

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: P485736

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-27-120-EDD-90**

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: P485736
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-24-2-INS-89BC-LD4-4HI-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

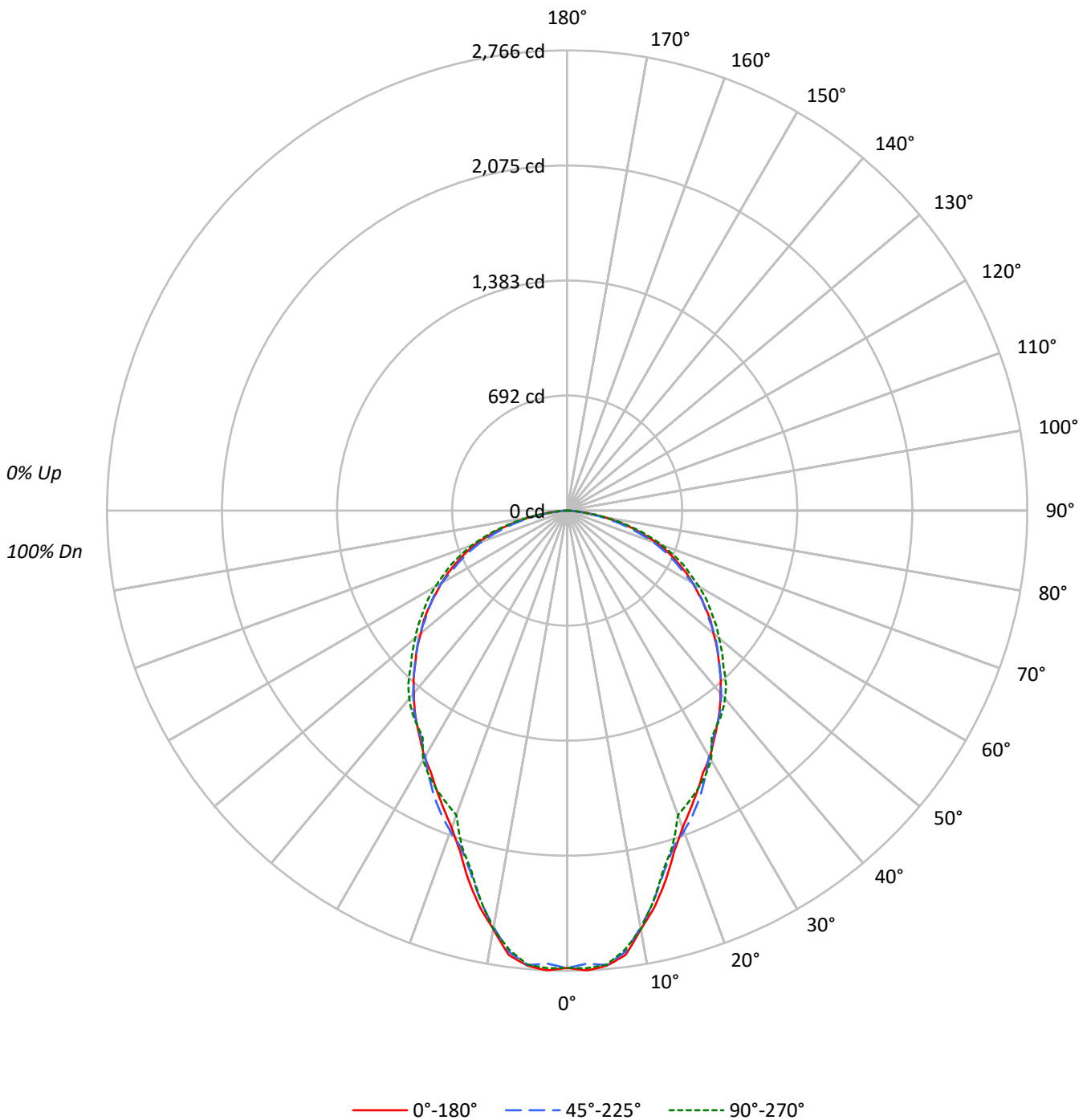
Lumens per Lamp: N/A
Luminaire Lumens: 5879.1 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				10	0
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°	7398	7398	7398
5°	7418	7407	7399
10°	6980	6949	6977
15°	6396	6257	6221
20°	5809	5875	5576
25°	5510	5620	5501
30°	5322	5299	5379
35°	5166	5166	5166
40°	5037	5057	5182
45°	4913	4907	5060
50°	4806	4842	4991
55°	4755	4735	4950
60°	4693	4686	4924
65°	4633	4488	4897
70°	4544	4286	4769
75°	4207	3805	4415
80°	3412	3101	3501
85°	2161	1942	1899



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.3	4.3
10°-20°	638.3	10.9
20°-30°	862.1	14.7
30°-40°	987.2	16.8
40°-50°	1011.2	17.2
50°-60°	917.5	15.6
60°-70°	716.1	12.2
70°-80°	406.2	6.9
80°-90°	85.3	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°	1755.7	29.9
0°-40°	2742.9	46.7
0°-60°	4671.6	79.5
0°-90°	5879.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5879.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2749	2749	2749	2749	2749	
5°	2746	2715	2742	2748	2739	257
15°	2296	2303	2246	2257	2233	642
25°	1856	1880	1893	1847	1853	856
35°	1572	1575	1572	1574	1572	985
45°	1291	1301	1290	1342	1330	998
55°	1014	1012	1009	1045	1055	906
65°	728	712	705	738	769	721
75°	405	374	366	387	425	423
85°	70	63	63	59	62	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2749.0	2749.0	2749.0	2749.0	2749.0
2.5°	2766.2	2744.7	2726.1	2756.2	2753.3
5°	2746.2	2714.7	2741.9	2747.6	2739.0
7.5°	2693.3	2673.3	2674.7	2663.2	2661.8
10°	2554.6	2566.0	2543.2	2563.2	2553.2
12.5°	2435.9	2443.1	2403.1	2411.6	2400.2
15°	2295.9	2303.0	2245.8	2257.3	2233.0
17.5°	2142.9	2168.6	2121.4	2135.7	2110.0
20°	2028.5	2050.0	2051.4	2028.5	1947.0
22.5°	1938.5	1959.9	1977.1	1908.4	1899.9
25°	1855.6	1879.9	1892.7	1847.0	1852.7
27.5°	1772.6	1799.8	1799.8	1809.8	1796.9
30°	1712.6	1724.0	1705.4	1742.6	1731.2
32.5°	1641.1	1645.4	1629.7	1656.8	1616.8
35°	1572.5	1575.4	1572.5	1573.9	1572.5
37.5°	1506.7	1499.6	1512.5	1503.9	1531.0
40°	1433.8	1433.8	1439.6	1453.8	1475.3
42.5°	1366.6	1372.4	1365.2	1405.2	1413.8
45°	1290.9	1300.9	1289.5	1342.3	1329.5
47.5°	1222.3	1226.6	1223.7	1259.4	1262.3
50°	1147.9	1153.6	1156.5	1188.0	1192.2
52.5°	1086.5	1085.0	1075.0	1120.8	1127.9
55°	1013.5	1012.1	1009.3	1045.0	1055.0
57.5°	939.2	940.6	947.8	967.8	992.1
60°	872.0	864.9	870.6	894.9	914.9
62.5°	803.4	790.5	777.7	817.7	836.3
65°	727.6	711.9	704.8	737.6	769.1
67.5°	657.6	631.9	627.6	650.4	687.6
70°	577.5	546.1	544.7	561.8	606.1
72.5°	488.9	461.7	454.6	477.5	517.5
75°	404.6	374.5	366.0	387.4	424.6
77.5°	313.1	288.8	283.1	294.5	324.5
80°	220.2	205.9	200.1	204.4	225.9
82.5°	138.7	128.7	125.8	124.4	135.8
85°	70.0	62.9	62.9	58.6	61.5
87.5°	21.4	20.0	18.6	14.3	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)