

SPECIFICATION

MODEL : HLC4-LW-WXX

(150° Angle, Constant Current)

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

THE BEST STABILITY AGAINST TEMP. AND POWER CHANGE WITH CONSTANT CURRENT CIRCUIT

IP68 RATING

150° WIDE ANGLE OPTIC LENS APPLIED

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

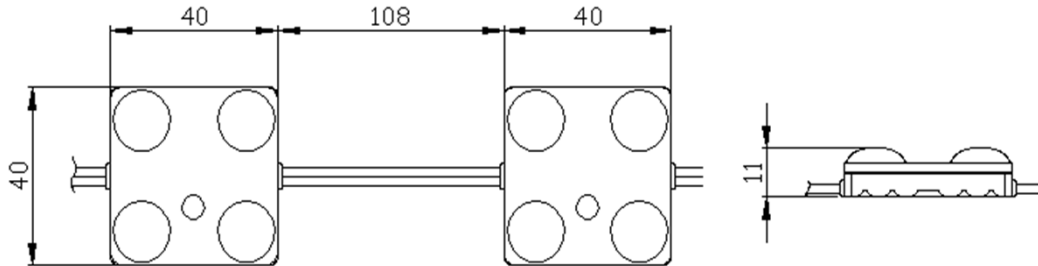
MODIFIED FOR THE BEST UNIFORMITY

BACK LIGHT FOR LIGHT BOX

Product Image



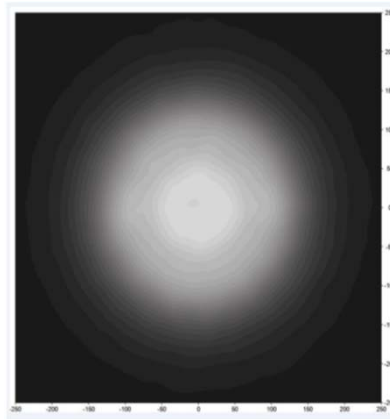
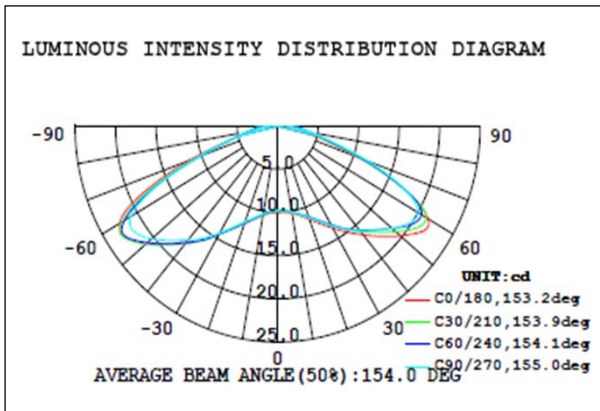
Dimension



Specification

Item	Value									Unit
Model no	W12	W95	W65	W57	W50	W40	W30	W27		
Power Dissipation	1.44W									Watt
Forward Voltage	12									VDC
Forward Current	120									mA
Driving System	Constant Current									-
Luminous Flux	94	94	100	100	100	100	94	90		lm
Luminance Efficiency	65	65	70	70	70	70	65	63		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 maker	5630PKG x 2EA / Samsung LED									-
Module Pitch	148 ±5									mm
Size	40 x 40 x 11									mm
Weight	13									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-AWG18x2C, UL P11111A, UL-94									
LENS materials										
Case materials	PC/ABS, UL-94 , V-2									

Photometric characteristics



Color Parameters:

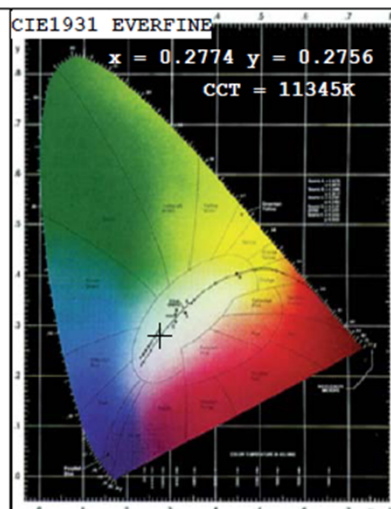
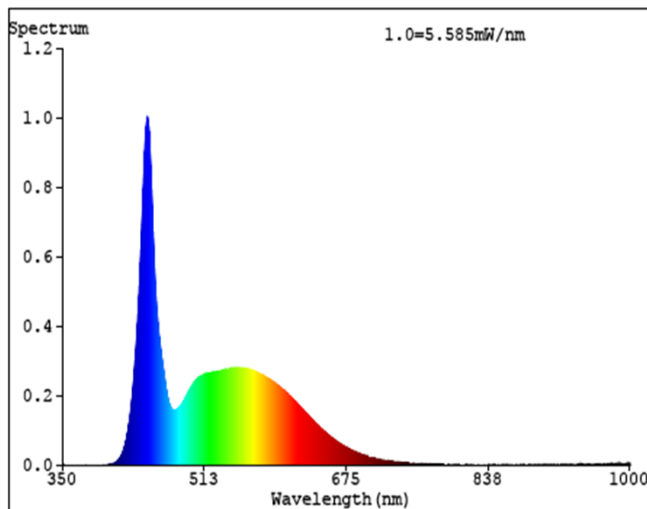
Chromaticity Coordinate: $x=0.2774$ $y=0.2756$ / $u'=0.1929$ $v'=0.4312$
 CCT=11345K (Duv=-0.0048) Dominant WL:Ld =476.4nm Purity=24.5%
 Ratio:R=12.0% G=81.0% B=7.0% Peak WL:Lp=447.1nm FWHM=18.9nm
 Render Index:Ra=84.6

Photo Parameters:

Flux = 101.2 lm Eff. : 68.77 lm/W Fe = 372.4 mW







Electrical parameters:

V = 11.998 V I = 0.1227 A P = 1.472 W PF = 1.000



Compare uniformity

LX-HLC4(120°) Vs HLC4-LW(150°)

Material	LX-HLC4(120°)	HLC4-LW(150°)
Flex		
PC (diffuser)		
Acrylic		

LED Specification



Absolute Maximum Rating

Item	Symbol	Rating	Condition
LED junction temperature	T_j	110 °C	-
Forward Current	I_F	150 mA	-
Peak Pulsed Forward Current	I_{FP}	300 mA	Duty 1/10 pulse width 10ms
Thermal resistance	$R_{\theta, j-s}$	16 °C/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 ($\Delta u'v'$)
1	100	53.8 °C	6000	98.9	0.0010
2	100	84.6 °C	6000	97.8	0.0018
3	100	104.9 °C	6000	92.4	0.0032