

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: P486953

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-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: P486953
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-24-4-INS-89BC-LD4-1STD-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

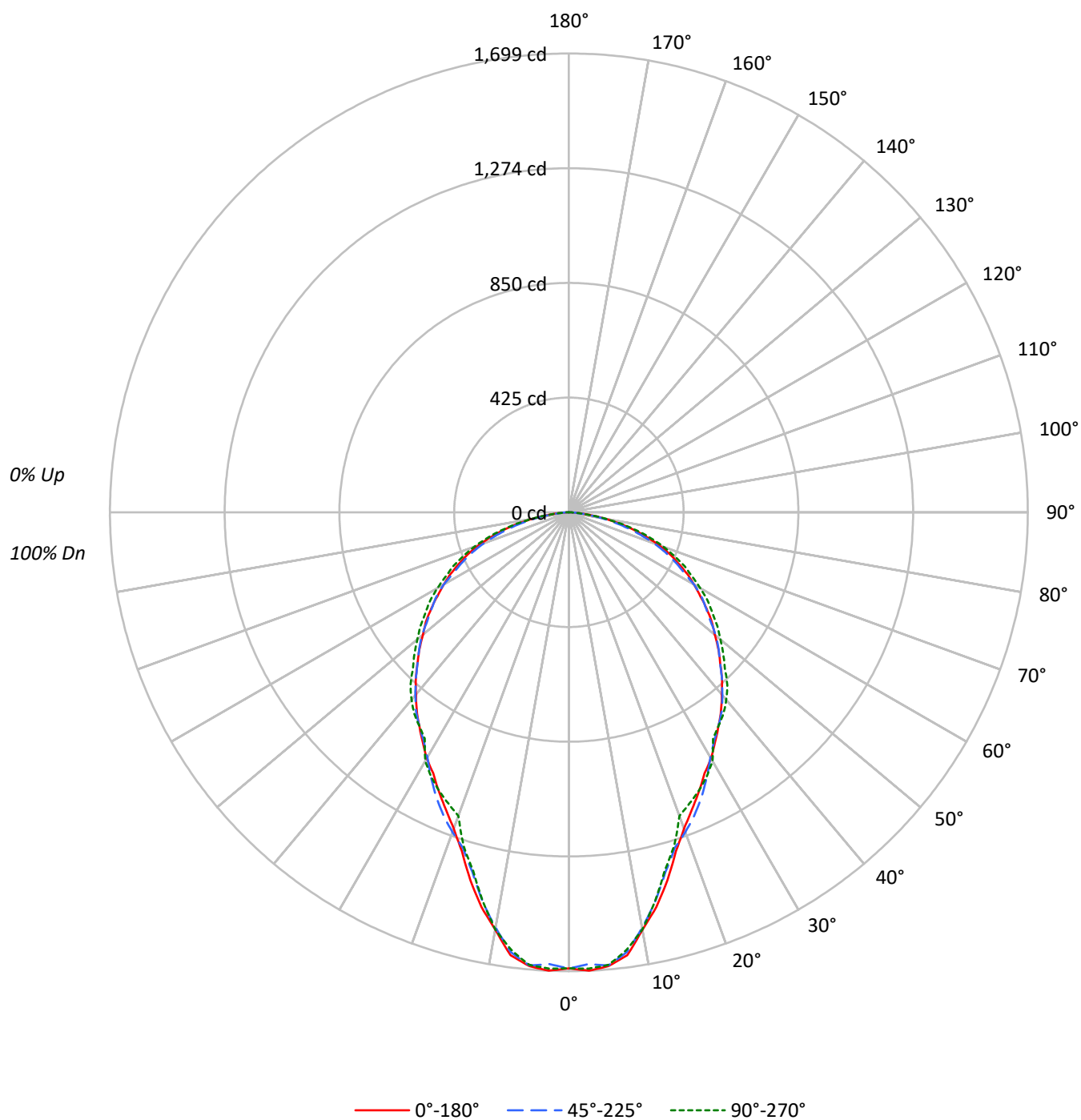
Lumens per Lamp: N/A
Luminaire Lumens: 3610.6 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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					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°	2272	2272	2272
5°	2278	2274	2272
10°	2144	2134	2142
15°	1964	1921	1910
20°	1784	1804	1712
25°	1692	1726	1689
30°	1634	1627	1652
35°	1586	1586	1586
40°	1547	1553	1591
45°	1509	1507	1554
50°	1476	1487	1533
55°	1460	1454	1520
60°	1441	1439	1512
65°	1423	1378	1504
70°	1395	1316	1464
75°	1292	1169	1355
80°	1048	952	1075
85°	664	596	584



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.8	4.3
10°-20°	392.0	10.9
20°-30°	529.4	14.7
30°-40°	606.3	16.8
40°-50°	621.0	17.2
50°-60°	563.5	15.6
60°-70°	439.8	12.2
70°-80°	249.4	6.9
80°-90°	52.4	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°	1078.3	29.9
0°-40°	1684.5	46.7
0°-60°	2869.0	79.5
0°-90°	3610.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3610.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1686	1667	1684	1687	1682	158
15°	1410	1414	1379	1386	1371	394
25°	1140	1154	1162	1134	1138	526
35°	966	968	966	967	966	605
45°	793	799	792	824	816	613
55°	622	622	620	642	648	556
65°	447	437	433	453	472	443
75°	248	230	225	238	261	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°	1688.3	1688.3	1688.3	1688.3	1688.3
2.5°	1698.8	1685.7	1674.2	1692.7	1690.9
5°	1686.5	1667.2	1683.9	1687.4	1682.1
7.5°	1654.0	1641.8	1642.6	1635.6	1634.7
10°	1568.9	1575.9	1561.9	1574.2	1568.0
12.5°	1496.0	1500.4	1475.8	1481.1	1474.1
15°	1410.0	1414.4	1379.3	1386.3	1371.3
17.5°	1316.0	1331.8	1302.9	1311.6	1295.8
20°	1245.8	1259.0	1259.9	1245.8	1195.8
22.5°	1190.5	1203.7	1214.2	1172.1	1166.8
25°	1139.6	1154.5	1162.4	1134.3	1137.8
27.5°	1088.7	1105.3	1105.3	1111.5	1103.6
30°	1051.8	1058.8	1047.4	1070.2	1063.2
32.5°	1007.9	1010.5	1000.9	1017.5	993.0
35°	965.7	967.5	965.7	966.6	965.7
37.5°	925.4	921.0	928.9	923.6	940.3
40°	880.6	880.6	884.1	892.9	906.0
42.5°	839.3	842.8	838.4	863.0	868.3
45°	792.8	798.9	791.9	824.4	816.5
47.5°	750.6	753.3	751.5	773.5	775.2
50°	705.0	708.5	710.3	729.6	732.2
52.5°	667.2	666.4	660.2	688.3	692.7
55°	622.5	621.6	619.8	641.8	647.9
57.5°	576.8	577.7	582.1	594.4	609.3
60°	535.5	531.2	534.7	549.6	561.9
62.5°	493.4	485.5	477.6	502.2	513.6
65°	446.9	437.2	432.8	453.0	472.3
67.5°	403.9	388.1	385.4	399.5	422.3
70°	354.7	335.4	334.5	345.0	372.2
72.5°	300.3	283.6	279.2	293.2	317.8
75°	248.5	230.0	224.8	237.9	260.7
77.5°	192.3	177.3	173.8	180.9	199.3
80°	135.2	126.4	122.9	125.5	138.7
82.5°	85.2	79.0	77.3	76.4	83.4
85°	43.0	38.6	38.6	36.0	37.8
87.5°	13.2	12.3	11.4	8.8	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)