

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: P485755

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-40-120-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: P485755
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-LD4-4LO-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

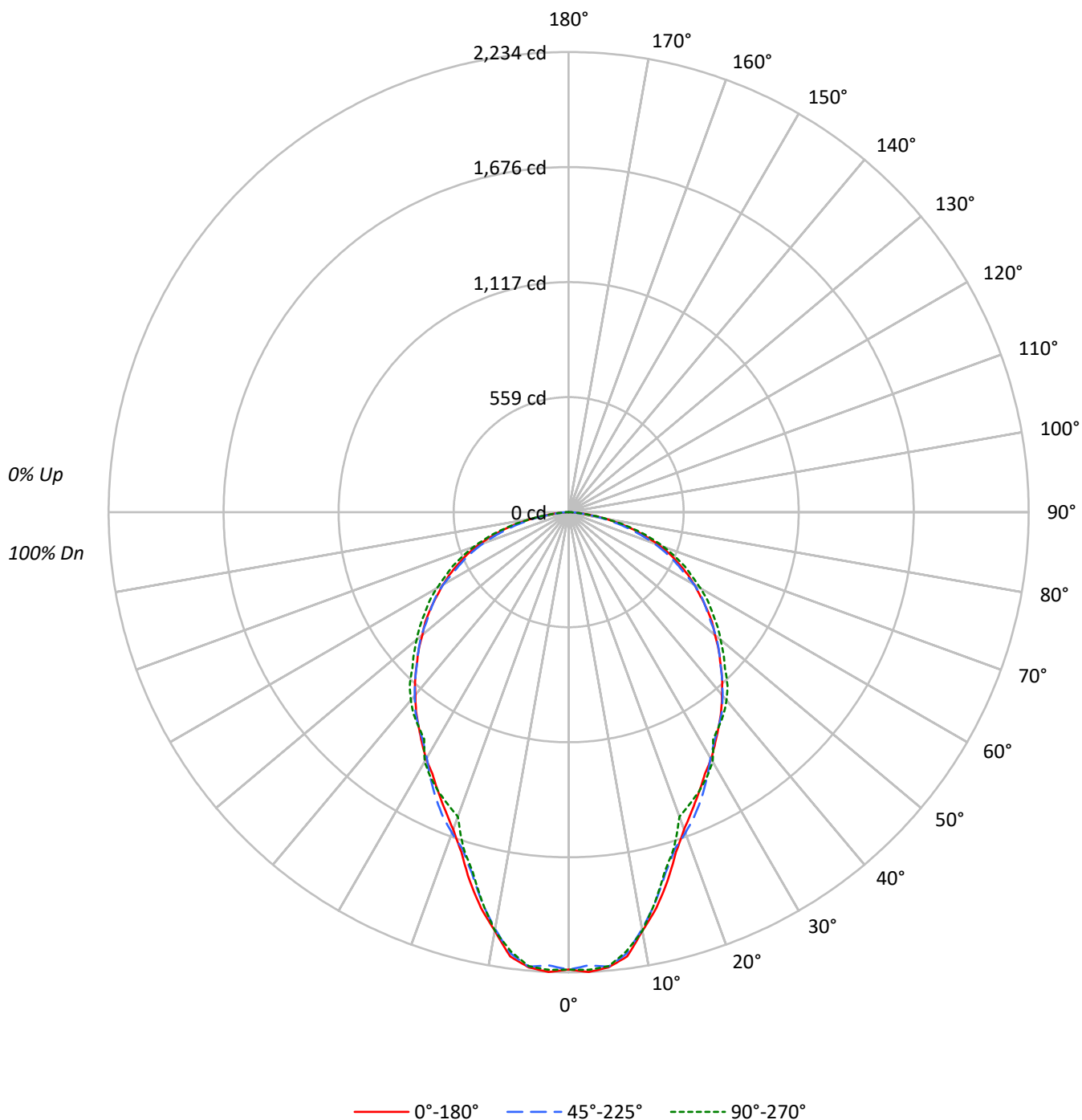
Lumens per Lamp: N/A
Luminaire Lumens: 4748.9 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5975	5975	5975
5°	5992	5983	5977
10°	5638	5613	5635
15°	5166	5054	5025
20°	4692	4745	4504
25°	4450	4540	4443
30°	4299	4281	4345
35°	4173	4173	4173
40°	4069	4085	4186
45°	3968	3964	4087
50°	3882	3911	4032
55°	3841	3825	3998
60°	3791	3785	3977
65°	3743	3625	3955
70°	3670	3462	3852
75°	3398	3073	3566
80°	2755	2506	2827
85°	1748	1568	1535



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.2	4.3
10°-20°	515.6	10.9
20°-30°	696.3	14.7
30°-40°	797.4	16.8
40°-50°	816.8	17.2
50°-60°	741.1	15.6
60°-70°	578.4	12.2
70°-80°	328.1	6.9
80°-90°	68.9	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°	1418.2	29.9
0°-40°	2215.6	46.7
0°-60°	3773.5	79.5
0°-90°	4748.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4748.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2220	2220	2220	2220	2220	
5°	2218	2193	2215	2219	2212	207
15°	1854	1860	1814	1823	1804	518
25°	1499	1518	1529	1492	1496	692
35°	1270	1272	1270	1271	1270	796
45°	1043	1051	1042	1084	1074	806
55°	819	818	815	844	852	732
65°	588	575	569	596	621	583
75°	327	302	296	313	343	342
85°	57	51	51	47	50	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2220.5	2220.5	2220.5	2220.5	2220.5
2.5°	2234.4	2217.1	2202.1	2226.3	2224.0
5°	2218.2	2192.8	2214.8	2219.4	2212.5
7.5°	2175.5	2159.3	2160.5	2151.3	2150.1
10°	2063.5	2072.7	2054.3	2070.4	2062.3
12.5°	1967.7	1973.4	1941.1	1948.0	1938.8
15°	1854.5	1860.3	1814.1	1823.3	1803.7
17.5°	1730.9	1751.7	1713.6	1725.2	1704.4
20°	1638.6	1655.9	1657.0	1638.6	1572.7
22.5°	1565.8	1583.1	1597.0	1541.6	1534.6
25°	1498.8	1518.5	1528.9	1491.9	1496.5
27.5°	1431.9	1453.8	1453.8	1461.9	1451.5
30°	1383.4	1392.6	1377.6	1407.6	1398.4
32.5°	1325.6	1329.1	1316.4	1338.3	1306.0
35°	1270.2	1272.5	1270.2	1271.4	1270.2
37.5°	1217.1	1211.3	1221.7	1214.8	1236.7
40°	1158.2	1158.2	1162.8	1174.4	1191.7
42.5°	1103.9	1108.5	1102.8	1135.1	1142.0
45°	1042.7	1050.8	1041.6	1084.3	1073.9
47.5°	987.3	990.8	988.4	1017.3	1019.6
50°	927.2	931.9	934.2	959.6	963.0
52.5°	877.6	876.4	868.4	905.3	911.1
55°	818.7	817.5	815.2	844.1	852.2
57.5°	758.7	759.8	765.6	781.8	801.4
60°	704.4	698.6	703.2	722.9	739.0
62.5°	649.0	638.6	628.2	660.5	675.5
65°	587.8	575.1	569.3	595.8	621.2
67.5°	531.2	510.4	506.9	525.4	555.4
70°	466.5	441.1	440.0	453.8	489.6
72.5°	394.9	373.0	367.2	385.7	418.0
75°	326.8	302.5	295.6	312.9	343.0
77.5°	252.9	233.3	228.6	237.9	262.1
80°	177.8	166.3	161.7	165.1	182.4
82.5°	112.0	103.9	101.6	100.5	109.7
85°	56.6	50.8	50.8	47.3	49.7
87.5°	17.3	16.2	15.0	11.5	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)