

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: P485780

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-50-120-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: P485780
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-LD4-5HI-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

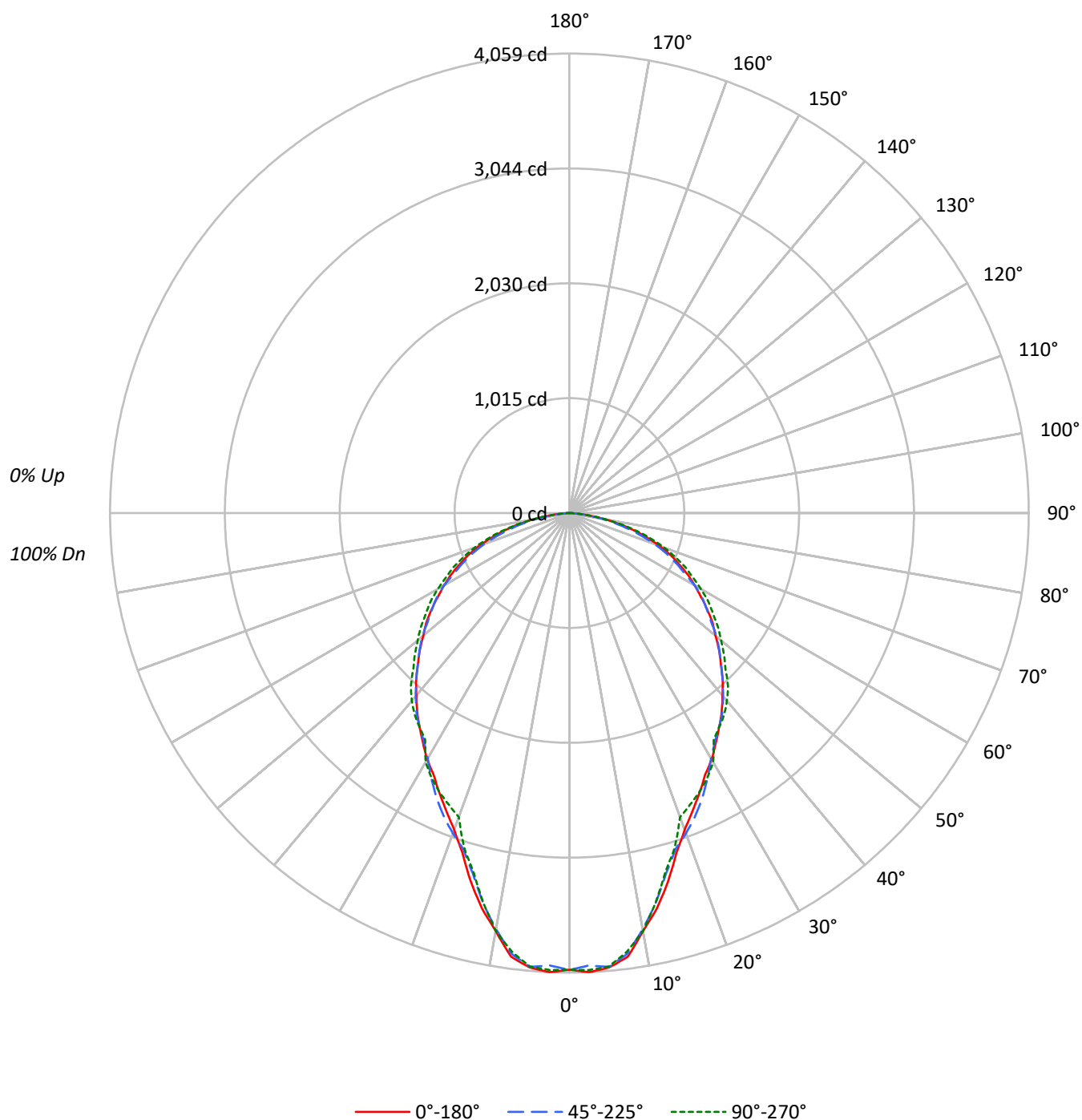
Lumens per Lamp: N/A
Luminaire Lumens: 8626.9 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10855	10855	10855
5°	10885	10868	10857
10°	10243	10197	10237
15°	9385	9181	9128
20°	8524	8620	8182
25°	8084	8246	8072
30°	7809	7776	7893
35°	7580	7580	7580
40°	7391	7420	7605
45°	7209	7201	7424
50°	7052	7104	7324
55°	6978	6948	7263
60°	6887	6875	7225
65°	6798	6585	7186
70°	6668	6288	6998
75°	6172	5583	6477
80°	5005	4551	5136
85°	3174	2850	2785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.7	4.3
10°-20°	936.7	10.9
20°-30°	1265.0	14.7
30°-40°	1448.6	16.8
40°-50°	1483.8	17.2
50°-60°	1346.4	15.6
60°-70°	1050.8	12.2
70°-80°	596.0	6.9
80°-90°	125.1	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°	2576.3	29.9
0°-40°	4024.9	46.7
0°-60°	6855.0	79.5
0°-90°	8626.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8626.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4034	4034	4034	4034	4034	
5°	4030	3984	4023	4032	4019	376
15°	3369	3379	3296	3312	3277	942
25°	2723	2758	2777	2710	2719	1256
35°	2308	2312	2308	2310	2308	1445
45°	1894	1909	1892	1970	1951	1465
55°	1487	1485	1481	1533	1548	1329
65°	1068	1045	1034	1082	1129	1058
75°	594	550	537	568	623	621
85°	103	92	92	86	90	136
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4033.9	4033.9	4033.9	4033.9	4033.9
2.5°	4059.0	4027.6	4000.3	4044.4	4040.2
5°	4029.7	3983.5	4023.4	4031.8	4019.2
7.5°	3952.1	3922.7	3924.8	3908.0	3905.9
10°	3748.6	3765.4	3731.8	3761.2	3746.5
12.5°	3574.5	3585.0	3526.2	3538.8	3522.0
15°	3368.9	3379.4	3295.5	3312.3	3276.6
17.5°	3144.4	3182.2	3113.0	3134.0	3096.2
20°	2976.6	3008.1	3010.2	2976.6	2857.1
22.5°	2844.5	2875.9	2901.1	2800.4	2787.8
25°	2722.8	2758.5	2777.3	2710.2	2718.6
27.5°	2601.1	2641.0	2641.0	2655.7	2636.8
30°	2513.0	2529.8	2502.6	2557.1	2540.3
32.5°	2408.2	2414.4	2391.4	2431.2	2372.5
35°	2307.5	2311.7	2307.5	2309.6	2307.5
37.5°	2211.0	2200.5	2219.4	2206.8	2246.6
40°	2104.0	2104.0	2112.4	2133.4	2164.8
42.5°	2005.4	2013.8	2003.3	2062.0	2074.6
45°	1894.2	1908.9	1892.1	1969.7	1950.9
47.5°	1793.5	1799.8	1795.6	1848.1	1852.3
50°	1684.4	1692.8	1697.0	1743.2	1749.5
52.5°	1594.2	1592.2	1577.5	1644.6	1655.1
55°	1487.3	1485.2	1481.0	1533.4	1548.1
57.5°	1378.2	1380.3	1390.8	1420.1	1455.8
60°	1279.6	1269.1	1277.5	1313.2	1342.5
62.5°	1178.9	1160.0	1141.1	1199.9	1227.2
65°	1067.7	1044.7	1034.2	1082.4	1128.6
67.5°	964.9	927.2	920.9	954.5	1009.0
70°	847.5	801.3	799.2	824.4	889.4
72.5°	717.4	677.6	667.1	700.6	759.4
75°	593.6	549.6	537.0	568.5	623.0
77.5°	459.4	423.7	415.3	432.1	476.2
80°	323.0	302.1	293.7	300.0	331.4
82.5°	203.5	188.8	184.6	182.5	199.3
85°	102.8	92.3	92.3	86.0	90.2
87.5°	31.5	29.4	27.3	21.0	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)