

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: P487065

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-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: P487065
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-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

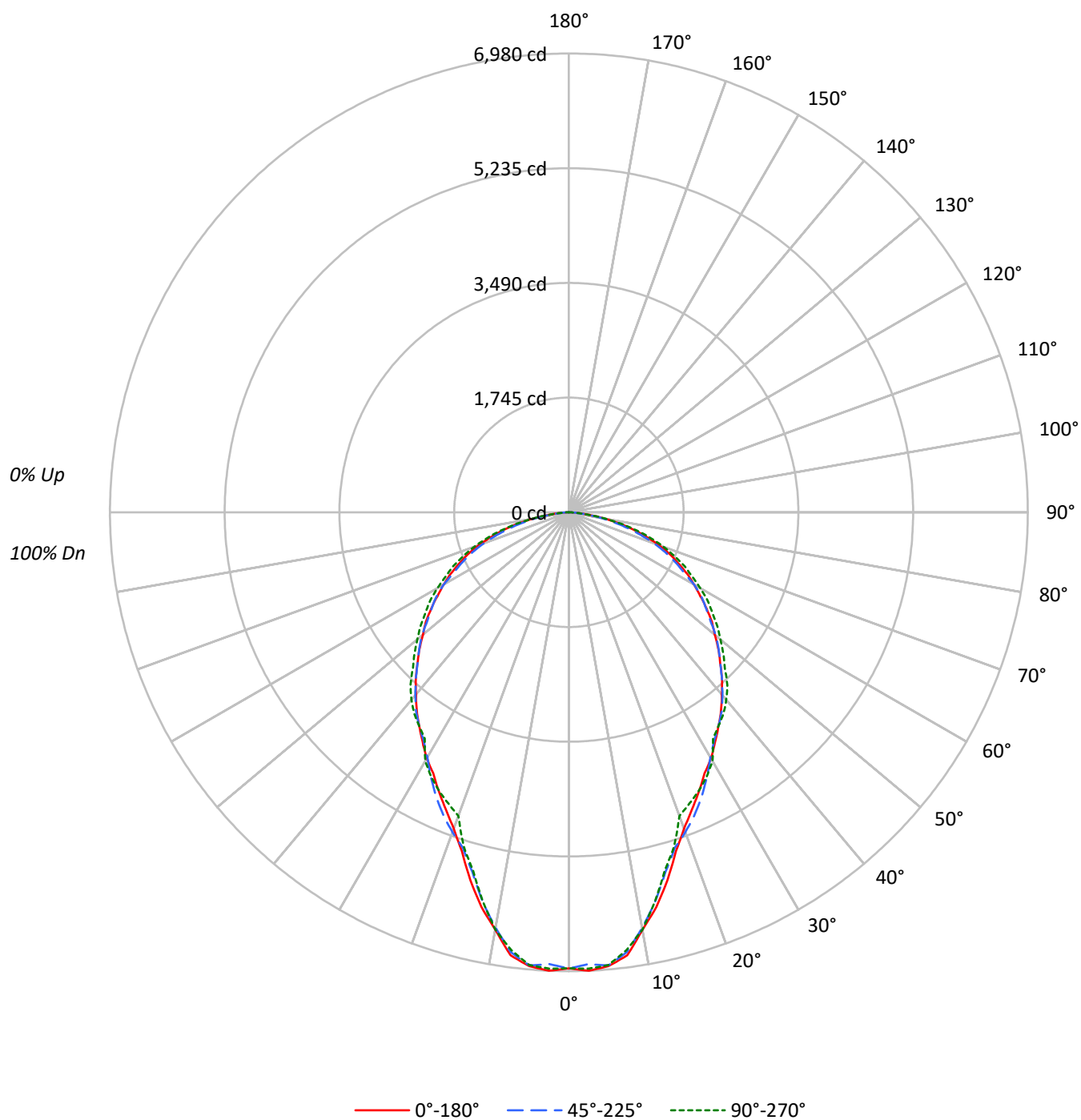
Lumens per Lamp: N/A
Luminaire Lumens: 14834.4 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P487065

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P487065

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-50-120-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°	9333	9333	9333
5°	9359	9344	9334
10°	8807	8767	8802
15°	8069	7893	7848
20°	7329	7411	7034
25°	6951	7090	6940
30°	6714	6686	6787
35°	6517	6517	6517
40°	6355	6380	6538
45°	6198	6191	6383
50°	6063	6108	6297
55°	5999	5974	6244
60°	5921	5911	6212
65°	5845	5662	6178
70°	5733	5406	6017
75°	5307	4800	5569
80°	4304	3913	4416
85°	2728	2450	2394



TEST NUMBER: P487065

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	644.2	4.3
10°-20°	1610.7	10.9
20°-30°	2175.2	14.7
30°-40°	2490.9	16.8
40°-50°	2551.5	17.2
50°-60°	2315.1	15.6
60°-70°	1806.9	12.2
70°-80°	1024.8	6.9
80°-90°	215.1	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°	4430.1	29.9
0°-40°	6921.0	46.7
0°-60°	11787.6	79.5
0°-90°	14834.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14834.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6936	6936	6936	6936	6936	
5°	6929	6850	6918	6933	6911	647
15°	5793	5811	5667	5696	5634	1619
25°	4682	4743	4776	4660	4675	2161
35°	3968	3975	3968	3971	3968	2485
45°	3257	3282	3254	3387	3355	2518
55°	2557	2554	2547	2637	2662	2285
65°	1836	1796	1778	1861	1941	1820
75°	1021	945	923	978	1071	1068
85°	177	159	159	148	155	233
90°	0	0	0	0	0	



TEST NUMBER: P487065

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4STD-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6936.4	6936.4	6936.4	6936.4	6936.4
2.5°	6979.7	6925.6	6878.7	6954.5	6947.3
5°	6929.2	6849.9	6918.4	6932.8	6911.2
7.5°	6795.8	6745.3	6748.9	6720.0	6716.4
10°	6445.9	6474.7	6417.0	6467.5	6442.3
12.5°	6146.5	6164.5	6063.5	6085.2	6056.3
15°	5793.0	5811.0	5666.7	5695.6	5634.3
17.5°	5407.0	5472.0	5352.9	5389.0	5324.1
20°	5118.5	5172.6	5176.2	5118.5	4912.9
22.5°	4891.2	4945.3	4988.6	4815.5	4793.8
25°	4682.0	4743.3	4775.8	4660.4	4674.8
27.5°	4472.8	4541.3	4541.3	4566.6	4534.1
30°	4321.3	4350.2	4303.3	4397.0	4368.2
32.5°	4140.9	4151.8	4112.1	4180.6	4079.6
35°	3967.8	3975.0	3967.8	3971.4	3967.8
37.5°	3801.9	3783.8	3816.3	3794.7	3863.2
40°	3617.9	3617.9	3632.3	3668.4	3722.5
42.5°	3448.4	3462.8	3444.8	3545.8	3567.4
45°	3257.2	3282.5	3253.6	3387.1	3354.6
47.5°	3084.1	3094.9	3087.7	3177.9	3185.1
50°	2896.5	2910.9	2918.1	2997.5	3008.3
52.5°	2741.4	2737.8	2712.5	2828.0	2846.0
55°	2557.4	2553.8	2546.6	2636.8	2662.0
57.5°	2369.9	2373.5	2391.5	2442.0	2503.3
60°	2200.3	2182.3	2196.7	2258.0	2308.5
62.5°	2027.2	1994.7	1962.3	2063.3	2110.2
65°	1836.0	1796.3	1778.3	1861.3	1940.6
67.5°	1659.3	1594.3	1583.5	1641.2	1735.0
70°	1457.3	1377.9	1374.3	1417.6	1529.4
72.5°	1233.6	1165.1	1147.1	1204.8	1305.8
75°	1020.8	945.1	923.4	977.5	1071.3
77.5°	790.0	728.6	714.2	743.1	818.8
80°	555.5	519.4	505.0	515.8	569.9
82.5°	349.9	324.6	317.4	313.8	342.7
85°	176.7	158.7	158.7	147.9	155.1
87.5°	54.1	50.5	46.9	36.1	39.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)