

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: P486957

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-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: P486957
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-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

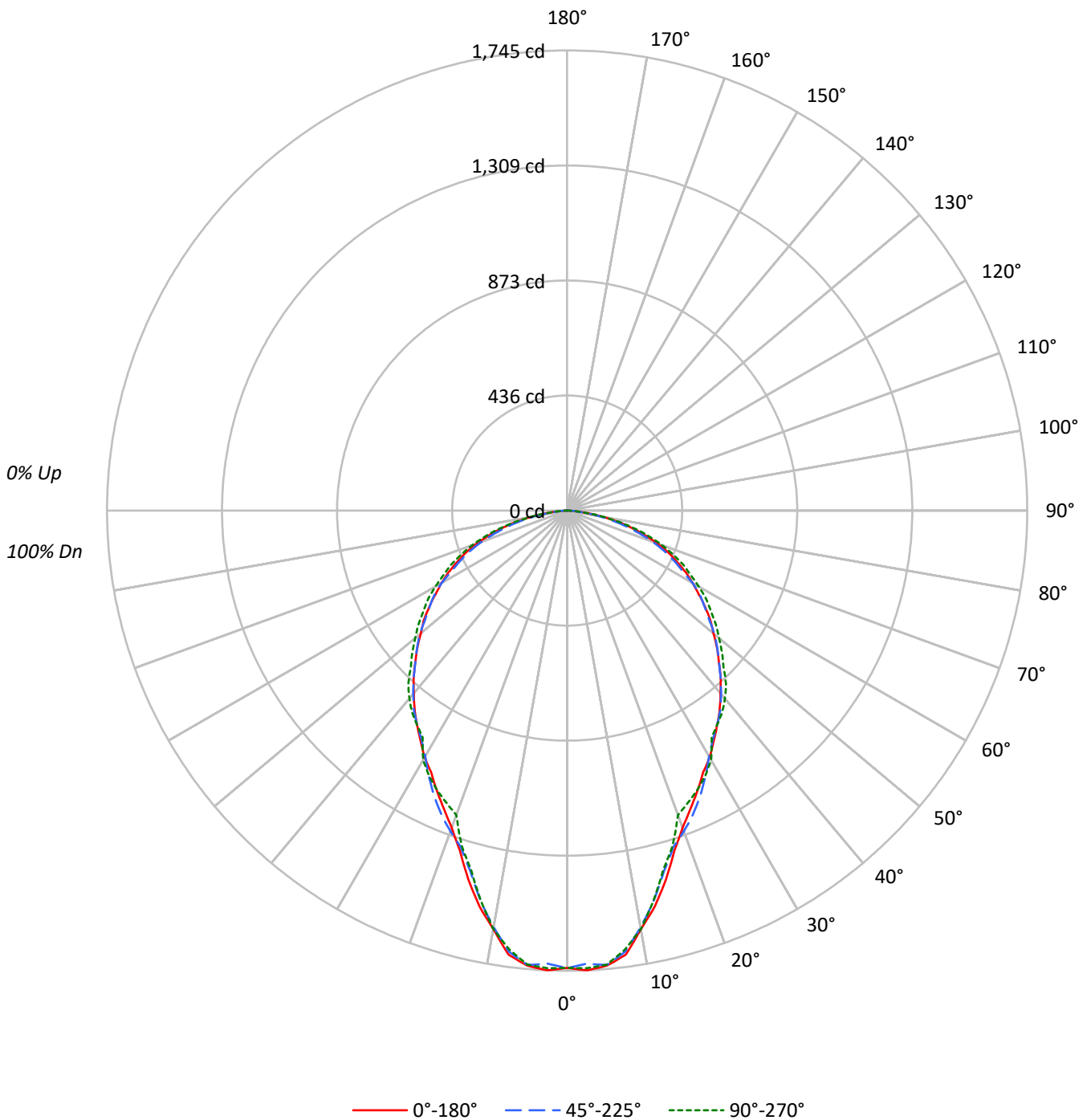
Lumens per Lamp: N/A
Luminaire Lumens: 3708.7 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2333	2333	2333
5°	2340	2336	2334
10°	2202	2192	2200
15°	2017	1973	1962
20°	1832	1853	1759
25°	1738	1772	1735
30°	1678	1671	1697
35°	1629	1629	1629
40°	1589	1595	1635
45°	1549	1548	1596
50°	1516	1527	1574
55°	1500	1494	1561
60°	1480	1478	1553
65°	1461	1415	1545
70°	1433	1352	1504
75°	1327	1200	1392
80°	1076	978	1104
85°	682	613	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.1	4.3
10°-20°	402.7	10.9
20°-30°	543.8	14.7
30°-40°	622.7	16.8
40°-50°	637.9	17.2
50°-60°	578.8	15.6
60°-70°	451.7	12.2
70°-80°	256.2	6.9
80°-90°	53.8	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°	1107.5	29.9
0°-40°	1730.2	46.7
0°-60°	2946.9	79.5
0°-90°	3708.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3708.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1734	1734	1734	1734	1734	
5°	1732	1712	1730	1733	1728	162
15°	1448	1453	1417	1424	1409	405
25°	1170	1186	1194	1165	1169	540
35°	992	994	992	993	992	621
45°	814	821	813	847	839	630
55°	639	638	637	659	666	571
65°	459	449	445	465	485	455
75°	255	236	231	244	268	267
85°	44	40	40	37	39	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1734.1	1734.1	1734.1	1734.1	1734.1
2.5°	1744.9	1731.4	1719.7	1738.6	1736.8
5°	1732.3	1712.5	1729.6	1733.2	1727.8
7.5°	1698.9	1686.3	1687.2	1680.0	1679.1
10°	1611.5	1618.7	1604.3	1616.9	1610.6
12.5°	1536.6	1541.1	1515.9	1521.3	1514.1
15°	1448.2	1452.8	1416.7	1423.9	1408.6
17.5°	1351.8	1368.0	1338.2	1347.2	1331.0
20°	1279.6	1293.1	1294.0	1279.6	1228.2
22.5°	1222.8	1236.3	1247.2	1203.9	1198.5
25°	1170.5	1185.8	1193.9	1165.1	1168.7
27.5°	1118.2	1135.3	1135.3	1141.6	1133.5
30°	1080.3	1087.5	1075.8	1099.3	1092.0
32.5°	1035.2	1037.9	1028.0	1045.2	1019.9
35°	992.0	993.8	992.0	992.9	992.0
37.5°	950.5	946.0	954.1	948.7	965.8
40°	904.5	904.5	908.1	917.1	930.6
42.5°	862.1	865.7	861.2	886.4	891.9
45°	814.3	820.6	813.4	846.8	838.6
47.5°	771.0	773.7	771.9	794.5	796.3
50°	724.1	727.7	729.5	749.4	752.1
52.5°	685.3	684.4	678.1	707.0	711.5
55°	639.4	638.5	636.7	659.2	665.5
57.5°	592.5	593.4	597.9	610.5	625.8
60°	550.1	545.6	549.2	564.5	577.1
62.5°	506.8	498.7	490.6	515.8	527.5
65°	459.0	449.1	444.6	465.3	485.2
67.5°	414.8	398.6	395.9	410.3	433.8
70°	364.3	344.5	343.6	354.4	382.4
72.5°	308.4	291.3	286.8	301.2	326.4
75°	255.2	236.3	230.9	244.4	267.8
77.5°	197.5	182.2	178.6	185.8	204.7
80°	138.9	129.9	126.2	129.0	142.5
82.5°	87.5	81.2	79.4	78.5	85.7
85°	44.2	39.7	39.7	37.0	38.8
87.5°	13.5	12.6	11.7	9.0	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)