

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: P27782[_4000K

Luminaire Tested: 696-8LED4025-12-BK-LVR

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: P27782[_4000K
 Test Lab: INNOVATION CENTER(G2)
 Issue Date: 3/3/2020
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: LUMIERE
 Catalog Number: 696-8LED4025-12-BK-LVR
 Description: BOCA 696, 8 WATT, 4000K CCT, 25 DEGREE NARROW
 OPTIC, FLUSH HOOD BLACK, HEX CELL LOUVER
 Light Source: (1) SORAA 4000K 90 CRI LED
 SM16-07-25D-940-03
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 303.6 lumens
 Efficiency: N/A
 Efficacy: 38.9 lumens/watt
 N/A
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Indirect

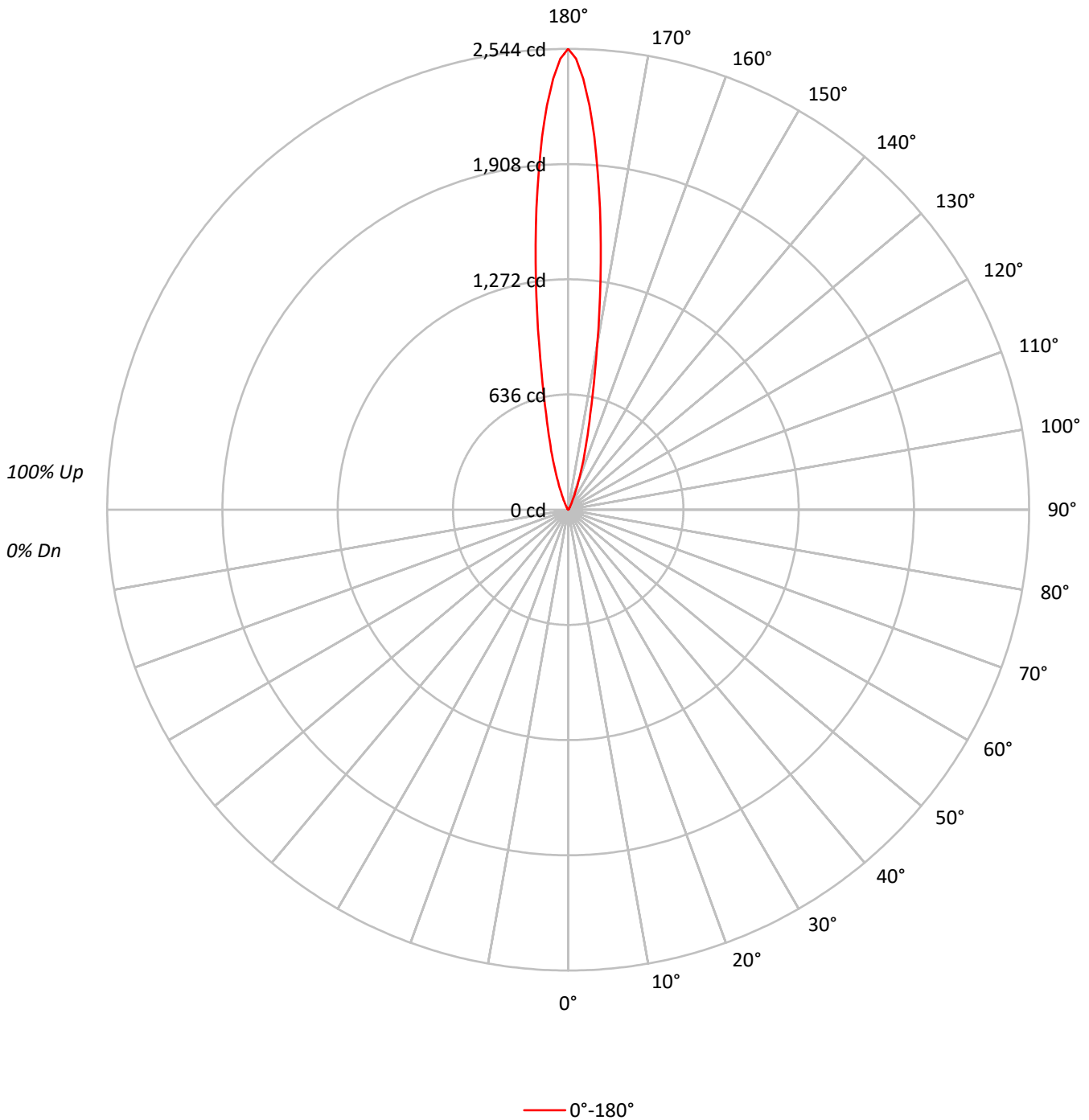
Input Watts (W): 7.8
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT



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									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	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°	0
100°	0
105°	0
110°	0
115°	0
120°	0
125°	901
130°	804
135°	1462
140°	3446
145°	5746
150°	12128
155°	32929
160°	86972
165°	200175
170°	462845
175°	926685

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°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.8	0.3
130°-140°	2.0	0.7
140°-150°	6.8	2.2
150°-160°	32.0	10.5
160°-170°	114.9	37.8
170°-180°	147.2	48.5
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°	0.0	0.0
90°-150°	9.6	3.2
90°-180°	304.0	100.1
0°-180°	303.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
90°	0	
95°	0	0
105°	0	0
115°	0	0
125°	1	1
135°	2	2
145°	10	7
155°	60	32
165°	392	115
175°	1871	147
180°	2544	

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CANDELA DISTRIBUTION (FULL):

	0°
90°	0.0
92.5°	0.0
95°	0.0
97.5°	0.0
100°	0.0
102.5°	0.0
105°	0.0
107.5°	0.0
110°	0.0
112.5°	0.0
115°	0.0
117.5°	0.0
120°	0.0
122.5°	1.0
125°	1.0
127.5°	1.0
130°	1.0
132.5°	2.1
135°	2.1
137.5°	3.1
140°	5.4
142.5°	7.4
145°	9.5
147.5°	13.8
150°	21.3
152.5°	38.3
155°	60.5
157.5°	99.8
160°	165.6
162.5°	262.3
165°	391.9
166°	459.8
167°	540.6
168°	643.5
169°	771.0
170°	923.9
171°	1095.9
172°	1278.5
173°	1475.0
174°	1673.6
175°	1871.1
176°	2064.3
177°	2235.3
178°	2380.8
179°	2490.2

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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CANDELA DISTRIBUTION (continued):

180° | $\frac{0^\circ}{2544.4}$

(END OF REPORT)