

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: P485052

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3HI-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: P485052
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-LD4-3HI-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

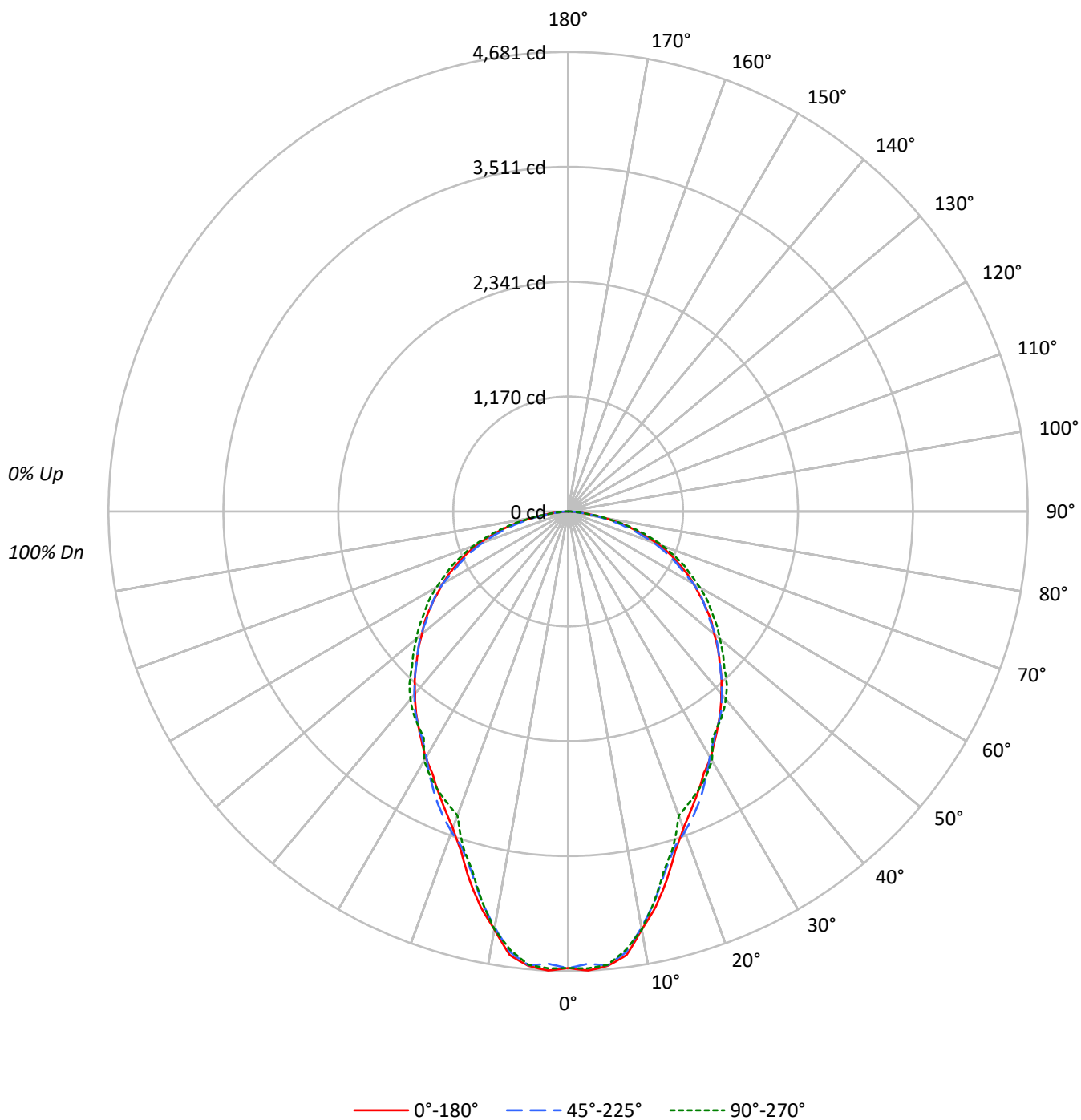
Lumens per Lamp: N/A
Luminaire Lumens: 9949.1 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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

TEST NUMBER: P485052

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-3HI-27-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485052

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-3HI-27-120-EDD-90

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°	12519	12519	12519
5°	12554	12534	12521
10°	11813	11760	11806
15°	10824	10588	10527
20°	9830	9941	9436
25°	9323	9510	9309
30°	9006	8968	9103
35°	8742	8742	8742
40°	8524	8558	8770
45°	8313	8304	8562
50°	8133	8193	8447
55°	8047	8013	8376
60°	7942	7929	8333
65°	7841	7594	8287
70°	7690	7252	8070
75°	7118	6439	7470
80°	5774	5249	5923
85°	3659	3285	3211



TEST NUMBER: P485052

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-3HI-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.1	4.3
10°-20°	1080.2	10.9
20°-30°	1458.8	14.7
30°-40°	1670.6	16.8
40°-50°	1711.2	17.2
50°-60°	1552.7	15.6
60°-70°	1211.8	12.2
70°-80°	687.3	6.9
80°-90°	144.3	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°	2971.2	29.9
0°-40°	4641.7	46.7
0°-60°	7905.6	79.5
0°-90°	9949.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9949.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4652	4652	4652	4652	4652	
5°	4647	4594	4640	4650	4635	434
15°	3885	3897	3801	3820	3779	1086
25°	3140	3181	3203	3126	3135	1449
35°	2661	2666	2661	2664	2661	1667
45°	2184	2202	2182	2272	2250	1689
55°	1715	1713	1708	1768	1785	1533
65°	1231	1205	1193	1248	1302	1220
75°	685	634	619	656	718	716
85°	118	106	106	99	104	157
90°	0	0	0	0	0	



TEST NUMBER: P485052

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-3HI-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4652.1	4652.1	4652.1	4652.1	4652.1
2.5°	4681.1	4644.9	4613.4	4664.2	4659.4
5°	4647.3	4594.1	4640.0	4649.7	4635.2
7.5°	4557.8	4523.9	4526.3	4507.0	4504.5
10°	4323.1	4342.5	4303.8	4337.6	4320.7
12.5°	4122.3	4134.4	4066.7	4081.2	4061.8
15°	3885.2	3897.3	3800.6	3819.9	3778.8
17.5°	3626.4	3669.9	3590.1	3614.3	3570.7
20°	3432.8	3469.1	3471.5	3432.8	3294.9
22.5°	3280.4	3316.7	3345.8	3229.6	3215.1
25°	3140.1	3181.2	3203.0	3125.6	3135.3
27.5°	2999.8	3045.8	3045.8	3062.7	3040.9
30°	2898.2	2917.6	2886.1	2949.0	2929.6
32.5°	2777.2	2784.5	2757.9	2803.9	2736.1
35°	2661.1	2666.0	2661.1	2663.5	2661.1
37.5°	2549.8	2537.7	2559.5	2545.0	2591.0
40°	2426.5	2426.5	2436.1	2460.3	2496.6
42.5°	2312.8	2322.4	2310.3	2378.1	2392.6
45°	2184.5	2201.5	2182.1	2271.6	2249.9
47.5°	2068.4	2075.7	2070.8	2131.3	2136.2
50°	1942.6	1952.3	1957.1	2010.4	2017.6
52.5°	1838.6	1836.2	1819.2	1896.7	1908.7
55°	1715.2	1712.8	1708.0	1768.4	1785.4
57.5°	1589.4	1591.8	1603.9	1637.8	1678.9
60°	1475.7	1463.6	1473.3	1514.4	1548.3
62.5°	1359.6	1337.8	1316.0	1383.8	1415.2
65°	1231.4	1204.8	1192.7	1248.3	1301.5
67.5°	1112.8	1069.3	1062.0	1100.7	1163.6
70°	977.4	924.1	921.7	950.7	1025.7
72.5°	827.4	781.4	769.3	808.0	875.7
75°	684.6	633.8	619.3	655.6	718.5
77.5°	529.8	488.7	479.0	498.4	549.2
80°	372.6	348.4	338.7	345.9	382.2
82.5°	234.7	217.7	212.9	210.5	229.8
85°	118.5	106.4	106.4	99.2	104.0
87.5°	36.3	33.9	31.4	24.2	26.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)