

SPECIFICATION

MODEL : HLC4-HW-WXX

(150° Angle)

Constant Current + High Power Module

Powerd by SamsungLED

Supplier		Customer
Written by	Approved by	Approved by

NCLED CO., LTD

Characteristic

CE, UL, KS CERTIFIED



HIGH EFFICIENCY SAMSUNG LED 5630 LED MOUNTED

TOTAL 124 Lumen (100 lm/W)

150° WIDE ANGLE OPTIC LENS APPLIED

IP67 RATING

COMPACT DESIGN AND CONVENIENT USABILITY

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

EXCELLENT PROTECTION RATE AGAINST RAIN, DIRECT LIGHT AND ULTRAVIOLET RAYS

LESS QUANTITY, BETTER UNIFORMITY FOR LOWER CHANNEL LETTER

TRACEABILITY MANAGEMENT SYSTEM & QUALITY CONTROL MARKING SERIAL CODE

COST REDUCTION FOR INSTALLATION AND MAINTENANCE

40,000HOURS RATED LIFE TIME (L70)

Application note

BEST SUBSTITUTE FOR GENERAL CHANNEL LETTER SIGNAGE

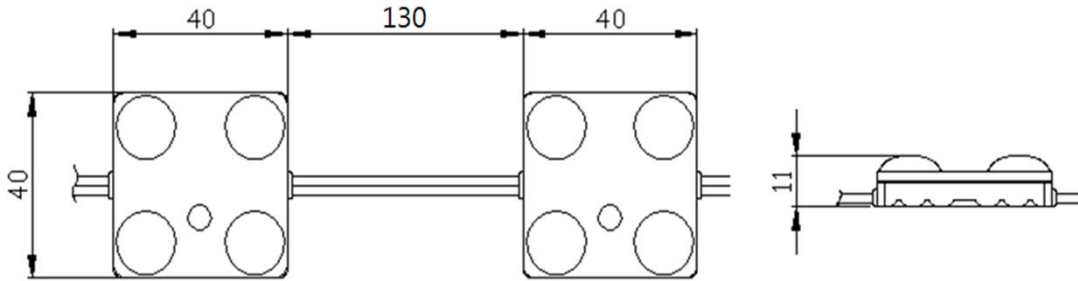
MODIFIED FOR THE BEST UNIFORMITY

BACK LIGHT FOR LIGHT BOX

Product Image



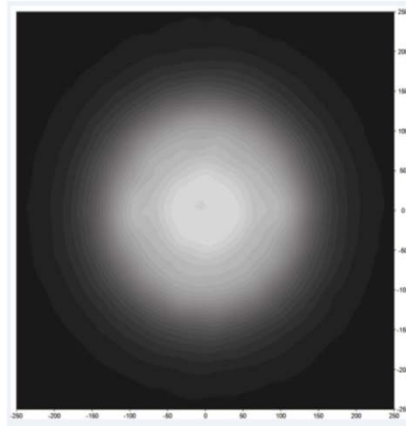
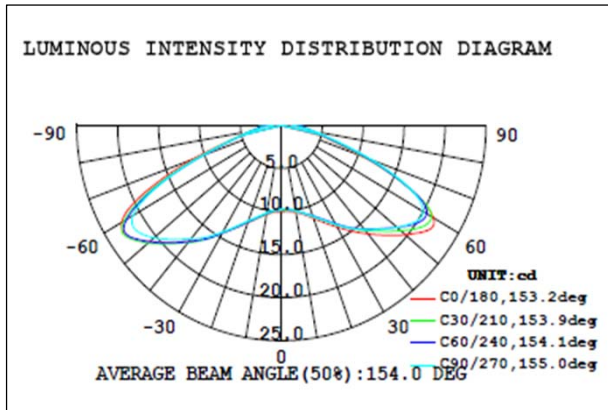
Dimension



Specification

Item	Value								Unit
	W12	W95	W65	W57	W50	W40	W30	W27	
Power Dissipation	1.8W								Watt
Forward Voltage	12								VDC
Forward Current	150								mA
Driving System	Constant Current								-
Luminous Flux	116	116	124	124	124	124	116	112	lm
Luminance Efficiency	64	64	68	68	68	68	64	62	lm/W
CCT(K)	12000	9500	6500	5700	5000	4000	3000	2700	Kelvin
CRI (Ra)	75	75	80	80	80	80	80	80	%
Viewing angle	150°, Wide Angle								deg
LED	5630pkg x 4EA / SAMSUNG LED								-
Module Pitch	170 ±5								mm
Size	40 x 40 x 11								mm
Weight	13								g
Max in series	30								EA
Operating Temp	-20 ~ 50								°C
Storage Temp	-30 ~ 70								°C
Waterproof	IP67								
Life Time	50,000								Hour
Cable	AWM2468-AWG18x2C, UL								
LENS materials	PMMA, UL-94								
Case materials	PC/ABS, UL-94 , V-2								

Photometric characteristics



Color Parameters:

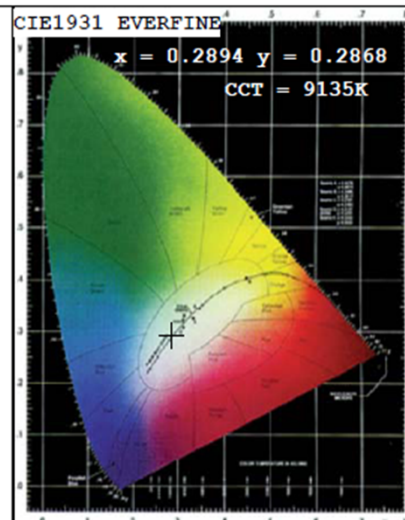
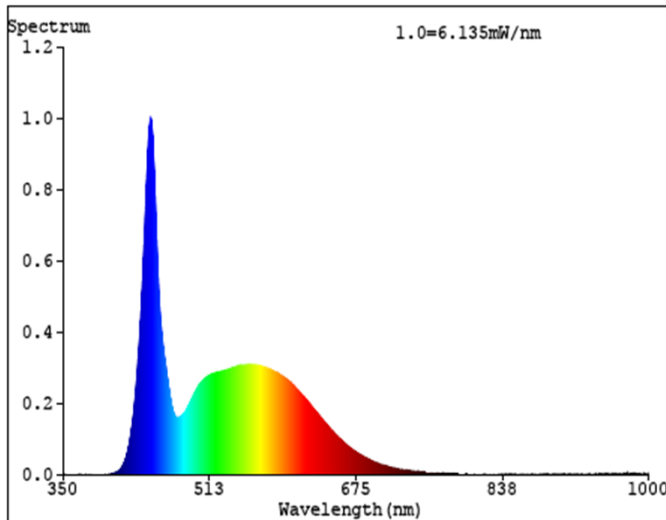
Chromaticity Coordinate: $x=0.2894$ $y=0.2868$ $u'=0.1974$ $v'=0.4403$
 CCT=9135K (Duv=-0.0063) Dominant WL:Ld =475.9nm Purity=19.4%
 Ratio:R=13.0% G=80.6% B=6.4% Peak WL:Lp=447.0nm FWHM=19.1nm
 Render Index:Ra=85.2

Photo Parameters:

Flux = 123.6 lm Eff. : 69.03 lm/W Fe = 443.0 mW







Electrical parameters:

V = 11.998 V I = 0.1492 A P = 1.790 W PF = 1.000



Compare uniformity

LX-HLC4(120°) Vs HLC4-HW(150°)

Materail	LX-HLC4(120°)	HLC4-HW(150°)
Flex		
PC (diffuser)		
Acrylic		

LED Specification

Absolute Maximum Rating



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

LM80- Test Summary

Life test condition			Summary of result		
Test condition	Current (mA)	Case temperature (°C)	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