

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: P486933

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-50-120-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: P486933
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-LD4-1HI-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

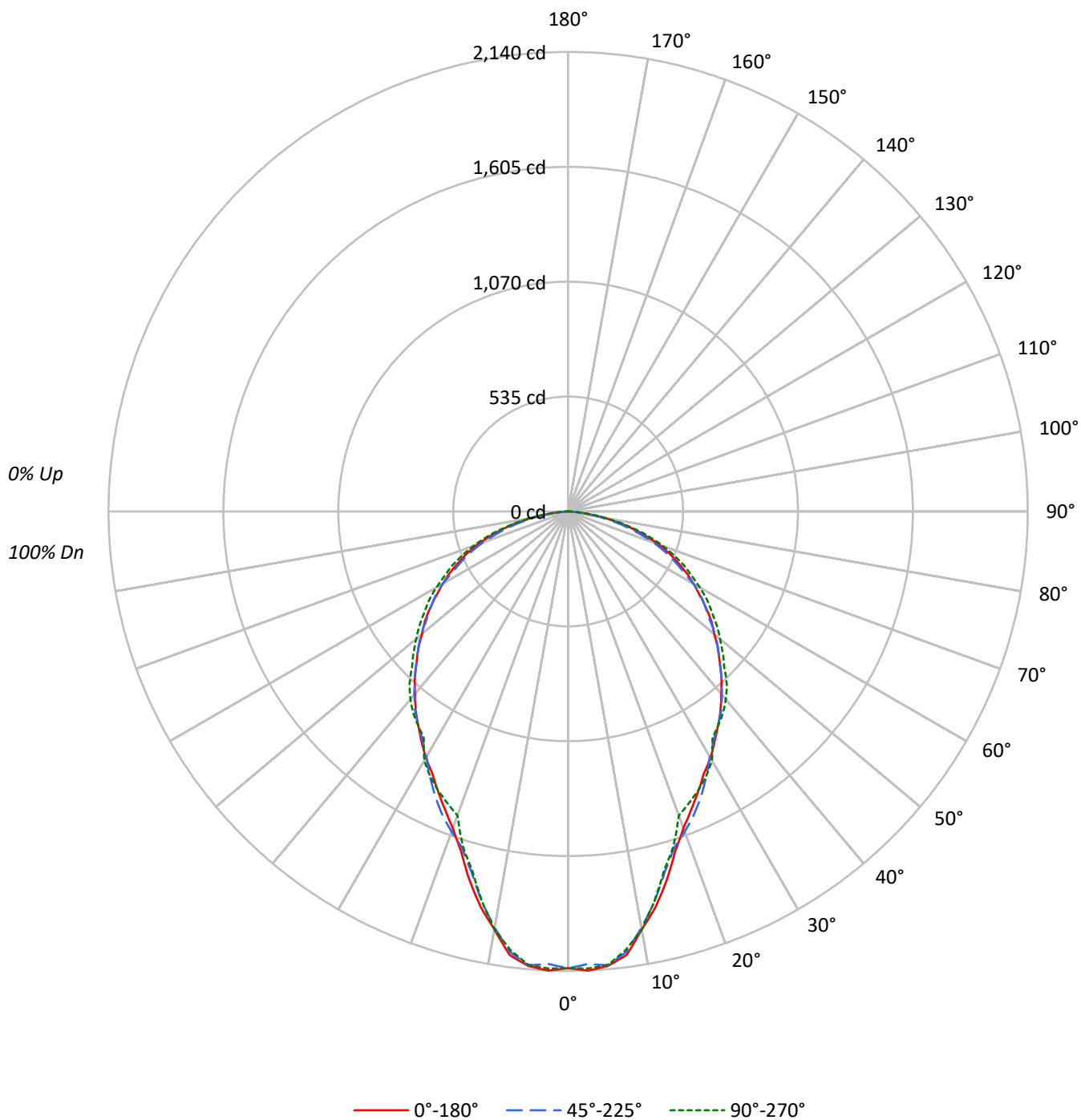
Lumens per Lamp: N/A
Luminaire Lumens: 4548.9 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	2862	2862	2862
5°	2870	2865	2862
10°	2701	2688	2699
15°	2474	2421	2407
20°	2247	2273	2157
25°	2131	2174	2128
30°	2059	2050	2081
35°	1998	1998	1998
40°	1949	1956	2005
45°	1901	1898	1957
50°	1859	1873	1931
55°	1840	1832	1915
60°	1816	1813	1905
65°	1792	1736	1895
70°	1758	1658	1845
75°	1627	1472	1708
80°	1320	1200	1354
85°	837	752	735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.6	4.3
10°-20°	493.9	10.9
20°-30°	667.0	14.7
30°-40°	763.8	16.8
40°-50°	782.4	17.2
50°-60°	709.9	15.6
60°-70°	554.1	12.2
70°-80°	314.3	6.9
80°-90°	66.0	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°	1358.5	29.9
0°-40°	2122.3	46.7
0°-60°	3614.6	79.5
0°-90°	4548.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4548.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2127	2127	2127	2127	2127	
5°	2125	2100	2122	2126	2119	198
15°	1776	1782	1738	1746	1728	496
25°	1436	1454	1464	1429	1434	663
35°	1217	1219	1217	1218	1217	762
45°	999	1007	998	1039	1029	772
55°	784	783	781	809	816	701
65°	563	551	545	571	595	558
75°	313	290	283	300	328	327
85°	54	49	49	45	48	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2127.0	2127.0	2127.0	2127.0	2127.0
2.5°	2140.3	2123.7	2109.3	2132.6	2130.3
5°	2124.8	2100.5	2121.5	2125.9	2119.3
7.5°	2083.9	2068.4	2069.5	2060.7	2059.6
10°	1976.6	1985.4	1967.7	1983.2	1975.5
12.5°	1884.8	1890.3	1859.4	1866.0	1857.1
15°	1776.4	1781.9	1737.7	1746.5	1727.7
17.5°	1658.0	1678.0	1641.5	1652.5	1632.6
20°	1569.6	1586.1	1587.3	1569.6	1506.5
22.5°	1499.9	1516.5	1529.7	1476.6	1470.0
25°	1435.7	1454.5	1464.5	1429.1	1433.5
27.5°	1371.6	1392.6	1392.6	1400.3	1390.4
30°	1325.1	1334.0	1319.6	1348.3	1339.5
32.5°	1269.8	1273.1	1261.0	1282.0	1251.0
35°	1216.7	1218.9	1216.7	1217.8	1216.7
37.5°	1165.8	1160.3	1170.3	1163.6	1184.6
40°	1109.4	1109.4	1113.8	1124.9	1141.5
42.5°	1057.4	1061.9	1056.3	1087.3	1093.9
45°	998.8	1006.6	997.7	1038.6	1028.7
47.5°	945.7	949.0	946.8	974.5	976.7
50°	888.2	892.6	894.8	919.2	922.5
52.5°	840.6	839.5	831.8	867.2	872.7
55°	784.2	783.1	780.9	808.6	816.3
57.5°	726.7	727.8	733.3	748.8	767.6
60°	674.7	669.2	673.6	692.4	707.9
62.5°	621.6	611.7	601.7	632.7	647.1
65°	563.0	550.8	545.3	570.7	595.1
67.5°	508.8	488.9	485.6	503.3	532.0
70°	446.9	422.5	421.4	434.7	469.0
72.5°	378.3	357.3	351.7	369.4	400.4
75°	313.0	289.8	283.2	299.8	328.5
77.5°	242.2	223.4	219.0	227.9	251.1
80°	170.3	159.3	154.9	158.2	174.8
82.5°	107.3	99.5	97.3	96.2	105.1
85°	54.2	48.7	48.7	45.4	47.6
87.5°	16.6	15.5	14.4	11.1	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)