

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: P486977

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-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: P486977
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
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

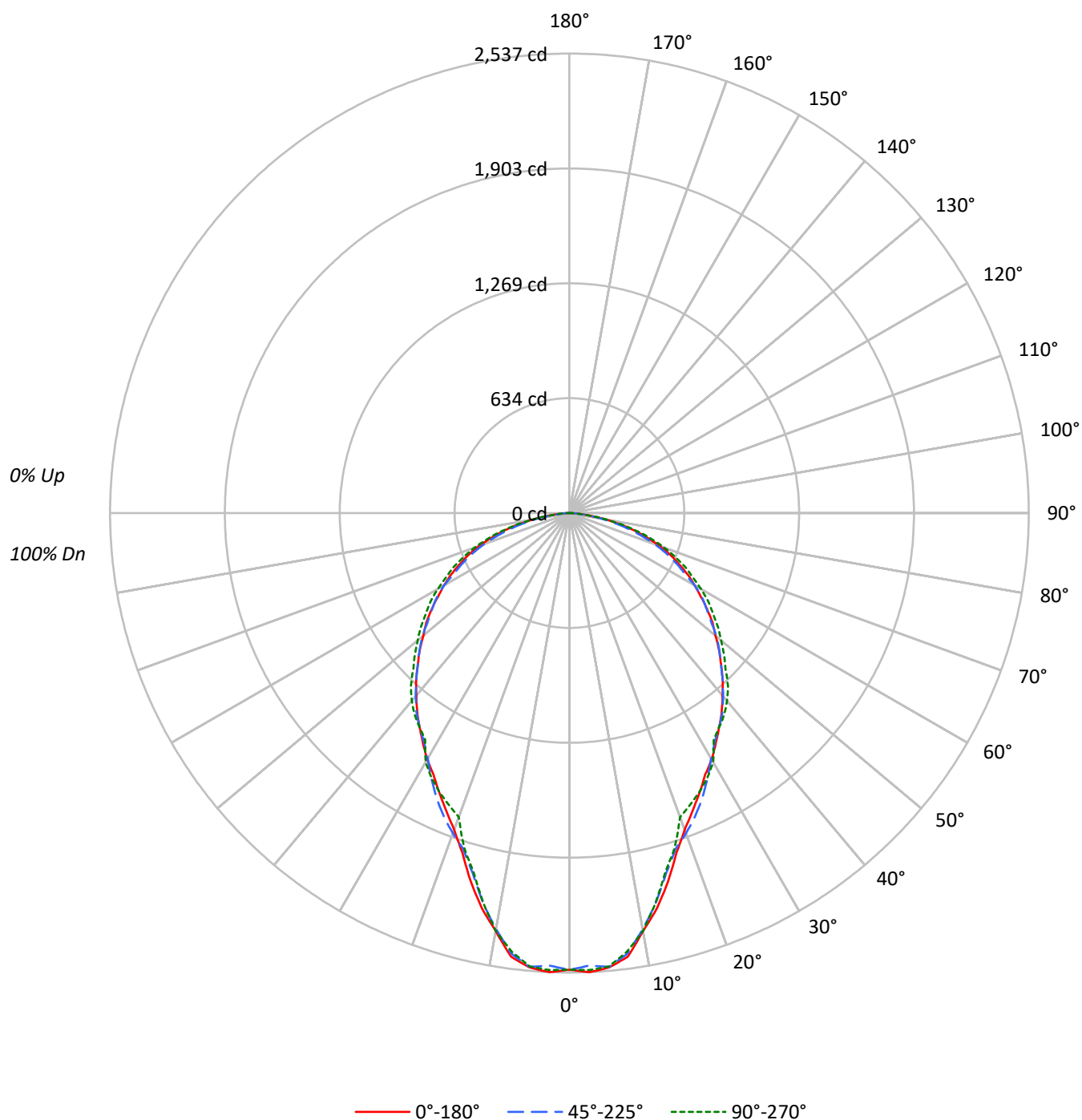
Lumens per Lamp: N/A
Luminaire Lumens: 5392.4 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3393	3393	3393
5°	3402	3397	3393
10°	3201	3187	3199
15°	2933	2869	2853
20°	2664	2694	2557
25°	2527	2577	2523
30°	2440	2430	2467
35°	2369	2369	2369
40°	2310	2319	2377
45°	2253	2250	2320
50°	2204	2220	2289
55°	2181	2171	2270
60°	2152	2149	2258
65°	2125	2058	2246
70°	2084	1965	2187
75°	1929	1745	2024
80°	1564	1423	1605
85°	991	891	871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.2	4.3
10°-20°	585.5	10.9
20°-30°	790.7	14.7
30°-40°	905.5	16.8
40°-50°	927.5	17.2
50°-60°	841.6	15.6
60°-70°	656.8	12.2
70°-80°	372.5	6.9
80°-90°	78.2	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°	1610.4	29.9
0°-40°	2515.8	46.7
0°-60°	4284.9	79.5
0°-90°	5392.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5392.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2521	2521	2521	2521	2521	
5°	2519	2490	2515	2520	2512	235
15°	2106	2112	2060	2070	2048	589
25°	1702	1724	1736	1694	1699	785
35°	1442	1445	1442	1444	1442	903
45°	1184	1193	1183	1231	1219	915
55°	930	928	926	958	968	831
65°	667	653	646	677	705	661
75°	371	344	336	355	389	388
85°	64	58	58	54	56	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2521.4	2521.4	2521.4	2521.4	2521.4
2.5°	2537.2	2517.5	2500.5	2528.0	2525.4
5°	2518.8	2490.0	2514.9	2520.1	2512.3
7.5°	2470.3	2451.9	2453.3	2442.8	2441.5
10°	2343.1	2353.6	2332.6	2351.0	2341.8
12.5°	2234.3	2240.8	2204.1	2212.0	2201.5
15°	2105.8	2112.3	2059.9	2070.4	2048.1
17.5°	1965.5	1989.1	1945.8	1958.9	1935.3
20°	1860.6	1880.3	1881.6	1860.6	1785.9
22.5°	1778.0	1797.7	1813.4	1750.5	1742.6
25°	1701.9	1724.2	1736.0	1694.1	1699.3
27.5°	1625.9	1650.8	1650.8	1660.0	1648.2
30°	1570.8	1581.3	1564.3	1598.4	1587.9
32.5°	1505.3	1509.2	1494.8	1519.7	1483.0
35°	1442.3	1444.9	1442.3	1443.6	1442.3
37.5°	1382.0	1375.5	1387.3	1379.4	1404.3
40°	1315.1	1315.1	1320.4	1333.5	1353.2
42.5°	1253.5	1258.8	1252.2	1288.9	1296.8
45°	1184.0	1193.2	1182.7	1231.2	1219.4
47.5°	1121.1	1125.0	1122.4	1155.2	1157.8
50°	1052.9	1058.1	1060.8	1089.6	1093.5
52.5°	996.5	995.2	986.0	1028.0	1034.5
55°	929.6	928.3	925.7	958.5	967.7
57.5°	861.5	862.8	869.3	887.7	910.0
60°	799.8	793.3	798.5	820.8	839.2
62.5°	736.9	725.1	713.3	750.0	767.1
65°	667.4	653.0	646.4	676.6	705.4
67.5°	603.2	579.6	575.6	596.6	630.7
70°	529.7	500.9	499.6	515.3	555.9
72.5°	448.4	423.5	417.0	437.9	474.7
75°	371.1	343.5	335.7	355.3	389.4
77.5°	287.2	264.9	259.6	270.1	297.6
80°	201.9	188.8	183.6	187.5	207.2
82.5°	127.2	118.0	115.4	114.1	124.6
85°	64.2	57.7	57.7	53.8	56.4
87.5°	19.7	18.4	17.0	13.1	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)