

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: P486991

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-40-120-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: P486991
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-LD4-2STD-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

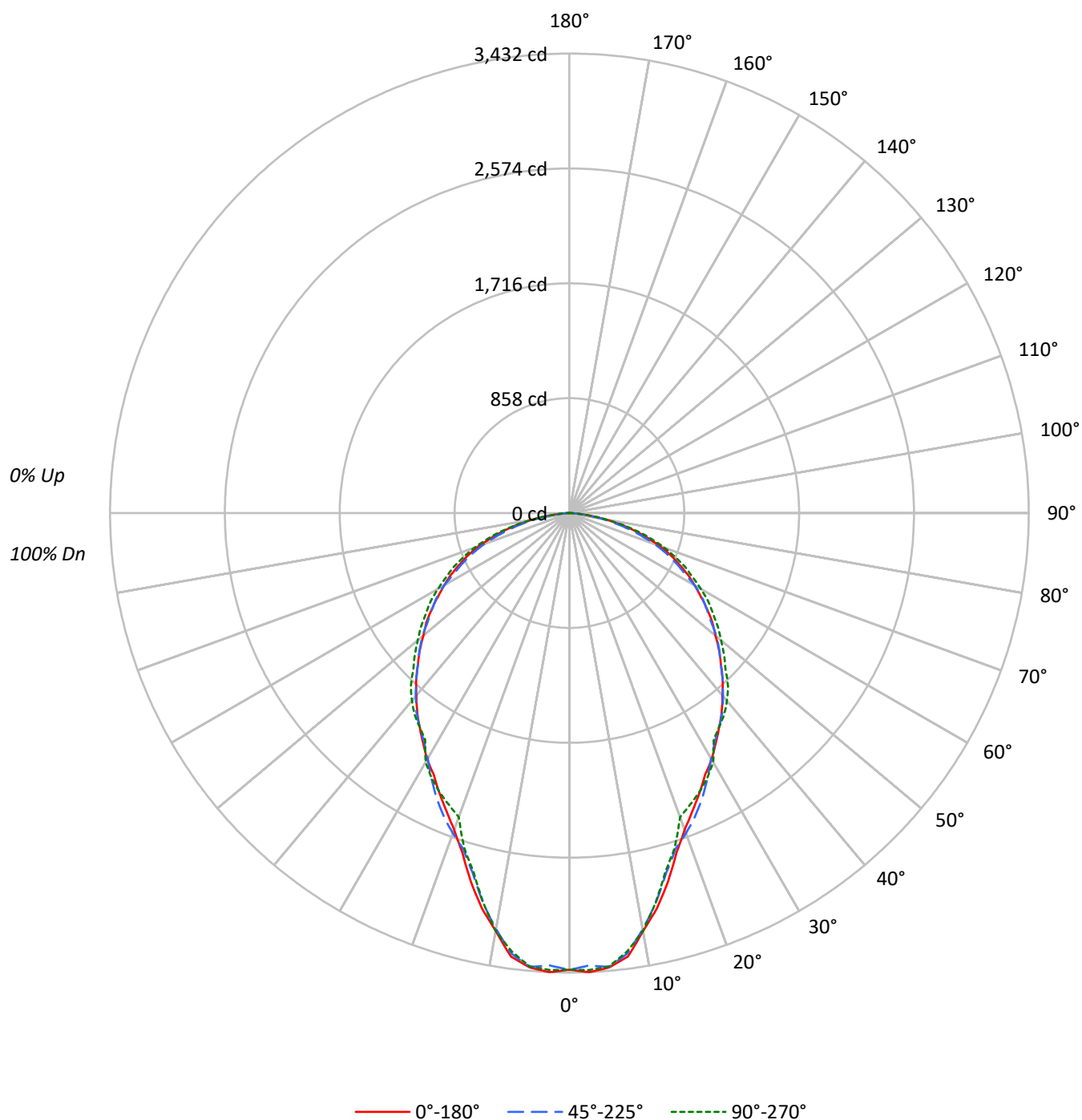
Lumens per Lamp: N/A
Luminaire Lumens: 7293.5 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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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°	4589	4589	4589
5°	4601	4594	4589
10°	4330	4311	4327
15°	3967	3881	3859
20°	3603	3644	3459
25°	3418	3486	3412
30°	3301	3287	3337
35°	3204	3204	3204
40°	3124	3137	3215
45°	3047	3044	3138
50°	2981	3003	3096
55°	2950	2937	3070
60°	2911	2906	3054
65°	2874	2784	3038
70°	2819	2658	2958
75°	2609	2360	2738
80°	2116	1924	2171
85°	1342	1204	1178



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.8	4.3
10°-20°	791.9	10.9
20°-30°	1069.4	14.7
30°-40°	1224.7	16.8
40°-50°	1254.5	17.2
50°-60°	1138.2	15.6
60°-70°	888.4	12.2
70°-80°	503.9	6.9
80°-90°	105.8	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°	2178.1	29.9
0°-40°	3402.8	46.7
0°-60°	5795.5	79.5
0°-90°	7293.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7293.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3410	3410	3410	3410	3410	
5°	3407	3368	3402	3409	3398	318
15°	2848	2857	2786	2800	2770	796
25°	2302	2332	2348	2291	2298	1062
35°	1951	1954	1951	1953	1951	1222
45°	1601	1614	1600	1665	1649	1238
55°	1257	1256	1252	1296	1309	1124
65°	903	883	874	915	954	895
75°	502	465	454	481	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°	3410.4	3410.4	3410.4	3410.4	3410.4
2.5°	3431.7	3405.1	3382.0	3419.2	3415.7
5°	3406.8	3367.8	3401.5	3408.6	3398.0
7.5°	3341.2	3316.4	3318.2	3304.0	3302.2
10°	3169.2	3183.4	3155.0	3179.8	3167.4
12.5°	3022.0	3030.9	2981.2	2991.8	2977.7
15°	2848.2	2857.1	2786.1	2800.3	2770.2
17.5°	2658.4	2690.4	2631.8	2649.6	2617.6
20°	2516.6	2543.2	2544.9	2516.6	2415.5
22.5°	2404.8	2431.4	2452.7	2367.6	2356.9
25°	2302.0	2332.1	2348.1	2291.3	2298.4
27.5°	2199.1	2232.8	2232.8	2245.2	2229.3
30°	2124.6	2138.8	2115.7	2161.9	2147.7
32.5°	2035.9	2041.3	2021.8	2055.5	2005.8
35°	1950.8	1954.4	1950.8	1952.6	1950.8
37.5°	1869.2	1860.4	1876.3	1865.7	1899.4
40°	1778.8	1778.8	1785.9	1803.6	1830.2
42.5°	1695.4	1702.5	1693.7	1743.3	1754.0
45°	1601.4	1613.9	1599.7	1665.3	1649.3
47.5°	1516.3	1521.6	1518.1	1562.4	1566.0
50°	1424.1	1431.2	1434.7	1473.8	1479.1
52.5°	1347.8	1346.1	1333.6	1390.4	1399.3
55°	1257.4	1255.6	1252.1	1296.4	1308.8
57.5°	1165.2	1166.9	1175.8	1200.6	1230.8
60°	1081.8	1072.9	1080.0	1110.2	1135.0
62.5°	996.7	980.7	964.8	1014.4	1037.5
65°	902.7	883.2	874.3	915.1	954.1
67.5°	815.8	783.9	778.6	806.9	853.0
70°	716.5	677.5	675.7	697.0	752.0
72.5°	606.5	572.8	564.0	592.3	642.0
75°	501.9	464.6	454.0	480.6	526.7
77.5°	388.4	358.2	351.1	365.3	402.6
80°	273.1	255.4	248.3	253.6	280.2
82.5°	172.0	159.6	156.1	154.3	168.5
85°	86.9	78.0	78.0	72.7	76.3
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)