

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: P485021

Luminaire Tested: **ORLG-12-4-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: P485021
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-35-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

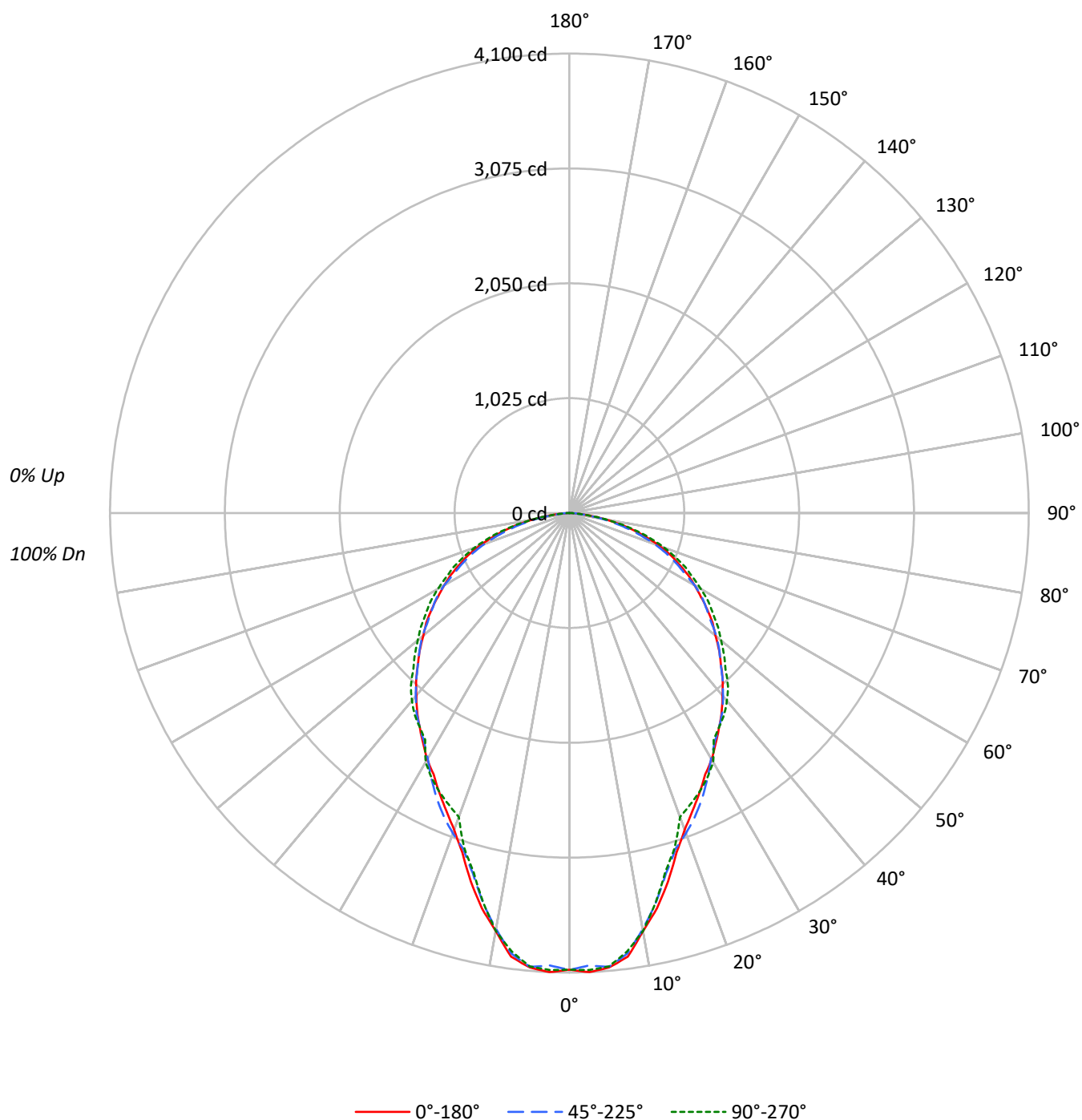
Lumens per Lamp: N/A
Luminaire Lumens: 8713.2 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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
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°	10964	10964	10964
5°	10994	10977	10965
10°	10345	10299	10340
15°	9479	9273	9220
20°	8609	8706	8263
25°	8165	8329	8153
30°	7887	7854	7972
35°	7656	7656	7656
40°	7465	7495	7681
45°	7281	7273	7499
50°	7122	7176	7397
55°	7047	7018	7336
60°	6956	6944	7298
65°	6867	6651	7258
70°	6734	6351	7068
75°	6234	5639	6542
80°	5057	4596	5188
85°	3205	2878	2813



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	378.4	4.3
10°-20°	946.0	10.9
20°-30°	1277.6	14.7
30°-40°	1463.1	16.8
40°-50°	1498.6	17.2
50°-60°	1359.8	15.6
60°-70°	1061.3	12.2
70°-80°	601.9	6.9
80°-90°	126.3	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°	2602.1	29.9
0°-40°	4065.1	46.7
0°-60°	6923.6	79.5
0°-90°	8713.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8713.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4074	4074	4074	4074	4074	
5°	4070	4023	4064	4072	4059	380
15°	3403	3413	3328	3345	3309	951
25°	2750	2786	2805	2737	2746	1269
35°	2330	2335	2330	2333	2330	1460
45°	1913	1928	1911	1989	1970	1479
55°	1502	1500	1496	1549	1564	1342
65°	1078	1055	1044	1093	1140	1069
75°	600	555	542	574	629	627
85°	104	93	93	87	91	137
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4074.2	4074.2	4074.2	4074.2	4074.2
2.5°	4099.6	4067.9	4040.3	4084.8	4080.6
5°	4070.0	4023.4	4063.6	4072.1	4059.4
7.5°	3991.6	3961.9	3964.0	3947.1	3945.0
10°	3786.1	3803.0	3769.1	3798.8	3784.0
12.5°	3610.2	3620.8	3561.5	3574.2	3557.3
15°	3402.6	3413.2	3328.4	3345.4	3309.4
17.5°	3175.9	3214.0	3144.1	3165.3	3127.2
20°	3006.4	3038.2	3040.3	3006.4	2885.6
22.5°	2872.9	2904.7	2930.1	2828.4	2815.7
25°	2750.0	2786.1	2805.1	2737.3	2745.8
27.5°	2627.2	2667.4	2667.4	2682.2	2663.2
30°	2538.2	2555.1	2527.6	2582.7	2565.7
32.5°	2432.2	2438.6	2415.3	2455.5	2396.2
35°	2330.5	2334.8	2330.5	2332.7	2330.5
37.5°	2233.1	2222.5	2241.6	2228.9	2269.1
40°	2125.0	2125.0	2133.5	2154.7	2186.5
42.5°	2025.5	2033.9	2023.3	2082.7	2095.4
45°	1913.2	1928.0	1911.0	1989.4	1970.4
47.5°	1811.5	1817.8	1813.6	1866.6	1870.8
50°	1701.3	1709.8	1714.0	1760.6	1767.0
52.5°	1610.2	1608.1	1593.2	1661.0	1671.6
55°	1502.1	1500.0	1495.8	1548.8	1563.6
57.5°	1392.0	1394.1	1404.7	1434.3	1470.4
60°	1292.4	1281.8	1290.3	1326.3	1356.0
62.5°	1190.7	1171.6	1152.6	1211.9	1239.4
65°	1078.4	1055.1	1044.5	1093.2	1139.8
67.5°	974.6	936.5	930.1	964.0	1019.1
70°	855.9	809.3	807.2	832.6	898.3
72.5°	724.6	684.3	673.7	707.6	767.0
75°	599.6	555.1	542.4	574.2	629.2
77.5°	464.0	428.0	419.5	436.4	480.9
80°	326.3	305.1	296.6	303.0	334.8
82.5°	205.5	190.7	186.4	184.3	201.3
85°	103.8	93.2	93.2	86.9	91.1
87.5°	31.8	29.7	27.5	21.2	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)