

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: P486976

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-35-120-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: P486976
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-LD4-2LO-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

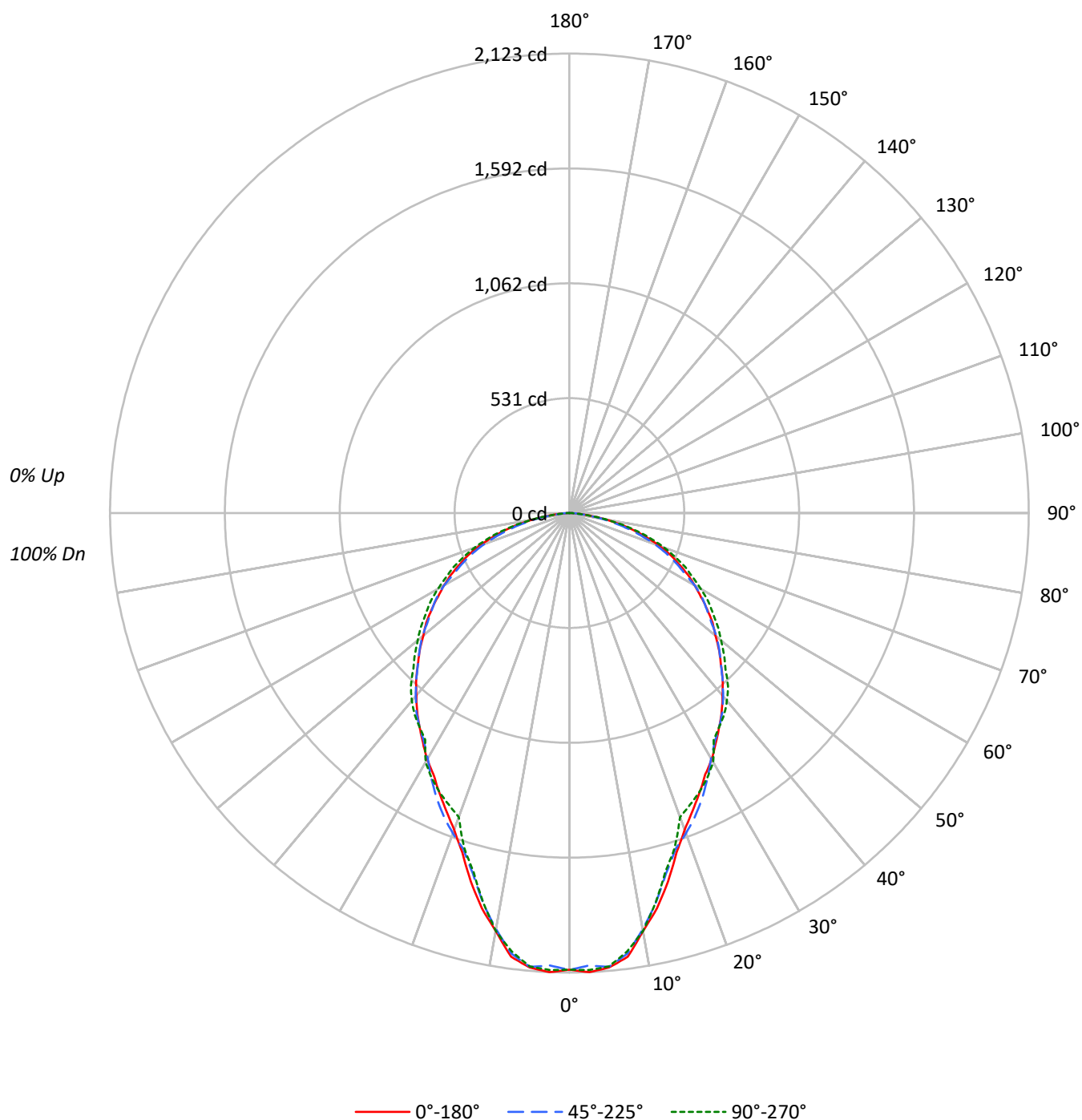
Lumens per Lamp: N/A
Luminaire Lumens: 4512.1 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	2839	2839	2839
5°	2847	2842	2839
10°	2679	2667	2677
15°	2454	2401	2387
20°	2229	2254	2140
25°	2114	2157	2111
30°	2042	2034	2064
35°	1982	1982	1982
40°	1933	1940	1989
45°	1885	1883	1942
50°	1844	1858	1915
55°	1825	1817	1899
60°	1801	1798	1890
65°	1778	1722	1879
70°	1744	1644	1830
75°	1614	1460	1694
80°	1309	1190	1343
85°	831	746	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	4.3
10°-20°	489.9	10.9
20°-30°	661.6	14.7
30°-40°	757.6	16.8
40°-50°	776.1	17.2
50°-60°	704.2	15.6
60°-70°	549.6	12.2
70°-80°	311.7	6.9
80°-90°	65.4	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°	1347.5	29.9
0°-40°	2105.1	46.7
0°-60°	3585.4	79.5
0°-90°	4512.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4512.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2110	2110	2110	2110	2110	
5°	2108	2084	2104	2109	2102	197
15°	1762	1768	1724	1732	1714	492
25°	1424	1443	1453	1418	1422	657
35°	1207	1209	1207	1208	1207	756
45°	991	998	990	1030	1020	766
55°	778	777	775	802	810	695
65°	558	546	541	566	590	553
75°	310	288	281	297	326	325
85°	54	48	48	45	47	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2109.8	2109.8	2109.8	2109.8	2109.8
2.5°	2123.0	2106.5	2092.3	2115.3	2113.1
5°	2107.6	2083.5	2104.3	2108.7	2102.1
7.5°	2067.0	2051.7	2052.8	2044.0	2042.9
10°	1960.6	1969.4	1951.8	1967.2	1959.5
12.5°	1869.5	1875.0	1844.3	1850.9	1842.1
15°	1762.0	1767.5	1723.6	1732.4	1713.7
17.5°	1644.6	1664.4	1628.2	1639.1	1619.4
20°	1556.9	1573.3	1574.4	1556.9	1494.3
22.5°	1487.7	1504.2	1517.4	1464.7	1458.1
25°	1424.1	1442.8	1452.6	1417.5	1421.9
27.5°	1360.5	1381.3	1381.3	1389.0	1379.1
30°	1314.4	1323.2	1308.9	1337.4	1328.6
32.5°	1259.5	1262.8	1250.8	1271.6	1240.9
35°	1206.9	1209.1	1206.9	1208.0	1206.9
37.5°	1156.4	1150.9	1160.8	1154.2	1175.0
40°	1100.4	1100.4	1104.8	1115.8	1132.3
42.5°	1048.9	1053.3	1047.8	1078.5	1085.1
45°	990.7	998.4	989.6	1030.2	1020.4
47.5°	938.1	941.4	939.2	966.6	968.8
50°	881.0	885.4	887.6	911.7	915.0
52.5°	833.8	832.7	825.1	860.2	865.7
55°	777.9	776.8	774.6	802.0	809.7
57.5°	720.8	721.9	727.4	742.8	761.4
60°	669.3	663.8	668.2	686.8	702.2
62.5°	616.6	606.7	596.8	627.6	641.8
65°	558.4	546.4	540.9	566.1	590.3
67.5°	504.7	484.9	481.6	499.2	527.7
70°	443.2	419.1	418.0	431.2	465.2
72.5°	375.2	354.4	348.9	366.4	397.2
75°	310.5	287.5	280.9	297.3	325.9
77.5°	240.3	221.6	217.2	226.0	249.1
80°	169.0	158.0	153.6	156.9	173.3
82.5°	106.4	98.7	96.5	95.5	104.2
85°	53.8	48.3	48.3	45.0	47.2
87.5°	16.5	15.4	14.3	11.0	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)