

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: P487058

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-30-120-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: P487058
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-24-4-INS-89BC-LD4-4STD-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

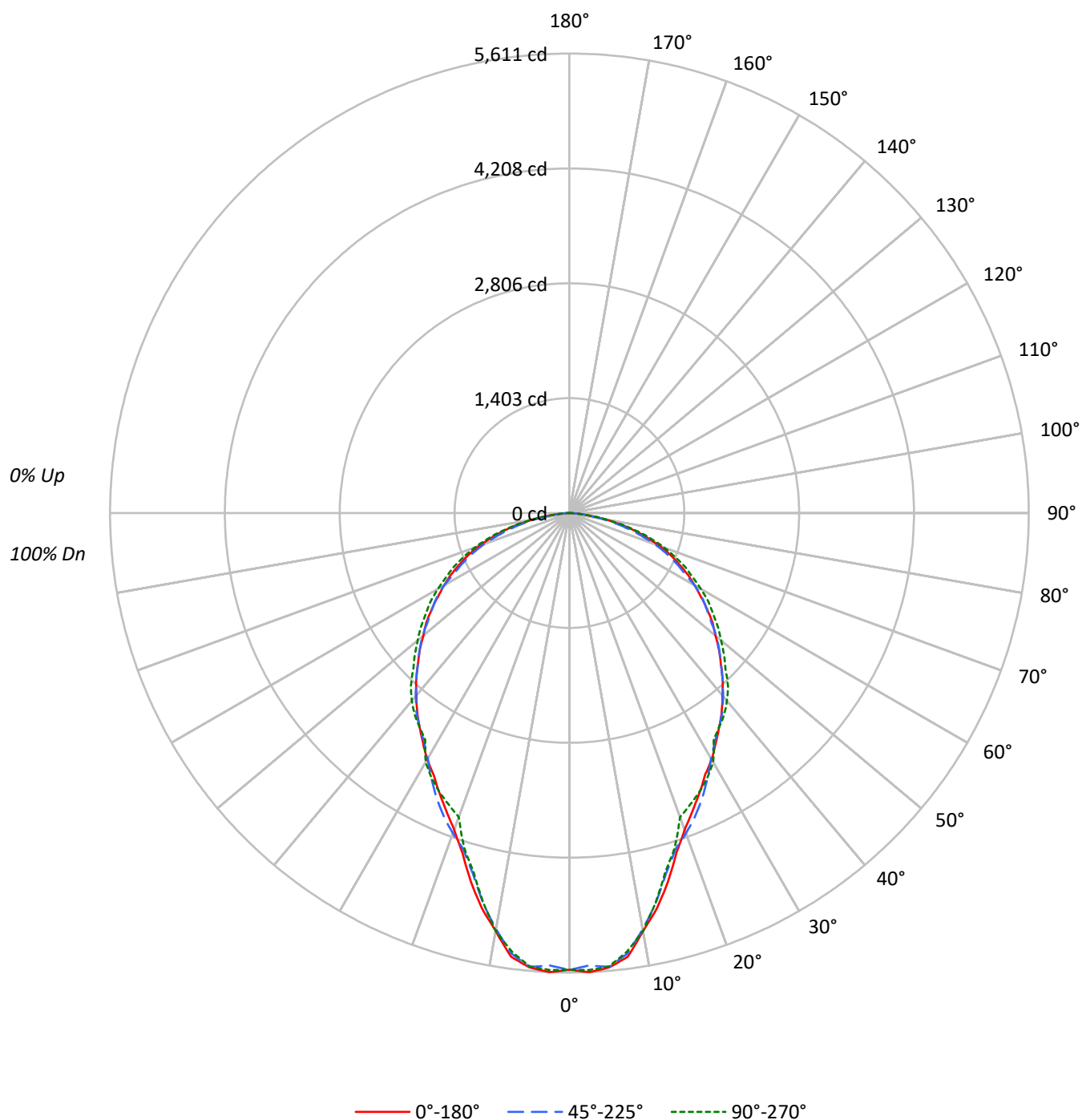
Lumens per Lamp: N/A
Luminaire Lumens: 11925.4 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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: P487058

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-30-120-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P487058

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-30-120-EDD-90

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°	7503	7503	7503
5°	7524	7512	7504
10°	7080	7048	7076
15°	6487	6346	6309
20°	5892	5958	5655
25°	5588	5700	5579
30°	5397	5375	5456
35°	5239	5239	5239
40°	5108	5129	5256
45°	4983	4977	5131
50°	4874	4910	5062
55°	4823	4802	5020
60°	4760	4752	4994
65°	4699	4551	4967
70°	4609	4346	4837
75°	4266	3859	4477
80°	3460	3146	3550
85°	2194	1970	1925



TEST NUMBER: P487058

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	517.9	4.3
10°-20°	1294.8	10.9
20°-30°	1748.6	14.7
30°-40°	2002.4	16.8
40°-50°	2051.1	17.2
50°-60°	1861.1	15.6
60°-70°	1452.6	12.2
70°-80°	823.9	6.9
80°-90°	172.9	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°	3561.4	29.9
0°-40°	5563.8	46.7
0°-60°	9476.0	79.5
0°-90°	11925.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11925.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5576	5576	5576	5576	5576	
5°	5570	5507	5562	5573	5556	520
15°	4657	4672	4556	4579	4529	1302
25°	3764	3813	3839	3746	3758	1737
35°	3190	3196	3190	3193	3190	1998
45°	2618	2639	2616	2723	2697	2025
55°	2056	2053	2047	2120	2140	1837
65°	1476	1444	1430	1496	1560	1463
75°	821	760	742	786	861	858
85°	142	128	128	119	125	188
90°	0	0	0	0	0	



TEST NUMBER: P487058

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5576.2	5576.2	5576.2	5576.2	5576.2
2.5°	5611.0	5567.5	5529.8	5590.7	5584.9
5°	5570.4	5506.6	5561.7	5573.3	5555.9
7.5°	5463.1	5422.5	5425.4	5402.2	5399.3
10°	5181.9	5205.1	5158.7	5199.3	5179.0
12.5°	4941.2	4955.7	4874.5	4891.9	4868.7
15°	4657.0	4671.5	4555.5	4578.7	4529.4
17.5°	4346.7	4398.9	4303.2	4332.2	4280.0
20°	4114.7	4158.2	4161.1	4114.7	3949.5
22.5°	3932.1	3975.6	4010.4	3871.2	3853.8
25°	3763.9	3813.2	3839.3	3746.5	3758.1
27.5°	3595.7	3650.8	3650.8	3671.1	3645.0
30°	3473.9	3497.1	3459.4	3534.8	3511.6
32.5°	3328.9	3337.6	3305.7	3360.8	3279.6
35°	3189.7	3195.5	3189.7	3192.6	3189.7
37.5°	3056.3	3041.8	3067.9	3050.5	3105.6
40°	2908.4	2908.4	2920.0	2949.0	2992.5
42.5°	2772.2	2783.8	2769.3	2850.5	2867.9
45°	2618.5	2638.8	2615.6	2722.9	2696.8
47.5°	2479.3	2488.0	2482.2	2554.7	2560.5
50°	2328.5	2340.1	2345.9	2409.7	2418.4
52.5°	2203.8	2200.9	2180.6	2273.4	2287.9
55°	2055.9	2053.0	2047.2	2119.7	2140.0
57.5°	1905.1	1908.0	1922.5	1963.1	2012.4
60°	1768.8	1754.3	1765.9	1815.2	1855.8
62.5°	1629.7	1603.6	1577.5	1658.7	1696.4
65°	1476.0	1444.1	1429.6	1496.3	1560.1
67.5°	1333.9	1281.7	1273.0	1319.4	1394.8
70°	1171.5	1107.7	1104.8	1139.6	1229.5
72.5°	991.7	936.6	922.1	968.5	1049.7
75°	820.6	759.7	742.3	785.8	861.2
77.5°	635.0	585.7	574.2	597.3	658.2
80°	446.6	417.6	406.0	414.7	458.2
82.5°	281.3	261.0	255.2	252.3	275.5
85°	142.1	127.6	127.6	118.9	124.7
87.5°	43.5	40.6	37.7	29.0	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)