

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: P277813

Luminaire Tested: 696-8LED2710-12-BK

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: P277813
 Test Lab: INNOVATION CENTER(G2)
 Issue Date: 3/3/2020
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: LUMIERE
 Catalog Number: 696-8LED2710-12-BK
 Description: BOCA 696, 8 WATT, 2700K CCT, 10 DEGREE SPOT OPTIC,
 FLUSH HOOD BLACK
 Light Source: (1) SORAA 2700K 90 CRI LED
 SM16-07-10D-927-03
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 320.6 lumens
 Efficiency: N/A
 Efficacy: 40.1 lumens/watt
 N/A
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Indirect

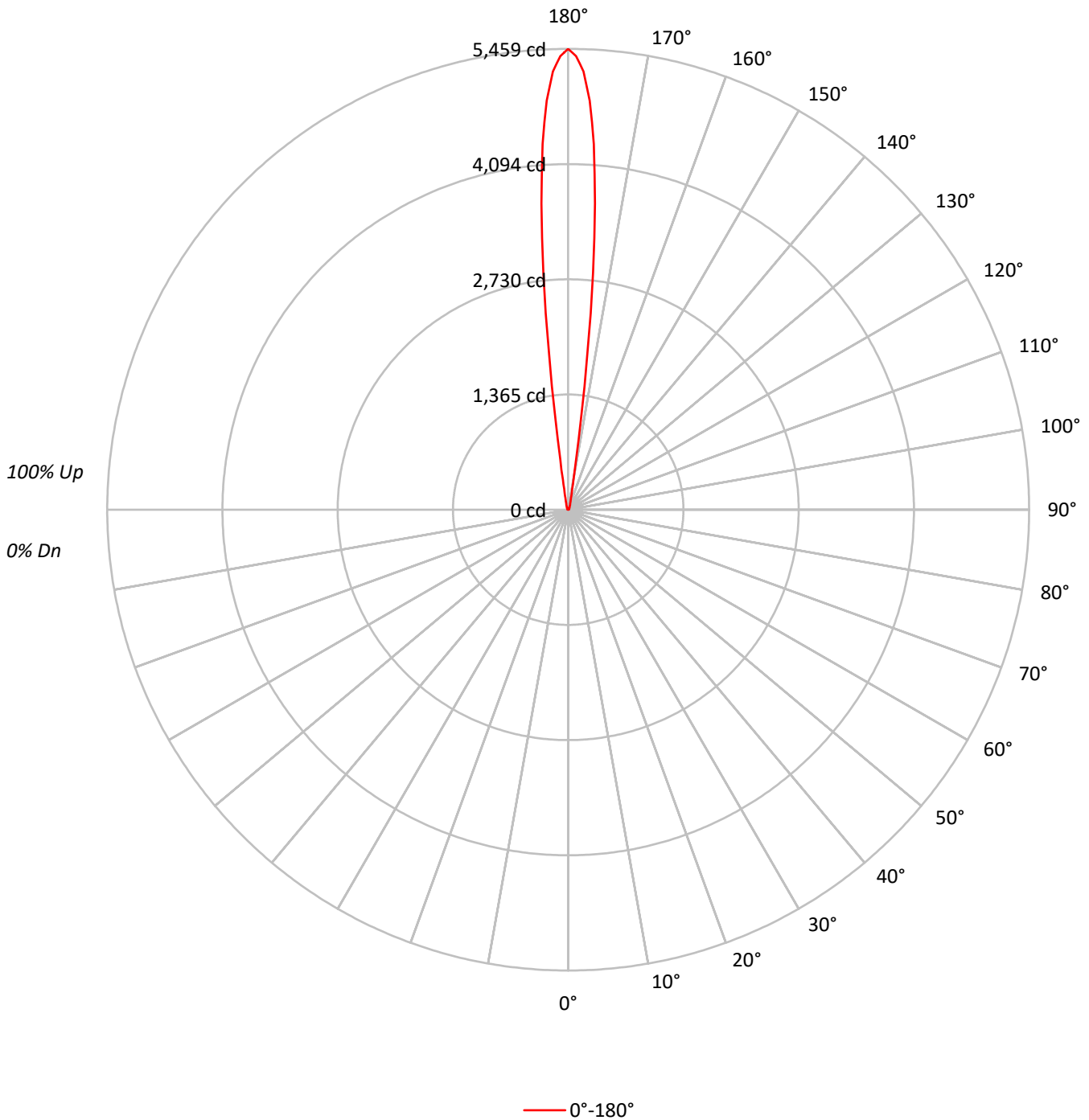
Input Watts (W): 8
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT



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	
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	28	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°	2551
105°	5149
110°	7932
115°	8524
120°	8977
125°	11010
130°	11898
135°	12068
140°	13525
145°	14275
150°	15612
155°	20852
160°	34495
165°	55931
170°	180659
175°	1802617

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°	0.6	0.2
100°-110°	3.0	0.9
110°-120°	7.2	2.3
120°-130°	11.1	3.5
130°-140°	13.7	4.3
140°-150°	14.8	4.6
150°-160°	18.8	5.9
160°-170°	35.7	11.1
170°-180°	216.0	67.4
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°	10.8	3.4
90°-150°	50.4	15.7
90°-180°	321.0	100.1
0°-180°	320.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
90°	0	
95°	0	1
105°	3	3
115°	7	7
125°	13	11
135°	17	14
145°	24	15
155°	38	19
165°	110	36
175°	3640	216
180°	5459	

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CANDELA DISTRIBUTION (FULL):

	0°
90°	0.0
92.5°	0.0
95°	0.0
97.5°	0.9
100°	0.9
102.5°	1.8
105°	2.7
107.5°	3.7
110°	5.5
112.5°	6.4
115°	7.3
117.5°	8.2
120°	9.1
122.5°	10.0
125°	12.8
127.5°	14.6
130°	15.5
132.5°	16.4
135°	17.3
137.5°	19.2
140°	21.0
142.5°	21.9
145°	23.7
147.5°	24.6
150°	27.4
152.5°	31.0
155°	38.3
157.5°	51.1
160°	65.7
162.5°	80.3
165°	109.5
166°	128.7
167°	154.3
168°	191.7
169°	252.0
170°	360.6
171°	599.8
172°	1082.7
173°	1867.8
174°	2819.9
175°	3639.7
176°	4342.6
177°	4853.8
178°	5192.5
179°	5375.1

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



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CANDELA DISTRIBUTION (continued):

180° | $\frac{0^\circ}{5459.1}$

(END OF REPORT)