

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: P486993

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-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: P486993
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-LD4-2STD-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

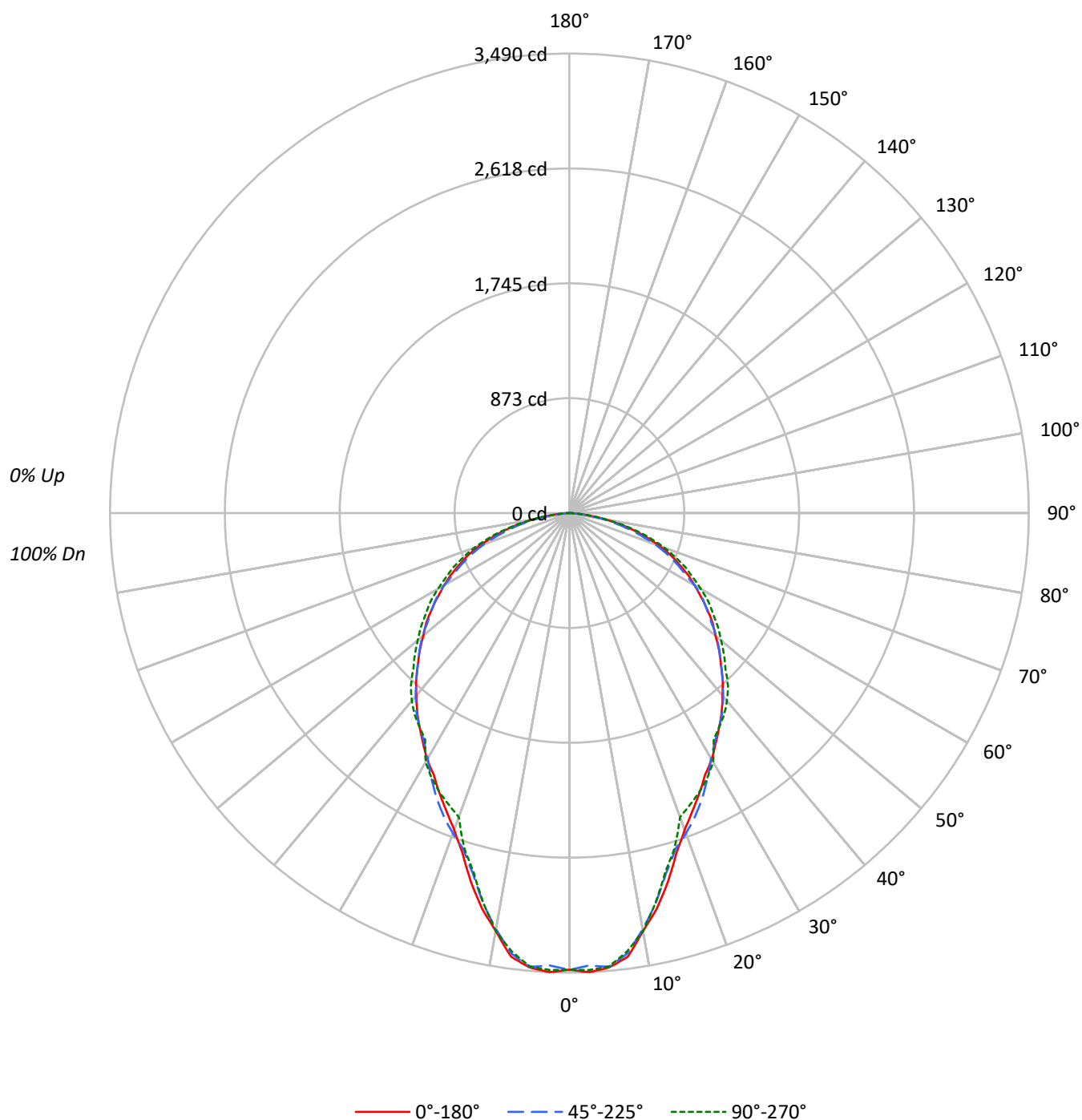
Lumens per Lamp: N/A
Luminaire Lumens: 7417.2 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	4666	4666	4666
5°	4679	4672	4667
10°	4403	4384	4401
15°	4035	3947	3924
20°	3664	3706	3517
25°	3475	3545	3470
30°	3357	3343	3393
35°	3259	3259	3259
40°	3177	3190	3269
45°	3099	3095	3192
50°	3031	3054	3149
55°	3000	2987	3122
60°	2961	2956	3106
65°	2923	2831	3089
70°	2866	2703	3008
75°	2653	2400	2785
80°	2152	1956	2208
85°	1365	1226	1198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.1	4.3
10°-20°	805.3	10.9
20°-30°	1087.6	14.7
30°-40°	1245.4	16.8
40°-50°	1275.7	17.2
50°-60°	1157.6	15.6
60°-70°	903.5	12.2
70°-80°	512.4	6.9
80°-90°	107.5	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°	2215.0	29.9
0°-40°	3460.5	46.7
0°-60°	5893.8	79.5
0°-90°	7417.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7417.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3468	3468	3468	3468	3468	
5°	3465	3425	3459	3466	3456	324
15°	2896	2906	2833	2848	2817	810
25°	2341	2372	2388	2330	2337	1080
35°	1984	1988	1984	1986	1984	1243
45°	1629	1641	1627	1694	1677	1259
55°	1279	1277	1273	1318	1331	1143
65°	918	898	889	931	970	910
75°	510	472	462	489	536	534
85°	88	79	79	74	78	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3468.2	3468.2	3468.2	3468.2	3468.2
2.5°	3489.9	3462.8	3439.4	3477.2	3473.6
5°	3464.6	3424.9	3459.2	3466.4	3455.6
7.5°	3397.9	3372.6	3374.4	3360.0	3358.2
10°	3222.9	3237.4	3208.5	3233.8	3221.1
12.5°	3073.2	3082.3	3031.8	3042.6	3028.2
15°	2896.5	2905.5	2833.4	2847.8	2817.1
17.5°	2703.5	2736.0	2676.5	2694.5	2662.0
20°	2559.2	2586.3	2588.1	2559.2	2456.4
22.5°	2445.6	2472.7	2494.3	2407.7	2396.9
25°	2341.0	2371.7	2387.9	2330.2	2337.4
27.5°	2236.4	2270.7	2270.7	2283.3	2267.1
30°	2160.6	2175.1	2151.6	2198.5	2184.1
32.5°	2070.5	2075.9	2056.0	2090.3	2039.8
35°	1983.9	1987.5	1983.9	1985.7	1983.9
37.5°	1900.9	1891.9	1908.2	1897.3	1931.6
40°	1809.0	1809.0	1816.2	1834.2	1861.3
42.5°	1724.2	1731.4	1722.4	1772.9	1783.7
45°	1628.6	1641.2	1626.8	1693.5	1677.3
47.5°	1542.0	1547.4	1543.8	1588.9	1592.5
50°	1448.2	1455.5	1459.1	1498.7	1504.2
52.5°	1370.7	1368.9	1356.3	1414.0	1423.0
55°	1278.7	1276.9	1273.3	1318.4	1331.0
57.5°	1184.9	1186.7	1195.8	1221.0	1251.7
60°	1100.2	1091.1	1098.4	1129.0	1154.3
62.5°	1013.6	997.4	981.1	1031.6	1055.1
65°	918.0	898.2	889.1	930.6	970.3
67.5°	829.6	797.2	791.8	820.6	867.5
70°	728.6	689.0	687.2	708.8	764.7
72.5°	616.8	582.5	573.5	602.4	652.9
75°	510.4	472.5	461.7	488.8	535.7
77.5°	395.0	364.3	357.1	371.5	409.4
80°	277.7	259.7	252.5	257.9	285.0
82.5°	174.9	162.3	158.7	156.9	171.3
85°	88.4	79.4	79.4	73.9	77.6
87.5°	27.1	25.2	23.4	18.0	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)