

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: P486959

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-20-120-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: P486959
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-LD4-2HI-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

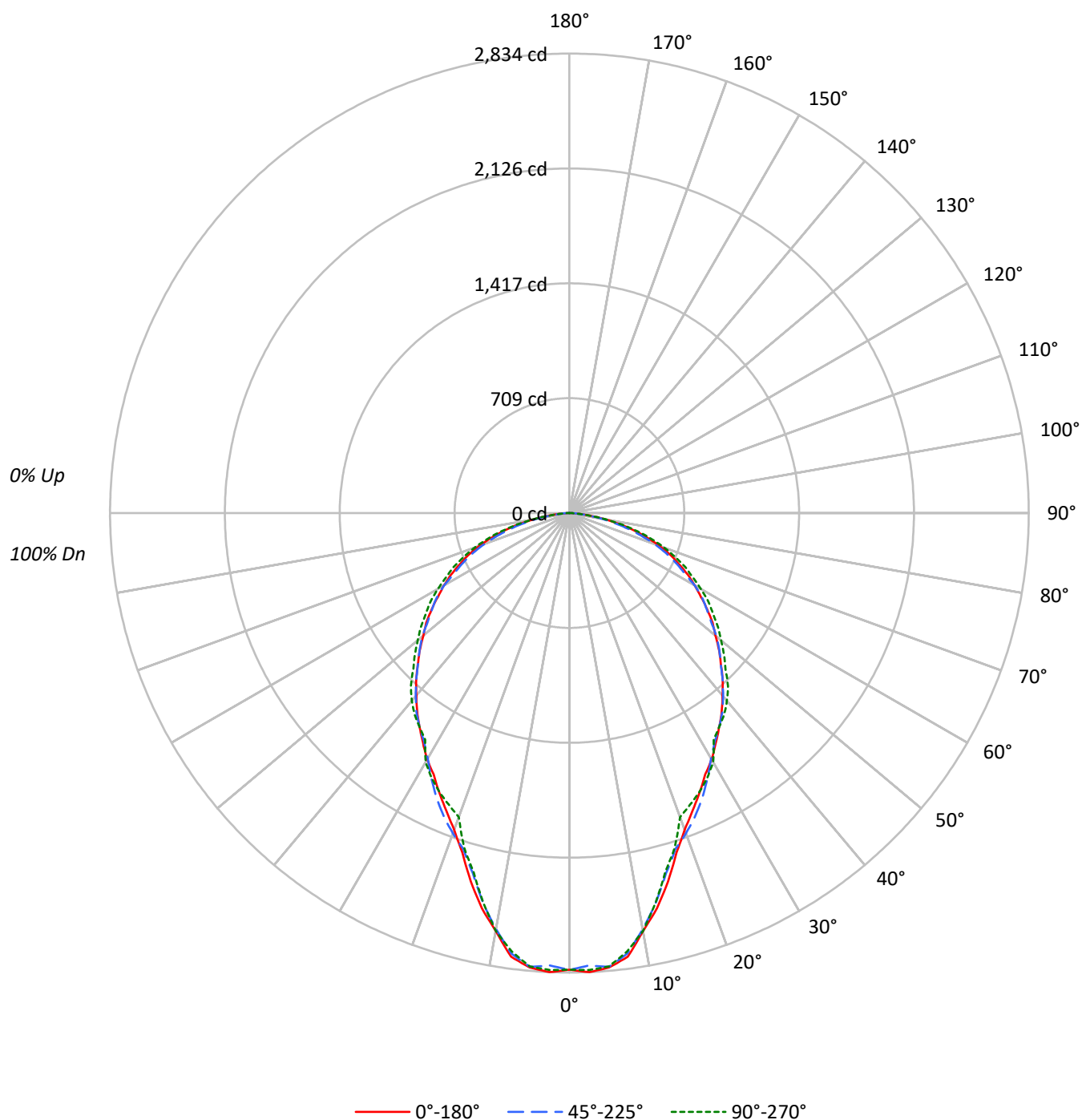
Lumens per Lamp: N/A
Luminaire Lumens: 6023.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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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	50	30	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3789	3789	3789
5°	3800	3794	3790
10°	3576	3560	3574
15°	3276	3205	3187
20°	2976	3009	2856
25°	2822	2879	2818
30°	2726	2715	2756
35°	2646	2646	2646
40°	2580	2590	2655
45°	2516	2514	2592
50°	2462	2480	2557
55°	2436	2426	2535
60°	2404	2400	2522
65°	2373	2299	2508
70°	2328	2195	2443
75°	2155	1949	2261
80°	1747	1588	1793
85°	1108	994	973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.6	4.3
10°-20°	654.0	10.9
20°-30°	883.2	14.7
30°-40°	1011.3	16.8
40°-50°	1035.9	17.2
50°-60°	940.0	15.6
60°-70°	733.6	12.2
70°-80°	416.1	6.9
80°-90°	87.3	1.4
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°	1798.7	29.9
0°-40°	2810.0	46.7
0°-60°	4785.9	79.5
0°-90°	6023.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6023.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2816	2816	2816	2816	2816	
5°	2813	2781	2809	2815	2806	263
15°	2352	2359	2301	2312	2288	657
25°	1901	1926	1939	1892	1898	877
35°	1611	1614	1611	1612	1611	1009
45°	1322	1333	1321	1375	1362	1023
55°	1038	1037	1034	1071	1081	928
65°	745	729	722	756	788	739
75°	414	384	375	397	435	434
85°	72	64	64	60	63	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2816.3	2816.3	2816.3	2816.3	2816.3
2.5°	2833.9	2811.9	2792.9	2823.6	2820.7
5°	2813.4	2781.2	2809.0	2814.8	2806.1
7.5°	2759.2	2738.7	2740.1	2728.4	2727.0
10°	2617.1	2628.8	2605.4	2625.9	2615.7
12.5°	2495.6	2502.9	2461.9	2470.7	2459.0
15°	2352.0	2359.4	2300.8	2312.5	2287.6
17.5°	2195.3	2221.7	2173.4	2188.0	2161.7
20°	2078.2	2100.1	2101.6	2078.2	1994.7
22.5°	1985.9	2007.9	2025.5	1955.2	1946.4
25°	1901.0	1925.9	1939.0	1892.2	1898.0
27.5°	1816.0	1843.9	1843.9	1854.1	1840.9
30°	1754.5	1766.2	1747.2	1785.3	1773.6
32.5°	1681.3	1685.7	1669.6	1697.4	1656.4
35°	1611.0	1613.9	1611.0	1612.5	1611.0
37.5°	1543.6	1536.3	1549.5	1540.7	1568.5
40°	1468.9	1468.9	1474.8	1489.4	1511.4
42.5°	1400.1	1406.0	1398.6	1439.6	1448.4
45°	1322.5	1332.7	1321.0	1375.2	1362.0
47.5°	1252.2	1256.6	1253.6	1290.3	1293.2
50°	1176.0	1181.9	1184.8	1217.0	1221.4
52.5°	1113.0	1111.6	1101.3	1148.2	1155.5
55°	1038.4	1036.9	1034.0	1070.6	1080.8
57.5°	962.2	963.7	971.0	991.5	1016.4
60°	893.4	886.0	891.9	916.8	937.3
62.5°	823.1	809.9	796.7	837.7	856.8
65°	745.4	729.3	722.0	755.7	787.9
67.5°	673.7	647.3	642.9	666.4	704.4
70°	591.7	559.5	558.0	575.6	621.0
72.5°	500.9	473.0	465.7	489.2	530.2
75°	414.5	383.7	374.9	396.9	435.0
77.5°	320.7	295.8	290.0	301.7	332.4
80°	225.5	210.9	205.0	209.4	231.4
82.5°	142.1	131.8	128.9	127.4	139.1
85°	71.8	64.4	64.4	60.0	63.0
87.5°	22.0	20.5	19.0	14.6	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)