

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: P487059

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-30-120-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: P487059
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
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

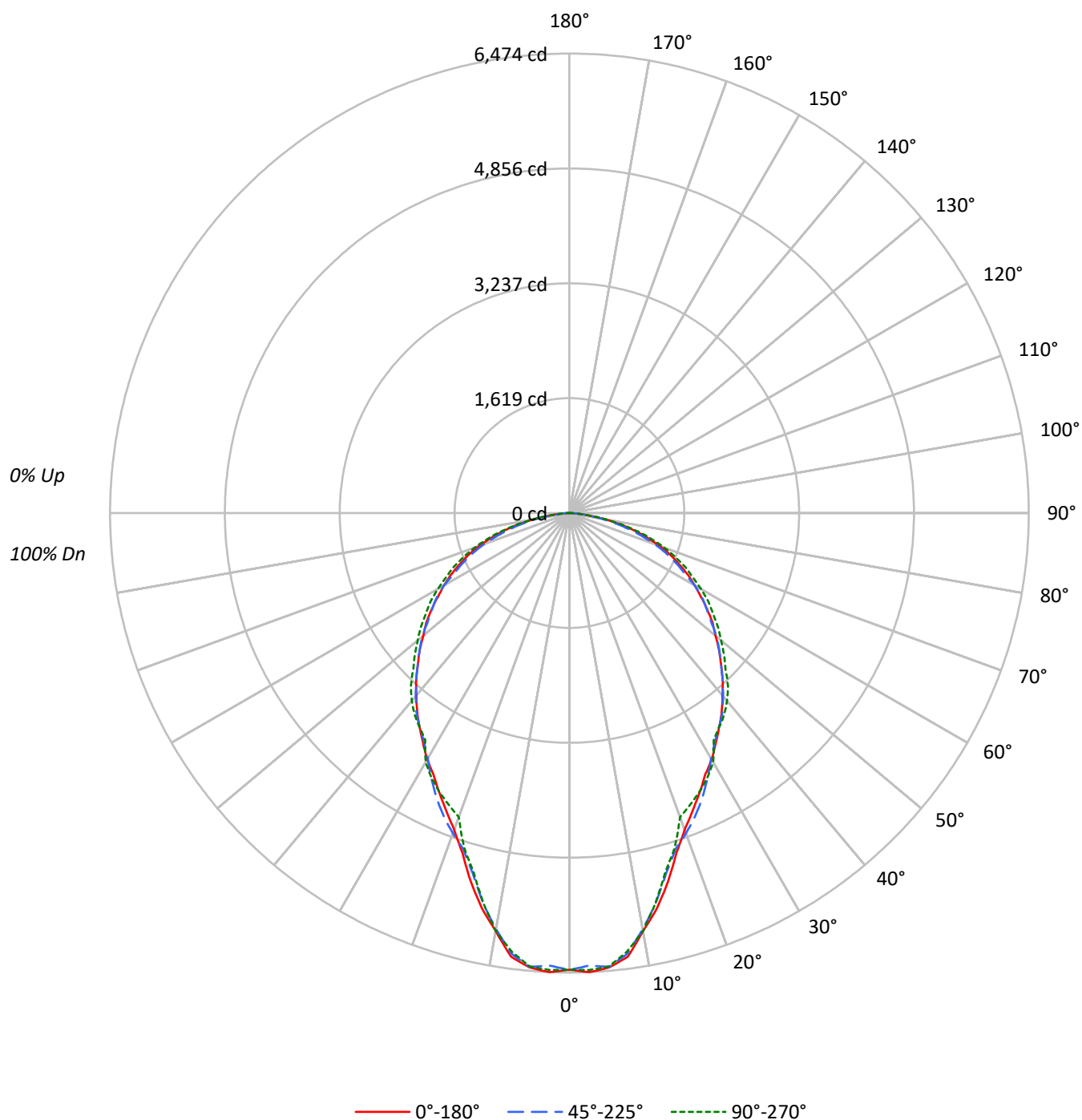
Lumens per Lamp: N/A
Luminaire Lumens: 13760.3 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P487059

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

Luminous Intensity Polar Plot





TEST NUMBER: P487059

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

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°	8657	8657	8657
5°	8681	8668	8659
10°	8169	8132	8164
15°	7485	7322	7280
20°	6798	6875	6525
25°	6448	6577	6438
30°	6228	6202	6295
35°	6045	6045	6045
40°	5895	5918	6065
45°	5749	5743	5921
50°	5624	5666	5841
55°	5565	5541	5792
60°	5492	5483	5762
65°	5422	5252	5731
70°	5318	5015	5581
75°	4923	4453	5166
80°	3993	3629	4097
85°	2532	2272	2221



TEST NUMBER: P487059

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.6	4.3
10°-20°	1494.0	10.9
20°-30°	2017.7	14.7
30°-40°	2310.5	16.8
40°-50°	2366.7	17.2
50°-60°	2147.5	15.6
60°-70°	1676.1	12.2
70°-80°	950.6	6.9
80°-90°	199.5	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°	4109.3	29.9
0°-40°	6419.9	46.7
0°-60°	10934.1	79.5
0°-90°	13760.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13760.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6434	6434	6434	6434	6434	
5°	6428	6354	6418	6431	6411	600
15°	5374	5390	5256	5283	5226	1502
25°	4343	4400	4430	4323	4336	2004
35°	3680	3687	3680	3684	3680	2306
45°	3021	3045	3018	3142	3112	2336
55°	2372	2369	2362	2446	2469	2120
65°	1703	1666	1650	1726	1800	1688
75°	947	877	857	907	994	991
85°	164	147	147	137	144	217
90°	0	0	0	0	0	



TEST NUMBER: P487059

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6434.2	6434.2	6434.2	6434.2	6434.2
2.5°	6474.4	6424.2	6380.7	6450.9	6444.2
5°	6427.5	6353.9	6417.5	6430.9	6410.8
7.5°	6303.7	6256.9	6260.2	6233.4	6230.1
10°	5979.2	6005.9	5952.4	5999.2	5975.8
12.5°	5701.4	5718.2	5624.5	5644.6	5617.8
15°	5373.5	5390.3	5256.4	5283.2	5226.3
17.5°	5015.5	5075.8	4965.3	4998.8	4938.6
20°	4747.9	4798.0	4801.4	4747.9	4557.1
22.5°	4537.1	4587.3	4627.4	4466.8	4446.7
25°	4343.0	4399.9	4430.0	4322.9	4336.3
27.5°	4148.9	4212.5	4212.5	4235.9	4205.8
30°	4008.4	4035.2	3991.7	4078.7	4051.9
32.5°	3841.1	3851.2	3814.3	3877.9	3784.2
35°	3680.5	3687.2	3680.5	3683.9	3680.5
37.5°	3526.6	3509.9	3540.0	3519.9	3583.5
40°	3356.0	3356.0	3369.3	3402.8	3453.0
42.5°	3198.7	3212.1	3195.4	3289.0	3309.1
45°	3021.4	3044.8	3018.0	3141.8	3111.7
47.5°	2860.8	2870.8	2864.1	2947.8	2954.4
50°	2686.8	2700.2	2706.8	2780.5	2790.5
52.5°	2542.9	2539.6	2516.1	2623.2	2639.9
55°	2372.3	2368.9	2362.2	2445.9	2469.3
57.5°	2198.3	2201.6	2218.3	2265.2	2322.1
60°	2041.0	2024.3	2037.7	2094.5	2141.4
62.5°	1880.4	1850.3	1820.2	1913.9	1957.4
65°	1703.1	1666.3	1649.5	1726.5	1800.1
67.5°	1539.1	1478.9	1468.9	1522.4	1609.4
70°	1351.8	1278.1	1274.8	1314.9	1418.7
72.5°	1144.3	1080.7	1064.0	1117.5	1211.2
75°	946.9	876.6	856.6	906.7	993.7
77.5°	732.8	675.9	662.5	689.3	759.5
80°	515.3	481.8	468.4	478.5	528.7
82.5°	324.6	301.1	294.4	291.1	317.9
85°	164.0	147.2	147.2	137.2	143.9
87.5°	50.2	46.8	43.5	33.5	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)