

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: P486980

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-50-120-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: P486980
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-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

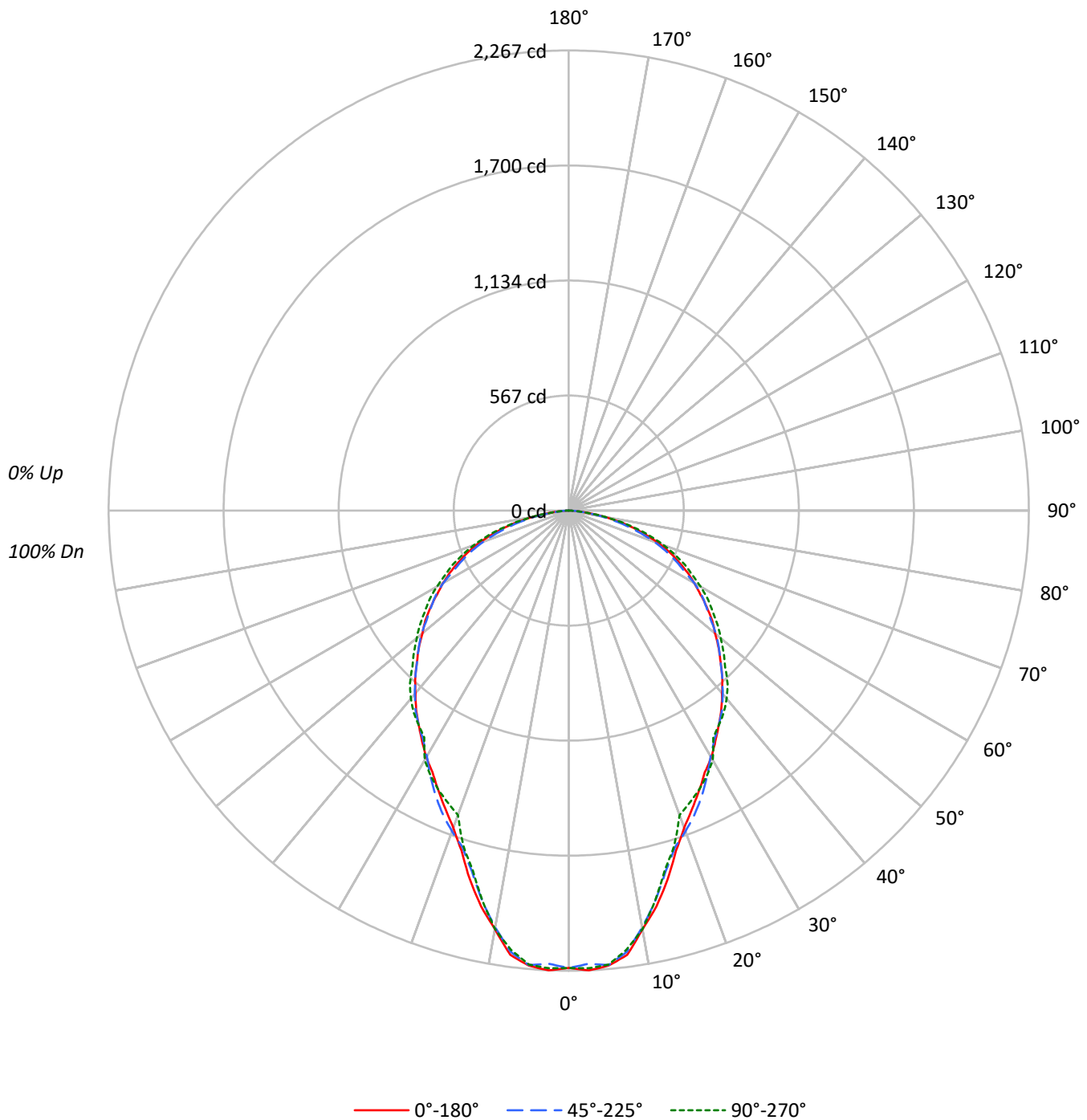
Lumens per Lamp: N/A
Luminaire Lumens: 4818.7 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3032	3032	3032
5°	3040	3035	3032
10°	2861	2848	2859
15°	2621	2564	2549
20°	2381	2407	2285
25°	2258	2303	2254
30°	2181	2172	2204
35°	2117	2117	2117
40°	2064	2072	2124
45°	2013	2011	2073
50°	1970	1984	2045
55°	1949	1940	2028
60°	1923	1920	2018
65°	1899	1839	2007
70°	1862	1756	1954
75°	1724	1560	1809
80°	1398	1271	1434
85°	886	797	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.3	4.3
10°-20°	523.2	10.9
20°-30°	706.6	14.7
30°-40°	809.1	16.8
40°-50°	828.8	17.2
50°-60°	752.0	15.6
60°-70°	586.9	12.2
70°-80°	332.9	6.9
80°-90°	69.9	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°	1439.0	29.9
0°-40°	2248.2	46.7
0°-60°	3829.0	79.5
0°-90°	4818.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4818.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2253	2253	2253	2253	2253	
5°	2251	2225	2247	2252	2245	210
15°	1882	1888	1841	1850	1830	526
25°	1521	1541	1551	1514	1518	702
35°	1289	1291	1289	1290	1289	807
45°	1058	1066	1057	1100	1090	818
55°	831	830	827	856	865	742
65°	596	584	578	605	630	591
75°	332	307	300	318	348	347
85°	57	52	52	48	50	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2253.2	2253.2	2253.2	2253.2	2253.2
2.5°	2267.2	2249.7	2234.4	2259.0	2256.7
5°	2250.8	2225.1	2247.3	2252.0	2245.0
7.5°	2207.5	2191.1	2192.3	2182.9	2181.7
10°	2093.8	2103.2	2084.5	2100.9	2092.7
12.5°	1996.6	2002.4	1969.6	1976.7	1967.3
15°	1881.8	1887.6	1840.7	1850.1	1830.2
17.5°	1756.4	1777.5	1738.8	1750.5	1729.4
20°	1662.6	1680.2	1681.4	1662.6	1595.9
22.5°	1588.8	1606.4	1620.5	1564.2	1557.2
25°	1520.9	1540.8	1551.3	1513.8	1518.5
27.5°	1452.9	1475.2	1475.2	1483.4	1472.8
30°	1403.7	1413.1	1397.8	1428.3	1418.9
32.5°	1345.1	1348.6	1335.7	1358.0	1325.2
35°	1288.9	1291.2	1288.9	1290.0	1288.9
37.5°	1235.0	1229.1	1239.7	1232.6	1254.9
40°	1175.2	1175.2	1179.9	1191.6	1209.2
42.5°	1120.1	1124.8	1119.0	1151.8	1158.8
45°	1058.0	1066.2	1056.9	1100.2	1089.7
47.5°	1001.8	1005.3	1003.0	1032.3	1034.6
50°	940.9	945.6	947.9	973.7	977.2
52.5°	890.5	889.3	881.1	918.6	924.5
55°	830.7	829.6	827.2	856.5	864.7
57.5°	769.8	771.0	776.8	793.2	813.2
60°	714.7	708.9	713.6	733.5	749.9
62.5°	658.5	648.0	637.4	670.2	685.4
65°	596.4	583.5	577.6	604.6	630.4
67.5°	539.0	517.9	514.4	533.1	563.6
70°	473.4	447.6	446.4	460.5	496.8
72.5°	400.7	378.5	372.6	391.3	424.2
75°	331.6	307.0	300.0	317.5	348.0
77.5°	256.6	236.7	232.0	241.4	266.0
80°	180.4	168.7	164.0	167.6	185.1
82.5°	113.7	105.5	103.1	101.9	111.3
85°	57.4	51.6	51.6	48.0	50.4
87.5°	17.6	16.4	15.2	11.7	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)