

Green lighting technologies

SnapBrite SR80K - 9W-120

120V Direct Connect AC LED MODULE

80mm dia. 9 Watt 765Im 120V

SINGLE-CCT or WARM ON DIM STANDARD THD DIMABLE MODULE

Technical Data Sheet





Direct Connect AC LED lighting technology

SnapBrite[™] SR80K-9W-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!

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%</p>
- 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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3. Mechanical Dimensions



Notes :

- 1. All dimensions are in millimeters.
- 2. Tolerance is ± 0.05 mm unless otherwise noted.

4. Electrical & Optical Characteristics

ITEM	SYMBOL	CONDITION	UNIT	S THD		WOD		
Drive Voltage	Vf	line voltage	Vrms		120			
Viewing Angle	20½		deg		120			
Operating Temperature at test po	int T _o (T _c)	lf=75 mArms	°C	70				
Typical Operating Power	W _T	lf=75 mArms	W	9		9		
Total Harmonic Distortion	ATHD	Vf=120 Vrms	%	>30%		>30%		
Luminous Flux (3000K)	Φ	Vf=120 Vrms	lm	765		747		
Luminous Efficacy (3000K)	ην	Vf=120 Vrms	lm/w	85		83		

*Measurement Uncertainty of the Luminous Flux: $\pm\,10\%$

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





Standard Module Variants aTHD >20%

MODEL NUMBER	ССТ	CRI	VAC	POWER	LUMEN	lm/W
SR80EP2HK09W27KIH-120	2700K	90	120	9	750	83
SR80EP2HK09W30KIH-120	3000K	90	120	9	765	85
SR80EP2HK09W40KIH-120	4000K	90	120	9	796	88

Other CCTs & 80 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
SR80EP2HK09W42WDIH-120	2200K	2700K	90	120	9.0	747	83
SR80EP2HK09W52WDIH-120	2200K	3000K	90	120	9.0	765	85

Other CCTs & 80 CRI Option may be Available to Special Order

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

ITEM	SYMBOL	ABSOLUTE MAXIMUM RATING	UNIT
Power Dissipation	Pd	11	W
A.C. Current	lf	170	mArms
AC Voltage	Vf	130	V
Operatiing Temperature	То	-25 ~ +90	°C
Storage Temperature	Ts	-40 ~ +100	°C
Soldering Temperature(Hand)	Tsld	370	°C

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6. CIE Chromaticity Coordinates

White Binning Structure Graphical Representation



White Bin Structure

Bin Code	х	У	Typ. CCT (K)	Bin Code	х	У	Typ. CCT (K)	
	0.346	0.369			0.329	0.354		
\/1	0.355	0.376	4870	W/1	0.338	0.362	5475	
V I	0.353	0.362	4070	** 1	0.337	0.349	5475	
	0.345	0.356			0.329	0.342		
	0.345	0.356			0.329	0.342		
1/4	0.353	0.362	4870	10/4	0.337	0.349	5475	
V4	0.352	0.349	4070	VV4	0.337	0.337	5475	
	0.344	0.343			0.329	0.331		
	0.338	0.362			0.321	0.346		
1/2	0.346	6 0.369	5155	W/2	0.329	0.354	5830	
٧Z	0.345	0.356	5155	VVZ	0.329	0.342	3030	
	0.337	0.349			0.322	0.335		
	0.337	0.349			0.322	0.335		
1/2	0.345	0.356	5155	1//2	0.329	0.342	5920	
V.5	0.344	0.343	5155	VV 5	0.329	0.331	3030	
	0.337	0.337			0.322	0.324		
• Tolerance	 Tolerance on each color bin (x , y) is ± 0.01 							





Neutral White Binning Structure Graphical Representation



Neutral White Bin Structure

Bin Code	х	У	Typ. CCT (K)	Bin Code	х	У	Typ. CCT (K)	
	0.387	0.396			0.374	0.387		
64	0.401	0.404	2025	60	0.387	0.396	4400	
51	0.395	0.388	3020	3023	52	0.382	0.380	4100
	0.382	0.380			0.370	0.373		
	0.382	0.380			0.370	0.373		
64	0.395	0.388	2025	62	0.382	0.380	4400	
54	0.390	0.372	3020		0.378	0.365	4100	
	0.378	0.365			0.367	0.358		
	0.374	0.369						
<u>co</u>	0.378	0.384	2075					
50	0.391	0.392	3975					
	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	х	У	Typ. CCT (K)	Bin Code	x	У	Typ. CCT (K)
	0.443	0.421			0.430	0.417	
N14	0.456 0.426	2050	NO	0.443	0.421	2150	
INT	0.447	0.408	2950	INZ	0.435	0.403	5150
	0.435	0.403			0.422	0.399	
	0.435	0.403			0.422	0.399	
NIA	0.447	0.408	2050	N/2	0.435	0.403	2150
114	0.437	0.389	2930	IN D	0.426	0.385	5150
	0.426	0.385			0.415	0.381	
	0.424	0.392					
NO	0.432	0.410	2050				
NU	0.445	0.414	3030				
	0.436	0.396					

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





7. Typical Electrical & Optical Characteristic Curves

Relative Power vs Voltage



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1. White



2. Neutral White



3. Warm White







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8.Part Number Identification

	04	4/08/2	2014																											
														Part	t Num	ber					-	-		_						
Product Code	Shape	۵	imens	ion/Di (mm)	iameto	neter Internal Codes					i			Module Power		аТНD		CCT Warm (X	(XXK) 1 on Di YWD)	m	Connection Type	CRI		h	nput \	/oltag	e	Miscellaneous		Revision Level
s	R	8	0					E	Ρ	2	н	к	1	8	w		5	2	w	D	I	s		1	2	0	v		,	R1
												Mode	l Nun	nber													l			
Product Code	Dimension/Diameter					Module Power		атнр		v	CCT Varm (XY	(XXI on ∣ ′WD	K) Dim)	Connection Type	CRI		lı	nput \	/olta	ge	Miscellaneous									
s	R Produ	8 uct Co	0 K de	1		Sha	ane		1	1	8	W)iame	oter	5 1	2	W	/ D	l le Pow	S		1 	2	0 aT	V		1	Misce	ellan	e0115
s	=	Snap	Brite™		R	=	Roun	d L = X				X	x	x		Q	-	0.25	w				L	=	< 20%	6	l	Custon	ner C	Code
т	=	Tesla	тм		s	=	Squar	e		w	=	Y	Y	Y		н	=	0.5\	0.5W			S = ≥20%				6	Special Design			
G	=	GeoL	ite™		Т	=	Star			D	=	z	z	z		т	=	0.75	w								l	Specia	l Silk	Scn
В	=	Brite	Driver	Ð	L	=	Linea	r	l						J	R	=	Dec	imal P	oint							I	ТВА		
					T/WO	D					1				Co	nnec	tion	Type				1		C	RI		1	Revisio	nle	vel
2	2	к	=	2200	.,)К	_					1	с	=	Poke	-In Co	onne	ctor	.,,,,					L	=	< 80	CRI	l	P1 to 9), Pre	lim
2	7	К	=	2700	Ж]	I	=	Insu	ation	Disp	lace	ment	Conne	ctor			s	=	≥ 80	CRI	l	R1 to •	∞, Rl	s
3	0	К	=	3000	Ж						4	0	=	Conr	nector	r + So	lder	Pads					н	=	≥ 90	CRI	ł	ТВА		
3	5	K	=	3500	Ж						-	W	=	Wire	Pigt	ail"														
4	0	ĸ	=	5000)K)K						1	<u> </u>	=	Sola	er Pa	as						l								
5	7	ĸ	K = 5700K							1																				
3	2 W D = ~ 2700K To 2200K Warm on Dim							n	1																					
4	2	w	D =	~ 30	00K To	o 2200	K Wa	rm o	n Dim	1	4																			
5	2	W	D =	~ 35	00K To	o 2200)K Wa	rm o	n Dim	1	L																			
				_	Input	t Volta	age						1																	
	12V	=	12 VA	C, Mag	gnetic	or Ele	ctron	ic Tra	nsfor	mer	Sours	e	1																	
	12 V = 12 VAC, Wagnetic or Electronic Transformer Sourse 12E = 12 VAC, Electronic Transformer Sourse Only]																			

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