BOXRAYZ® EDGE 3.0

LS-BRE3-XXK-E305-A
12V/24V LED MODULES

The BoxRayz® EDGE 3.0 LED modules feature an edge lighting beam pattern that enables large light coverage per module and significantly lowers the number of modules per sign. This technology allows for the lowest energy consumption and the lowest total premium LED system cost in the market, reducing installation costs for sign makers and end users. Our unique BoxRayz® EDGE 3.0 modules can be used with either a 12V or 24V constant voltage power supply.

Applications:

- Box signs (3-6 in.) in small to medium sizes, single- and double-faced
- Exterior linear fixtures for wall washing and billboard uplighting

cULus CE RoHS IP68 LM-79 LM-80

12V/24V DC

5 YEAR LIMITED WARRANTY

ONEWhite® COLOR CONSISTENCY

CAPZUL® WATERPROOF

CONSTANT CURRENT

UV RESISTANT

50,000 HRS L70 LIFETIME

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-BRE3-65K-E305-A	6500K	305	1	3.3	415	415	1370
LS-BRE3-57K-E305-A	5700K	305	1	3.3	395	395	1305
LS-BRE3-50K-E305-A	5000K	305	1	3.3	395	395	1305
LS-BRE3-40K-E305-A	4000K	305	1	3.3	365	365	1205
LS-BRE3-30K-E305-A	3000K	305	1	3.3	365	365	1205
LS-BRE3-27K-E305-A	2700K	305	1	3.3	300	300	990

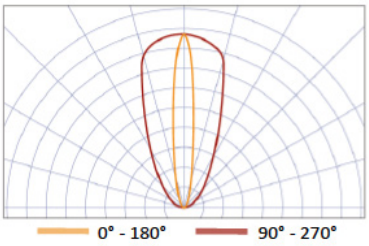
* ± 10%

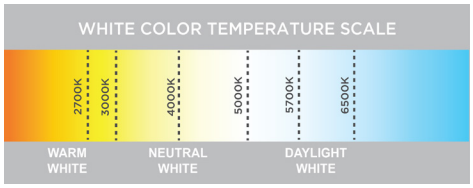
PRODUCT RATINGS

Luminous Efficacy	88 lm/W @ 6500K (12V) 85 lm/W @ 6500K (24V)
Wattage per Module	4.70 W Nominal (12V) 4.94 W Maximum (12V) 4.87 W Nominal (24V) 5.11 W Maximum (24V)
Input Voltage	12V / 24 V DC
Input Current	0.392 A/ module @ 12V 0.203 A/ module @ 24V
Power Supply Loading	10 modules per 60W (12V) 16 modules per 96W (24V)
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	5 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

Beam Pattern





MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-BRE3-xxK-E305-A	4.06/103	1.46/37.1	0.72/18.2

REV.23AUG2021

Data sheet subject to change without notice.

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LAYOUT GUIDE (ENGLISH)

Sign Type	Mounting Configuration	Depth (in)	Reachout Length (ft)	Module Spacing (ft)	Lit Area/Module (ft^2)	Optical Requirements on Housing Materials
Single-Face (using 7328 white acrylic, 0.18")	On 1 edge	3	3	0.58	1.75	Reflective white surface inside
		4	3	0.67	2	
		5	3.5	0.83	2.92	
		6	3.5	1	3.5	
	On 2 opposite edges	3	2 x 2.5	0.58	1.46	Reflective white surface inside
		4	2 x 2.5	0.67	1.67	
		5	2 x 3	0.83	2.5	
		6	2 x 3	1	3	
Double-Face (using 7328 white acrylic, 0.18")	On 1 edge	3	3	0.42	1.25	Reflective white surface inside
		4	3	0.5	1.5	
		5	3.5	0.75	2.63	
		6	3.5	0.75	2.63	
	On 2 opposite edges	3	2 x 2.5	0.42	1.04	Reflective white surface inside
		4	2 x 2.5	0.5	1.25	
		5	2 x 3	0.75	2.25	
		6	2 x 3.5	0.75	2.63	

LAYOUT GUIDE (METRIC)

Sign Type	Mounting Configuration	Depth (mm)	Reachout Length (mm)	Module Spacing (mm)	Lit Area/Module (mm^2)	Optical Requirements on Housing Materials
Single-Face (using Plexiglas® WH73, 3mm)	On 1 edge	75	900	175	157500	Reflective white surface inside
		100	900	200	180000	
		125	1100	250	275000	
		150	1100	300	330000	
	On 2 opposite edges	75	2 X 750	175	131250	Reflective white surface inside
		100	2 X 750	200	150000	
		125	2 X 900	250	225000	
		150	2 X 900	300	270000	
Double-Face (using Plexiglas® WH73, 3mm)	On 1 edge	75	900	125	112500	Reflective white surface inside
		100	900	150	135000	
		125	1100	225	247500	
		150	1100	225	247500	
	On 2 opposite edges	75	2 X 750	125	93750	Reflective white surface inside
		100	2 X 750	150	112500	
		125	2 X 900	225	202500	
		150	2 X 1050	225	236250	

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SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity		
		Per Bag	Per Box	Per Carton
LS-BRE3-xxK-E305-A	Modules	16	64	256
	Feet	16	64	255.8
	Meters	4.9	19.5	78.1

Carton Weight	Box Dimensions			Carton Dimensions			
	W	D	H	W	D	H	
35.7 lb	18.5	9.4	3.7	19.3	16.7	10.4	inch
16.2 kg	470	240	95	490	425	265	mm

POWER SUPPLY LOADING

* Can go wider if needed.

	12V Power Supply	Single String	Total per Power Supply	Total # of Feet	Total # of Meter
Class 2	20W	4	4	4	1.2
	35W	6	6	6	1.8
	60W	10	10	10	3.0
	180W (3-Channel)	10	30	30	9.1
Class 1	100W	11	18 (6, 6, 6)	18	5.5
	180W	11	30 (10, 10, 10)	30	9.1
	200W	11	35 (10, 10, 10, 5)	35	10.7
	24V	**Single String**	**Total per Power Supply**	**Total # of Feet**	**Total # of Meter**
Class 2	30W	6	6	6	1.8
	60W	10	10	10	3
	100W	16	16	16	4.9
	300W (3-Channel)	16	48 (16, 16, 16)	48	10.7

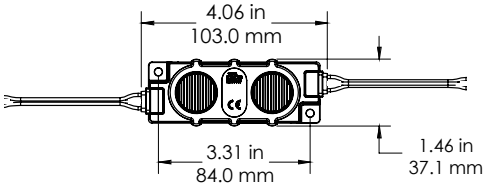
Note: 1. Loading calculated at 25°C
2. For maximum loading to be reached, the LED module count needs to be balanced across multiple strings. See parentheses ()
3. All values include an 8% buffer from the maximum load
4. Single String Max Modules values can be used with the remote mounting to the power supply table

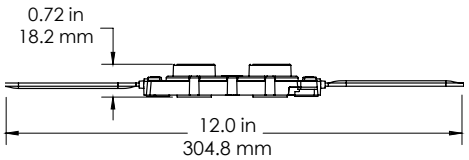
REMOTE MOUNTING DISTANCE FROM DRVER TO MODULES

Power Supply	18AWG	16AWG	14AWG	12AWG
60W	20 ft / 6.1 m	35 ft / 10.6 mm	35 ft / 10.6 mm	40 ft / 12.1 mm
100W	20 ft / 6.1 m	35 ft / 10.6 mm	35 ft / 10.6 mm	40 ft / 12.1 mm
300W	20 ft / 6.1 m	35 ft / 10.6 mm	35 ft / 10.6 mm	40 ft / 12.1 mm

Note: 1. Power supply always has 8% buffer
2. These values are good for use with Power Supply Loading Table Single String Max Module values
3. Remote loading table uses General Cable /Carol Brand

DIMENSION DRAWING





1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 or 24 Volt.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.