

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: P486981

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-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: P486981
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-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

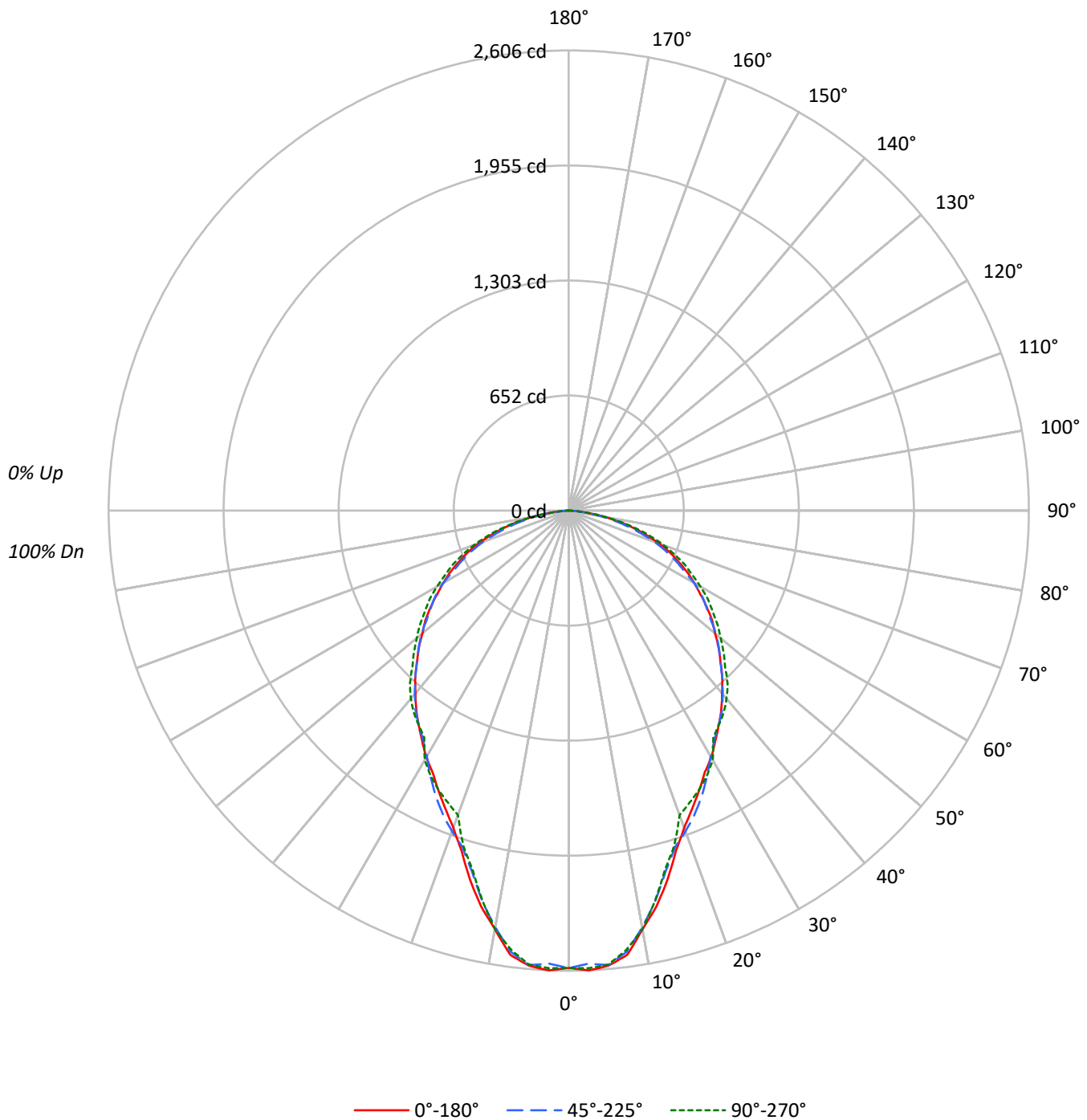
Lumens per Lamp: N/A
Luminaire Lumens: 5538.7 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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		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°	3485	3485	3485
5°	3494	3489	3485
10°	3288	3273	3286
15°	3013	2947	2930
20°	2736	2767	2626
25°	2595	2647	2591
30°	2507	2496	2534
35°	2433	2433	2433
40°	2373	2382	2441
45°	2314	2312	2383
50°	2264	2281	2351
55°	2240	2230	2331
60°	2211	2207	2319
65°	2182	2114	2307
70°	2140	2019	2246
75°	1981	1792	2079
80°	1607	1461	1649
85°	1019	915	894



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.5	4.3
10°-20°	601.4	10.9
20°-30°	812.1	14.7
30°-40°	930.0	16.8
40°-50°	952.6	17.2
50°-60°	864.4	15.6
60°-70°	674.6	12.2
70°-80°	382.6	6.9
80°-90°	80.3	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°	1654.0	29.9
0°-40°	2584.1	46.7
0°-60°	4401.1	79.5
0°-90°	5538.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5538.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2590	2590	2590	2590	2590	
5°	2587	2558	2583	2588	2580	242
15°	2163	2170	2116	2127	2104	604
25°	1748	1771	1783	1740	1745	807
35°	1482	1484	1482	1483	1482	928
45°	1216	1226	1215	1265	1252	940
55°	955	954	951	984	994	853
65°	686	671	664	695	725	679
75°	381	353	345	365	400	399
85°	66	59	59	55	58	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2589.9	2589.9	2589.9	2589.9	2589.9
2.5°	2606.0	2585.8	2568.3	2596.6	2593.9
5°	2587.2	2557.5	2583.1	2588.5	2580.4
7.5°	2537.3	2518.5	2519.8	2509.0	2507.7
10°	2406.7	2417.5	2395.9	2414.8	2405.3
12.5°	2294.9	2301.6	2263.9	2272.0	2261.2
15°	2162.9	2169.7	2115.8	2126.6	2103.7
17.5°	2018.8	2043.1	1998.6	2012.1	1987.8
20°	1911.1	1931.3	1932.6	1911.1	1834.3
22.5°	1826.2	1846.4	1862.6	1797.9	1789.9
25°	1748.1	1771.0	1783.1	1740.0	1745.4
27.5°	1670.0	1695.6	1695.6	1705.0	1692.9
30°	1613.4	1624.2	1606.7	1641.7	1630.9
32.5°	1546.1	1550.1	1535.3	1560.9	1523.2
35°	1481.5	1484.1	1481.5	1482.8	1481.5
37.5°	1419.5	1412.8	1424.9	1416.8	1442.4
40°	1350.8	1350.8	1356.2	1369.7	1389.9
42.5°	1287.5	1292.9	1286.2	1323.9	1332.0
45°	1216.1	1225.6	1214.8	1264.6	1252.5
47.5°	1151.5	1155.5	1152.8	1186.5	1189.2
50°	1081.5	1086.8	1089.5	1119.2	1123.2
52.5°	1023.5	1022.2	1012.8	1055.9	1062.6
55°	954.9	953.5	950.8	984.5	993.9
57.5°	884.8	886.2	892.9	911.8	934.7
60°	821.5	814.8	820.2	843.1	861.9
62.5°	756.9	744.8	732.6	770.4	787.9
65°	685.5	670.7	664.0	694.9	724.6
67.5°	619.5	595.3	591.2	612.8	647.8
70°	544.1	514.5	513.1	529.3	571.0
72.5°	460.6	435.0	428.3	449.8	487.5
75°	381.1	352.9	344.8	365.0	400.0
77.5°	294.9	272.0	266.7	277.4	305.7
80°	207.4	193.9	188.5	192.6	212.8
82.5°	130.6	121.2	118.5	117.2	127.9
85°	66.0	59.3	59.3	55.2	57.9
87.5°	20.2	18.9	17.5	13.5	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)