

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-LVR

Issue Date: 3/3/2020

Tested By:

Approved By:



NVLAP Lab Code: 200050-0

Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

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-LVR
 Description: BOCA 696, 8 WATT, 4000K CCT, 36 DEGREE WIDE OPTIC,
 FLUSH HOOD BLACK, HEX CELL LOUVER
 Light Source: (1) SORAA 4000K 90 CRI LED
 SM16-07-36D-940-03
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 284.5 lumens
 Efficiency: N/A
 Efficacy: 36.9 lumens/watt
 N/A
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Indirect

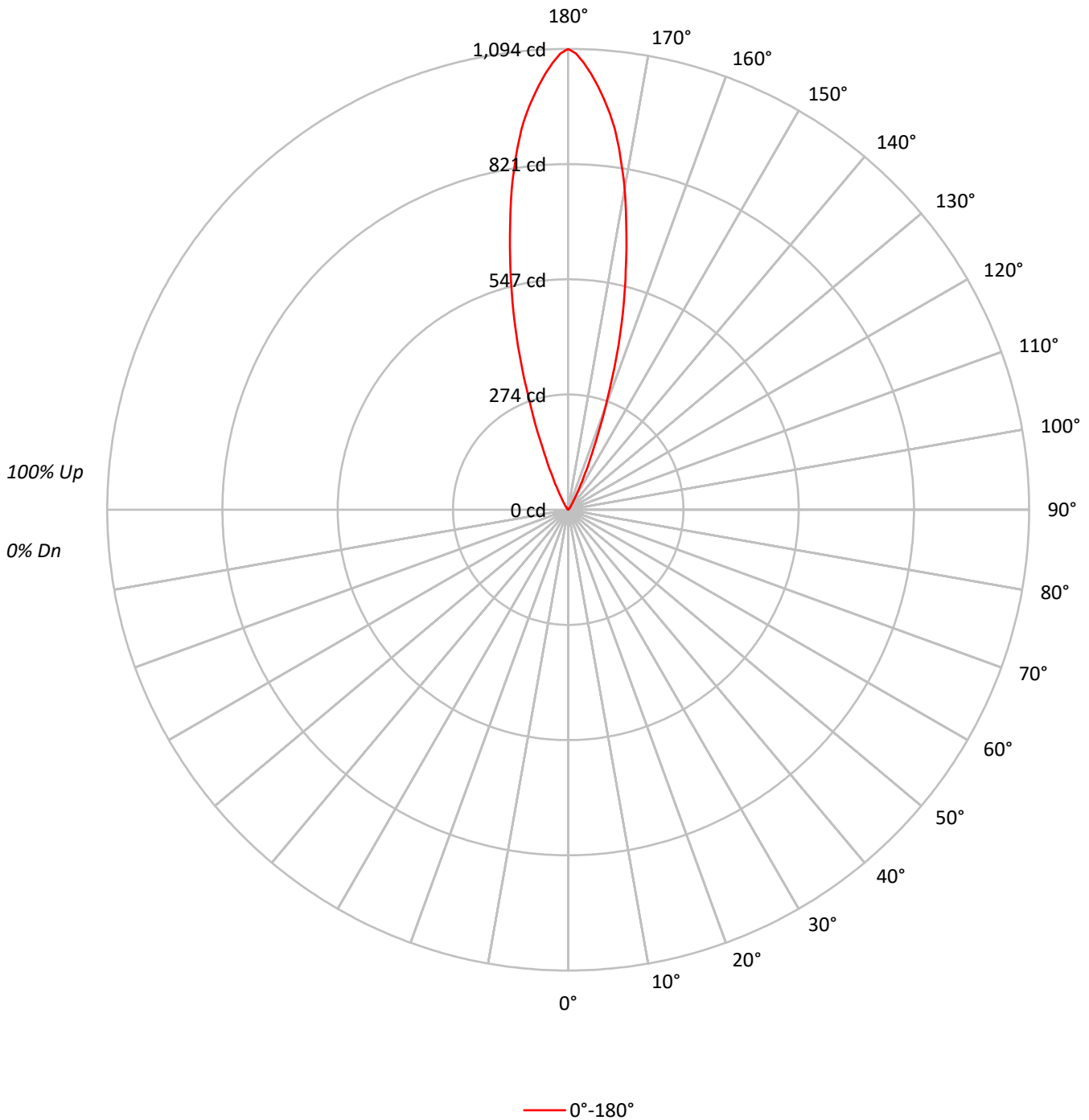
Input Watts (W): 7.7
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT



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

TEST NUMBER: P27782_4000K
CATALOG NUMBER: 696-8LED4036-12-BK-LVR

Luminous Intensity Polar Plot



TEST NUMBER: P27782[4000K

CATALOG NUMBER: 696-8LED4036-12-BK-LVR

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°	0
100°	0
105°	0
110°	0
115°	0
120°	0
125°	899
130°	803
135°	2194
140°	3445
145°	7707
150°	16966
155°	50851
160°	134364
165°	261430
170°	386783
175°	484390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 0°
 Luminance: 0 cd/sqm

TEST NUMBER: P27782[4000K

CATALOG NUMBER: 696-8LED4036-12-BK-LVR

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°	2.4	0.9
140°-150°	8.8	3.1
150°-160°	48.6	17.1
160°-170°	136.9	48.1
170°-180°	86.9	30.6
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°	12.0	4.2
90°-180°	285.0	100.2
0°-180°	284.5	100.0

CANDELA DISTRIBUTION:

	0°	Flux
90°	0	
95°	0	0
105°	0	0
115°	0	0
125°	1	1
135°	3	2
145°	13	9
155°	93	49
165°	512	137
175°	978	87
180°	1094	

TEST NUMBER: P27782[4000K
CATALOG NUMBER: 696-8LED4036-12-BK-LVR

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°	3.1
137.5°	4.3
140°	5.3
142.5°	8.5
145°	12.8
147.5°	19.1
150°	29.8
151°	38.3
152°	48.9
153°	61.5
154°	75.4
155°	93.4
157.5°	157.2
160°	255.9
161°	303.7
162°	354.7
163°	407.7
164°	459.8
165°	511.8
166°	560.7
167°	611.6
168°	664.8
169°	718.9
170°	772.0
171°	819.7
172°	866.5
173°	910.0

TEST NUMBER: P27782[_ 4000K
CATALOG NUMBER: 696-8LED4036-12-BK-LVR

CANDELA DISTRIBUTION (continued):

	0°
174°	946.2
175°	978.0
176°	1007.7
177°	1036.4
178°	1061.9
179°	1083.1
180°	1093.8

(END OF REPORT)