

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: P27781[_3000k

Luminaire Tested: 696-8LED3010-12-BK-OSL

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: P27781[_3000k
 Test Lab: INNOVATION CENTER(G2)
 Issue Date: 3/3/2020
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: LUMIERE
 Catalog Number: 696-8LED3010-12-BK-OSL
 Description: BOCA 696, 8 WATT, 3000K CCT, 10 DEGREE SPOT OPTIC,
 FLUSH HOOD BLACK, OVERALL SPREAD LENS
 Light Source: (1) SORAA 3000K 90 CRI LED
 SM16-07-10D-930-03
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 332.2 lumens
 Efficiency: N/A
 Efficacy: 42.1 lumens/watt
 N/A
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Indirect

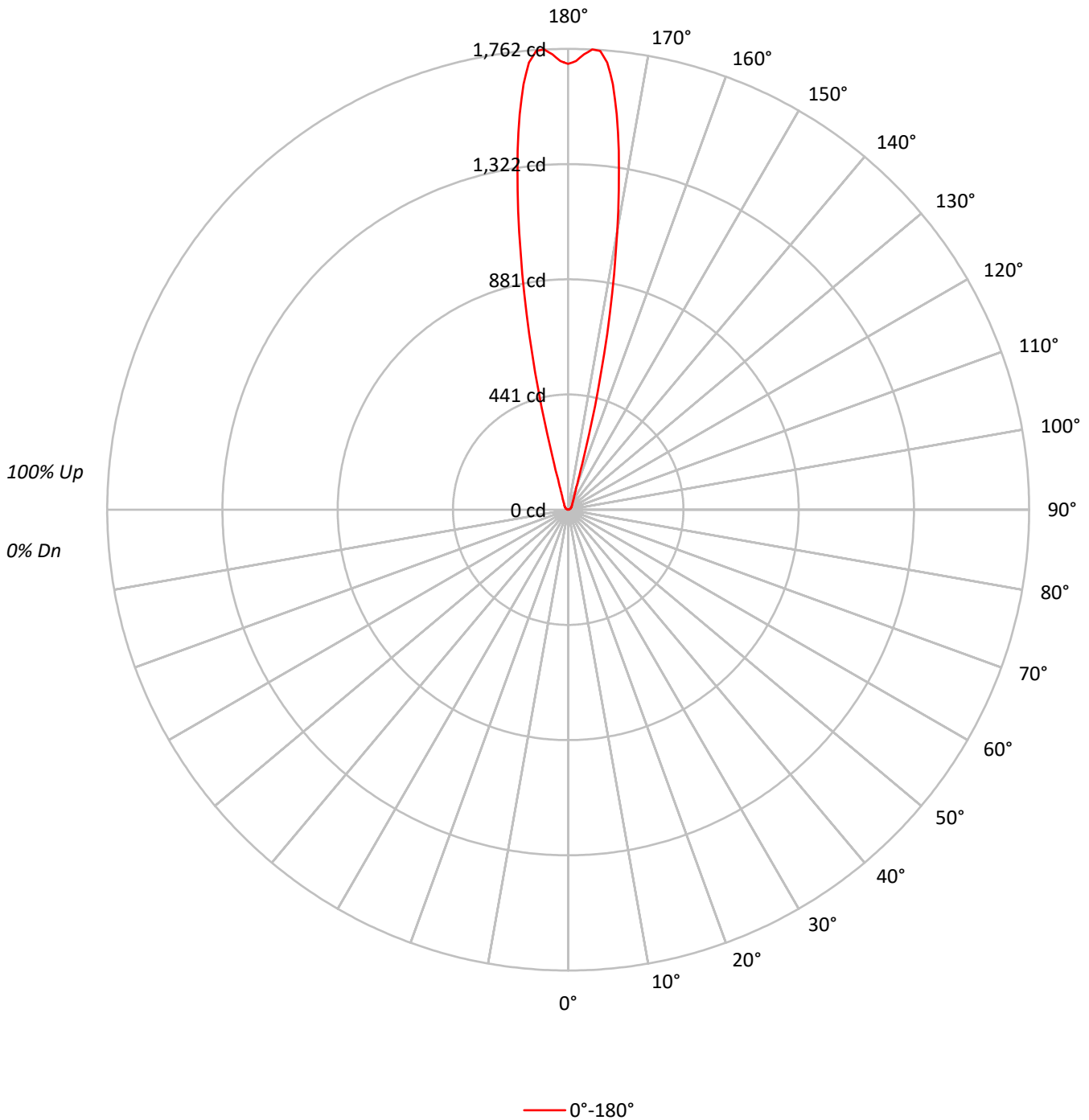
Input Watts (W): 7.9
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT



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				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	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°
95°	5642
100°	2832
105°	5700
110°	7344
115°	9444
120°	9949
125°	11338
130°	12412
135°	13369
140°	14983
145°	16413
150°	20758
155°	28638
160°	48325
165°	178149
170°	539961
175°	849805

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°	0.7	0.2
100°-110°	3.2	1.0
110°-120°	7.9	2.4
120°-130°	11.8	3.5
130°-140°	15.1	4.5
140°-150°	17.7	5.3
150°-160°	25.4	7.6
160°-170°	108.5	32.7
170°-180°	142.0	42.7
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°	11.7	3.5
90°-150°	56.3	16.9
90°-180°	332.0	99.9
0°-180°	332.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
90°	0	
95°	1	1
105°	3	3
115°	8	8
125°	13	12
135°	19	15
145°	27	18
155°	53	25
165°	349	109
175°	1716	142
180°	1705	

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CANDELA DISTRIBUTION (FULL):

	0°
90°	0.0
92.5°	0.0
95°	1.0
97.5°	1.0
100°	1.0
102.5°	2.0
105°	3.0
107.5°	4.1
110°	5.1
112.5°	7.1
115°	8.1
117.5°	9.1
120°	10.1
122.5°	12.2
125°	13.2
127.5°	14.2
130°	16.2
132.5°	18.2
135°	19.2
137.5°	21.3
140°	23.3
142.5°	25.3
145°	27.2
147.5°	31.3
150°	36.4
151°	39.4
152°	42.4
153°	45.5
154°	48.5
155°	52.6
156°	57.6
157°	63.7
158°	70.8
159°	79.9
160°	92.0
161°	109.2
162°	137.6
163°	183.0
164°	252.7
165°	348.8
166°	469.2
167°	609.7
168°	764.3
169°	918.1
170°	1077.8

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CANDELA DISTRIBUTION (continued):

	0°
171°	1236.6
172°	1386.2
173°	1523.7
174°	1635.9
175°	1715.9
176°	1758.3
177°	1762.4
178°	1742.1
179°	1715.9
180°	1704.7

(END OF REPORT)