

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: P486985

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-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: P486985
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-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

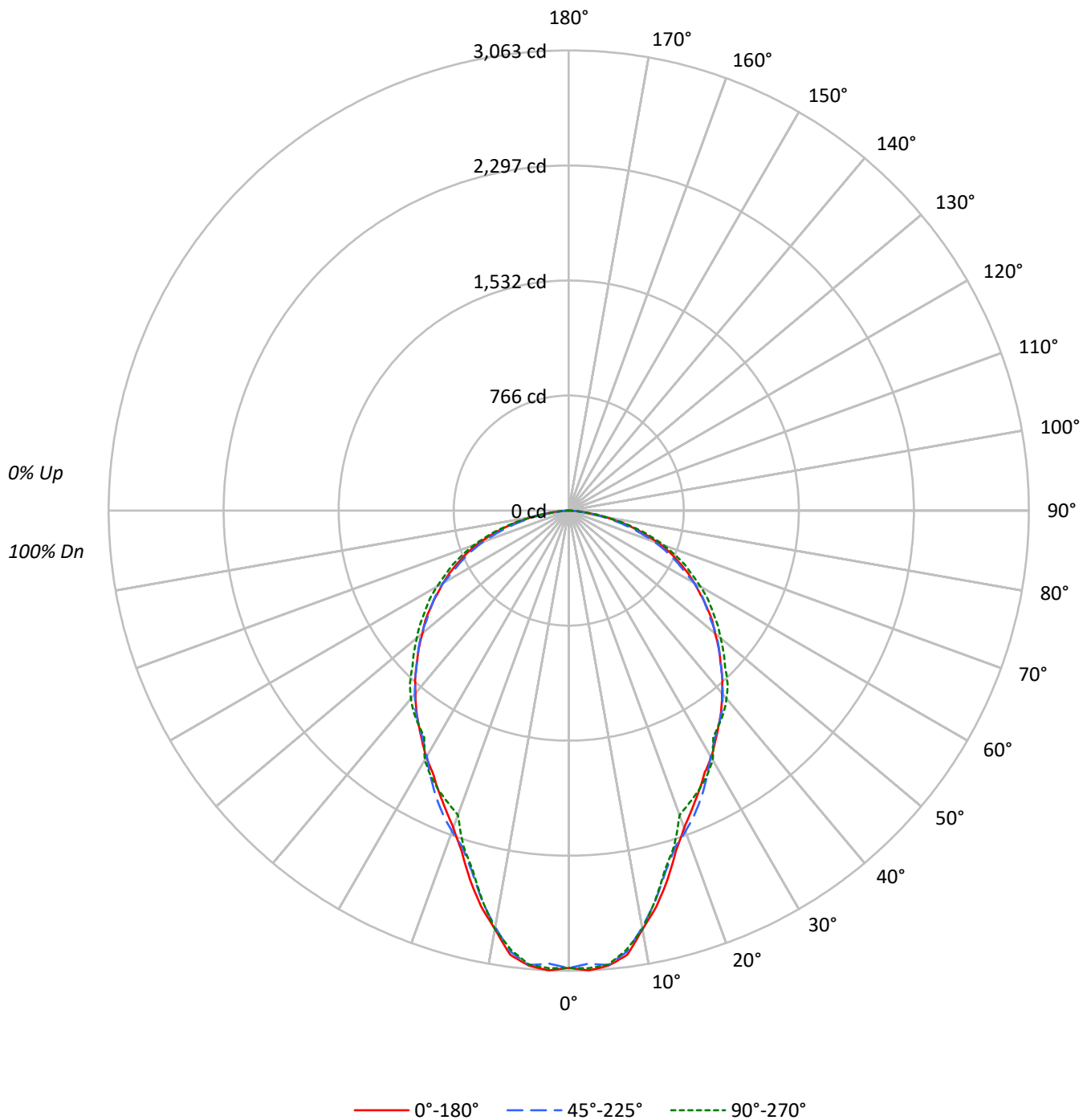
Lumens per Lamp: N/A
Luminaire Lumens: 6510.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-2STD-27-120-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°	4096	4096	4096
5°	4107	4101	4096
10°	3865	3847	3863
15°	3541	3464	3444
20°	3216	3252	3087
25°	3050	3111	3046
30°	2946	2934	2978
35°	2860	2860	2860
40°	2789	2800	2869
45°	2720	2717	2801
50°	2661	2681	2763
55°	2633	2622	2740
60°	2598	2594	2726
65°	2565	2485	2711
70°	2516	2373	2640
75°	2329	2106	2444
80°	1889	1717	1938
85°	1198	1076	1051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.7	4.3
10°-20°	706.8	10.9
20°-30°	954.6	14.7
30°-40°	1093.1	16.8
40°-50°	1119.7	17.2
50°-60°	1016.0	15.6
60°-70°	792.9	12.2
70°-80°	449.7	6.9
80°-90°	94.4	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°	1944.1	29.9
0°-40°	3037.2	46.7
0°-60°	5172.9	79.5
0°-90°	6510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3044	3044	3044	3044	3044	
5°	3041	3006	3036	3042	3033	284
15°	2542	2550	2487	2500	2473	710
25°	2055	2082	2096	2045	2052	948
35°	1741	1744	1741	1743	1741	1091
45°	1429	1440	1428	1486	1472	1105
55°	1122	1121	1118	1157	1168	1003
65°	806	788	780	817	852	799
75°	448	415	405	429	470	469
85°	78	70	70	65	68	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3044.0	3044.0	3044.0	3044.0	3044.0
2.5°	3063.0	3039.3	3018.7	3051.9	3048.8
5°	3040.9	3006.0	3036.1	3042.4	3032.9
7.5°	2982.3	2960.1	2961.7	2949.0	2947.5
10°	2828.7	2841.4	2816.1	2838.2	2827.2
12.5°	2697.4	2705.3	2660.9	2670.4	2657.8
15°	2542.2	2550.1	2486.8	2499.5	2472.6
17.5°	2372.8	2401.3	2349.1	2364.9	2336.4
20°	2246.2	2270.0	2271.5	2246.2	2156.0
22.5°	2146.5	2170.2	2189.2	2113.2	2103.7
25°	2054.7	2081.6	2095.8	2045.2	2051.5
27.5°	1962.9	1992.9	1992.9	2004.0	1989.8
30°	1896.4	1909.0	1888.5	1929.6	1917.0
32.5°	1817.2	1822.0	1804.6	1834.6	1790.3
35°	1741.3	1744.4	1741.3	1742.8	1741.3
37.5°	1668.4	1660.5	1674.8	1665.3	1695.3
40°	1587.7	1587.7	1594.0	1609.9	1633.6
42.5°	1513.3	1519.6	1511.7	1556.0	1565.5
45°	1429.4	1440.5	1427.8	1486.4	1472.1
47.5°	1353.4	1358.2	1355.0	1394.6	1397.7
50°	1271.1	1277.4	1280.6	1315.4	1320.2
52.5°	1203.0	1201.5	1190.4	1241.0	1249.0
55°	1122.3	1120.7	1117.6	1157.1	1168.2
57.5°	1040.0	1041.6	1049.5	1071.7	1098.6
60°	965.6	957.7	964.0	990.9	1013.1
62.5°	889.6	875.4	861.1	905.5	926.0
65°	805.7	788.3	780.4	816.8	851.6
67.5°	728.2	699.7	694.9	720.2	761.4
70°	639.5	604.7	603.1	622.1	671.2
72.5°	541.4	511.3	503.4	528.7	573.0
75°	448.0	414.7	405.2	429.0	470.1
77.5°	346.7	319.8	313.4	326.1	359.3
80°	243.8	227.9	221.6	226.4	250.1
82.5°	153.5	142.5	139.3	137.7	150.4
85°	77.6	69.7	69.7	64.9	68.1
87.5°	23.7	22.2	20.6	15.8	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)