℃	-
Forward Current	I <sub>F</sub>	150 mA	-
Peak Pulsed Forward Current	I <sub>FP</sub>	300 mA	Duty 1/10 pulse width 10ms
Thermal resistance	R <sub>th, j-s</sub>	16℃/W	Junction to solder point
ESD	-	5kV	HBM

**LM80- Test Summary**

Life test condition			Summary of result		
Test condition	Current (mA)	Case temperature (℃)	Test duration (h)	Average lumen maintenance (%)	Maximum chromaticity shift (Δu'v')
1	100	53.8℃	6000	98.9	0.0010
2	100	84.6℃	6000	97.8	0.0018
3	100	104.9℃	6000	92.4	0.0032