

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: P486960

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-27-120-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: P486960
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-LD4-2HI-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

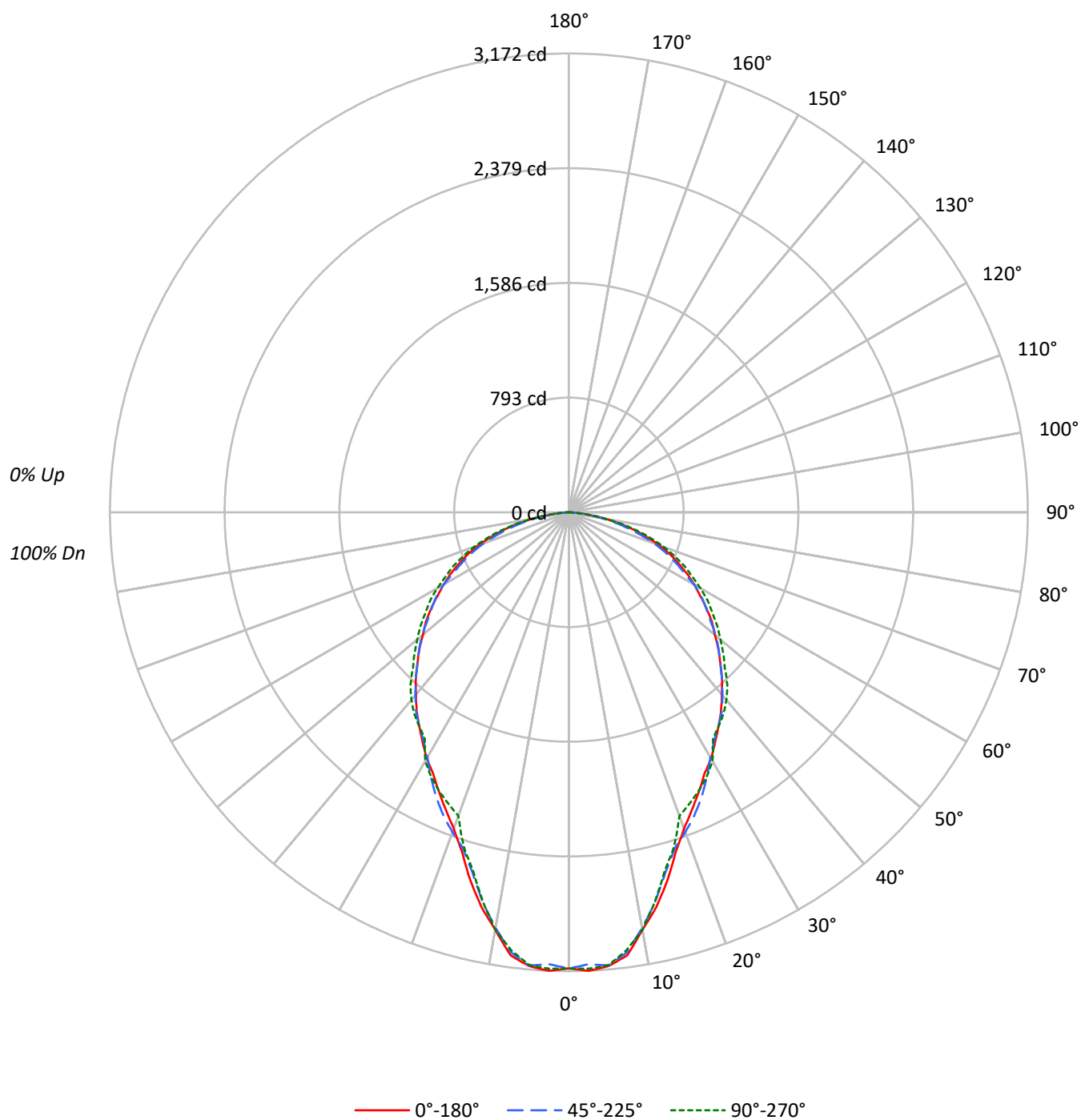
Lumens per Lamp: N/A
Luminaire Lumens: 6742.4 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4242	4242	4242
5°	4254	4247	4243
10°	4003	3985	4001
15°	3668	3588	3567
20°	3331	3369	3197
25°	3159	3223	3154
30°	3051	3039	3085
35°	2962	2962	2962
40°	2888	2900	2972
45°	2817	2814	2901
50°	2756	2776	2862
55°	2727	2715	2838
60°	2691	2687	2824
65°	2657	2573	2808
70°	2605	2457	2734
75°	2412	2182	2531
80°	1956	1778	2007
85°	1240	1113	1088



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.8	4.3
10°-20°	732.1	10.9
20°-30°	988.6	14.7
30°-40°	1132.1	16.8
40°-50°	1159.7	17.2
50°-60°	1052.2	15.6
60°-70°	821.3	12.2
70°-80°	465.8	6.9
80°-90°	97.8	1.4
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°	2013.5	29.9
0°-40°	3145.7	46.7
0°-60°	5357.6	79.5
0°-90°	6742.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6742.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3153	3153	3153	3153	3153	
5°	3149	3113	3144	3151	3141	294
15°	2633	2641	2576	2589	2561	736
25°	2128	2156	2171	2118	2125	982
35°	1803	1807	1803	1805	1803	1130
45°	1480	1492	1479	1540	1525	1145
55°	1162	1161	1158	1198	1210	1039
65°	834	816	808	846	882	827
75°	464	430	420	444	487	485
85°	80	72	72	67	70	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3152.7	3152.7	3152.7	3152.7	3152.7
2.5°	3172.4	3147.8	3126.5	3160.9	3157.6
5°	3149.4	3113.3	3144.5	3151.1	3141.2
7.5°	3088.8	3065.8	3067.4	3054.3	3052.7
10°	2929.7	2942.8	2916.6	2939.6	2928.1
12.5°	2793.6	2801.8	2755.9	2765.8	2752.7
15°	2633.0	2641.2	2575.6	2588.7	2560.8
17.5°	2457.6	2487.1	2433.0	2449.4	2419.8
20°	2326.4	2351.0	2352.6	2326.4	2233.0
22.5°	2223.1	2247.7	2267.4	2188.7	2178.8
25°	2128.0	2155.9	2170.7	2118.2	2124.7
27.5°	2032.9	2064.1	2064.1	2075.6	2060.8
30°	1964.1	1977.2	1955.9	1998.5	1985.4
32.5°	1882.1	1887.0	1869.0	1900.1	1854.2
35°	1803.4	1806.7	1803.4	1805.1	1803.4
37.5°	1728.0	1719.8	1734.6	1724.7	1755.9
40°	1644.4	1644.4	1650.9	1667.3	1691.9
42.5°	1567.3	1573.9	1565.7	1611.6	1621.4
45°	1480.4	1491.9	1478.8	1539.5	1524.7
47.5°	1401.7	1406.7	1403.4	1444.4	1447.6
50°	1316.5	1323.0	1326.3	1362.4	1367.3
52.5°	1246.0	1244.4	1232.9	1285.3	1293.5
55°	1162.4	1160.7	1157.5	1198.4	1209.9
57.5°	1077.1	1078.8	1087.0	1109.9	1137.8
60°	1000.1	991.9	998.4	1026.3	1049.3
62.5°	921.4	906.6	891.9	937.8	959.1
65°	834.5	816.5	808.3	846.0	882.0
67.5°	754.2	724.6	719.7	746.0	788.6
70°	662.3	626.3	624.6	644.3	695.1
72.5°	560.7	529.5	521.3	547.6	593.5
75°	464.0	429.5	419.7	444.3	486.9
77.5°	359.0	331.2	324.6	337.7	372.2
80°	252.5	236.1	229.5	234.4	259.0
82.5°	159.0	147.6	144.3	142.6	155.7
85°	80.3	72.1	72.1	67.2	70.5
87.5°	24.6	23.0	21.3	16.4	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)