

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: P485739

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-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: P485739
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-LD4-4HI-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

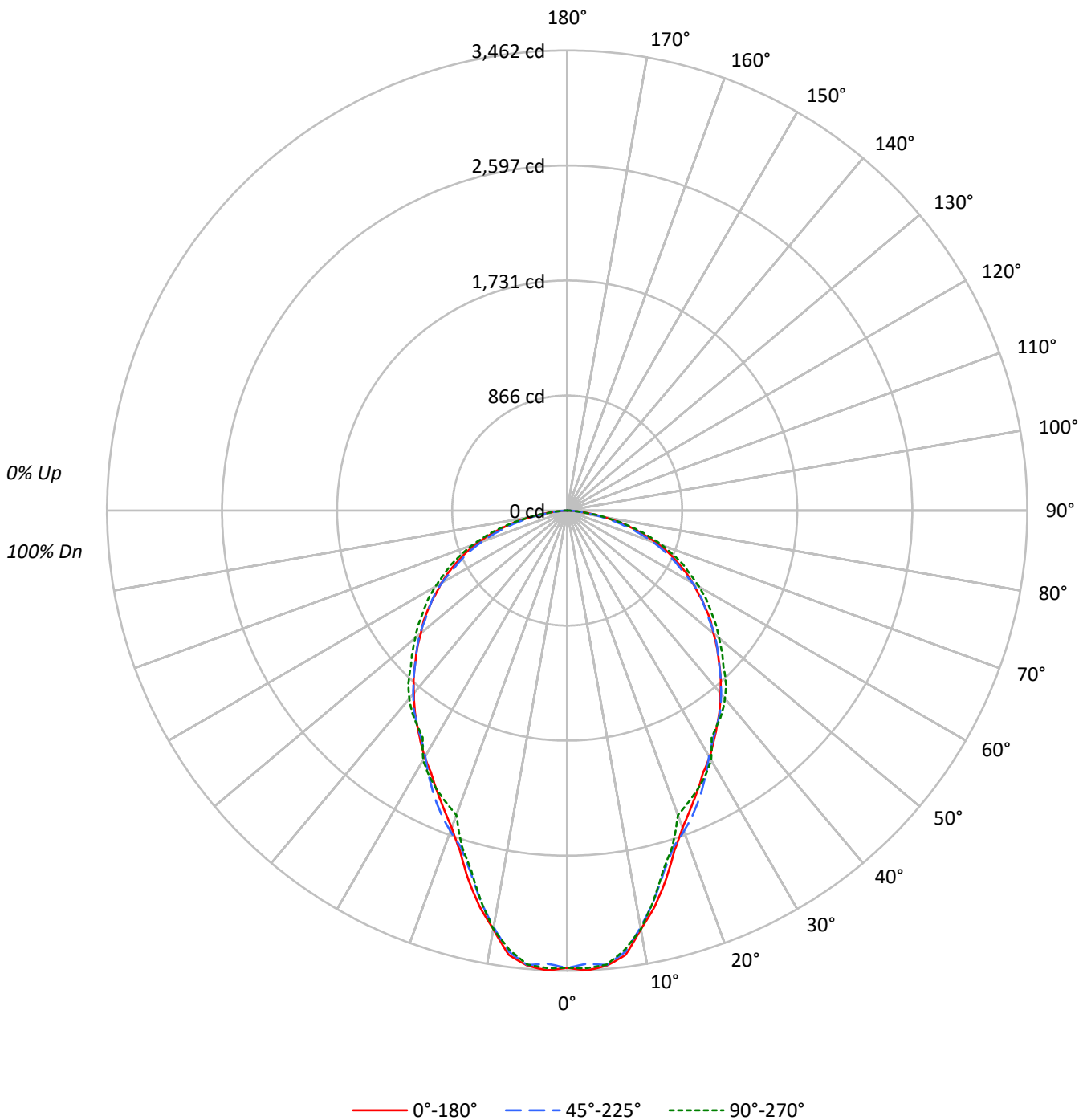
Lumens per Lamp: N/A
Luminaire Lumens: 7358.4 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4HI-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				10	0
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°	9259	9259	9259
5°	9284	9270	9260
10°	8737	8698	8732
15°	8005	7831	7786
20°	7271	7353	6979
25°	6896	7034	6885
30°	6660	6633	6733
35°	6466	6466	6466
40°	6304	6329	6486
45°	6149	6142	6333
50°	6015	6060	6247
55°	5952	5926	6195
60°	5874	5865	6163
65°	5799	5617	6129
70°	5688	5364	5969
75°	5265	4762	5525
80°	4269	3882	4381
85°	2708	2430	2374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.6	4.3
10°-20°	798.9	10.9
20°-30°	1079.0	14.7
30°-40°	1235.6	16.8
40°-50°	1265.6	17.2
50°-60°	1148.4	15.6
60°-70°	896.3	12.2
70°-80°	508.4	6.9
80°-90°	106.7	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°	2197.5	29.9
0°-40°	3433.1	46.7
0°-60°	5847.0	79.5
0°-90°	7358.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7358.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3441	3441	3441	3441	3441	
5°	3437	3398	3432	3439	3428	321
15°	2874	2882	2811	2825	2795	803
25°	2322	2353	2369	2312	2319	1072
35°	1968	1972	1968	1970	1968	1233
45°	1616	1628	1614	1680	1664	1249
55°	1269	1267	1263	1308	1320	1134
65°	911	891	882	923	963	903
75°	506	469	458	485	531	530
85°	88	79	79	73	77	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3440.7	3440.7	3440.7	3440.7	3440.7
2.5°	3462.2	3435.4	3412.1	3449.7	3446.1
5°	3437.1	3397.8	3431.8	3438.9	3428.2
7.5°	3370.9	3345.9	3347.7	3333.4	3331.6
10°	3197.4	3211.7	3183.1	3208.1	3195.6
12.5°	3048.9	3057.8	3007.7	3018.5	3004.2
15°	2873.5	2882.5	2810.9	2825.2	2794.8
17.5°	2682.1	2714.3	2655.2	2673.1	2640.9
20°	2538.9	2565.8	2567.6	2538.9	2437.0
22.5°	2426.2	2453.1	2474.5	2388.6	2377.9
25°	2322.4	2352.9	2369.0	2311.7	2318.9
27.5°	2218.7	2252.7	2252.7	2265.2	2249.1
30°	2143.5	2157.8	2134.6	2181.1	2166.8
32.5°	2054.1	2059.4	2039.7	2073.7	2023.6
35°	1968.2	1971.8	1968.2	1970.0	1968.2
37.5°	1885.9	1876.9	1893.0	1882.3	1916.3
40°	1794.6	1794.6	1801.8	1819.7	1846.5
42.5°	1710.5	1717.7	1708.7	1758.8	1769.6
45°	1615.7	1628.2	1613.9	1680.1	1664.0
47.5°	1529.8	1535.2	1531.6	1576.3	1579.9
50°	1436.8	1443.9	1447.5	1486.9	1492.2
52.5°	1359.8	1358.0	1345.5	1402.8	1411.7
55°	1268.6	1266.8	1263.2	1307.9	1320.5
57.5°	1175.5	1177.3	1186.3	1211.3	1241.7
60°	1091.4	1082.5	1089.7	1120.1	1145.1
62.5°	1005.6	989.5	973.4	1023.5	1046.7
65°	910.7	891.0	882.1	923.3	962.6
67.5°	823.1	790.8	785.5	814.1	860.6
70°	722.9	683.5	681.7	703.2	758.6
72.5°	611.9	577.9	569.0	597.6	647.7
75°	506.4	468.8	458.0	484.9	531.4
77.5°	391.8	361.4	354.3	368.6	406.2
80°	275.5	257.7	250.5	255.9	282.7
82.5°	173.6	161.0	157.5	155.7	170.0
85°	87.7	78.7	78.7	73.4	76.9
87.5°	26.8	25.0	23.3	17.9	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)