

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: P485043

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2STD-30-120-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: P485043
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-LD4-2STD-30-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

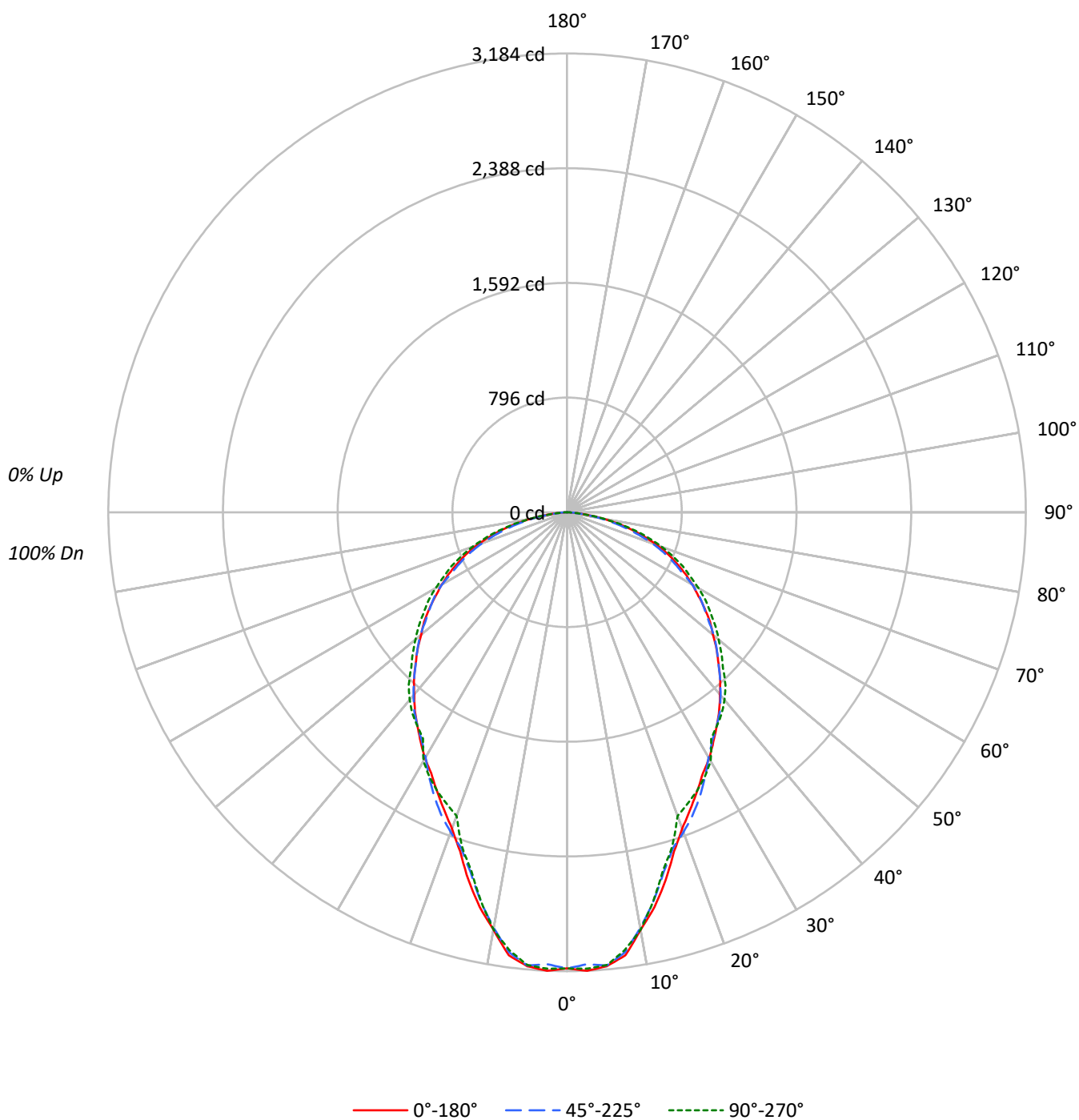
Lumens per Lamp: N/A
Luminaire Lumens: 6768.2 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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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CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-2STD-30-120-EDD

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°	8516	8516	8516
5°	8540	8527	8518
10°	8036	8000	8032
15°	7363	7203	7161
20°	6688	6763	6419
25°	6343	6470	6333
30°	6126	6101	6193
35°	5947	5947	5947
40°	5799	5822	5966
45°	5656	5649	5824
50°	5532	5574	5746
55°	5474	5451	5698
60°	5403	5394	5669
65°	5334	5166	5638
70°	5231	4933	5490
75°	4842	4380	5082
80°	3927	3570	4029
85°	2489	2235	2186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.9	4.3
10°-20°	734.9	10.9
20°-30°	992.4	14.7
30°-40°	1136.5	16.8
40°-50°	1164.1	17.2
50°-60°	1056.3	15.6
60°-70°	824.4	12.2
70°-80°	467.6	6.9
80°-90°	98.1	1.4
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°	2021.2	29.9
0°-40°	3157.7	46.7
0°-60°	5378.1	79.5
0°-90°	6768.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6768.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3165	3165	3165	3165	3165	
5°	3162	3125	3156	3163	3153	295
15°	2643	2651	2586	2599	2571	739
25°	2136	2164	2179	2126	2133	986
35°	1810	1814	1810	1812	1810	1134
45°	1486	1498	1484	1545	1530	1149
55°	1167	1165	1162	1203	1215	1043
65°	838	820	811	849	885	830
75°	466	431	421	446	489	487
85°	81	72	72	68	71	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3164.8	3164.8	3164.8	3164.8	3164.8
2.5°	3184.5	3159.8	3138.4	3173.0	3169.7
5°	3161.5	3125.3	3156.5	3163.1	3153.2
7.5°	3100.6	3077.5	3079.2	3066.0	3064.4
10°	2940.9	2954.1	2927.8	2950.8	2939.3
12.5°	2804.3	2812.6	2766.5	2776.4	2763.2
15°	2643.1	2651.3	2585.5	2598.6	2570.6
17.5°	2467.0	2496.6	2442.3	2458.7	2429.1
20°	2335.3	2360.0	2361.6	2335.3	2241.5
22.5°	2231.6	2256.3	2276.1	2197.1	2187.2
25°	2136.2	2164.1	2179.0	2126.3	2132.9
27.5°	2040.7	2072.0	2072.0	2083.5	2068.7
30°	1971.6	1984.8	1963.4	2006.2	1993.0
32.5°	1889.3	1894.2	1876.1	1907.4	1861.3
35°	1810.3	1813.6	1810.3	1812.0	1810.3
37.5°	1734.6	1726.4	1741.2	1731.3	1762.6
40°	1650.7	1650.7	1657.3	1673.7	1698.4
42.5°	1573.3	1579.9	1571.7	1617.8	1627.6
45°	1486.1	1497.6	1484.5	1545.3	1530.5
47.5°	1407.1	1412.0	1408.8	1449.9	1453.2
50°	1321.5	1328.1	1331.4	1367.6	1372.5
52.5°	1250.8	1249.1	1237.6	1290.3	1298.5
55°	1166.8	1165.2	1161.9	1203.0	1214.6
57.5°	1081.3	1082.9	1091.1	1114.2	1142.1
60°	1003.9	995.7	1002.3	1030.2	1053.3
62.5°	924.9	910.1	895.3	941.4	962.8
65°	837.7	819.6	811.3	849.2	885.4
67.5°	757.0	727.4	722.5	748.8	791.6
70°	664.9	628.7	627.0	646.8	697.8
72.5°	562.8	531.6	523.3	549.7	595.8
75°	465.7	431.2	421.3	446.0	488.8
77.5°	360.4	332.4	325.9	339.0	373.6
80°	253.4	237.0	230.4	235.3	260.0
82.5°	159.6	148.1	144.8	143.2	156.3
85°	80.6	72.4	72.4	67.5	70.8
87.5°	24.7	23.0	21.4	16.5	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)