

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: P486979

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-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: P486979
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-LD4-2LO-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

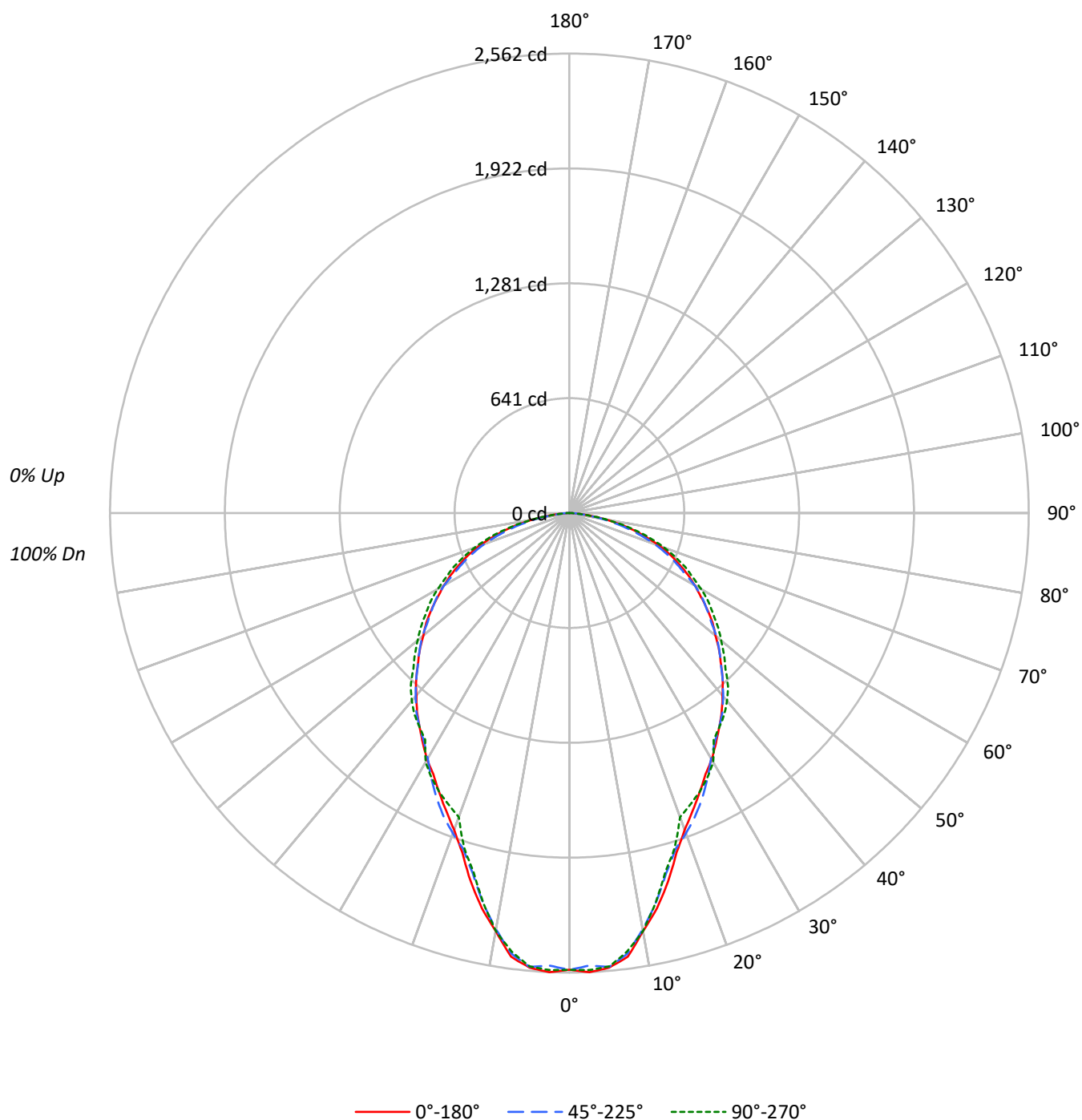
Lumens per Lamp: N/A
Luminaire Lumens: 5446.3 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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			
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°	3426	3426	3426
5°	3436	3431	3427
10°	3233	3219	3231
15°	2963	2898	2881
20°	2691	2721	2583
25°	2552	2603	2548
30°	2465	2455	2492
35°	2393	2393	2393
40°	2333	2342	2400
45°	2276	2273	2343
50°	2226	2243	2312
55°	2202	2193	2293
60°	2174	2170	2281
65°	2146	2079	2268
70°	2105	1985	2209
75°	1948	1762	2045
80°	1580	1437	1621
85°	1002	900	878



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.5	4.3
10°-20°	591.3	10.9
20°-30°	798.6	14.7
30°-40°	914.5	16.8
40°-50°	936.7	17.2
50°-60°	850.0	15.6
60°-70°	663.4	12.2
70°-80°	376.3	6.9
80°-90°	79.0	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°	1626.5	29.9
0°-40°	2541.0	46.7
0°-60°	4327.7	79.5
0°-90°	5446.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5446.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2547	2547	2547	2547	2547	
5°	2544	2515	2540	2545	2537	238
15°	2127	2134	2080	2091	2069	594
25°	1719	1742	1753	1711	1716	793
35°	1457	1459	1457	1458	1457	913
45°	1196	1205	1194	1244	1232	925
55°	939	938	935	968	977	839
65°	674	660	653	683	712	668
75°	375	347	339	359	393	392
85°	65	58	58	54	57	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2546.6	2546.6	2546.6	2546.6	2546.6
2.5°	2562.5	2542.7	2525.5	2553.3	2550.6
5°	2544.0	2514.9	2540.0	2545.3	2537.4
7.5°	2495.0	2476.5	2477.8	2467.2	2465.9
10°	2366.5	2377.1	2355.9	2374.5	2365.2
12.5°	2256.6	2263.2	2226.2	2234.1	2223.5
15°	2126.8	2133.5	2080.5	2091.1	2068.6
17.5°	1985.1	2009.0	1965.3	1978.5	1954.7
20°	1879.2	1899.1	1900.4	1879.2	1803.7
22.5°	1795.8	1815.6	1831.5	1768.0	1760.0
25°	1719.0	1741.5	1753.4	1711.0	1716.3
27.5°	1642.1	1667.3	1667.3	1676.6	1664.7
30°	1586.5	1597.1	1579.9	1614.3	1603.7
32.5°	1520.3	1524.3	1509.7	1534.9	1497.8
35°	1456.7	1459.4	1456.7	1458.1	1456.7
37.5°	1395.8	1389.2	1401.1	1393.2	1418.3
40°	1328.3	1328.3	1333.6	1346.8	1366.7
42.5°	1266.0	1271.3	1264.7	1301.8	1309.7
45°	1195.9	1205.1	1194.5	1243.5	1231.6
47.5°	1132.3	1136.3	1133.6	1166.7	1169.4
50°	1063.4	1068.7	1071.4	1100.5	1104.5
52.5°	1006.5	1005.2	995.9	1038.3	1044.9
55°	938.9	937.6	935.0	968.1	977.3
57.5°	870.1	871.4	878.0	896.6	919.1
60°	807.8	801.2	806.5	829.0	847.6
62.5°	744.3	732.3	720.4	757.5	774.7
65°	674.1	659.5	652.9	683.3	712.5
67.5°	609.2	585.3	581.4	602.6	637.0
70°	535.0	505.9	504.6	520.5	561.5
72.5°	452.9	427.8	421.1	442.3	479.4
75°	374.8	347.0	339.0	358.9	393.3
77.5°	290.0	267.5	262.2	272.8	300.6
80°	203.9	190.7	185.4	189.4	209.2
82.5°	128.5	119.2	116.5	115.2	125.8
85°	64.9	58.3	58.3	54.3	56.9
87.5°	19.9	18.5	17.2	13.2	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)