

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: P485027

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-20-120-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: P485027
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-LD4-2LO-20-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

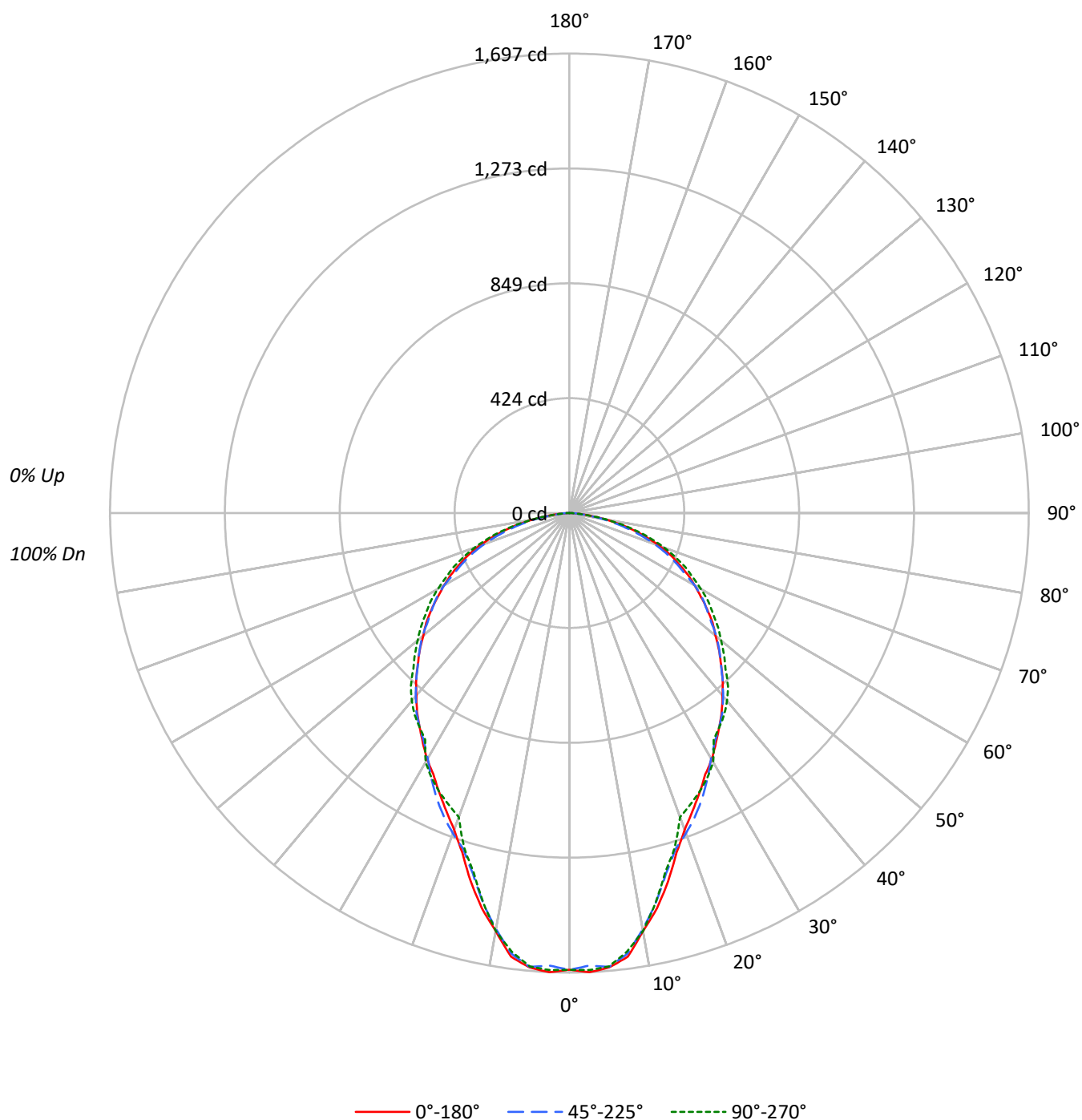
Lumens per Lamp: N/A
Luminaire Lumens: 3607.1 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P485027

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-2LO-20-120-EDD

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				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°	4539	4539	4539
5°	4551	4544	4539
10°	4283	4264	4280
15°	3924	3839	3817
20°	3564	3604	3421
25°	3380	3448	3375
30°	3265	3251	3301
35°	3169	3169	3169
40°	3090	3103	3180
45°	3014	3011	3104
50°	2948	2971	3062
55°	2918	2905	3037
60°	2879	2875	3021
65°	2842	2753	3005
70°	2788	2629	2926
75°	2581	2334	2708
80°	2094	1903	2148
85°	1328	1192	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	4.3
10°-20°	391.6	10.9
20°-30°	528.9	14.7
30°-40°	605.7	16.8
40°-50°	620.4	17.2
50°-60°	562.9	15.6
60°-70°	439.4	12.2
70°-80°	249.2	6.9
80°-90°	52.3	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°	1077.2	29.9
0°-40°	1682.9	46.7
0°-60°	2866.2	79.5
0°-90°	3607.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3607.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1687	1687	1687	1687	1687	
5°	1685	1666	1682	1686	1680	157
15°	1409	1413	1378	1385	1370	394
25°	1138	1153	1161	1133	1137	525
35°	965	967	965	966	965	604
45°	792	798	791	824	816	612
55°	622	621	619	641	647	556
65°	446	437	432	453	472	442
75°	248	230	224	238	260	260
85°	43	39	39	36	38	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1686.7	1686.7	1686.7	1686.7	1686.7
2.5°	1697.2	1684.0	1672.6	1691.0	1689.3
5°	1684.9	1665.6	1682.3	1685.8	1680.5
7.5°	1652.4	1640.2	1641.0	1634.0	1633.1
10°	1567.4	1574.4	1560.3	1572.6	1566.5
12.5°	1494.6	1499.0	1474.4	1479.7	1472.6
15°	1408.6	1413.0	1377.9	1384.9	1370.0
17.5°	1314.8	1330.6	1301.6	1310.4	1294.6
20°	1244.6	1257.8	1258.6	1244.6	1194.6
22.5°	1189.3	1202.5	1213.0	1170.9	1165.7
25°	1138.5	1153.4	1161.3	1133.2	1136.7
27.5°	1087.6	1104.3	1104.3	1110.4	1102.5
30°	1050.8	1057.8	1046.4	1069.2	1062.2
32.5°	1006.9	1009.5	999.9	1016.6	992.0
35°	964.8	966.6	964.8	965.7	964.8
37.5°	924.5	920.1	928.0	922.7	939.4
40°	879.7	879.7	883.2	892.0	905.2
42.5°	838.5	842.0	837.6	862.2	867.4
45°	792.0	798.2	791.1	823.6	815.7
47.5°	749.9	752.5	750.8	772.7	774.5
50°	704.3	707.8	709.6	728.9	731.5
52.5°	666.6	665.7	659.6	687.6	692.0
55°	621.9	621.0	619.2	641.2	647.3
57.5°	576.3	577.1	581.5	593.8	608.7
60°	535.0	530.6	534.1	549.1	561.3
62.5°	492.9	485.0	477.1	501.7	513.1
65°	446.4	436.8	432.4	452.6	471.9
67.5°	403.5	387.7	385.0	399.1	421.9
70°	354.3	335.0	334.2	344.7	371.9
72.5°	300.0	283.3	278.9	292.9	317.5
75°	248.2	229.8	224.5	237.7	260.5
77.5°	192.1	177.2	173.7	180.7	199.1
80°	135.1	126.3	122.8	125.4	138.6
82.5°	85.1	78.9	77.2	76.3	83.3
85°	43.0	38.6	38.6	36.0	37.7
87.5°	13.2	12.3	11.4	8.8	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)