

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: P486987

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-30-120-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: P486987
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-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

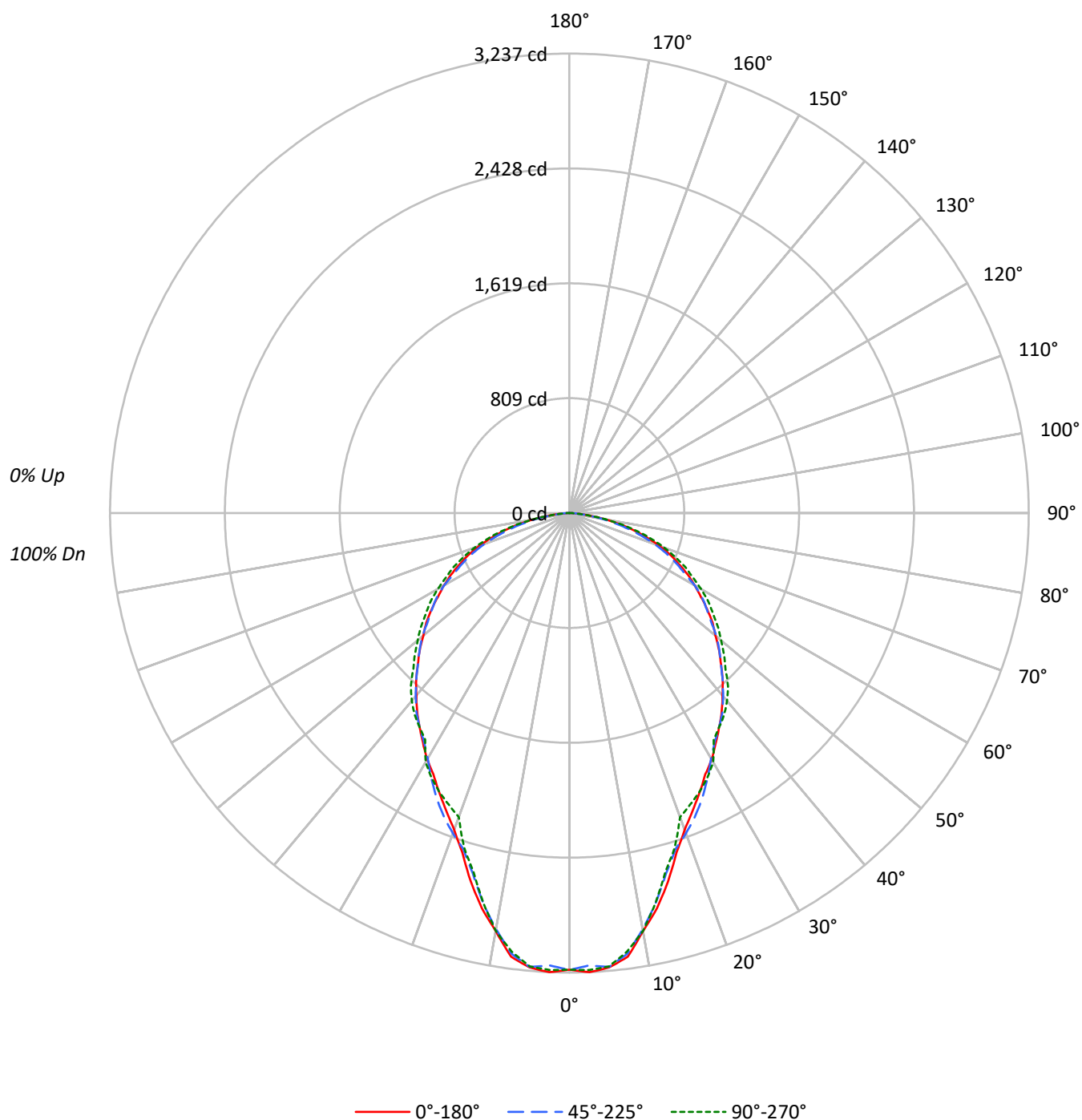
Lumens per Lamp: N/A
Luminaire Lumens: 6880.1 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4329	4329	4329
5°	4341	4334	4329
10°	4085	4066	4082
15°	3743	3661	3640
20°	3399	3437	3263
25°	3224	3288	3219
30°	3114	3101	3148
35°	3023	3023	3023
40°	2947	2959	3032
45°	2875	2871	2960
50°	2812	2833	2920
55°	2782	2771	2896
60°	2746	2742	2881
65°	2711	2626	2865
70°	2659	2507	2790
75°	2461	2227	2583
80°	1996	1815	2048
85°	1266	1136	1110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.8	4.3
10°-20°	747.0	10.9
20°-30°	1008.8	14.7
30°-40°	1155.3	16.8
40°-50°	1183.4	17.2
50°-60°	1073.7	15.6
60°-70°	838.0	12.2
70°-80°	475.3	6.9
80°-90°	99.8	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°	2054.6	29.9
0°-40°	3209.9	46.7
0°-60°	5467.0	79.5
0°-90°	6880.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6880.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3217	3217	3217	3217	3217	
5°	3214	3177	3209	3215	3205	300
15°	2687	2695	2628	2642	2613	751
25°	2172	2200	2215	2161	2168	1002
35°	1840	1844	1840	1842	1840	1153
45°	1511	1522	1509	1571	1556	1168
55°	1186	1184	1181	1223	1235	1060
65°	852	833	825	863	900	844
75°	473	438	428	453	497	495
85°	82	74	74	69	72	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3217.1	3217.1	3217.1	3217.1	3217.1
2.5°	3237.2	3212.1	3190.3	3225.4	3222.1
5°	3213.7	3176.9	3208.7	3215.4	3205.4
7.5°	3151.8	3128.4	3130.1	3116.7	3115.0
10°	2989.6	3002.9	2976.2	2999.6	2987.9
12.5°	2850.7	2859.1	2812.2	2822.3	2808.9
15°	2686.8	2695.1	2628.2	2641.6	2613.1
17.5°	2507.7	2537.9	2482.7	2499.4	2469.3
20°	2373.9	2399.0	2400.7	2373.9	2278.6
22.5°	2268.5	2293.6	2313.7	2233.4	2223.3
25°	2171.5	2199.9	2215.0	2161.4	2168.1
27.5°	2074.5	2106.2	2106.2	2118.0	2102.9
30°	2004.2	2017.6	1995.8	2039.3	2025.9
32.5°	1920.5	1925.6	1907.2	1938.9	1892.1
35°	1840.2	1843.6	1840.2	1841.9	1840.2
37.5°	1763.3	1754.9	1770.0	1759.9	1791.7
40°	1678.0	1678.0	1684.7	1701.4	1726.5
42.5°	1599.3	1606.0	1597.7	1644.5	1654.5
45°	1510.7	1522.4	1509.0	1570.9	1555.8
47.5°	1430.4	1435.4	1432.0	1473.9	1477.2
50°	1343.4	1350.1	1353.4	1390.2	1395.2
52.5°	1271.4	1269.8	1258.1	1311.6	1320.0
55°	1186.1	1184.4	1181.1	1222.9	1234.6
57.5°	1099.1	1100.8	1109.2	1132.6	1161.0
60°	1020.5	1012.1	1018.8	1047.3	1070.7
62.5°	940.2	925.1	910.1	956.9	978.7
65°	851.5	833.1	824.8	863.2	900.0
67.5°	769.6	739.4	734.4	761.2	804.7
70°	675.9	639.1	637.4	657.5	709.3
72.5°	572.1	540.4	532.0	558.8	605.6
75°	473.4	438.3	428.3	453.4	496.9
77.5°	366.4	337.9	331.2	344.6	379.8
80°	257.6	240.9	234.2	239.2	264.3
82.5°	162.3	150.6	147.2	145.5	158.9
85°	82.0	73.6	73.6	68.6	71.9
87.5°	25.1	23.4	21.7	16.7	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)