

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: P487009

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3LO-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: P487009
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-24-4-INS-89BC-LD4-3LO-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

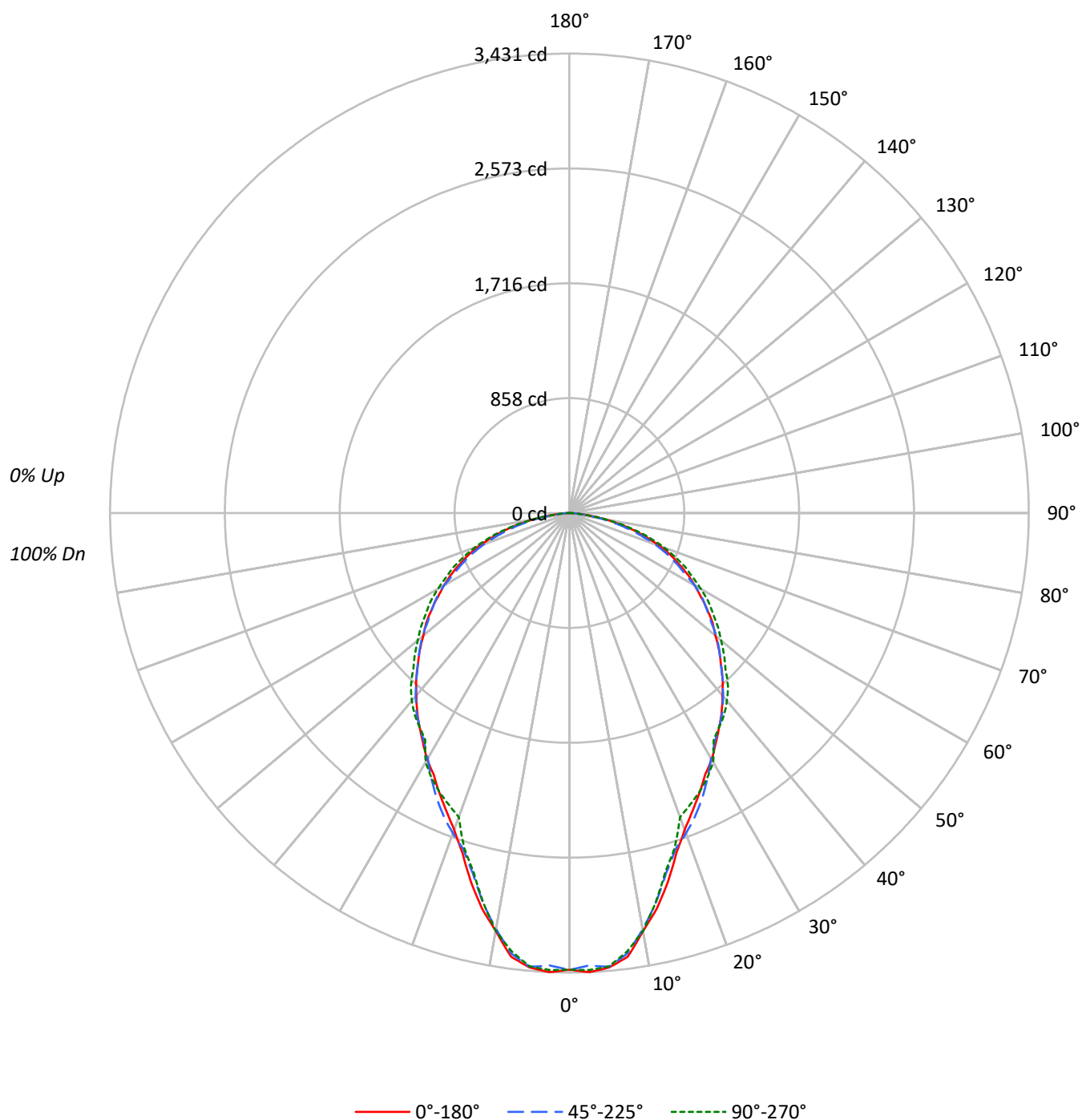
Lumens per Lamp: N/A
Luminaire Lumens: 7291.9 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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				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°	4588	4588	4588
5°	4600	4593	4588
10°	4329	4310	4326
15°	3967	3880	3858
20°	3603	3643	3458
25°	3417	3485	3411
30°	3300	3286	3336
35°	3204	3204	3204
40°	3124	3136	3214
45°	3047	3043	3138
50°	2980	3003	3095
55°	2949	2936	3069
60°	2911	2906	3054
65°	2873	2783	3037
70°	2818	2657	2958
75°	2609	2360	2738
80°	2116	1923	2170
85°	1342	1204	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.7	4.3
10°-20°	791.7	10.9
20°-30°	1069.2	14.7
30°-40°	1224.4	16.8
40°-50°	1254.2	17.2
50°-60°	1138.0	15.6
60°-70°	888.2	12.2
70°-80°	503.8	6.9
80°-90°	105.7	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°	2177.6	29.9
0°-40°	3402.0	46.7
0°-60°	5794.2	79.5
0°-90°	7291.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7291.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3410	3410	3410	3410	3410	
5°	3406	3367	3401	3408	3397	318
15°	2848	2856	2786	2800	2770	796
25°	2302	2332	2348	2291	2298	1062
35°	1950	1954	1950	1952	1950	1222
45°	1601	1614	1599	1665	1649	1238
55°	1257	1255	1252	1296	1308	1123
65°	902	883	874	915	954	894
75°	502	464	454	480	527	525
85°	87	78	78	73	76	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3409.6	3409.6	3409.6	3409.6	3409.6
2.5°	3430.9	3404.3	3381.3	3418.5	3415.0
5°	3406.1	3367.1	3400.8	3407.9	3397.2
7.5°	3340.5	3315.7	3317.4	3303.2	3301.5
10°	3168.5	3182.7	3154.3	3179.1	3166.7
12.5°	3021.3	3030.2	2980.5	2991.2	2977.0
15°	2847.6	2856.4	2785.5	2799.7	2769.6
17.5°	2657.8	2689.8	2631.3	2649.0	2617.1
20°	2516.0	2542.6	2544.4	2516.0	2414.9
22.5°	2404.3	2430.9	2452.2	2367.1	2356.4
25°	2301.5	2331.6	2347.6	2290.8	2297.9
27.5°	2198.6	2232.3	2232.3	2244.7	2228.8
30°	2124.1	2138.3	2115.3	2161.4	2147.2
32.5°	2035.5	2040.8	2021.3	2055.0	2005.4
35°	1950.4	1953.9	1950.4	1952.2	1950.4
37.5°	1868.8	1860.0	1875.9	1865.3	1899.0
40°	1778.4	1778.4	1785.5	1803.2	1829.8
42.5°	1695.1	1702.2	1693.3	1742.9	1753.6
45°	1601.1	1613.5	1599.3	1664.9	1649.0
47.5°	1516.0	1521.3	1517.8	1562.1	1565.6
50°	1423.8	1430.9	1434.4	1473.4	1478.7
52.5°	1347.5	1345.8	1333.4	1390.1	1399.0
55°	1257.1	1255.3	1251.8	1296.1	1308.5
57.5°	1164.9	1166.7	1175.6	1200.4	1230.5
60°	1081.6	1072.7	1079.8	1109.9	1134.8
62.5°	996.5	980.5	964.6	1014.2	1037.3
65°	902.5	883.0	874.1	914.9	953.9
67.5°	815.6	783.7	778.4	806.8	852.9
70°	716.3	677.3	675.5	696.8	751.8
72.5°	606.4	572.7	563.8	592.2	641.9
75°	501.8	464.5	453.9	480.5	526.6
77.5°	388.3	358.2	351.1	365.3	402.5
80°	273.1	255.3	248.2	253.6	280.1
82.5°	172.0	159.6	156.0	154.3	168.4
85°	86.9	78.0	78.0	72.7	76.2
87.5°	26.6	24.8	23.1	17.7	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)