

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: 696-8LED4036-12-BK-DIFF

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: 696-8LED4036-12-BK-DIFF
 Description: BOCA 696, 8 WATT, 4000K CCT, 36 DEGREE WIDE OPTIC,
 FLUSH HOOD BLACK, DIFFUSED LENS
 Light Source: (1) SORAA 4000K 90 CRI LED
 SM16-07-36D-940-03
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 357.0 lumens
 Efficiency: N/A
 Efficacy: 46.4 lumens/watt
 N/A
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Indirect

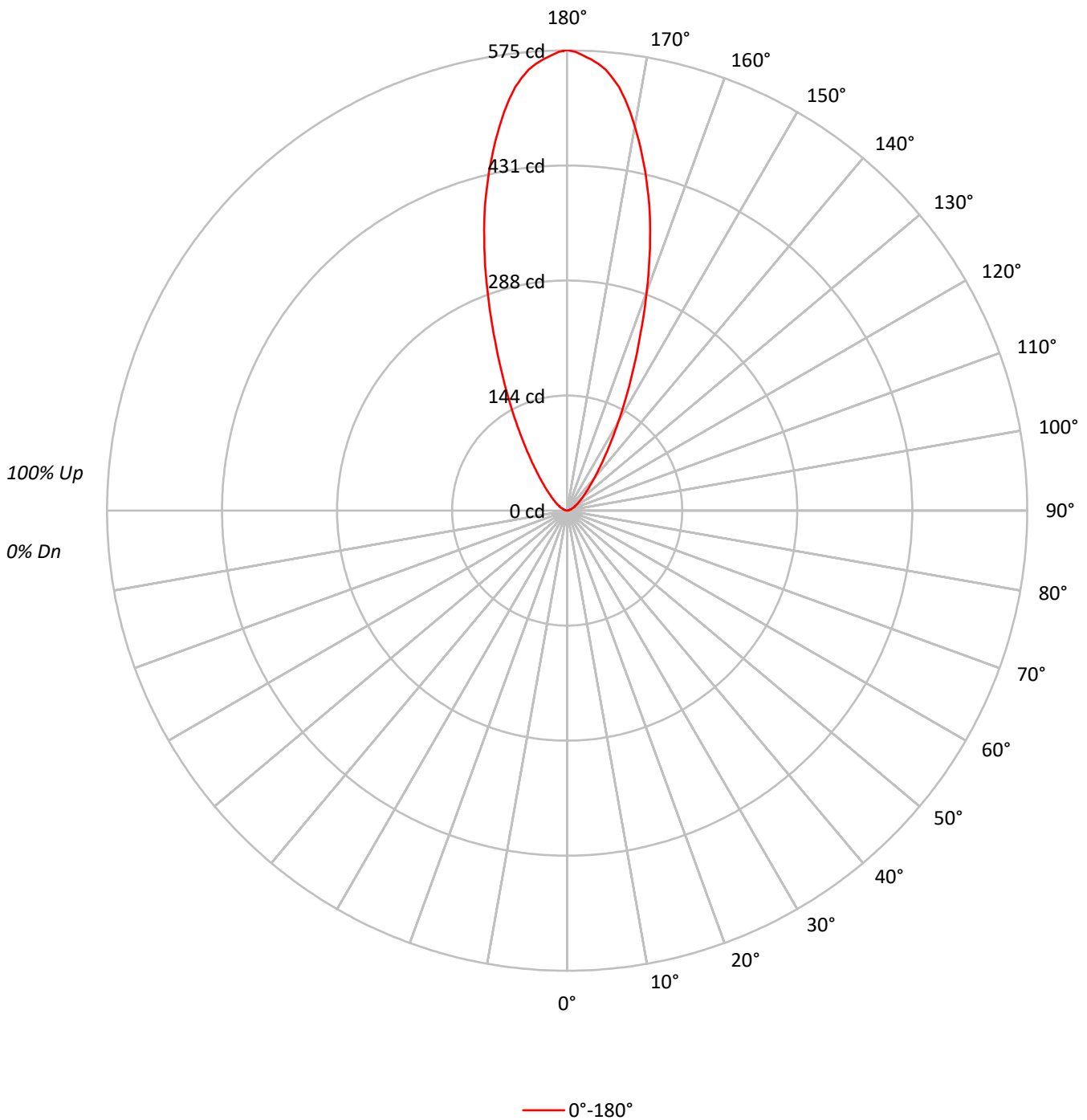
Input Watts (W): 7.7
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT



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



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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°	2967
105°	5988
110°	7711
115°	9908
120°	11474
125°	14608
130°	18748
135°	24428
140°	33480
145°	48612
150°	72551
155°	106933
160°	152722
165°	202276
170°	244135
175°	273945

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°	0.1	0.0
100°-110°	3.4	0.9
110°-120°	8.4	2.3
120°-130°	15.6	4.4
130°-140°	27.6	7.7
140°-150°	52.0	14.6
150°-160°	90.7	25.4
160°-170°	108.5	30.4
170°-180°	50.7	14.2
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°	11.9	3.3
90°-150°	107.1	30.0
90°-180°	357.0	100.0
0°-180°	357.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
90°	0	
95°	0	0
105°	3	3
115°	8	8
125°	17	16
135°	35	28
145°	81	52
155°	196	91
165°	396	108
175°	553	51
180°	575	

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CANDELA DISTRIBUTION (FULL):

	0°
90°	0.0
92.5°	0.0
95°	0.0
97.5°	0.0
100°	1.0
102.5°	2.1
105°	3.1
107.5°	4.3
110°	5.3
112.5°	6.4
115°	8.5
117.5°	10.6
120°	11.6
122.5°	14.9
125°	17.0
127.5°	20.1
130°	24.4
132.5°	28.6
135°	35.0
137.5°	42.5
140°	52.0
142.5°	64.8
145°	80.7
147.5°	101.9
150°	127.3
151°	140.1
152°	152.9
153°	166.7
154°	180.5
155°	196.4
156°	213.4
157°	230.4
158°	249.5
159°	269.7
160°	290.9
161°	312.2
162°	333.3
163°	354.6
164°	375.9
165°	396.0
166°	415.1
167°	434.3
168°	452.3
169°	470.3
170°	487.3

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CANDELA DISTRIBUTION (continued):

	0°
171°	504.3
172°	519.2
173°	533.0
174°	543.6
175°	553.1
176°	559.5
177°	564.9
178°	569.1
179°	573.4
180°	575.5

(END OF REPORT)