

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P485677

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-27-120-EDD**

Issue Date: 3/1/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P485677
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-89BC-LD4-2LO-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

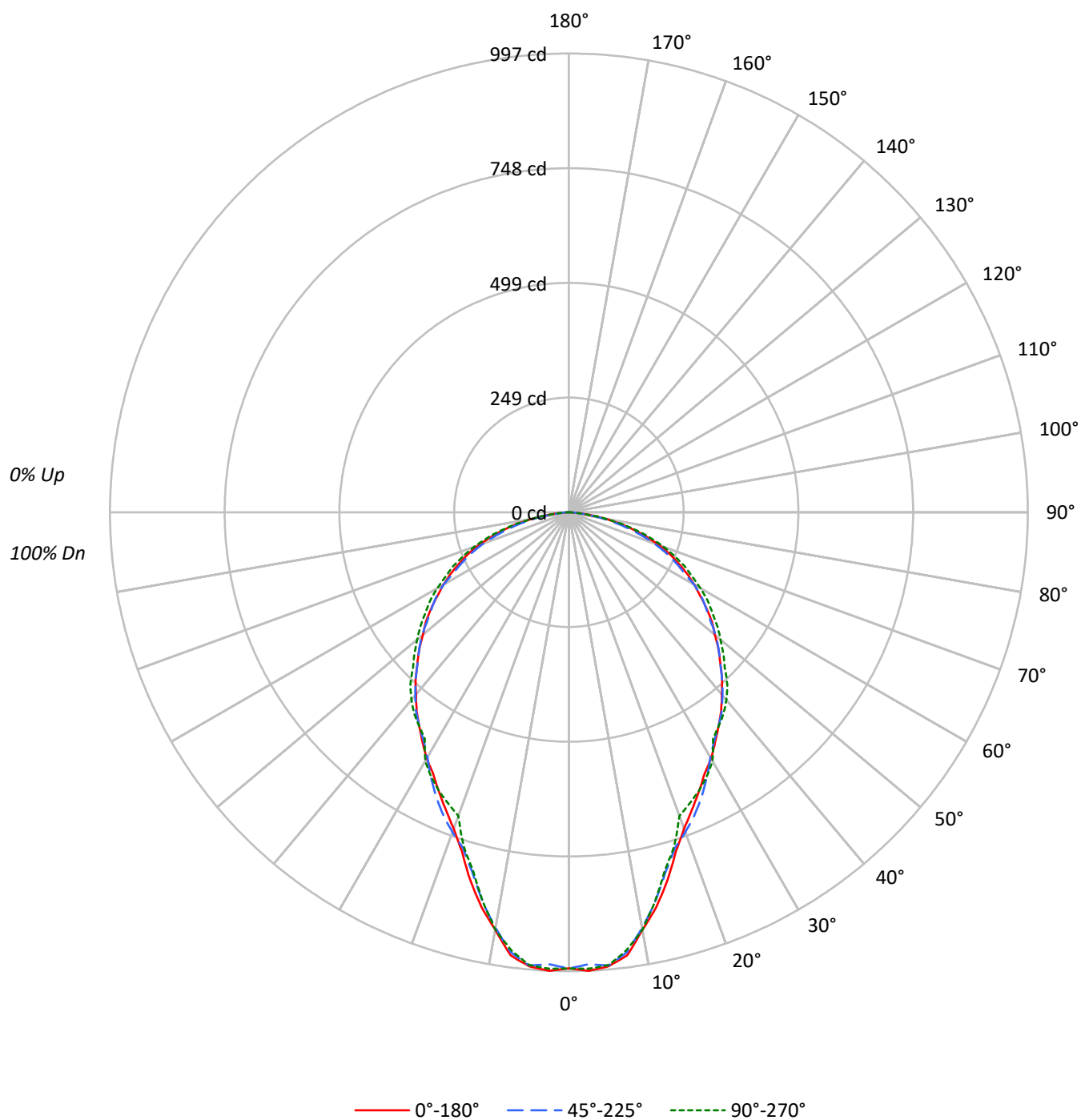
Lumens per Lamp: N/A
Luminaire Lumens: 2119.4 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: 25 FT

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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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2667	2667	2667
5°	2674	2670	2667
10°	2516	2505	2515
15°	2306	2255	2243
20°	2094	2118	2010
25°	1986	2026	1983
30°	1918	1910	1939
35°	1862	1862	1862
40°	1816	1823	1868
45°	1771	1769	1824
50°	1732	1745	1799
55°	1714	1707	1784
60°	1692	1689	1775
65°	1670	1618	1766
70°	1638	1544	1719
75°	1516	1371	1592
80°	1230	1117	1261
85°	781	701	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	4.3
10°-20°	230.1	10.9
20°-30°	310.8	14.7
30°-40°	355.9	16.8
40°-50°	364.5	17.2
50°-60°	330.8	15.6
60°-70°	258.1	12.2
70°-80°	146.4	6.9
80°-90°	30.7	1.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	632.9	29.9
0°-40°	988.8	46.7
0°-60°	1684.1	79.5
0°-90°	2119.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2119.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	991	991	991	991	991	
5°	990	979	988	990	987	92
15°	828	830	810	814	805	231
25°	669	678	682	666	668	309
35°	567	568	567	567	567	355
45°	465	469	465	484	479	360
55°	365	365	364	377	380	327
65°	262	257	254	266	277	260
75°	146	135	132	140	153	153
85°	25	23	23	21	22	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	991.0	991.0	991.0	991.0	991.0
2.5°	997.2	989.5	982.8	993.6	992.6
5°	990.0	978.6	988.4	990.5	987.4
7.5°	970.9	963.7	964.2	960.1	959.6
10°	920.9	925.0	916.8	924.0	920.4
12.5°	878.2	880.7	866.3	869.4	865.3
15°	827.6	830.2	809.6	813.7	805.0
17.5°	772.5	781.8	764.8	769.9	760.7
20°	731.3	739.0	739.5	731.3	701.9
22.5°	698.8	706.5	712.7	688.0	684.9
25°	668.9	677.7	682.3	665.8	667.9
27.5°	639.0	648.8	648.8	652.4	647.8
30°	617.4	621.5	614.8	628.2	624.1
32.5°	591.6	593.2	587.5	597.3	582.9
35°	566.9	567.9	566.9	567.4	566.9
37.5°	543.2	540.6	545.2	542.1	551.9
40°	516.9	516.9	519.0	524.1	531.8
42.5°	492.7	494.7	492.2	506.6	509.7
45°	465.4	469.0	464.8	483.9	479.3
47.5°	440.6	442.2	441.1	454.0	455.1
50°	413.8	415.9	416.9	428.3	429.8
52.5°	391.7	391.1	387.5	404.0	406.6
55°	365.4	364.9	363.8	376.7	380.3
57.5°	338.6	339.1	341.7	348.9	357.7
60°	314.4	311.8	313.8	322.6	329.8
62.5°	289.6	285.0	280.3	294.8	301.5
65°	262.3	256.6	254.1	265.9	277.3
67.5°	237.1	227.8	226.2	234.5	247.9
70°	208.2	196.9	196.3	202.5	218.5
72.5°	176.2	166.5	163.9	172.1	186.6
75°	145.8	135.0	131.9	139.7	153.1
77.5°	112.9	104.1	102.0	106.2	117.0
80°	79.4	74.2	72.1	73.7	81.4
82.5°	50.0	46.4	45.4	44.8	49.0
85°	25.3	22.7	22.7	21.1	22.2
87.5°	7.7	7.2	6.7	5.2	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)