

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: P485023

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-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: P485023
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-12-4-INS-89BC-LD4-2HI-40-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

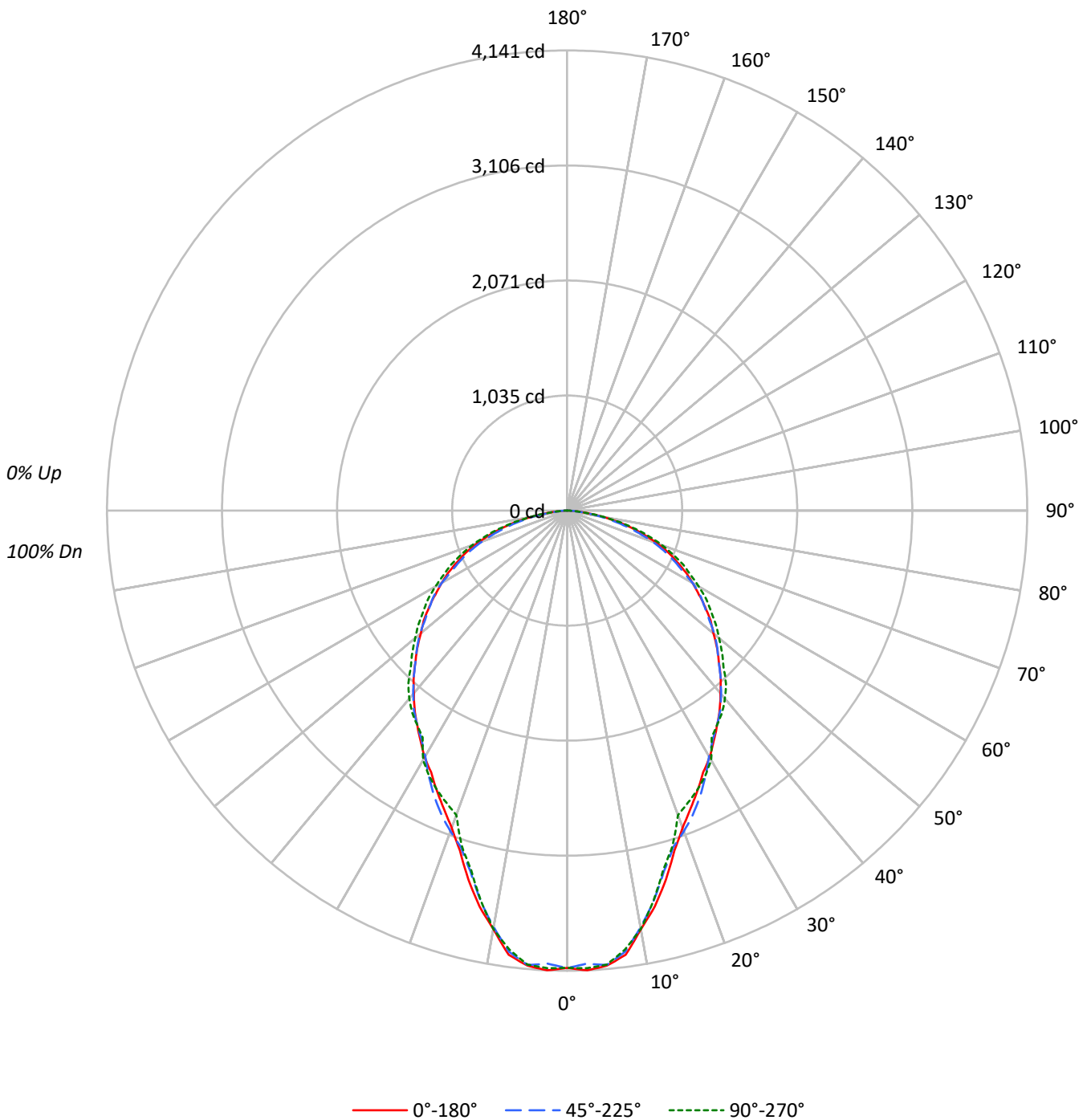
Lumens per Lamp: N/A
Luminaire Lumens: 8800.4 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				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°	11073	11073	11073
5°	11104	11087	11075
10°	10449	10402	10443
15°	9574	9366	9312
20°	8696	8794	8346
25°	8247	8412	8234
30°	7966	7933	8052
35°	7733	7733	7733
40°	7540	7570	7758
45°	7354	7346	7574
50°	7194	7248	7472
55°	7118	7088	7409
60°	7025	7014	7371
65°	6935	6718	7331
70°	6802	6415	7139
75°	6297	5696	6607
80°	5106	4643	5239
85°	3239	2908	2841



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.2	4.3
10°-20°	955.5	10.9
20°-30°	1290.4	14.7
30°-40°	1477.7	16.8
40°-50°	1513.6	17.2
50°-60°	1373.4	15.6
60°-70°	1071.9	12.2
70°-80°	608.0	6.9
80°-90°	127.6	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°	2628.1	29.9
0°-40°	4105.8	46.7
0°-60°	6992.9	79.5
0°-90°	8800.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8800.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4115	4115	4115	4115	4115	
5°	4111	4064	4104	4113	4100	384
15°	3437	3447	3362	3379	3342	960
25°	2778	2814	2833	2765	2773	1282
35°	2354	2358	2354	2356	2354	1475
45°	1932	1947	1930	2009	1990	1494
55°	1517	1515	1511	1564	1579	1356
65°	1089	1066	1055	1104	1151	1079
75°	606	561	548	580	636	633
85°	105	94	94	88	92	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4115.0	4115.0	4115.0	4115.0	4115.0
2.5°	4140.7	4108.6	4080.8	4125.7	4121.4
5°	4110.7	4063.6	4104.3	4112.9	4100.0
7.5°	4031.5	4001.6	4003.7	3986.6	3984.5
10°	3824.0	3841.1	3806.9	3836.8	3821.8
12.5°	3646.4	3657.1	3597.1	3610.0	3592.9
15°	3436.7	3447.4	3361.8	3378.9	3342.5
17.5°	3207.7	3246.2	3175.6	3197.0	3158.5
20°	3036.5	3068.6	3070.7	3036.5	2914.5
22.5°	2901.7	2933.8	2959.5	2856.7	2843.9
25°	2777.6	2813.9	2833.2	2764.7	2773.3
27.5°	2653.5	2694.1	2694.1	2709.1	2689.8
30°	2563.6	2580.7	2552.9	2608.5	2591.4
32.5°	2456.6	2463.0	2439.5	2480.1	2420.2
35°	2353.9	2358.2	2353.9	2356.0	2353.9
37.5°	2255.4	2244.7	2264.0	2251.2	2291.8
40°	2146.3	2146.3	2154.9	2176.3	2208.4
42.5°	2045.7	2054.3	2043.6	2103.5	2116.3
45°	1932.3	1947.3	1930.2	2009.3	1990.1
47.5°	1829.6	1836.0	1831.7	1885.2	1889.5
50°	1718.3	1726.9	1731.2	1778.2	1784.7
52.5°	1626.3	1624.2	1609.2	1677.7	1688.4
55°	1517.2	1515.0	1510.8	1564.3	1579.2
57.5°	1405.9	1408.0	1418.7	1448.7	1485.1
60°	1305.3	1294.6	1303.2	1339.6	1369.5
62.5°	1202.6	1183.4	1164.1	1224.0	1251.8
65°	1089.2	1065.7	1055.0	1104.2	1151.3
67.5°	984.3	945.8	939.4	973.6	1029.3
70°	864.5	817.4	815.3	841.0	907.3
72.5°	731.8	691.2	680.5	714.7	774.6
75°	605.6	560.6	547.8	579.9	635.5
77.5°	468.6	432.3	423.7	440.8	485.8
80°	329.5	308.1	299.6	306.0	338.1
82.5°	207.6	192.6	188.3	186.2	203.3
85°	104.9	94.2	94.2	87.7	92.0
87.5°	32.1	30.0	27.8	21.4	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)