UL LLC
1075 W Lambert Rd Suite B
Brea, CA 92821

Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For

B-K LIGHTING INC

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40429 BRICKYARD DR.
MADERA, CA 93636-9515
UNITED STATES

Catalog Number

HP2-LED-TR-C27-SP-9-4000K, CO2-LED-TR-C27-SP-9-4000K

Order Number
12531784
Test Number
12531784.04B
Revised:
2019-02-19
Test Date

2019-01-22

Prepared By

Luis Torres, Technician

Approved By

Eric Gaudreau, Engineering Leader

Luminaire Description: Black plastic housing and glass lens
Lamp: One (1) LED with specular reflector attached
Mounting: Pendant
Ballast/Driver: One (1) Efore Strato RSLP070-24

Luminaire

Luminaire Characteristics
Luminous Diameter: 4.00 in.

Summary of Results

Total Luminaire Output:	1359 Lumens
Luminaire Efficacy:	39.5 lm/w
Maximum Candela:	3288 Candela

Test Conditions

Test Temperature:	24.8	°C
Voltage:	120.1	VAC
Current:	0.2937	A
Power:	34.37	W
Power Factor:	0.975	
Frequency:	60	Hz
Current THD:	17.0	%

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

Distribution - Goniophotometer

Distribution Test Conditions

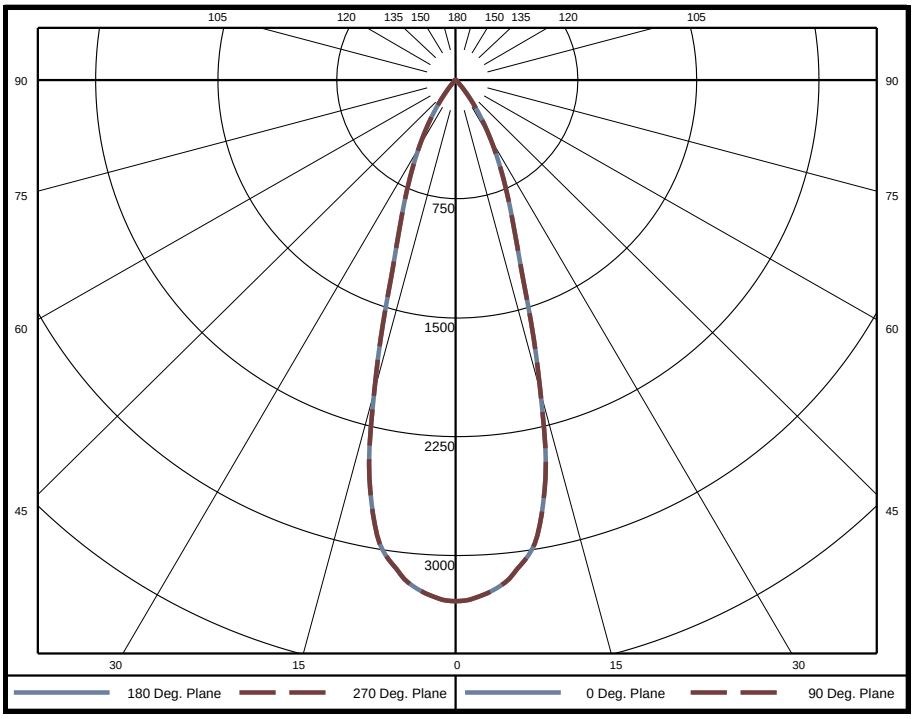
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.1 VAC	0.2937 A	34.37 W	0.975	60 Hz	17.0 %

Summary of Results

Spacing Criteria
0-180: 0.57
90-270: 0.57

Total Lumen Output: 1359 Lumens
Luminaire Efficacy: 39.5 lm/w
Maximum Candela: 3288 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	77.6	5.7%	60-65	2.9	0.2%	120-125	0	0.0%
5-10	219.5	16.2%	65-70	2.6	0.2%	125-130	0	0.0%
10-15	297.1	21.9%	70-75	2.4	0.2%	130-135	0	0.0%
15-20	246.7	18.2%	75-80	1.6	0.1%	135-140	0	0.0%
20-25	186.9	13.8%	80-85	0.9	0.1%	140-145	0	0.0%
25-30	143.6	10.6%	85-90	0.2	0.0%	145-150	0	0.0%
30-35	96.1	7.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	49.5	3.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	17.7	1.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	6.3	0.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	4.3	0.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	3.3	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1317	96.9%
0-60	1349	99.2%
0-90	1359	100.0%
90-180	0	0.0%

Candela Tabulation

Horizontal Angle (Degrees)

Vertical 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	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288	3288
5	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202	3202
10	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917
15	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
20	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116
25	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716
30	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439
35	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228
40	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
45	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
50	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
60	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
65	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
75	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
90	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
100	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
110	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
120	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
130	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
140	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
150	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
160	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
170	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
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m^2)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
0	405500	405500	405500
45	3944	3944	3944
55	1726	1726	1726
65	1603	1603	1603
75	1748	1748	1748
85	1383	1383	1383

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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	92	103	98	95	91	96	93	90	94	91	89	91	89	87	86
4	101	95	90	87	99	94	89	86	92	88	85	90	87	84	88	85	83	82
5	97	90	85	82	96	89	85	81	88	84	81	86	83	80	85	82	79	78
6	94	86	81	78	92	85	81	77	84	80	77	83	79	76	81	78	76	75
7	90	82	77	74	89	82	77	74	81	76	73	79	76	73	78	75	73	71
8	87	79	74	71	86	78	74	70	77	73	70	76	73	70	76	72	70	68
9	84	76	71	68	83	75	71	67	74	70	67	74	70	67	73	69	67	66
10	81	73	68	65	80	72	68	65	72	67	65	71	67	64	70	67	64	63

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3288 Candela
Central Cone Intensity:	3256 Candela
Beam Flux:	689.9 Lumens
Beam Angle (0-180):	33.6 Degrees
Beam Angle (90-270):	33.6 Degrees
Field Angle (0-180):	64.9 Degrees
Field Angle (90-270):	64.9 Degrees

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	205	2.27
6.00	91.3	3.40
8.00	51.4	4.53
10.0	32.9	5.67
12.0	22.8	6.80
14.0	16.8	7.94
16.0	12.8	9.07

ISOFootcandle Plot

Mounting Height - 8 Feet