

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: P486965

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-35-120-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: P486965
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-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

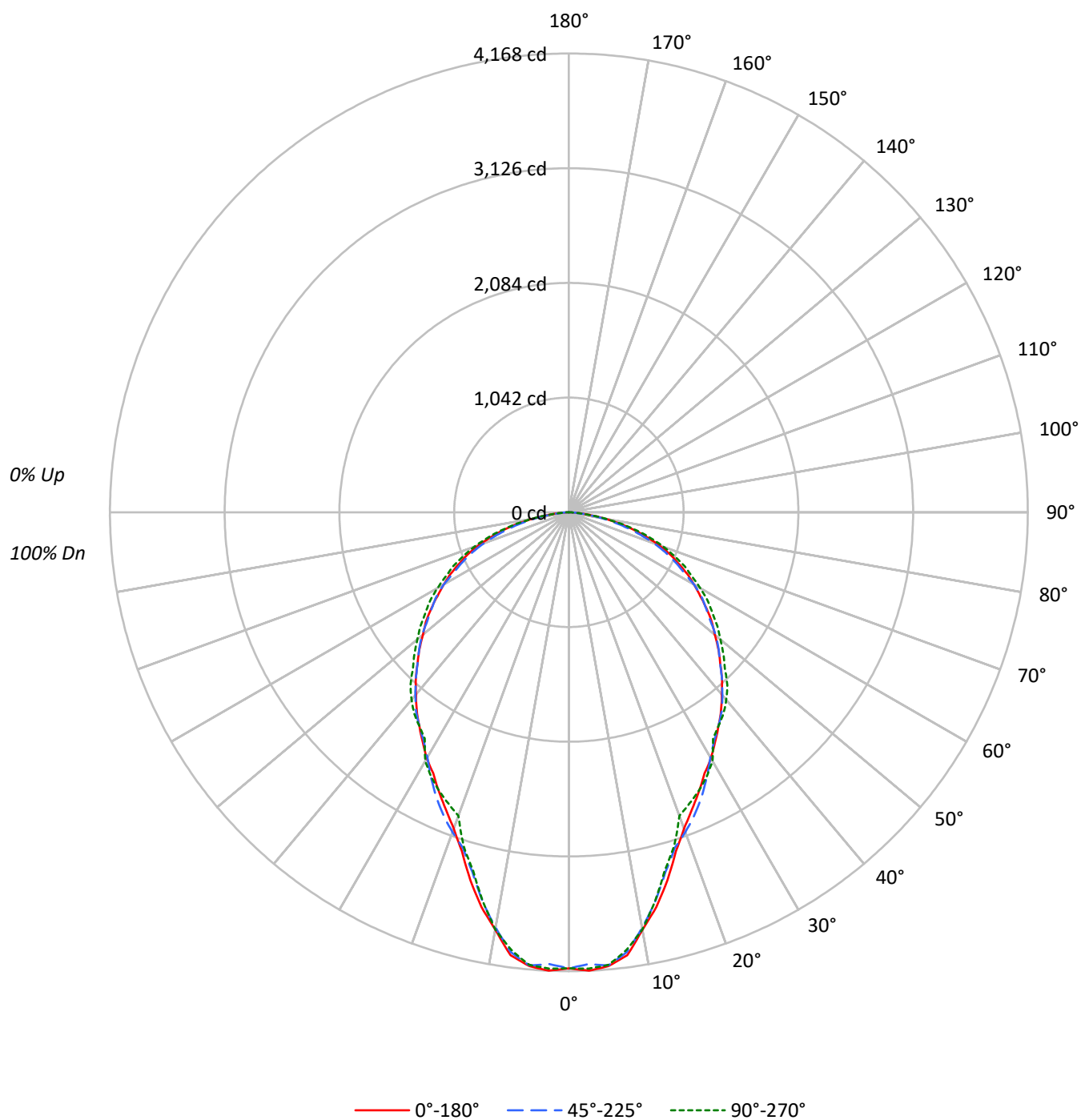
Lumens per Lamp: N/A
Luminaire Lumens: 8857.4 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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°	5572	5572	5572
5°	5588	5579	5574
10°	5258	5235	5255
15°	4818	4713	4686
20°	4376	4425	4200
25°	4150	4233	4144
30°	4009	3992	4052
35°	3891	3891	3891
40°	3794	3809	3904
45°	3701	3697	3811
50°	3620	3647	3760
55°	3582	3567	3729
60°	3535	3529	3709
65°	3490	3380	3689
70°	3423	3228	3592
75°	3169	2866	3326
80°	2570	2336	2637
85°	1629	1463	1430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.7	4.3
10°-20°	961.7	10.9
20°-30°	1298.8	14.7
30°-40°	1487.3	16.8
40°-50°	1523.4	17.2
50°-60°	1382.3	15.6
60°-70°	1078.9	12.2
70°-80°	611.9	6.9
80°-90°	128.4	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°	2645.1	29.9
0°-40°	4132.4	46.7
0°-60°	7038.2	79.5
0°-90°	8857.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8857.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4142	4142	4142	4142	4142	
5°	4137	4090	4131	4140	4127	386
15°	3459	3470	3384	3401	3364	967
25°	2796	2832	2852	2783	2791	1290
35°	2369	2373	2369	2371	2369	1484
45°	1945	1960	1943	2022	2003	1504
55°	1527	1525	1520	1574	1590	1365
65°	1096	1073	1062	1111	1159	1086
75°	610	564	551	584	640	638
85°	106	95	95	88	93	139
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4141.6	4141.6	4141.6	4141.6	4141.6
2.5°	4167.5	4135.2	4107.2	4152.4	4148.1
5°	4137.3	4090.0	4130.9	4139.5	4126.6
7.5°	4057.7	4027.5	4029.7	4012.4	4010.3
10°	3848.7	3866.0	3831.5	3861.7	3846.6
12.5°	3670.0	3680.7	3620.4	3633.4	3616.1
15°	3458.9	3469.7	3383.5	3400.8	3364.1
17.5°	3228.5	3267.2	3196.2	3217.7	3178.9
20°	3056.2	3088.5	3090.6	3056.2	2933.4
22.5°	2920.5	2952.8	2978.6	2875.2	2862.3
25°	2795.6	2832.2	2851.6	2782.6	2791.3
27.5°	2670.6	2711.6	2711.6	2726.6	2707.3
30°	2580.2	2597.4	2569.4	2625.4	2608.2
32.5°	2472.5	2479.0	2455.3	2496.2	2435.9
35°	2369.1	2373.4	2369.1	2371.3	2369.1
37.5°	2270.0	2259.3	2278.7	2265.7	2306.7
40°	2160.2	2160.2	2168.8	2190.4	2222.7
42.5°	2059.0	2067.6	2056.8	2117.1	2130.1
45°	1944.8	1959.9	1942.7	2022.4	2003.0
47.5°	1841.5	1847.9	1843.6	1897.4	1901.8
50°	1729.5	1738.1	1742.4	1789.8	1796.2
52.5°	1636.8	1634.7	1619.6	1688.5	1699.3
55°	1527.0	1524.8	1520.5	1574.4	1589.5
57.5°	1415.0	1417.2	1427.9	1458.1	1494.7
60°	1313.8	1303.0	1311.6	1348.2	1378.4
62.5°	1210.4	1191.0	1171.6	1231.9	1259.9
65°	1096.3	1072.6	1061.8	1111.3	1158.7
67.5°	990.7	952.0	945.5	980.0	1036.0
70°	870.1	822.7	820.6	846.4	913.2
72.5°	736.6	695.7	684.9	719.4	779.7
75°	609.5	564.3	551.4	583.7	639.7
77.5°	471.7	435.1	426.4	443.7	488.9
80°	331.7	310.1	301.5	308.0	340.3
82.5°	208.9	193.8	189.5	187.4	204.6
85°	105.5	94.8	94.8	88.3	92.6
87.5°	32.3	30.2	28.0	21.5	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)