

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: P485048

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2STD-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: P485048
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-12-4-INS-89BC-LD4-2STD-50-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

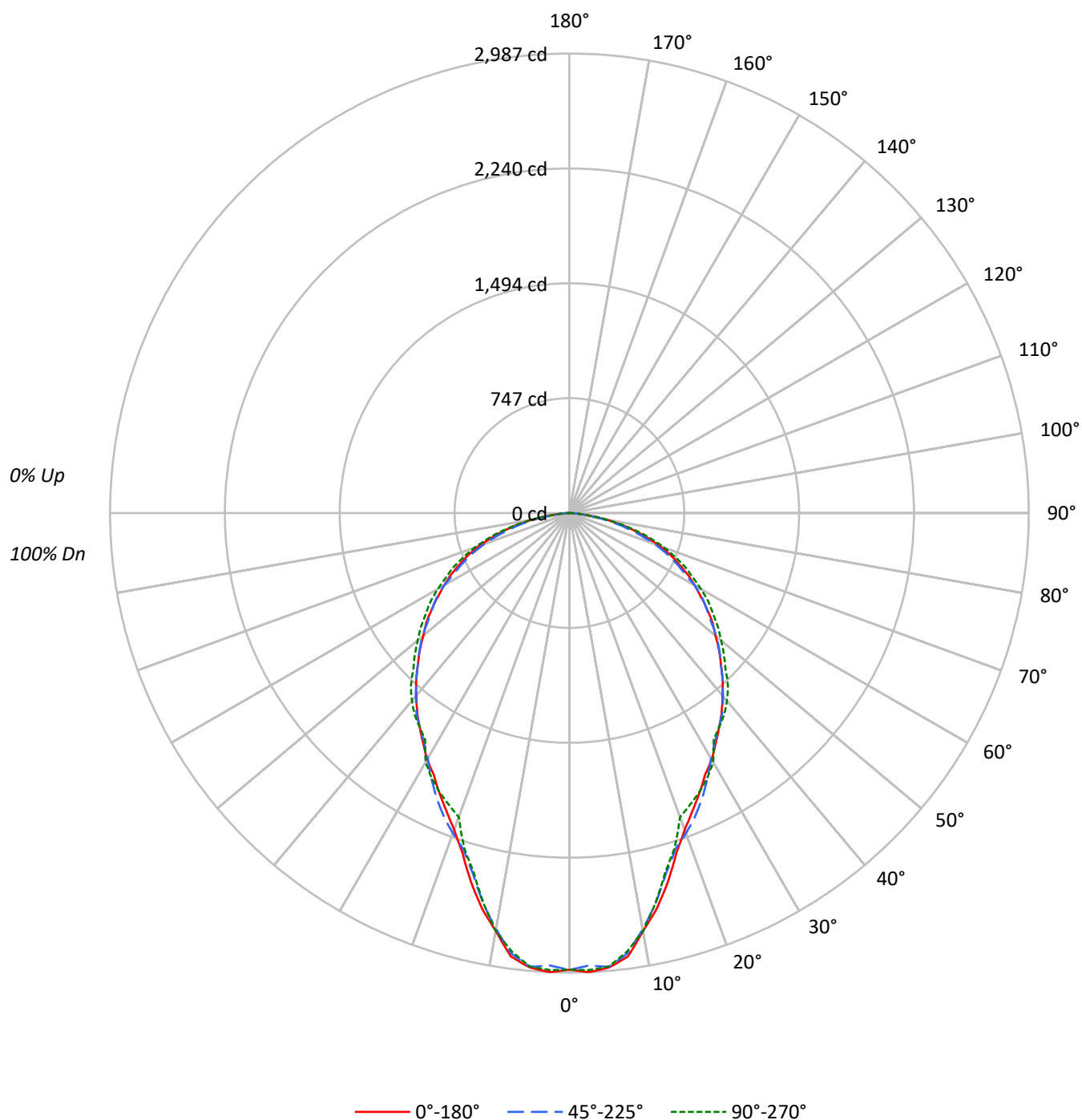
Lumens per Lamp: N/A
Luminaire Lumens: 6347.9 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				10			
RW	70	50	30	10	70	50	30	10	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	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7987	7987	7987
5°	8009	7997	7989
10°	7537	7503	7533
15°	6906	6756	6717
20°	6272	6343	6020
25°	5949	6068	5940
30°	5746	5722	5808
35°	5578	5578	5578
40°	5439	5460	5596
45°	5304	5299	5463
50°	5189	5228	5389
55°	5134	5112	5344
60°	5068	5059	5317
65°	5003	4846	5287
70°	4906	4627	5150
75°	4541	4108	4766
80°	3684	3349	3780
85°	2334	2096	2050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.7	4.3
10°-20°	689.2	10.9
20°-30°	930.8	14.7
30°-40°	1065.9	16.8
40°-50°	1091.8	17.2
50°-60°	990.7	15.6
60°-70°	773.2	12.2
70°-80°	438.5	6.9
80°-90°	92.0	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°	1895.7	29.9
0°-40°	2961.6	46.7
0°-60°	5044.1	79.5
0°-90°	6347.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6347.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2968	2968	2968	2968	2968	
5°	2965	2931	2960	2967	2957	277
15°	2479	2487	2425	2437	2411	693
25°	2004	2030	2044	1994	2000	925
35°	1698	1701	1698	1699	1698	1064
45°	1394	1405	1392	1449	1436	1078
55°	1094	1093	1090	1128	1139	978
65°	786	769	761	796	830	779
75°	437	404	395	418	458	457
85°	76	68	68	63	66	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2968.2	2968.2	2968.2	2968.2	2968.2
2.5°	2986.7	2963.6	2943.5	2975.9	2972.9
5°	2965.1	2931.2	2960.5	2966.7	2957.4
7.5°	2908.0	2886.4	2888.0	2875.6	2874.1
10°	2758.3	2770.7	2746.0	2767.6	2756.8
12.5°	2630.2	2637.9	2594.7	2604.0	2591.6
15°	2478.9	2486.6	2424.9	2437.2	2411.0
17.5°	2313.8	2341.5	2290.6	2306.0	2278.3
20°	2190.3	2213.4	2215.0	2190.3	2102.3
22.5°	2093.0	2116.2	2134.7	2060.6	2051.4
25°	2003.5	2029.8	2043.6	1994.3	2000.4
27.5°	1914.0	1943.3	1943.3	1954.1	1940.2
30°	1849.2	1861.5	1841.4	1881.6	1869.2
32.5°	1772.0	1776.6	1759.6	1789.0	1745.7
35°	1697.9	1701.0	1697.9	1699.4	1697.9
37.5°	1626.9	1619.2	1633.1	1623.8	1653.1
40°	1548.2	1548.2	1554.3	1569.8	1592.9
42.5°	1475.6	1481.8	1474.1	1517.3	1526.6
45°	1393.8	1404.6	1392.3	1449.4	1435.5
47.5°	1319.7	1324.4	1321.3	1359.9	1362.9
50°	1239.5	1245.6	1248.7	1282.7	1287.3
52.5°	1173.1	1171.5	1160.7	1210.1	1217.9
55°	1094.4	1092.8	1089.7	1128.3	1139.1
57.5°	1014.1	1015.6	1023.4	1045.0	1071.2
60°	941.6	933.8	940.0	966.3	987.9
62.5°	867.5	853.6	839.7	882.9	903.0
65°	785.7	768.7	761.0	796.5	830.4
67.5°	710.0	682.2	677.6	702.3	742.4
70°	623.6	589.6	588.1	606.6	654.5
72.5°	527.9	498.6	490.8	515.5	558.8
75°	436.8	404.4	395.1	418.3	458.4
77.5°	338.0	311.8	305.6	318.0	350.4
80°	237.7	222.3	216.1	220.7	243.9
82.5°	149.7	138.9	135.8	134.3	146.6
85°	75.6	67.9	67.9	63.3	66.4
87.5°	23.2	21.6	20.1	15.4	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)