

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: P277820

Luminaire Tested: 696-8LED2725-12-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: P277820  
 Test Lab: INNOVATION CENTER(G2)  
 Issue Date: 3/3/2020  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: LUMIERE  
 Catalog Number: 696-8LED2725-12-BK-LSL  
 Description: BOCA 696, 8 WATT, 2700K CCT, 25 DEGREE NARROW  
 OPTIC, FLUSH HOOD BLACK, LINEAR SPREAD LENS  
 Light Source: (1) SORAA 2700K 90 CRI 25° NFL  
 SM16-07-25D-927-03  
 Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 342.4 lumens  
 Efficiency: N/A  
 Efficacy: 43.9 lumens/watt  
 N/A  
 Luminous Opening: Circular (Dia: 0.17' x H: 0')  
 CIE Type: Indirect

Input Watts (W): 7.8  
 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

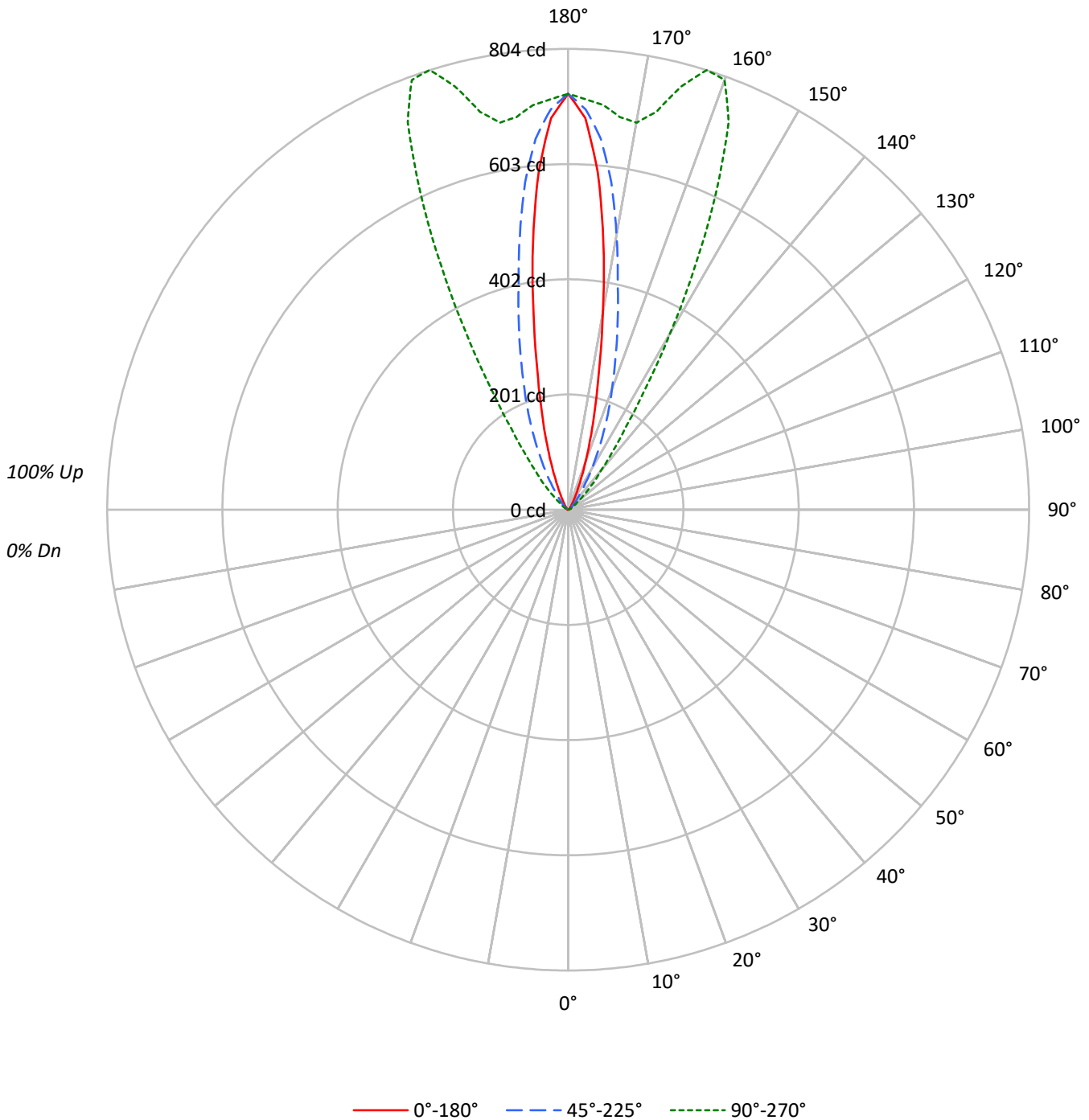


Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

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### Luminous Intensity Polar Plot



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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	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°	2554	0	0
105°	1713	1713	1713
110°	2593	2593	3890
115°	3148	3148	5366
120°	2661	3649	7205
125°	3181	4727	11008
130°	3528	6294	18187
135°	3834	8929	33770
140°	5282	15260	56995
145°	6625	25835	103888
150°	10938	46255	202792
155°	21394	77024	332421
160°	45991	116917	418889
165°	90450	169716	390710
170°	173774	243307	343443
175°	292917	321890	350807

**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°	1.1	0.3
110°-120°	3.1	0.9
120°-130°	6.5	1.9
130°-140°	16.3	4.8
140°-150°	44.9	13.1
150°-160°	101.2	29.5
160°-170°	112.1	32.8
170°-180°	57.1	16.7
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°	4.2	1.2
90°-150°	72.0	21.0
90°-180°	342.0	99.9
0°-180°	342.4	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°	3	3	3	4	5	2
125°	4	5	5	9	13	3
135°	5	7	13	31	48	5
145°	11	16	43	120	172	7
155°	39	56	141	369	611	20
165°	177	214	332	581	765	51
175°	591	607	650	692	708	49
180°	726	726	726	726	726	

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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°	0.9	0.9	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°	1.8	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°	2.7	2.7	2.7	3.7	4.6
117.5°	2.7	2.7	3.7	4.6	5.5
120°	2.7	3.7	3.7	5.5	7.3
122.5°	3.7	3.7	4.6	7.3	11.0
125°	3.7	4.6	5.5	9.1	12.8
127.5°	4.6	4.6	7.3	12.8	17.3
130°	4.6	5.5	8.2	17.3	23.7
132.5°	5.5	6.4	10.0	23.7	33.8
135°	5.5	7.3	12.8	31.0	48.4
137.5°	6.4	9.1	17.3	44.7	69.4
140°	8.2	11.0	23.7	63.0	88.5
142.5°	10.0	12.8	32.0	86.7	126.0
145°	11.0	15.5	42.9	120.5	172.5
147.5°	13.7	19.2	59.3	163.4	249.2
150°	19.2	27.4	81.2	213.6	356.0
152.5°	26.5	38.3	108.6	286.6	480.1
155°	39.3	55.7	141.5	368.8	610.6
157.5°	58.4	79.4	180.8	452.8	731.1
160°	87.6	115.9	222.7	522.1	797.8
162.5°	126.9	159.8	272.0	563.2	804.2
165°	177.1	213.6	332.3	581.4	764.9
167.5°	247.4	283.9	398.9	591.4	711.0
170°	346.9	382.5	485.7	612.4	685.5
172.5°	470.1	500.2	575.9	653.5	691.0
175°	591.4	607.0	649.9	691.9	708.3
177.5°	683.7	690.0	699.2	711.0	716.5
180°	725.6	725.6	725.6	725.6	725.6

(END OF REPORT)