

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: P487119

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-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: P487119
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-LD4-6LO-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

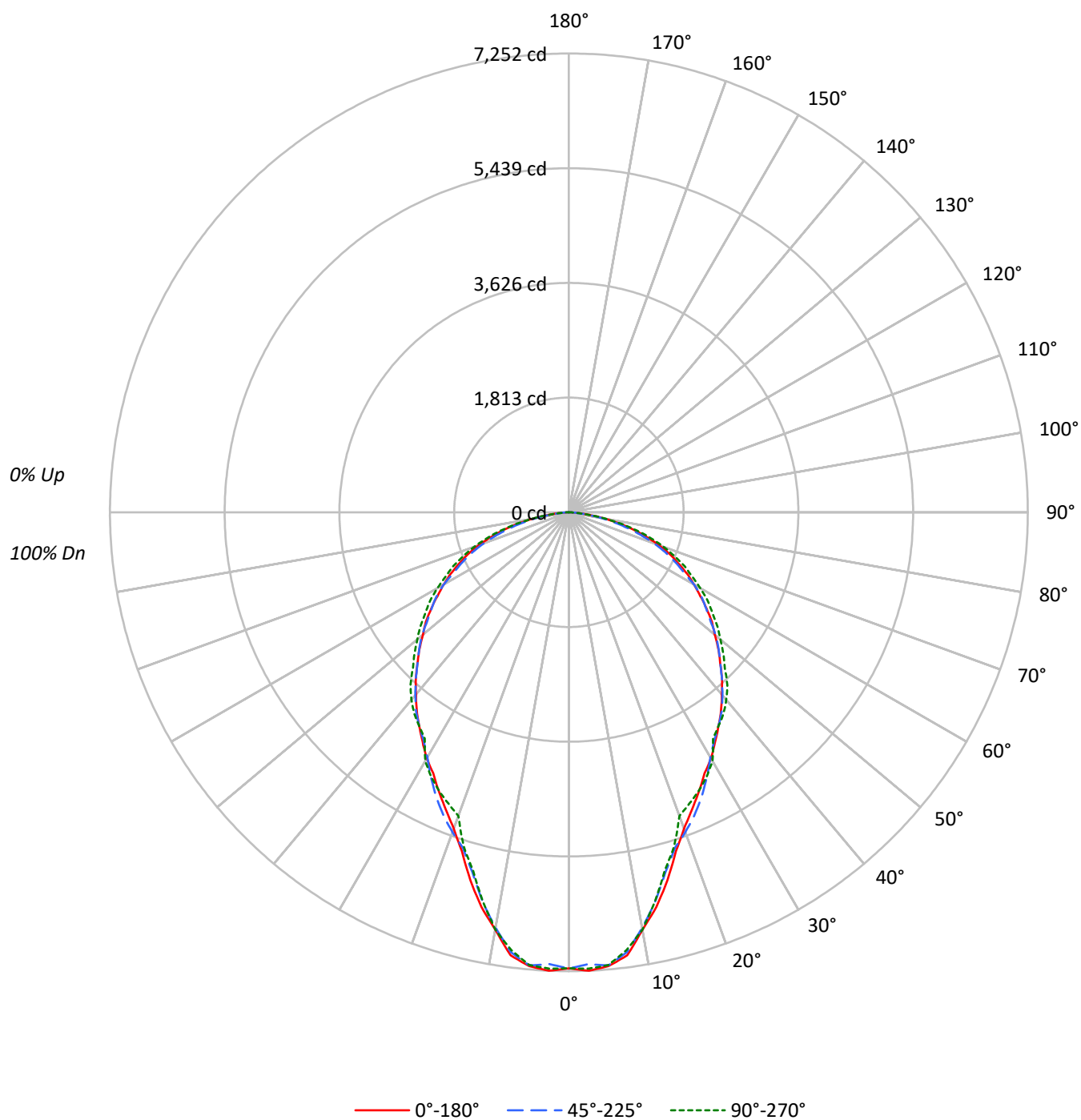
Lumens per Lamp: N/A
Luminaire Lumens: 15412.9 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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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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	50	30	10
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°	9697	9697	9697
5°	9724	9709	9698
10°	9150	9109	9145
15°	8384	8201	8154
20°	7615	7700	7309
25°	7222	7367	7211
30°	6976	6946	7051
35°	6771	6771	6771
40°	6602	6629	6793
45°	6439	6432	6632
50°	6300	6346	6543
55°	6233	6207	6488
60°	6152	6142	6455
65°	6073	5882	6419
70°	5956	5617	6251
75°	5514	4988	5787
80°	4472	4066	4588
85°	2834	2546	2489



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	669.4	4.3
10°-20°	1673.5	10.9
20°-30°	2260.0	14.7
30°-40°	2588.0	16.8
40°-50°	2651.0	17.2
50°-60°	2405.4	15.6
60°-70°	1877.4	12.2
70°-80°	1064.8	6.9
80°-90°	223.5	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°	4602.8	29.9
0°-40°	7190.9	46.7
0°-60°	12247.2	79.5
0°-90°	15412.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15412.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7207	7207	7207	7207	7207	
5°	7199	7117	7188	7203	7181	672
15°	6019	6038	5888	5918	5854	1682
25°	4865	4928	4962	4842	4857	2245
35°	4122	4130	4122	4126	4122	2582
45°	3384	3410	3380	3519	3485	2617
55°	2657	2653	2646	2740	2766	2375
65°	1908	1866	1848	1934	2016	1891
75°	1061	982	959	1016	1113	1110
85°	184	165	165	154	161	242
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7206.9	7206.9	7206.9	7206.9	7206.9
2.5°	7251.9	7195.7	7147.0	7225.7	7218.2
5°	7199.4	7117.0	7188.2	7203.2	7180.7
7.5°	7060.8	7008.3	7012.1	6982.1	6978.3
10°	6697.2	6727.2	6667.3	6719.7	6693.5
12.5°	6386.2	6404.9	6300.0	6322.5	6292.5
15°	6018.9	6037.6	5887.7	5917.7	5854.0
17.5°	5617.9	5685.4	5561.7	5599.2	5531.7
20°	5318.1	5374.3	5378.0	5318.1	5104.5
22.5°	5082.0	5138.2	5183.2	5003.3	4980.8
25°	4864.6	4928.3	4962.0	4842.1	4857.1
27.5°	4647.2	4718.4	4718.4	4744.7	4710.9
30°	4489.8	4519.8	4471.1	4568.5	4538.5
32.5°	4302.4	4313.7	4272.4	4343.7	4238.7
35°	4122.5	4130.0	4122.5	4126.3	4122.5
37.5°	3950.1	3931.4	3965.1	3942.6	4013.9
40°	3759.0	3759.0	3774.0	3811.5	3867.7
42.5°	3582.9	3597.9	3579.1	3684.0	3706.5
45°	3384.2	3410.5	3380.5	3519.1	3485.4
47.5°	3204.3	3215.6	3208.1	3301.8	3309.3
50°	3009.5	3024.4	3031.9	3114.4	3125.6
52.5°	2848.3	2844.6	2818.3	2938.2	2957.0
55°	2657.2	2653.4	2645.9	2739.6	2765.8
57.5°	2462.3	2466.0	2484.8	2537.2	2600.9
60°	2286.1	2267.4	2282.4	2346.1	2398.6
62.5°	2106.2	2072.5	2038.8	2143.7	2192.4
65°	1907.6	1866.4	1847.6	1933.8	2016.3
67.5°	1724.0	1656.5	1645.3	1705.2	1802.7
70°	1514.1	1431.6	1427.9	1472.9	1589.1
72.5°	1281.7	1210.5	1191.8	1251.8	1356.7
75°	1060.6	981.9	959.4	1015.6	1113.1
77.5°	820.8	757.0	742.1	772.0	850.7
80°	577.2	539.7	524.7	535.9	592.1
82.5°	363.5	337.3	329.8	326.1	356.0
85°	183.6	164.9	164.9	153.7	161.2
87.5°	56.2	52.5	48.7	37.5	41.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)