

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: P485753

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-35-120-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: P485753
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-LD4-4LO-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

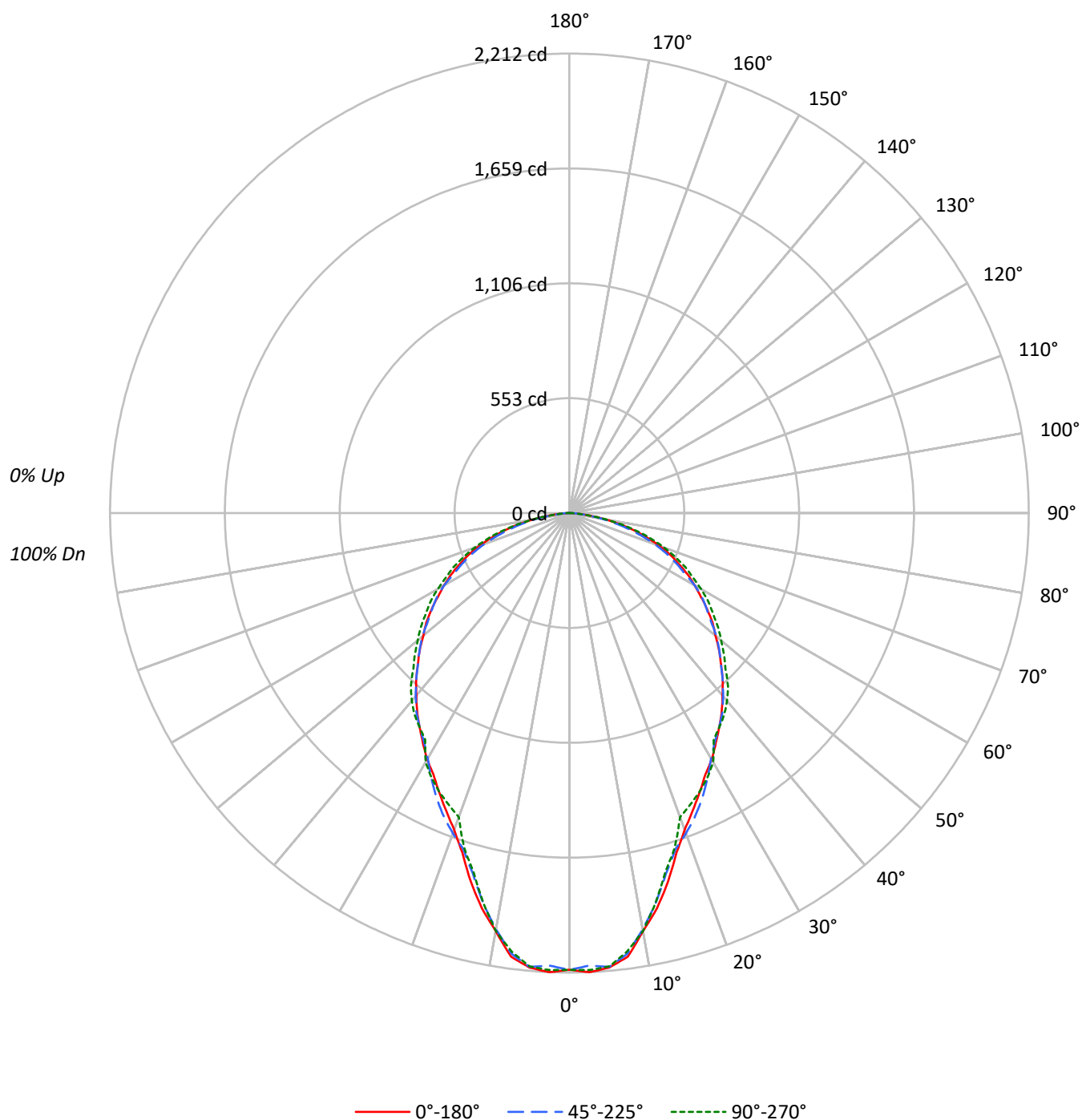
Lumens per Lamp: N/A
Luminaire Lumens: 4701.9 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4LO-35-120-EDD

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°	5916	5916	5916
5°	5933	5924	5917
10°	5583	5558	5579
15°	5115	5004	4975
20°	4646	4698	4459
25°	4406	4494	4399
30°	4256	4238	4302
35°	4131	4131	4131
40°	4028	4044	4145
45°	3929	3925	4047
50°	3844	3872	3992
55°	3803	3787	3959
60°	3753	3747	3938
65°	3705	3589	3917
70°	3634	3427	3814
75°	3365	3043	3531
80°	2729	2481	2799
85°	1729	1553	1519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	4.3
10°-20°	510.5	10.9
20°-30°	689.4	14.7
30°-40°	789.5	16.8
40°-50°	808.7	17.2
50°-60°	733.8	15.6
60°-70°	572.7	12.2
70°-80°	324.8	6.9
80°-90°	68.2	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°	1404.1	29.9
0°-40°	2193.7	46.7
0°-60°	3736.2	79.5
0°-90°	4701.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4701.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2199	2199	2199	2199	2199	
5°	2196	2171	2193	2197	2191	205
15°	1836	1842	1796	1805	1786	513
25°	1484	1503	1514	1477	1482	685
35°	1258	1260	1258	1259	1258	788
45°	1032	1040	1031	1074	1063	798
55°	811	810	807	836	844	724
65°	582	569	564	590	615	577
75°	324	300	293	310	340	338
85°	56	50	50	47	49	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2198.6	2198.6	2198.6	2198.6	2198.6
2.5°	2212.3	2195.1	2180.3	2204.3	2202.0
5°	2196.3	2171.1	2192.9	2197.4	2190.6
7.5°	2154.0	2138.0	2139.1	2130.0	2128.8
10°	2043.1	2052.2	2033.9	2049.9	2041.9
12.5°	1948.2	1953.9	1921.9	1928.8	1919.6
15°	1836.1	1841.9	1796.1	1805.3	1785.8
17.5°	1713.8	1734.4	1696.7	1708.1	1687.5
20°	1622.3	1639.5	1640.6	1622.3	1557.2
22.5°	1550.3	1567.5	1581.2	1526.3	1519.4
25°	1484.0	1503.4	1513.7	1477.1	1481.7
27.5°	1417.7	1439.4	1439.4	1447.4	1437.1
30°	1369.7	1378.8	1364.0	1393.7	1384.5
32.5°	1312.5	1315.9	1303.4	1325.1	1293.1
35°	1257.6	1259.9	1257.6	1258.8	1257.6
37.5°	1205.0	1199.3	1209.6	1202.8	1224.5
40°	1146.7	1146.7	1151.3	1162.7	1179.9
42.5°	1093.0	1097.6	1091.9	1123.9	1130.7
45°	1032.4	1040.4	1031.3	1073.6	1063.3
47.5°	977.5	981.0	978.7	1007.2	1009.5
50°	918.1	922.6	924.9	950.1	953.5
52.5°	868.9	867.8	859.8	896.3	902.1
55°	810.6	809.5	807.2	835.8	843.8
57.5°	751.1	752.3	758.0	774.0	793.5
60°	697.4	691.7	696.3	715.7	731.7
62.5°	642.5	632.2	622.0	654.0	668.8
65°	581.9	569.4	563.6	589.9	615.1
67.5°	525.9	505.3	501.9	520.2	549.9
70°	461.9	436.7	435.6	449.3	484.8
72.5°	391.0	369.3	363.6	381.9	413.9
75°	323.6	299.5	292.7	309.8	339.6
77.5°	250.4	230.9	226.4	235.5	259.5
80°	176.1	164.6	160.1	163.5	180.6
82.5°	110.9	102.9	100.6	99.5	108.6
85°	56.0	50.3	50.3	46.9	49.2
87.5°	17.1	16.0	14.9	11.4	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)