



UL LLC  
1075 W Lambert Rd Suite B  
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## Indoor Distribution Test Report

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

Prepared For  
**B-K LIGHTING INC**

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UNITED STATES

Catalog Number  
**HP2-LED-TR-C27-WFL-9-4000K, CO2-LED-TR-C27-WFL-9-4000K**

Order Number

12531784

Test Number

12531784.07A

Revised:

2019-02-01

Test Date

2019-01-22

Prepared By

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Approved By

Eric Gaudreau, Engineering Leader

The results contained in this report pertain only to the tested sample.  
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**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:	1085 Lumens
Luminaire Efficacy:	34.2 lm/w
Maximum Candela:	1152 Candela

**Test Conditions**

Test Temperature:	24.7 °C
Voltage:	120.1 VAC
Current:	0.2725 A
Power:	31.75 W
Power Factor:	0.970
Frequency:	60 Hz
Current THD:	18.7 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

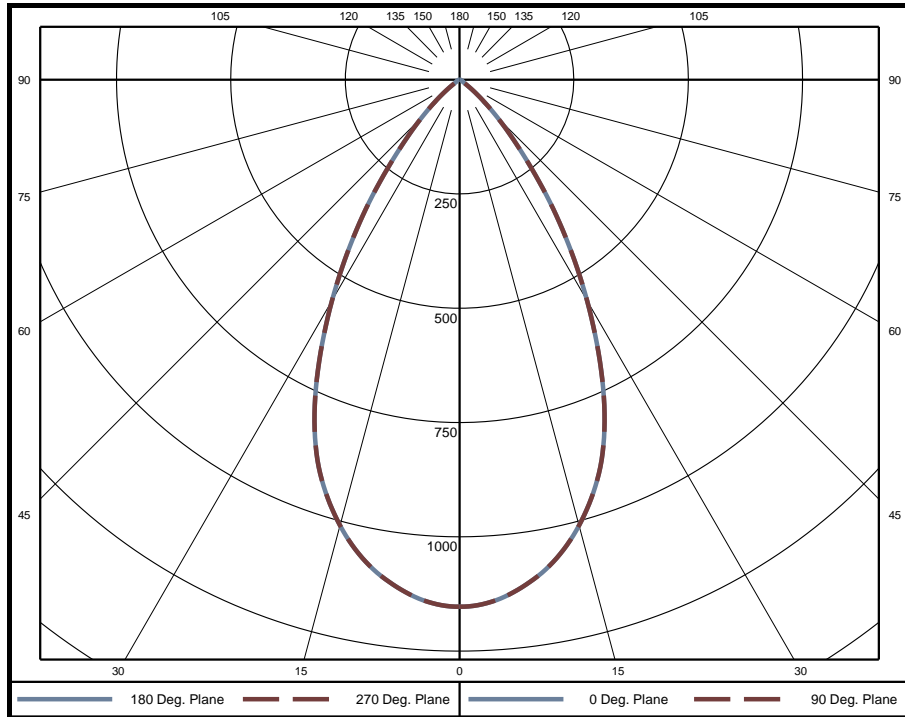
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.1 VAC	0.2725 A	31.75 W	0.970	60 Hz	18.7 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.91  
 90-270: 0.91

**Total Lumen Output:** 1085 Lumens  
**Luminaire Efficacy:** 34.2 lm/w  
**Maximum Candela:** 1152 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	27.4	2.5%	60-65	3.5	0.3%	120-125	0	0.0%
5-10	79.5	7.3%	65-70	3.2	0.3%	125-130	0	0.0%
10-15	124.4	11.5%	70-75	2.4	0.2%	130-135	0	0.0%
15-20	157.5	14.5%	75-80	1.7	0.2%	135-140	0	0.0%
20-25	172.8	15.9%	80-85	1.0	0.1%	140-145	0	0.0%
25-30	164.1	15.1%	85-90	0.3	0.0%	145-150	0	0.0%
30-35	137.3	12.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	99.5	9.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	61.6	5.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	32.7	3.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	12.4	1.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	4.1	0.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	963	88.7%
0-60	1073	98.9%
0-90	1085	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	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152
5	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135
10	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087
15	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010
20	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901
25	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743
30	558	558	558	558	558	558	558	558	558	558	558	558	558	558	558	558
35	381	381	381	381	381	381	381	381	381	381	381	381	381	381	381	381
40	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224
45	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
55	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
60	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
65	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
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	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

	0	45	90
0	142100	142100	142100
45	20590	20590	20590
55	2776	2776	2776
65	2002	2002	2002
75	1826	1826	1826
85	1749	1749	1749



### 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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	91	94	92	90	92	89	88	86
3	102	95	90	86	100	94	89	85	91	87	84	89	85	82	86	83	81	80
4	96	88	83	78	94	87	82	78	85	81	77	83	79	76	81	78	75	74
5	91	83	77	72	90	82	76	72	80	75	71	78	74	70	77	73	70	68
6	86	77	71	67	85	76	71	66	75	70	66	73	69	65	72	68	65	64
7	82	72	66	62	81	72	66	62	70	65	61	69	65	61	68	64	61	59
8	78	68	62	58	77	67	62	57	66	61	57	65	60	57	64	60	57	55
9	74	64	58	54	73	64	58	54	63	57	54	62	57	53	61	56	53	52
10	70	60	54	51	69	60	54	50	59	54	50	58	54	50	58	53	50	49

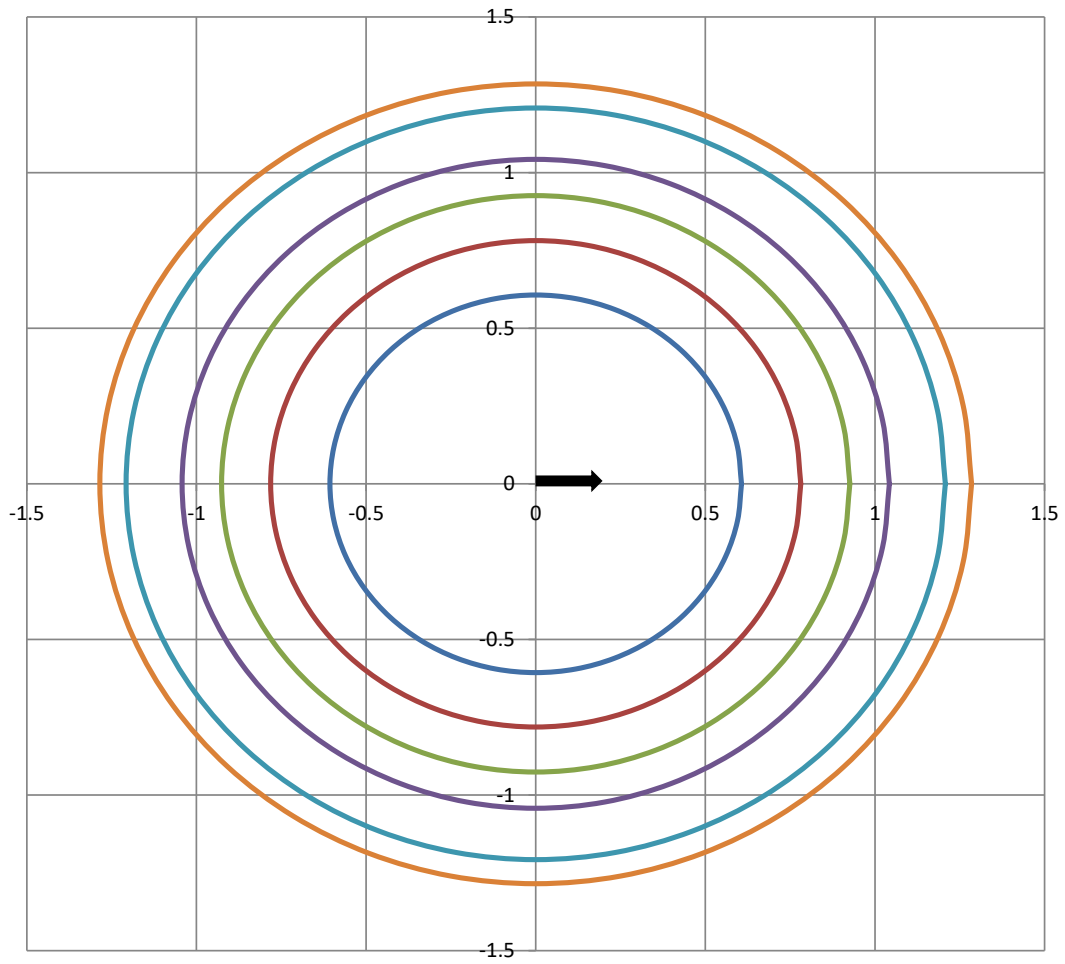
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1152 Candela
Central Cone Intensity:	1146 Candela
Beam Flux:	711.6 Lumens
Beam Angle (0-180):	59.0 Degrees
Beam Angle (90-270):	59.0 Degrees
Field Angle (0-180):	90.3 Degrees
Field Angle (90-270):	90.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		72.0	3.63
6.00		32.0	5.45
8.00		18.0	7.27
10.0		11.5	9.09
12.0		8.00	10.9
14.0		5.88	12.7
16.0		4.50	14.5



## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

