

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: LUMIERE

Report Number: P277825

Luminaire Tested: 696-8LED2736-12-BK-LSL

Issue Date: 3/3/2020

Tested By:

Approved By:



NVLAP Lab Code: 200050-0

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Test Information

Test Method: LM-79-2019
 Report Number: P277825
 Test Lab: INNOVATION CENTER(G2)
 Issue Date: 3/3/2020
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: LUMIERE
 Catalog Number: 696-8LED2736-12-BK-LSL
 Description: BOCA 696 , 8 WATT, 2700K CCT, 36 DEGREE WIDE OPTIC,
 FLUSH HOOD BLACK, LINEAR SPREAD LENS
 Light Source: (1) SORAA 2700K 95 CRI LED
 SM16-07-36D-927-03
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 338.7 lumens
 Efficiency: N/A
 Efficacy: 44.0 lumens/watt
 N/A
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Indirect

Input Watts (W): 7.7
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT

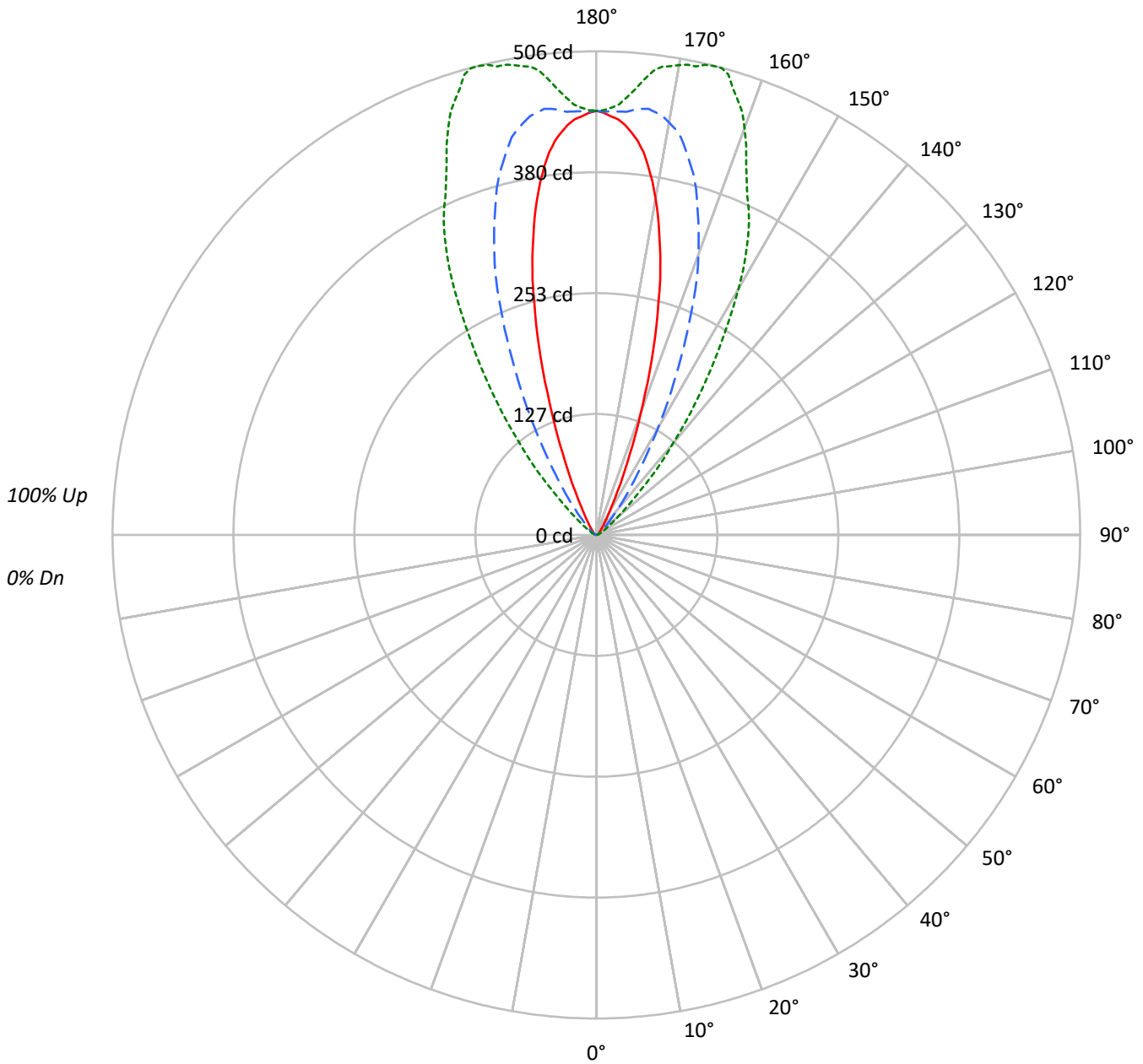


Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
RC	80									70									50									30									10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0														
RCR																																						
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0																				
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0																				
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0																				
3	72	63	57	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0																				
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0																				
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0																				
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0																				
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0																				
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0																				
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0																				
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
95°	0	0	0
100°	0	0	0
105°	1711	1711	1711
110°	2602	2602	3897
115°	2106	3153	5368
120°	2665	3651	8088
125°	3183	5506	12557
130°	3529	7676	23099
135°	3834	11444	43324
140°	5279	21187	79988
145°	8252	40112	122620
150°	14583	72804	169529
155°	32825	117249	205218
160°	71871	163908	237722
165°	128195	200008	258284
170°	178789	219518	250125
175°	209330	221068	231913

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 0°
 Luminance: 0 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	1.0	0.3
110°-120°	3.0	0.9
120°-130°	7.4	2.2
130°-140°	22.0	6.5
140°-150°	58.3	17.2
150°-160°	99.3	29.3
160°-170°	105.3	31.1
170°-180°	42.3	12.5
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.0	0.0
90°-120°	4.1	1.2
90°-150°	91.8	27.1
90°-180°	339.0	100.1
0°-180°	338.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
90°	0	0	0	0	0	
95°	0	0	0	0	0	0
105°	1	1	1	1	1	1
115°	2	3	3	4	5	2
125°	4	5	6	12	15	3
135°	5	8	16	47	62	5
145°	14	20	67	171	204	9
155°	60	88	215	340	377	29
165°	251	292	392	476	506	67
175°	423	430	446	463	468	38
180°	444	444	444	444	444	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.9	0.9
105°	0.9	0.9	0.9	0.9	0.9
107.5°	0.9	0.9	0.9	1.8	1.8
110°	1.8	1.8	1.8	1.8	2.7
112.5°	1.8	1.8	1.8	2.7	3.7
115°	1.8	2.7	2.7	3.7	4.6
117.5°	2.7	2.7	3.7	4.6	5.5
120°	2.7	2.7	3.7	6.4	8.2
122.5°	3.7	3.7	4.6	9.1	11.0
125°	3.7	4.6	6.4	11.9	14.6
127.5°	3.7	4.6	8.2	15.5	20.1
130°	4.6	5.5	10.0	21.9	30.1
132.5°	4.6	6.4	12.8	33.8	42.0
135°	5.5	8.2	16.4	47.5	62.1
137.5°	7.3	10.0	22.8	66.6	94.0
140°	8.2	12.8	32.9	94.0	124.2
142.5°	11.0	15.5	47.5	130.5	162.5
145°	13.7	20.1	66.6	170.7	203.6
147.5°	18.3	27.4	93.1	216.4	248.3
150°	25.6	39.3	127.8	260.2	297.6
151°	29.2	45.6	144.2	278.4	315.9
152°	34.7	54.8	161.6	293.9	333.2
153°	42.0	63.9	178.0	309.5	349.6
154°	50.2	75.8	196.3	324.1	364.2
155°	60.3	87.6	215.4	340.5	377.0
156°	71.2	102.2	235.5	359.7	388.0
157°	84.0	117.8	254.7	377.9	402.6
158°	100.4	136.9	276.6	396.2	418.1
159°	117.8	157.0	294.9	411.7	437.3
160°	136.9	179.8	312.2	425.4	452.8
161°	157.0	201.7	328.6	439.1	468.3
162°	181.7	225.5	345.1	454.6	478.4
163°	204.5	248.3	360.6	468.3	488.4
164°	228.2	271.1	377.9	474.7	501.2
165°	251.0	292.1	391.6	476.5	505.7
166°	275.7	312.2	402.6	479.3	505.7
167°	297.6	331.4	414.4	480.2	504.8
168°	317.7	349.6	425.4	482.0	501.2
169°	338.7	365.2	432.7	482.9	501.2
170°	356.9	379.8	438.2	484.7	499.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
171°	374.3	393.5	443.7	483.8	496.6
172°	389.8	404.4	446.4	482.9	494.8
173°	403.5	414.4	449.1	478.4	489.3
174°	414.4	423.6	448.2	469.2	479.3
175°	422.7	430.0	446.4	462.8	468.3
176°	430.0	435.4	443.7	454.6	459.2
177°	435.4	438.2	443.7	448.2	451.0
178°	438.2	440.0	443.7	446.4	447.3
179°	441.8	441.8	442.7	443.7	444.6
180°	443.7	443.7	443.7	443.7	443.7

(END OF REPORT)