



UL Solutions
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Allentown, PA 18106
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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2019, ANSI C82.77-10-2014

Prepared For
B-K LIGHTING INC
40429 Brickyard Dr
Madera, CA 93636-9515
United States

Catalog Number
MM-LED-E86-MFL-xxx-12-B-360SL

Order Number
15609241
Test Number
15609241.01

Test Date
2024-12-17

Prepared By

Bhavik Shah, Operations Leader

Approved By

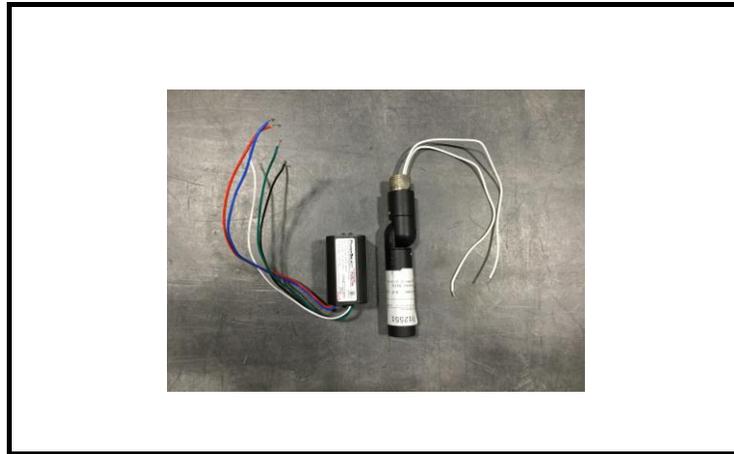
Shivani Vyas, Engineering Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Black metal cylindrical housing and textured glass lens
Lamp: 1 White LED array
Mounting: Pendant
Ballast/Driver: PowerSelect Inc. PS20U15K

Luminaire



Luminaire Characteristics

Luminous Diameter: 0.75 in.

Summary of Results

Total Luminaire Output:	101.4 Lumens
Luminaire Efficacy:	29.2 lm/w
Maximum Candela:	295 Candela

Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.05267 A
Power:	3.472 W
Power Factor:	0.549
Frequency:	60 Hz
Current THD:	152 %

The device under test emits no detectable uplight, as defined by ANSI/IES LM-75-19. For the purpose of this report, certain non-zero uplight readings have been assigned a zero value, in accordance with the requirements of ANSI/IES LM-75-19

Laboratory results may not be representative of field performance
Ballast factors have not been applied

Distribution - Goniophotometer

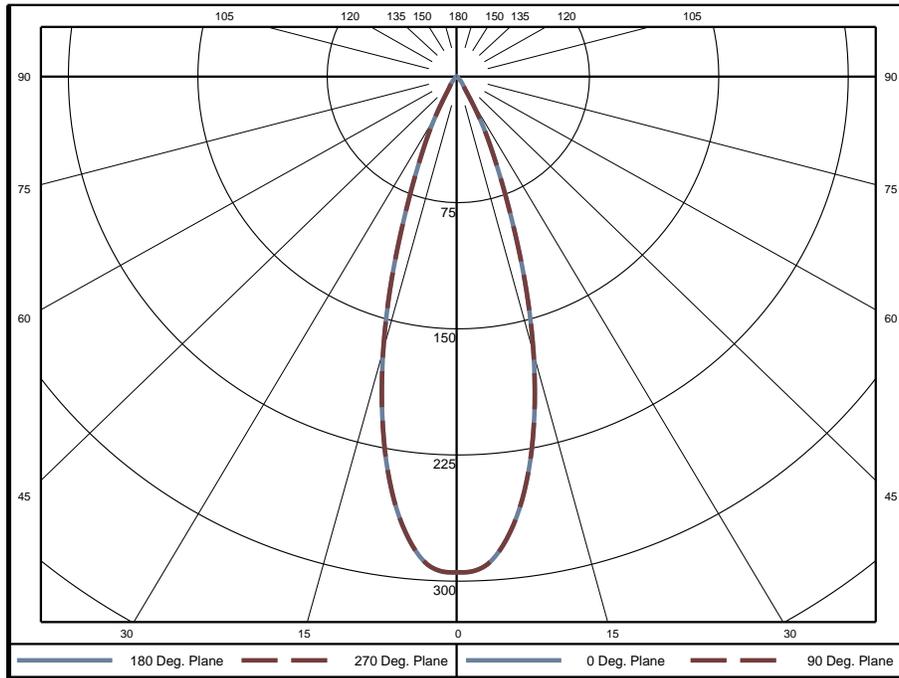
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.05267 A	3.472 W	0.549	60 Hz	152 %

Summary of Results

Spacing Criteria	Total Lumen Output:	101.4 Lumens
0-180: 0.55	Luminaire Efficacy:	29.2 lm/w
90-270: 0.55	Maximum Candela:	295 Candela
Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)	Endwise:	4.8
Crosswise: 4.8		

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	6.94	6.8%	60-65	0.13	0.1%	120-125	0	0.0%
5-10	18.65	18.4%	65-70	0.08	0.1%	125-130	0	0.0%
10-15	24.17	23.8%	70-75	0.05	0.0%	130-135	0	0.0%
15-20	21.74	21.4%	75-80	0.02	0.0%	135-140	0	0.0%
20-25	14.28	14.1%	80-85	0.01	0.0%	140-145	0	0.0%
25-30	7.85	7.7%	85-90	0.00	0.0%	145-150	0	0.0%
30-35	3.09	3.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	1.90	1.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.26	1.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	0.68	0.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.33	0.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.21	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	99	97.3%
0-60	101	99.7%
0-90	101	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9
5	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1
10	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2	238.2
15	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0
20	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
25	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8
30	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
35	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
40	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
45	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
50	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
55	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
60	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

	0	45	90
0	1035000	1035000	1035000
45	12170	12170	12170
55	3522	3522	3522
65	1709	1709	1709
75	797	797	797
85	458	458	458

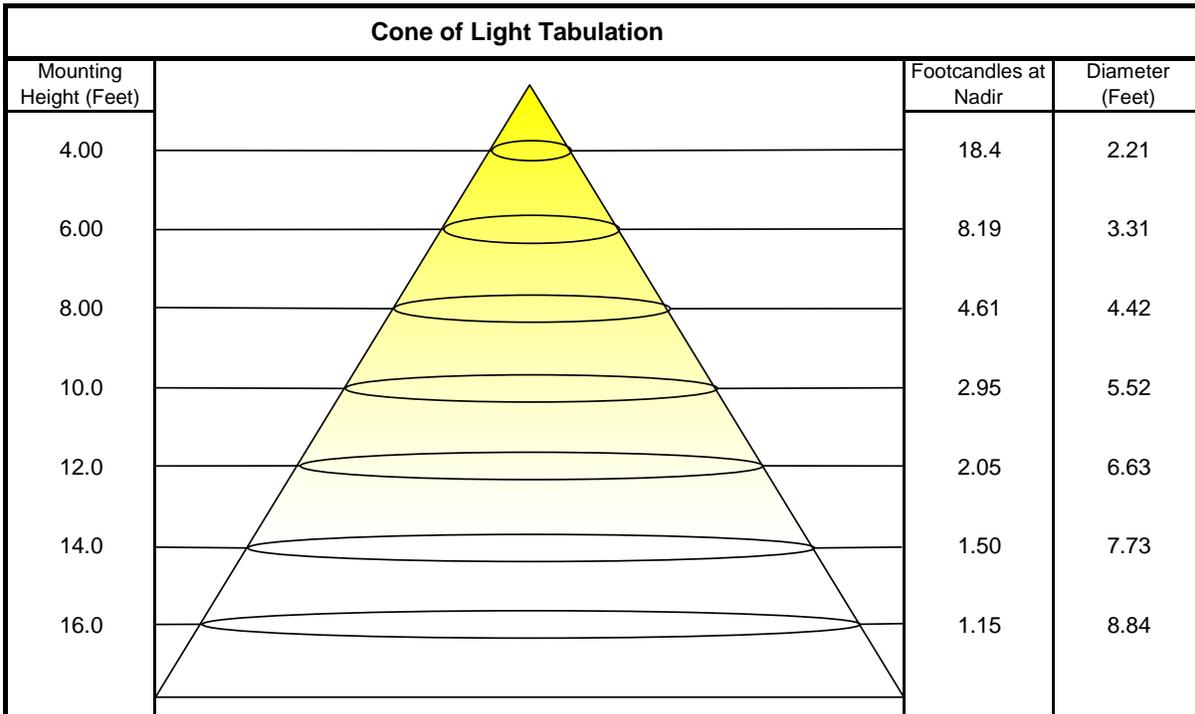


Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	98	96
2	110	106	103	100	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	106	101	97	94	105	100	96	93	97	94	92	95	93	91	93	91	89	88
4	103	97	92	89	101	96	92	88	94	90	87	92	89	86	90	88	86	84
5	99	92	88	85	98	92	87	84	90	86	84	88	85	83	87	84	82	81
6	96	89	84	81	94	88	84	80	87	83	80	85	82	79	84	81	79	78
7	92	85	81	77	91	85	80	77	84	80	77	82	79	76	81	78	76	75
8	89	82	77	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72
9	87	79	75	72	86	79	74	71	78	74	71	77	74	71	76	73	71	70
10	84	76	72	69	83	76	72	69	75	71	69	75	71	69	74	71	68	67

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	294.9 Candela
Central Cone Intensity:	292 Candela
Beam Flux:	57.1 Lumens
Beam Angle (0-180):	33.1 Degrees
Beam Angle (90-270):	33.1 Degrees
Field Angle (0-180):	55.5 Degrees
Field Angle (90-270):	55.5 Degrees



ISOFootcandle Plot

Mounting Height - 8 Feet

