

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: P485016

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-27-120-EDD-90**

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: P485016
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-12-4-INS-89BC-LD4-2HI-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

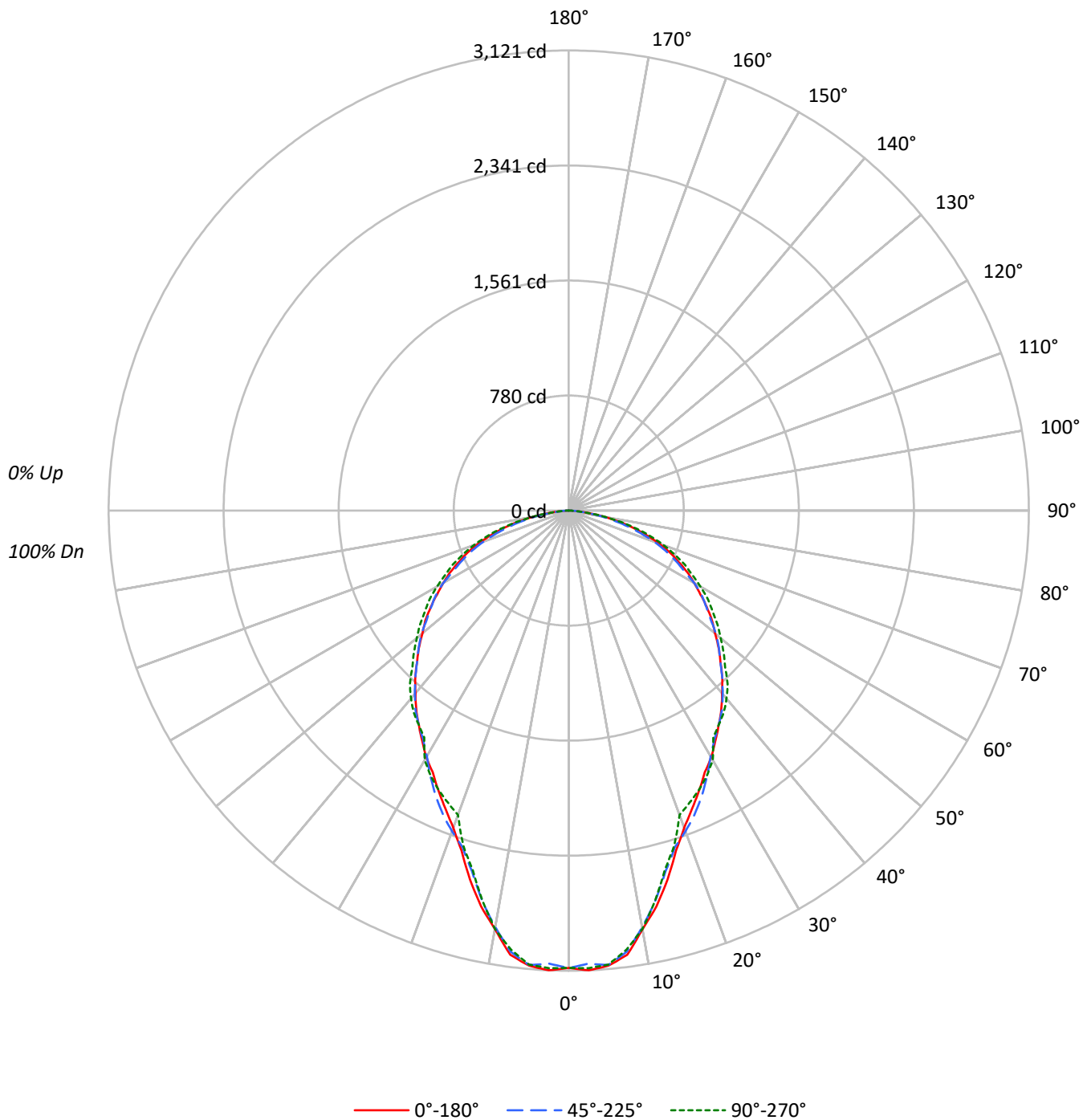
Lumens per Lamp: N/A
Luminaire Lumens: 6632.7 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	8346	8346	8346
5°	8369	8356	8347
10°	7875	7840	7871
15°	7216	7059	7018
20°	6554	6628	6290
25°	6216	6340	6206
30°	6004	5979	6069
35°	5828	5828	5828
40°	5682	5705	5847
45°	5542	5536	5708
50°	5422	5462	5631
55°	5365	5342	5584
60°	5295	5286	5555
65°	5227	5063	5525
70°	5127	4835	5380
75°	4745	4293	4980
80°	3849	3499	3949
85°	2439	2192	2140



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.1	4.3
10°-20°	720.2	10.9
20°-30°	972.6	14.7
30°-40°	1113.7	16.8
40°-50°	1140.8	17.2
50°-60°	1035.1	15.6
60°-70°	807.9	12.2
70°-80°	458.2	6.9
80°-90°	96.2	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°	1980.8	29.9
0°-40°	3094.5	46.7
0°-60°	5270.4	79.5
0°-90°	6632.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6632.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3101	3101	3101	3101	3101	
5°	3098	3063	3093	3100	3090	289
15°	2590	2598	2534	2547	2519	724
25°	2093	2121	2135	2084	2090	966
35°	1774	1777	1774	1776	1774	1111
45°	1456	1468	1455	1514	1500	1126
55°	1144	1142	1139	1179	1190	1022
65°	821	803	795	832	868	814
75°	456	423	413	437	479	477
85°	79	71	71	66	69	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3101.4	3101.4	3101.4	3101.4	3101.4
2.5°	3120.7	3096.6	3075.6	3109.5	3106.2
5°	3098.2	3062.7	3093.3	3099.8	3090.1
7.5°	3038.5	3015.9	3017.5	3004.6	3003.0
10°	2882.1	2895.0	2869.2	2891.7	2880.4
12.5°	2748.2	2756.3	2711.1	2720.8	2707.9
15°	2590.1	2598.2	2533.7	2546.6	2519.2
17.5°	2417.6	2446.6	2393.4	2409.5	2380.5
20°	2288.5	2312.7	2314.4	2288.5	2196.6
22.5°	2186.9	2211.1	2230.5	2153.1	2143.4
25°	2093.4	2120.8	2135.3	2083.7	2090.2
27.5°	1999.9	2030.5	2030.5	2041.8	2027.3
30°	1932.1	1945.0	1924.1	1966.0	1953.1
32.5°	1851.5	1856.3	1838.6	1869.2	1824.1
35°	1774.1	1777.3	1774.1	1775.7	1774.1
37.5°	1699.9	1691.8	1706.3	1696.7	1727.3
40°	1617.6	1617.6	1624.1	1640.2	1664.4
42.5°	1541.8	1548.3	1540.2	1585.4	1595.0
45°	1456.3	1467.6	1454.7	1514.4	1499.9
47.5°	1378.9	1383.8	1380.5	1420.9	1424.1
50°	1295.1	1301.5	1304.7	1340.2	1345.1
52.5°	1225.7	1224.1	1212.8	1264.4	1272.5
55°	1143.5	1141.9	1138.6	1178.9	1190.2
57.5°	1059.6	1061.2	1069.3	1091.9	1119.3
60°	983.8	975.7	982.2	1009.6	1032.2
62.5°	906.4	891.9	877.4	922.5	943.5
65°	820.9	803.2	795.1	832.2	867.7
67.5°	741.9	712.9	708.0	733.8	775.8
70°	651.6	616.1	614.5	633.8	683.8
72.5°	551.6	520.9	512.9	538.7	583.8
75°	456.4	422.6	412.9	437.1	479.0
77.5°	353.2	325.8	319.3	332.2	366.1
80°	248.4	232.2	225.8	230.6	254.8
82.5°	156.4	145.2	141.9	140.3	153.2
85°	79.0	71.0	71.0	66.1	69.3
87.5°	24.2	22.6	21.0	16.1	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)