SnapBrite SR80K-6W-120

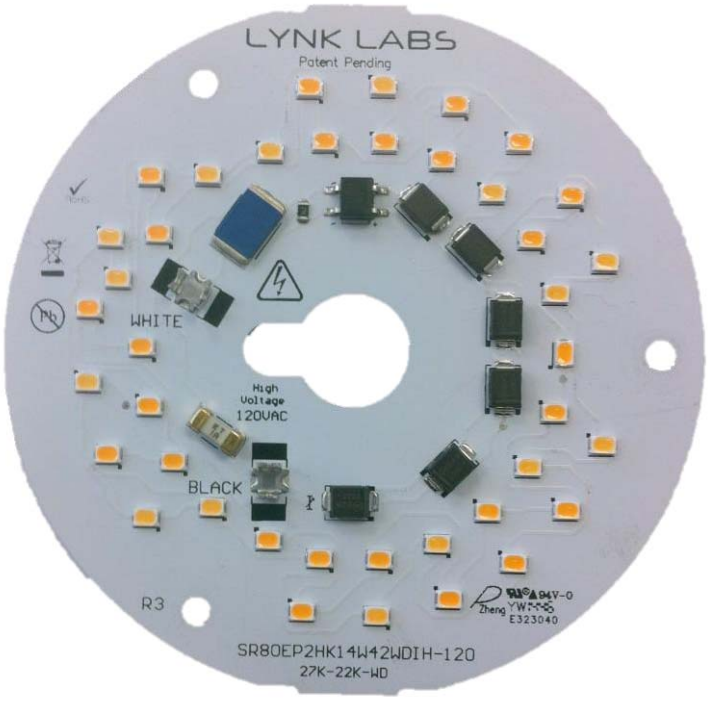
120V Direct Connect AC LED MODULE

80mm dia.• 6 Watt • 455lm • 120V

SINGLE-CCT or WARM ON DIM

STANDARD THD DIMABLE MODULE

Technical Data Sheet



RECOGNIZED COMPONENT
ETL LISTED c US
Intertek
RoHS 2002/95/EC

2511 Technology Drive – Suite 108, Elgin IL 60124. Tel: 847.783.0123 – Fax: 847.783.0130 – www.lynklabs.com

Direct Connect AC LED lighting technology

SnapBrite™ SR80K-6W-120

Description

SnapBrite high voltage AC LED modules are fast, easy and reliable LED light sources for lighting OEMs in need of LED solutions that offer direct AC line voltage connectivity.

Lynk's patented AC LED technology eliminates the requirement for an expensive, bulky and failure prone AC – DC power supply or driver. Delivering efficiency, reliability and a high power factor, SnapBrite modules can be used by lighting manufacturers in many types of fixture as an effective replacement for energy hungry incandescent or CFL lamps. Additionally, the modules will dim with many popular leading and trailing edge phase cut dimmers.

Unlike other AC LED light sources, these SnapBrite modules offer a very unique but optional Warm-On-Dim feature that can change CCT from cooler to warmer as the dimming level changes. This mimics the way a traditional light bulb or halogen lamp becomes warmer to look at as the light level reduces. WOD is a great feature for hospitality and residential applications.

Lynk Low THD Technology can provide under 20% ATHD and a power factor of better than 0.97 for applications demanding minimal EMC disturbance.

Look for the Lynk Labs name or this private label mark to ensure you are always backed by Lynk Labs high quality AC LED technology, IP, and reliability. Lynk Labs - Your AC LED Experts!

LLI ®

Features

- 120V Direct Connect - No Drivers/PSU's
- Lower Cost - Higher Reliability AC LED Module
- Dimmable
- Work with most existing AC Dimmers
- High Efficiency
- High Power Factor >0.97
- Low THD <20%
- Significant Energy Savings
- Long Operating Life
- Reliable, Fast & Easy

Applications

- Recessed and Flush mounts,
- Outdoor Flood
- Ceiling Fans,
- Pendants
- Indoor/Outdoor General line voltage Illumination
- Ideal for commercial, hospitality and residential

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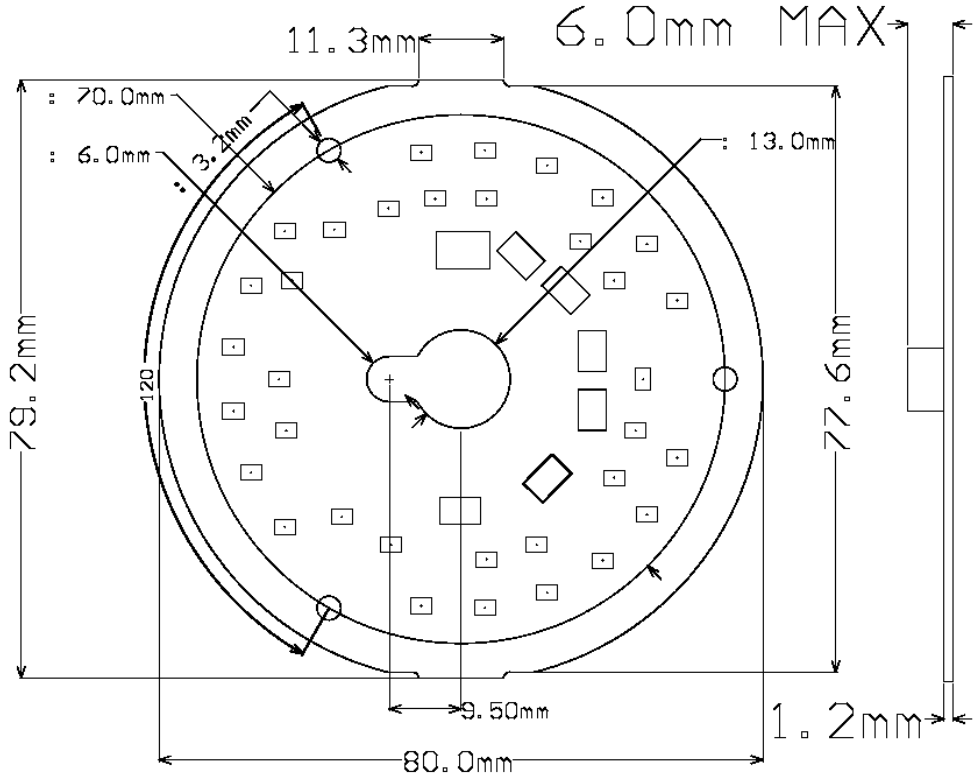
Contents:

3. Mechanical Dimensions



Notes： 1. All dimensions are in millimeters.

2. Tolerance is ±0.05mm unless otherwise noted.

4. Electrical & Optical Characteristics

ITEM	SYMBOL	CONDITION	UNIT	S THD	LTHD	WOD
Drive Voltage	Vf	line voltage	Vrms	120		
Viewing Angle	2θ½		deg	120		
Operating Temperature at test point	T_o (T_c)	If=50 mArms	℃	70		
Typical Operating Power	W_T	If=50 mArms	W	5	6	6
Total Harmonic Distortion	ATHD	Vf=120 Vrms	%	>30%	<20%	<20%
Luminous Flux (3000K)	Φ	Vf=120 Vrms	lm	455	426	420
Luminous Efficacy (3000K)	η_v	Vf=120 Vrms	lm/w	91	71	70

*Measurement Uncertainty of the Luminous Flux: ± 10%

*Values given are for specified drive current at 25℃ case temperature

Standard Module Variants aTHD >20%

MODEL NUMBER	CCT	CRI	VAC	POWER	LUMEN	lm/W
SR80EP2HK06W27KIS-120	2700K	80	120	5	446	89
SR80EP2HK06W30KIS-120	3000K	80	120	5	455	91
SR80EP2HK06W40KIS-120	4000K	80	120	5	473	95

Other CCTs & 90 CRI Option may be Available to Special Order

Warm on Dim Variants aTHD >20%

MODEL NUMBER	Min CCT	Max CCT	CRI	VAC	POWER	LUMEN (no dimmer)	lm/W
SR80EP2HK06W42WDIS-120	2200K	2700K	80	120	6	420	70
SR80EP2HK06W52WDIS-120	2200K	3000K	80	120	6	426	71

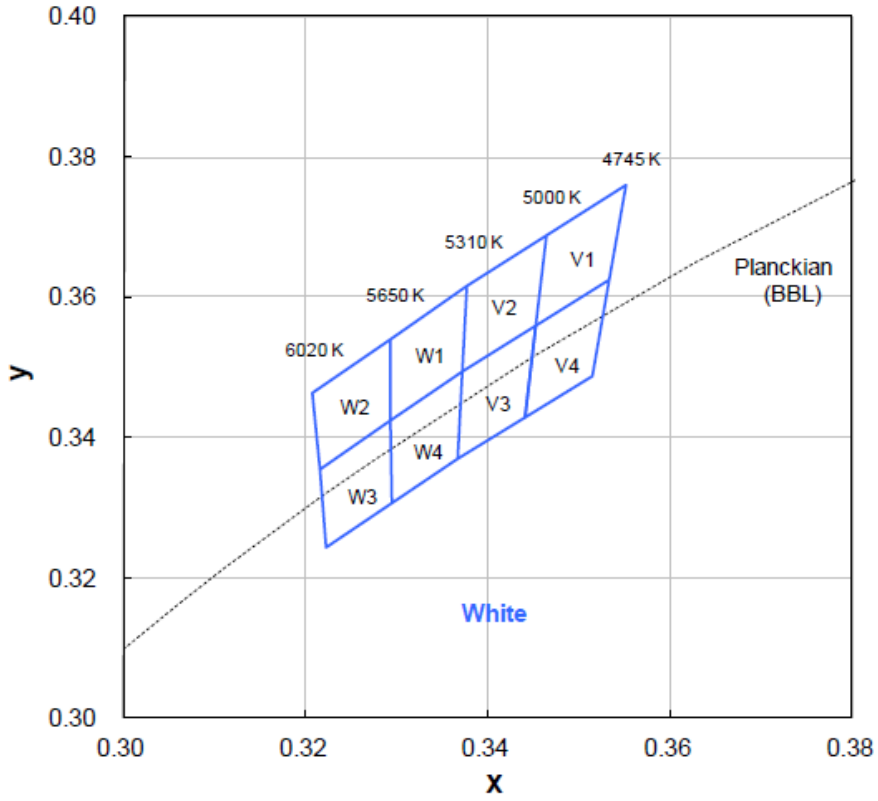
Other CCTs & 90 CRI Option may be Available to Special Order

5. Absolute Maximum Ratings (@ Ta=25°C)

ITEM	SYMBOL	ABSOLUTE MAXIMUM RATING	UNIT
Power Dissipation	Pd	7.5	W
A.C. Current	If	62	mArms
AC Voltage	Vf	130	V
Operatiing Temperature	To	-25 ~ +90	℃
Storage Temperature	Ts	-40 ~ +100	℃
Soldering Temperature(Hand)	Tsld	370	℃

6. CIE Chromaticity Coordinates

White Binning Structure Graphical Representation

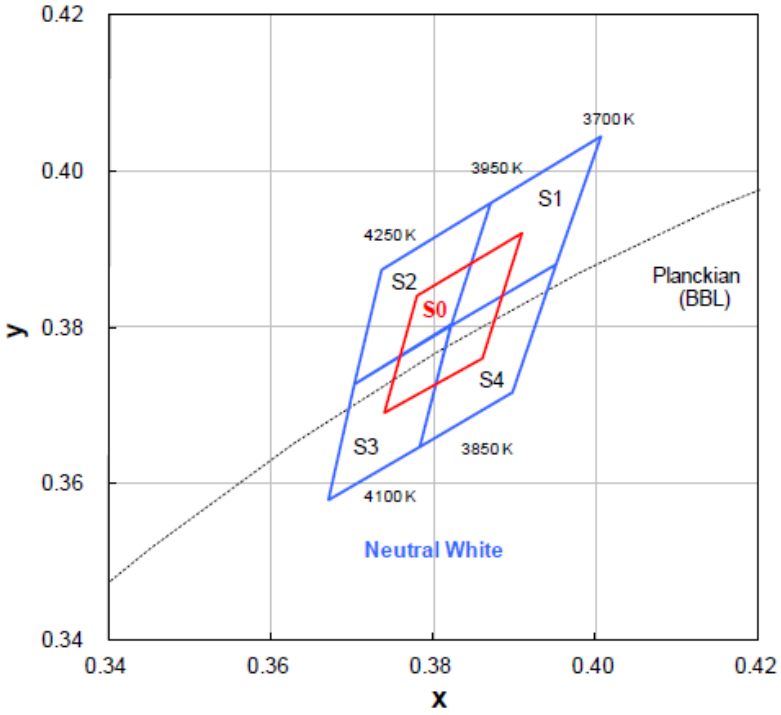


White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
V1	0.346	0.369	4870	W1	0.329	0.354	5475
	0.355	0.376			0.338	0.362	
	0.353	0.362			0.337	0.349	
	0.345	0.356			0.329	0.342	
V4	0.345	0.356	4870	W4	0.329	0.342	5475
	0.353	0.362			0.337	0.349	
	0.352	0.349			0.337	0.337	
	0.344	0.343			0.329	0.331	
V2	0.338	0.362	5155	W2	0.321	0.346	5830
	0.346	0.369			0.329	0.354	
	0.345	0.356			0.329	0.342	
	0.337	0.349			0.322	0.335	
V3	0.337	0.349	5155	W3	0.322	0.335	5830
	0.345	0.356			0.329	0.342	
	0.344	0.343			0.329	0.331	
	0.337	0.337			0.322	0.324	

- Tolerance on each color bin (x , y) is ± 0.01

Neutral White Binning Structure Graphical Representation

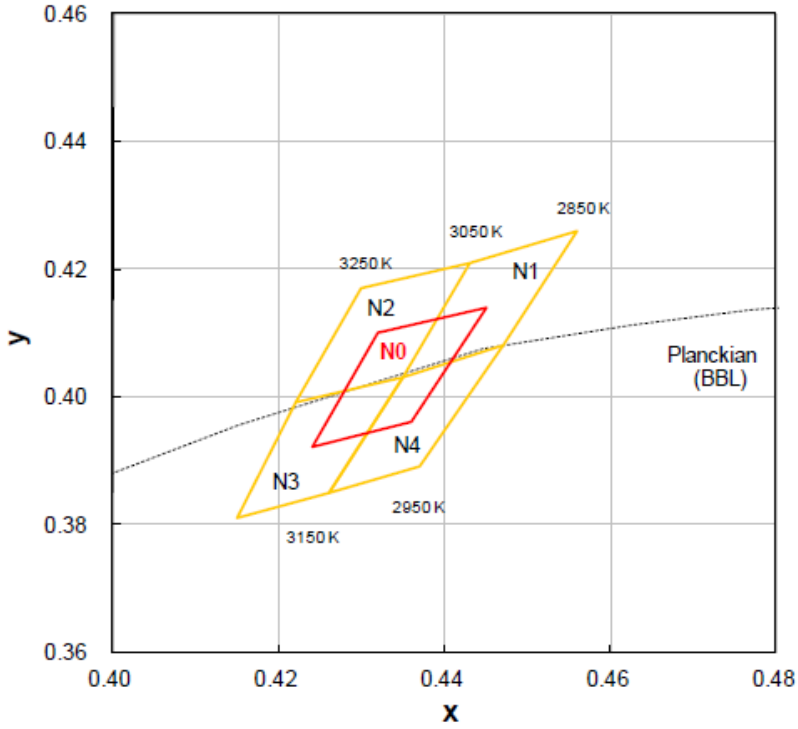


Neutral White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
S1	0.387	0.396	3825	S2	0.374	0.387	4100
	0.401	0.404			0.387	0.396	
	0.395	0.388			0.382	0.380	
	0.382	0.380			0.370	0.373	
S4	0.382	0.380	3825	S3	0.370	0.373	4100
	0.395	0.388			0.382	0.380	
	0.390	0.372			0.378	0.365	
	0.378	0.365			0.367	0.358	
S0	0.374	0.369	3975				
	0.378	0.384					
	0.391	0.392					
	0.386	0.376					

- Tolerance on each color bin (x , y) is ± 0.01

Warm White Binning Structure Graphical Representation



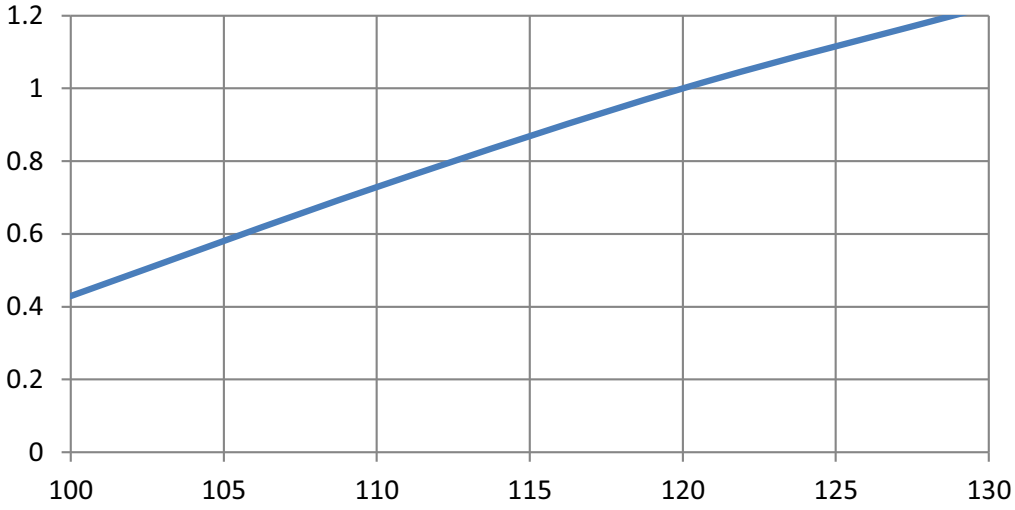
Warm White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
N1	0.443	0.421	2950	N2	0.430	0.417	3150
	0.456	0.426			0.443	0.421	
	0.447	0.408			0.435	0.403	
	0.435	0.403			0.422	0.399	
N4	0.435	0.403	2950	N3	0.422	0.399	3150
	0.447	0.408			0.435	0.403	
	0.437	0.389			0.426	0.385	
	0.426	0.385			0.415	0.381	
N0	0.424	0.392	3050				
	0.432	0.410					
	0.445	0.414					
	0.436	0.396					

- Tolerance on each color bin (x , y) is ± 0.01

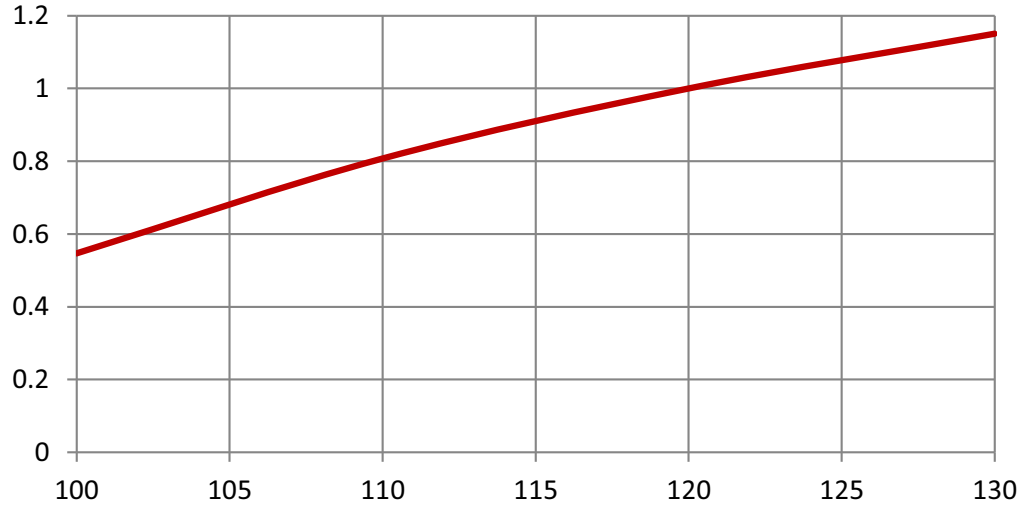
7. Typical Electrical & Optical Characteristic Curves

Relative Power vs Voltage

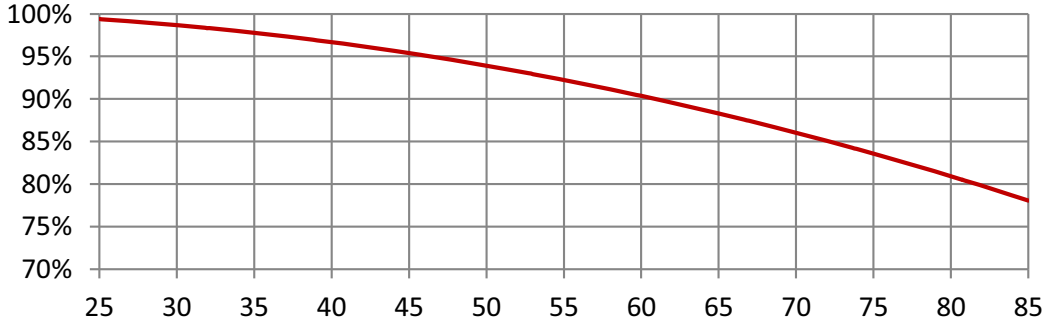


Relative Luminous Flux vs. Voltage

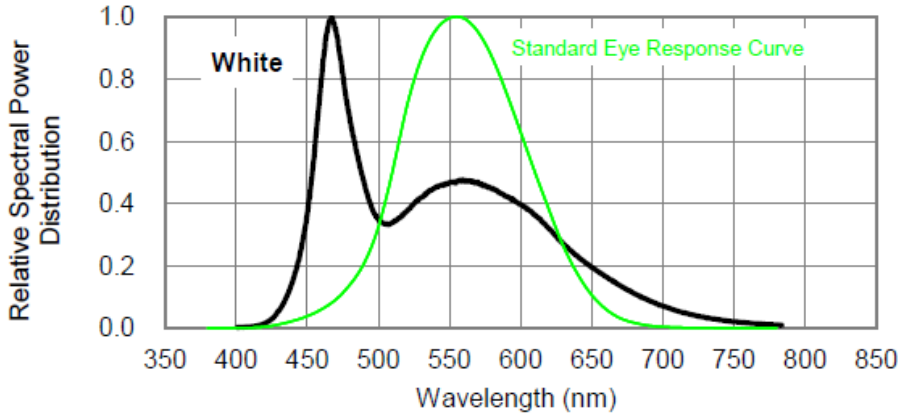
Ta=25˚C



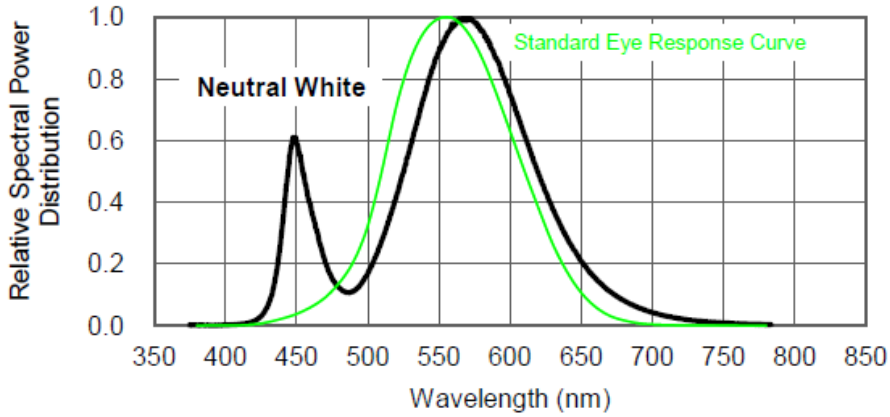
Lumen Thermal de-rating curve



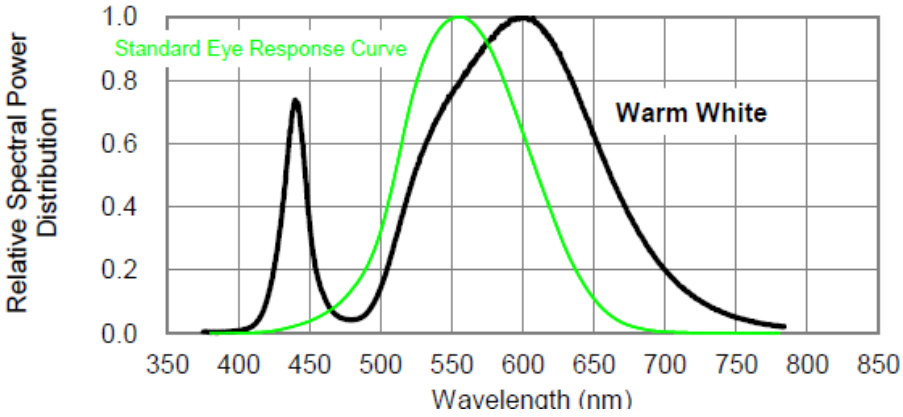
1. White

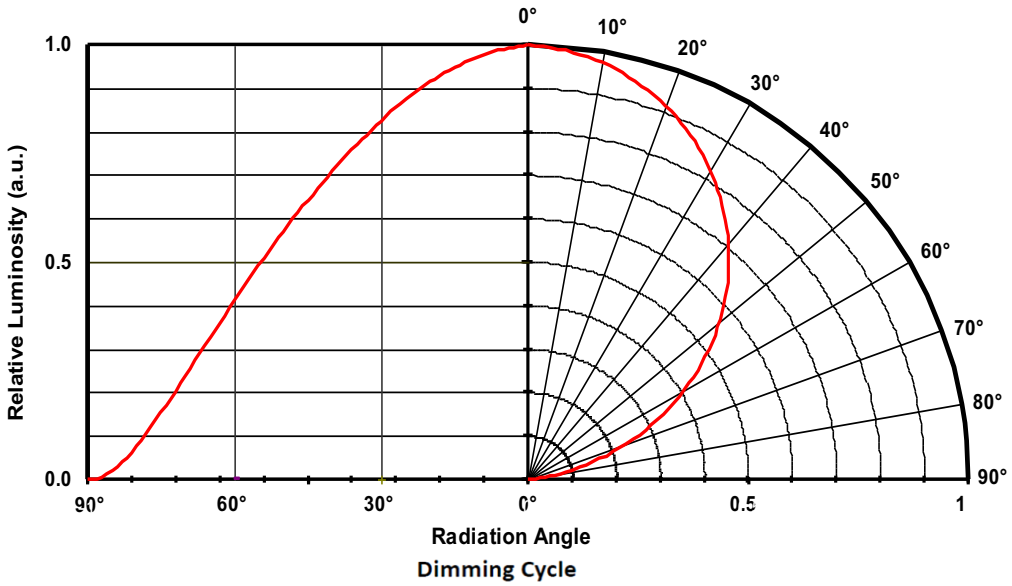


2. Neutral White

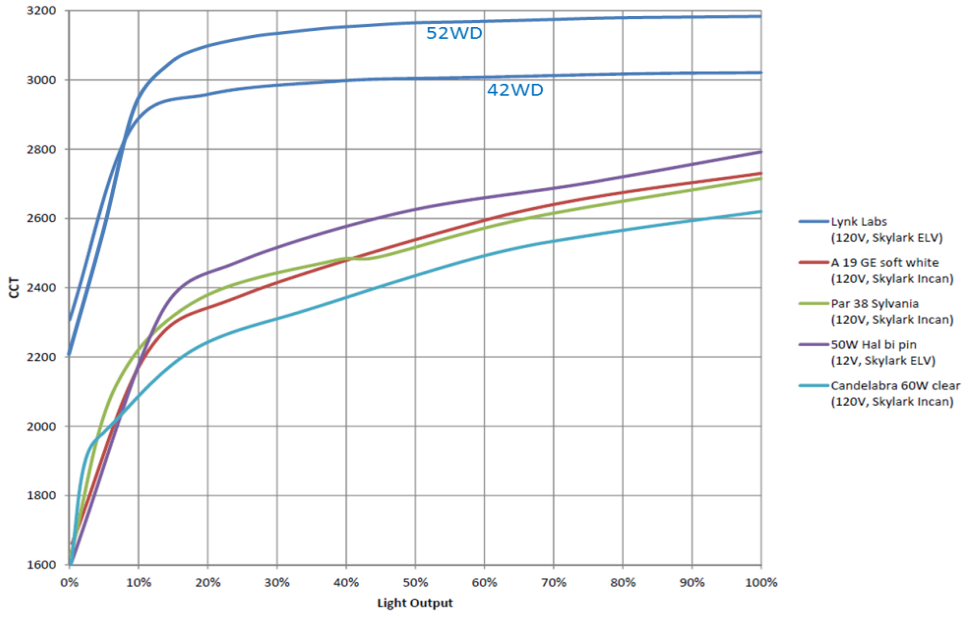


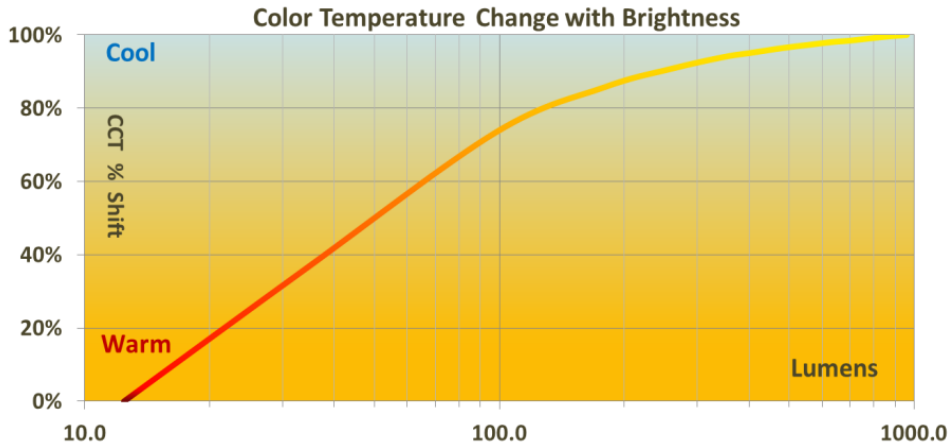
3. Warm White





Dimming Cycle





8.Part Number Identification

04/08/2014

Part Number												
Product Code	Shape	Dimension/Diameter (mm)	Internal Codes	Module Power	aTHD	CCT (XXK) Warm on Dim (XYWD)	Connection Type	CRI		Input Voltage	Miscellaneous	Revision Level
S	R	8 0	E P 2 H K	6 W		5 2 W D	I	S		1 2 0 V	,	R1

Model Number												
Product Code	Shape	Dimension/Diameter	Internal code		Module Power	aTHD		CCT (XXK) Warm on Dim (XYWD)	Connection Type	CRI		Input Voltage	Miscellaneous
S	R	8 0 K			6 W			5 2 W D	I	S		1 2 0 V	

Product Code		
S	=	SnapBrite™
T	=	Tesla™
G	=	GeoLite™
B	=	BriteDriver®

Shape		
R	=	Round
S	=	Square
T	=	Star
L	=	Linear

Dimension/Diameter				
L	=	X	X	X
W	=	Y	Y	Y
D	=	Z	Z	Z

Module Power		
Q	=	0.25W
H	=	0.5W
T	=	0.75W
R	=	Decimal Point

aTHD		
L	=	< 20%
S	=	≥ 20%

Miscellaneous
Customer Code
Special Design
Special Silk Scn
TBA

CCT/WOD					
2	2	K		=	2200K
2	7	K		=	2700K
3	0	K		=	3000K
3	5	K		=	3500K
4	0	K		=	4000K
5	0	K		=	5000K
5	7	K		=	5700K
3	2	W	D	=	~ 2700K To 2200K Warm on Dim
4	2	W	D	=	~ 3000K To 2200K Warm on Dim
5	2	W	D	=	~ 3500K To 2200K Warm on Dim

Connection Type		
C	=	Poke-In Connector
I	=	Insullation Displacement Connector
O	=	Connector + Solder Pads
W	=	Wire "Pigtail"
X	=	Solder Pads

CRI		
L	=	< 80 CRI
S	=	≥ 80 CRI
H	=	≥ 90 CRI

Revision Level
P1 to 9, Prelim
R1 to ∞, Rls
TBA

Input Voltage		
12V	=	12 VAC, Magnetic or Electronic Transformer Sourse
12E	=	12 VAC, Electronic Transformer Sourse Only
120V	=	120 VAC
120R	=	Rectified 120 VAC
230V	=	230 VAC

9.Packaging

LED Modules will be packaged in trays for primary protection.

According to the total delivery amount, cardboard boxes will be used to protect the Trays of LED Modules from mechanical shocks during transportation.

The boxes are not water resistant and therefore must be kept away from water and moisture.

10. Reliability and Average Lumen Maintenance

Before releasing new products the manufacturer puts a representative product sample set through an entire suite of qualification tests, including the most stressful test for high power LEDs, the Wet High-Temperature Operating Life (WHTOL) test at 85°C/85%RH for 1000 hours at the specified operating current.

LED lifetime has been extrapolated based on the accumulated operating and accelerated aging data. Based on this data, the manufacturer projects that the LED products will deliver, on average, 70% lumen maintenance at 50,000 hours of operation at the specified operating current, provided that the case temperature is maintained at or below 80°C.

11. Moisture Sensitivity

The module can operate for up to 1000hrs at 85 ˚C and 65% Relative Humidity.
It is not designed for operation in wet conditions without an additional conformal coating which must be approved and supplied by the manufacturer during the module build process or warrantee will be voided