

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: P485776

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-35-120-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: P485776
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-LD4-5HI-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

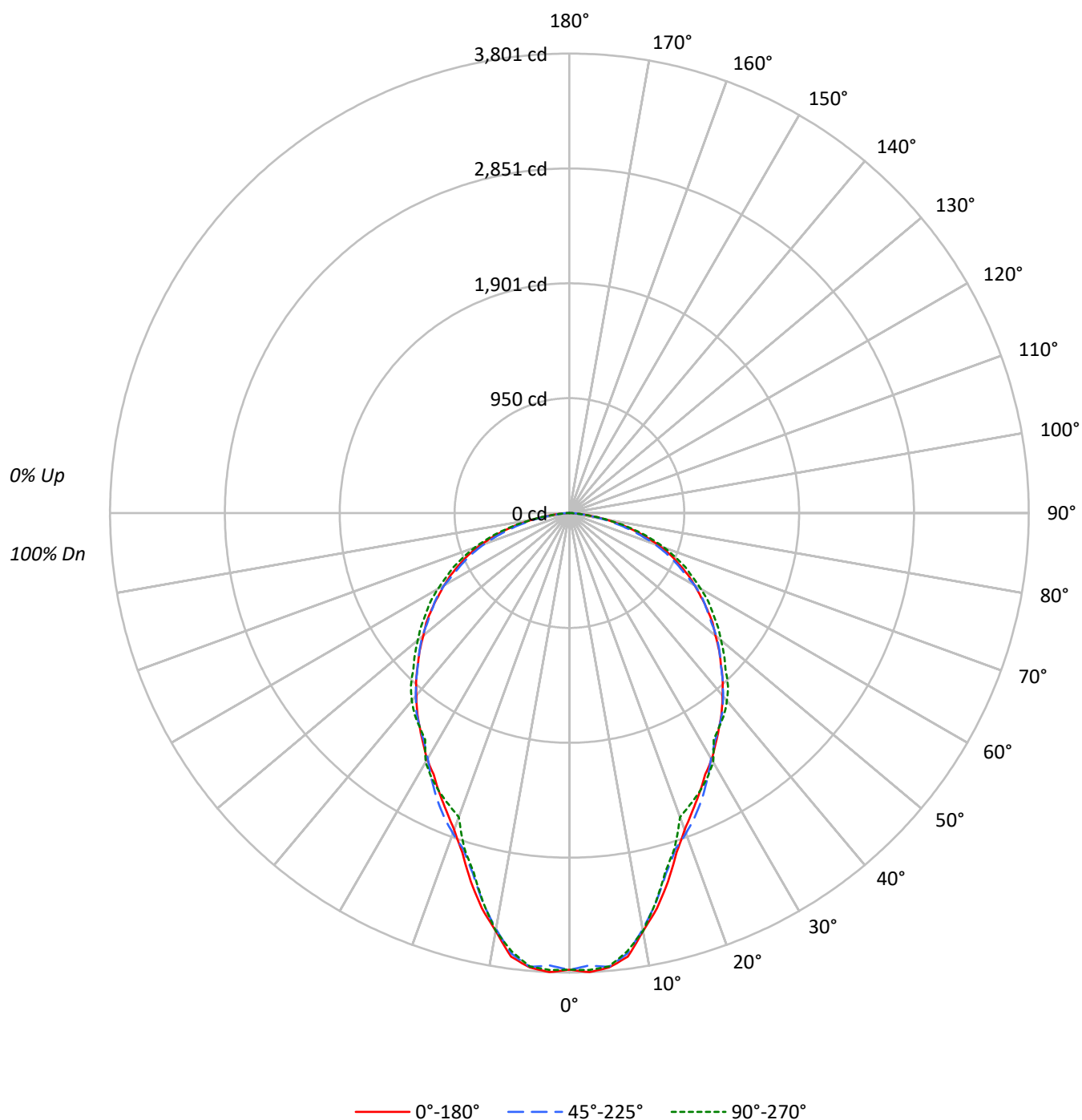
Lumens per Lamp: N/A
Luminaire Lumens: 8078.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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

TEST NUMBER: P485776

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5HI-35-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485776

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5HI-35-120-EDD-90

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°	10164	10164	10164
5°	10193	10177	10166
10°	9591	9548	9586
15°	8788	8597	8547
20°	7982	8072	7661
25°	7570	7722	7558
30°	7312	7281	7391
35°	7098	7098	7098
40°	6921	6948	7121
45°	6750	6742	6952
50°	6603	6653	6858
55°	6533	6506	6801
60°	6449	6438	6766
65°	6366	6166	6729
70°	6243	5888	6552
75°	5780	5228	6066
80°	4688	4262	4809
85°	2970	2668	2609



TEST NUMBER: P485776

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5HI-35-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.8	4.3
10°-20°	877.1	10.9
20°-30°	1184.5	14.7
30°-40°	1356.4	16.8
40°-50°	1389.4	17.2
50°-60°	1260.7	15.6
60°-70°	983.9	12.2
70°-80°	558.1	6.9
80°-90°	117.1	1.4
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°	2412.4	29.9
0°-40°	3768.8	46.7
0°-60°	6418.9	79.5
0°-90°	8078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3777	3777	3777	3777	3777	
5°	3773	3730	3767	3775	3764	352
15°	3154	3164	3086	3102	3068	882
25°	2550	2583	2601	2538	2546	1176
35°	2161	2165	2161	2163	2161	1353
45°	1774	1787	1772	1844	1827	1371
55°	1393	1391	1387	1436	1450	1245
65°	1000	978	968	1014	1057	991
75°	556	515	503	532	583	582
85°	96	86	86	80	84	127
90°	0	0	0	0	0	



TEST NUMBER: P485776

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5HI-35-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3777.2	3777.2	3777.2	3777.2	3777.2
2.5°	3800.8	3771.3	3745.8	3787.0	3783.1
5°	3773.3	3730.1	3767.4	3775.2	3763.5
7.5°	3700.6	3673.1	3675.1	3659.4	3657.4
10°	3510.1	3525.8	3494.4	3521.9	3508.1
12.5°	3347.0	3356.9	3301.9	3313.6	3297.9
15°	3154.5	3164.4	3085.8	3101.5	3068.1
17.5°	2944.4	2979.7	2914.9	2934.6	2899.2
20°	2787.2	2816.7	2818.7	2787.2	2675.3
22.5°	2663.5	2693.0	2716.5	2622.2	2610.5
25°	2549.6	2583.0	2600.6	2537.8	2545.6
27.5°	2435.6	2473.0	2473.0	2486.7	2469.0
30°	2353.1	2368.9	2343.3	2394.4	2378.7
32.5°	2254.9	2260.8	2239.2	2276.5	2221.5
35°	2160.6	2164.6	2160.6	2162.6	2160.6
37.5°	2070.3	2060.5	2078.2	2066.4	2103.7
40°	1970.1	1970.1	1978.0	1997.6	2027.1
42.5°	1877.8	1885.7	1875.8	1930.8	1942.6
45°	1773.7	1787.4	1771.7	1844.4	1826.7
47.5°	1679.4	1685.3	1681.4	1730.5	1734.4
50°	1577.3	1585.1	1589.1	1632.3	1638.2
52.5°	1492.8	1490.8	1477.1	1540.0	1549.8
55°	1392.6	1390.7	1386.7	1435.8	1449.6
57.5°	1290.5	1292.5	1302.3	1329.8	1363.2
60°	1198.2	1188.4	1196.2	1229.6	1257.1
62.5°	1103.9	1086.2	1068.5	1123.5	1149.1
65°	999.8	978.2	968.4	1013.5	1056.8
67.5°	903.5	868.2	862.3	893.7	944.8
70°	793.5	750.3	748.4	771.9	832.8
72.5°	671.8	634.4	624.6	656.1	711.0
75°	555.9	514.6	502.8	532.3	583.4
77.5°	430.2	396.8	388.9	404.6	445.9
80°	302.5	282.8	275.0	280.9	310.3
82.5°	190.5	176.8	172.9	170.9	186.6
85°	96.2	86.4	86.4	80.5	84.5
87.5°	29.5	27.5	25.5	19.6	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)