

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: P485709

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-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: P485709
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-LD4-3HI-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

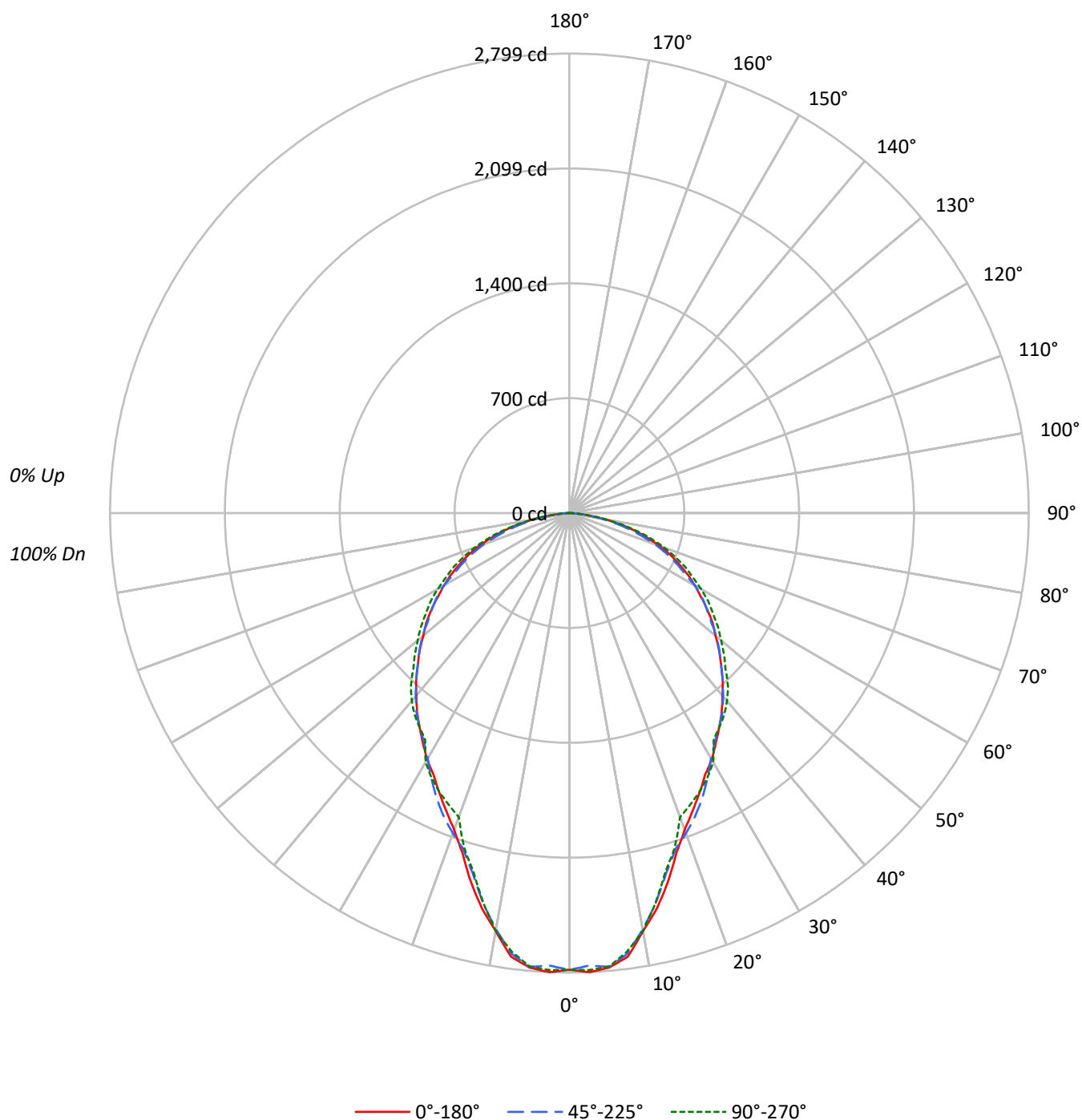
Lumens per Lamp: N/A
Luminaire Lumens: 5949.6 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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
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°	7486	7486	7486
5°	7507	7495	7488
10°	7064	7033	7060
15°	6473	6332	6295
20°	5879	5945	5643
25°	5576	5687	5567
30°	5385	5363	5444
35°	5228	5228	5228
40°	5097	5117	5245
45°	4972	4966	5120
50°	4863	4900	5051
55°	4812	4792	5009
60°	4750	4742	4983
65°	4689	4541	4956
70°	4599	4337	4826
75°	4257	3851	4468
80°	3453	3138	3543
85°	2189	1967	1920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.4	4.3
10°-20°	646.0	10.9
20°-30°	872.4	14.7
30°-40°	999.0	16.8
40°-50°	1023.3	17.2
50°-60°	928.5	15.6
60°-70°	724.7	12.2
70°-80°	411.0	6.9
80°-90°	86.3	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°	1776.8	29.9
0°-40°	2775.8	46.7
0°-60°	4727.6	79.5
0°-90°	5949.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5949.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2782	2782	2782	2782	2782	
5°	2779	2747	2775	2780	2772	260
15°	2323	2331	2273	2284	2260	649
25°	1878	1902	1915	1869	1875	867
35°	1591	1594	1591	1593	1591	997
45°	1306	1316	1305	1358	1345	1010
55°	1026	1024	1021	1058	1068	917
65°	736	720	713	746	778	730
75°	409	379	370	392	430	428
85°	71	64	64	59	62	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2782.0	2782.0	2782.0	2782.0	2782.0
2.5°	2799.3	2777.6	2758.8	2789.2	2786.3
5°	2779.1	2747.3	2774.8	2780.5	2771.9
7.5°	2725.6	2705.3	2706.8	2695.2	2693.7
10°	2585.2	2596.8	2573.7	2593.9	2583.8
12.5°	2465.2	2472.4	2431.9	2440.6	2429.0
15°	2323.4	2330.6	2272.7	2284.3	2259.7
17.5°	2168.6	2194.6	2146.9	2161.4	2135.3
20°	2052.9	2074.6	2076.0	2052.9	1970.4
22.5°	1961.7	1983.4	2000.8	1931.3	1922.7
25°	1877.8	1902.4	1915.4	1869.1	1874.9
27.5°	1793.9	1821.4	1821.4	1831.5	1818.5
30°	1733.1	1744.7	1725.9	1763.5	1751.9
32.5°	1660.8	1665.1	1649.2	1676.7	1636.2
35°	1591.4	1594.3	1591.4	1592.8	1591.4
37.5°	1524.8	1517.6	1530.6	1521.9	1549.4
40°	1451.0	1451.0	1456.8	1471.3	1493.0
42.5°	1383.0	1388.8	1381.6	1422.1	1430.8
45°	1306.4	1316.5	1304.9	1358.4	1345.4
47.5°	1236.9	1241.3	1238.4	1274.5	1277.4
50°	1161.7	1167.5	1170.4	1202.2	1206.5
52.5°	1099.5	1098.0	1087.9	1134.2	1141.4
55°	1025.7	1024.3	1021.4	1057.5	1067.7
57.5°	950.5	951.9	959.2	979.4	1004.0
60°	882.5	875.2	881.0	905.6	925.9
62.5°	813.0	800.0	787.0	827.5	846.3
65°	736.4	720.5	713.2	746.5	778.3
67.5°	665.5	639.4	635.1	658.2	695.9
70°	584.5	552.6	551.2	568.5	613.4
72.5°	494.8	467.3	460.0	483.2	523.7
75°	409.4	379.0	370.4	392.1	429.7
77.5°	316.8	292.2	286.4	298.0	328.4
80°	222.8	208.3	202.5	206.9	228.6
82.5°	140.3	130.2	127.3	125.9	137.4
85°	70.9	63.7	63.7	59.3	62.2
87.5°	21.7	20.3	18.8	14.5	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)