

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: P486924

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-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: P486924
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-LD4-1HI-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

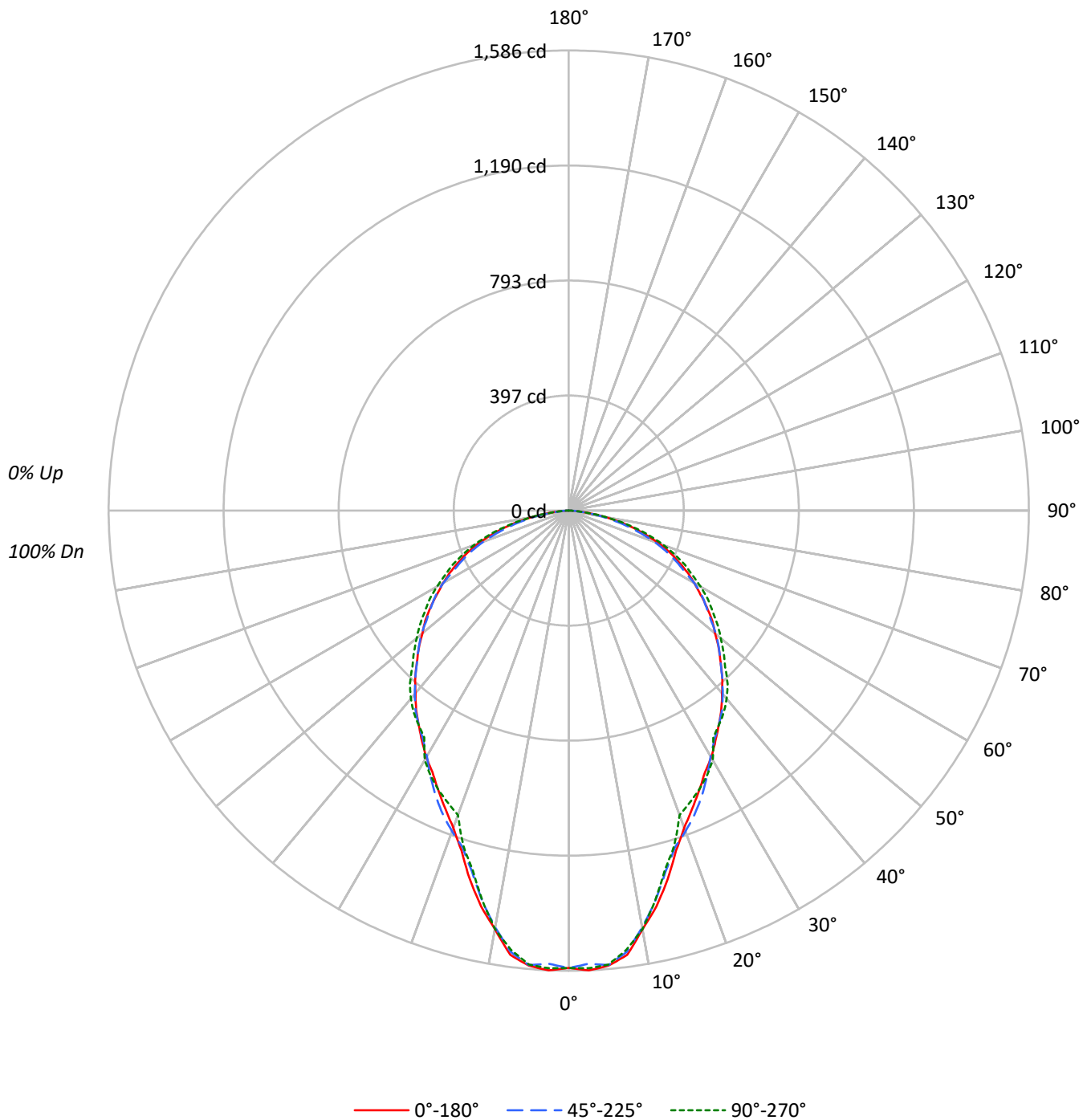
Lumens per Lamp: N/A
Luminaire Lumens: 3371.2 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	2121	2121	2121
5°	2127	2123	2121
10°	2001	1992	2000
15°	1834	1794	1784
20°	1666	1684	1599
25°	1580	1611	1577
30°	1526	1519	1542
35°	1481	1481	1481
40°	1444	1450	1486
45°	1408	1407	1451
50°	1378	1388	1431
55°	1363	1358	1419
60°	1345	1343	1412
65°	1328	1287	1404
70°	1303	1229	1367
75°	1206	1091	1266
80°	978	890	1003
85°	621	557	543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.4	4.3
10°-20°	366.0	10.9
20°-30°	494.3	14.7
30°-40°	566.1	16.8
40°-50°	579.8	17.2
50°-60°	526.1	15.6
60°-70°	410.6	12.2
70°-80°	232.9	6.9
80°-90°	48.9	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°	1006.8	29.9
0°-40°	1572.8	46.7
0°-60°	2678.8	79.5
0°-90°	3371.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3371.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1575	1557	1572	1576	1571	147
15°	1316	1321	1288	1294	1280	368
25°	1064	1078	1085	1059	1062	491
35°	902	903	902	902	902	565
45°	740	746	739	770	762	572
55°	581	580	579	599	605	519
65°	417	408	404	423	441	414
75°	232	215	210	222	244	243
85°	40	36	36	34	35	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1576.3	1576.3	1576.3	1576.3	1576.3
2.5°	1586.2	1573.9	1563.2	1580.4	1578.8
5°	1574.7	1556.7	1572.2	1575.5	1570.6
7.5°	1544.4	1532.9	1533.7	1527.2	1526.3
10°	1464.9	1471.4	1458.3	1469.8	1464.0
12.5°	1396.8	1400.9	1378.0	1382.9	1376.3
15°	1316.5	1320.6	1287.8	1294.4	1280.4
17.5°	1228.8	1243.5	1216.5	1224.7	1209.9
20°	1163.2	1175.5	1176.3	1163.2	1116.5
22.5°	1111.6	1123.9	1133.7	1094.3	1089.4
25°	1064.0	1077.9	1085.3	1059.1	1062.4
27.5°	1016.5	1032.0	1032.0	1037.8	1030.4
30°	982.0	988.6	977.9	999.3	992.7
32.5°	941.1	943.5	934.5	950.1	927.1
35°	901.7	903.3	901.7	902.5	901.7
37.5°	864.0	859.9	867.3	862.4	877.9
40°	822.2	822.2	825.5	833.7	846.0
42.5°	783.7	786.9	782.8	805.8	810.7
45°	740.2	746.0	739.4	769.7	762.4
47.5°	700.9	703.3	701.7	722.2	723.8
50°	658.2	661.5	663.2	681.2	683.7
52.5°	623.0	622.2	616.4	642.7	646.8
55°	581.2	580.4	578.7	599.2	605.0
57.5°	538.6	539.4	543.5	555.0	568.9
60°	500.0	495.9	499.2	513.2	524.6
62.5°	460.7	453.3	445.9	468.9	479.5
65°	417.2	408.2	404.1	423.0	441.0
67.5°	377.1	362.3	359.9	373.0	394.3
70°	331.2	313.1	312.3	322.2	347.6
72.5°	280.3	264.8	260.7	273.8	296.7
75°	232.0	214.8	209.9	222.1	243.5
77.5°	179.5	165.6	162.3	168.9	186.1
80°	126.2	118.0	114.8	117.2	129.5
82.5°	79.5	73.8	72.1	71.3	77.9
85°	40.2	36.1	36.1	33.6	35.2
87.5°	12.3	11.5	10.7	8.2	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)