

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: P485793

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-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: P485793
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-24-2-INS-89BC-LD4-5LO-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

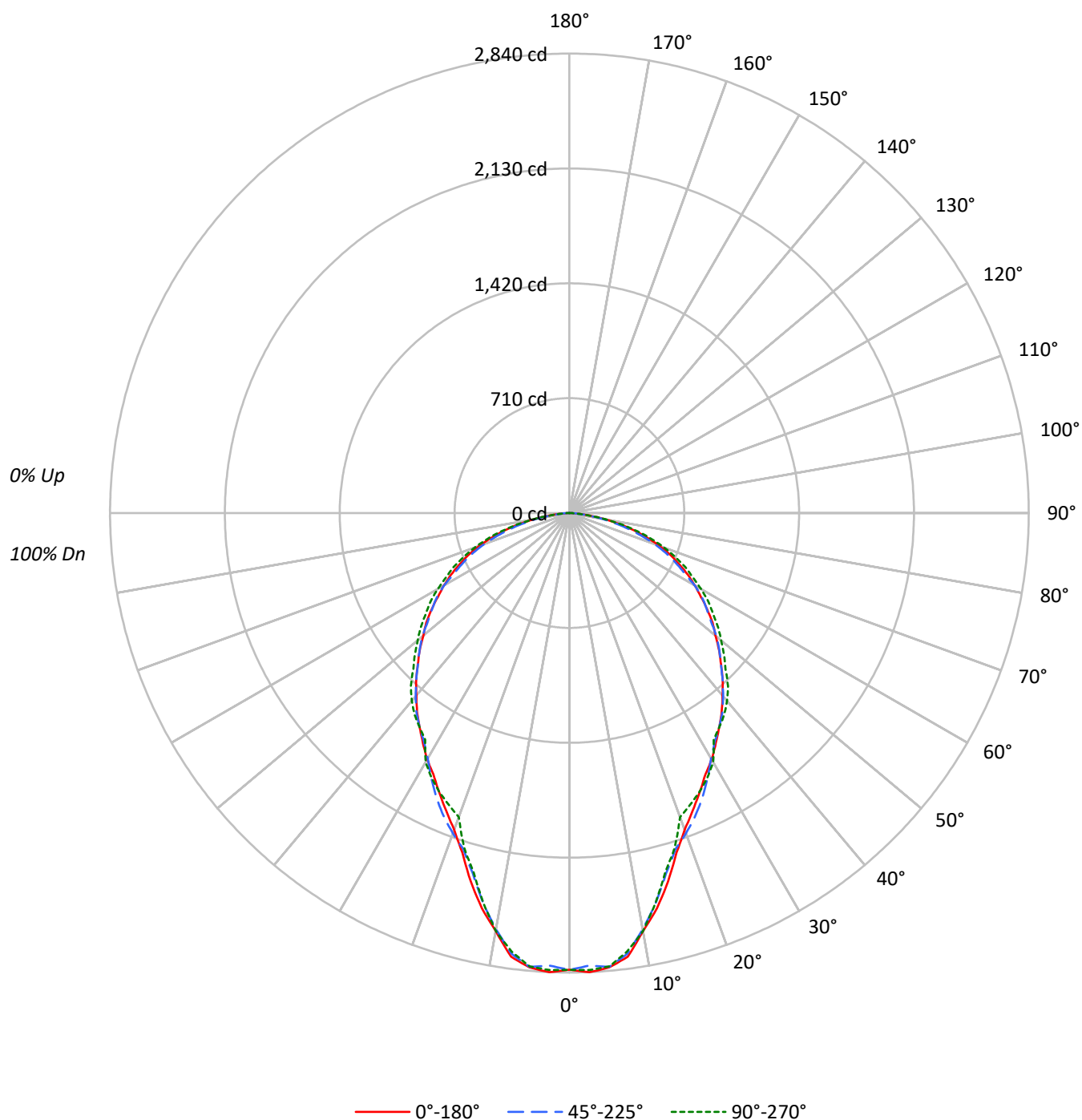
Lumens per Lamp: N/A
Luminaire Lumens: 6036.8 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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				0
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°	7596	7596	7596
5°	7617	7605	7597
10°	7168	7136	7164
15°	6567	6425	6388
20°	5965	6032	5725
25°	5657	5771	5649
30°	5464	5441	5523
35°	5304	5304	5304
40°	5172	5193	5322
45°	5044	5039	5195
50°	4935	4971	5125
55°	4883	4862	5082
60°	4819	4811	5056
65°	4758	4608	5028
70°	4666	4401	4897
75°	4319	3907	4533
80°	3504	3185	3594
85°	2220	1995	1948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.2	4.3
10°-20°	655.4	10.9
20°-30°	885.2	14.7
30°-40°	1013.7	16.8
40°-50°	1038.3	17.2
50°-60°	942.1	15.6
60°-70°	735.3	12.2
70°-80°	417.1	6.9
80°-90°	87.5	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°	1802.8	29.9
0°-40°	2816.5	46.7
0°-60°	4796.9	79.5
0°-90°	6036.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6036.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2823	2823	2823	2823	2823	
5°	2820	2788	2815	2821	2812	263
15°	2357	2365	2306	2318	2293	659
25°	1905	1930	1944	1896	1902	879
35°	1615	1618	1615	1616	1615	1011
45°	1326	1336	1324	1378	1365	1025
55°	1041	1039	1036	1073	1083	930
65°	747	731	724	757	790	740
75°	415	385	376	398	436	435
85°	72	65	65	60	63	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2822.8	2822.8	2822.8	2822.8	2822.8
2.5°	2840.4	2818.4	2799.3	2830.1	2827.2
5°	2819.8	2787.5	2815.4	2821.3	2812.5
7.5°	2765.5	2745.0	2746.4	2734.7	2733.2
10°	2623.1	2634.9	2611.4	2631.9	2621.7
12.5°	2501.3	2508.6	2467.5	2476.3	2464.6
15°	2357.4	2364.8	2306.1	2317.8	2292.8
17.5°	2200.4	2226.8	2178.4	2193.0	2166.6
20°	2082.9	2105.0	2106.4	2082.9	1999.3
22.5°	1990.5	2012.5	2030.1	1959.6	1950.8
25°	1905.3	1930.3	1943.5	1896.5	1902.4
27.5°	1820.2	1848.1	1848.1	1858.4	1845.1
30°	1758.5	1770.3	1751.2	1789.4	1777.6
32.5°	1685.1	1689.5	1673.4	1701.3	1660.2
35°	1614.7	1617.6	1614.7	1616.2	1614.7
37.5°	1547.2	1539.8	1553.0	1544.2	1572.1
40°	1472.3	1472.3	1478.2	1492.8	1514.9
42.5°	1403.3	1409.2	1401.8	1442.9	1451.7
45°	1325.5	1335.8	1324.0	1378.4	1365.1
47.5°	1255.0	1259.5	1256.5	1293.2	1296.1
50°	1178.7	1184.6	1187.5	1219.8	1224.2
52.5°	1115.6	1114.1	1103.9	1150.8	1158.2
55°	1040.7	1039.3	1036.3	1073.0	1083.3
57.5°	964.4	965.9	973.2	993.8	1018.7
60°	895.4	888.1	893.9	918.9	939.5
62.5°	825.0	811.7	798.5	839.6	858.7
65°	747.2	731.0	723.7	757.4	789.7
67.5°	675.2	648.8	644.4	667.9	706.1
70°	593.0	560.7	559.3	576.9	622.4
72.5°	502.0	474.1	466.8	490.3	531.4
75°	415.4	384.6	375.8	397.8	436.0
77.5°	321.5	296.5	290.6	302.4	333.2
80°	226.1	211.4	205.5	209.9	231.9
82.5°	142.4	132.1	129.2	127.7	139.4
85°	71.9	64.6	64.6	60.2	63.1
87.5°	22.0	20.6	19.1	14.7	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)