

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: P487102

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6HI-20-120-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: P487102
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-LD4-6HI-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

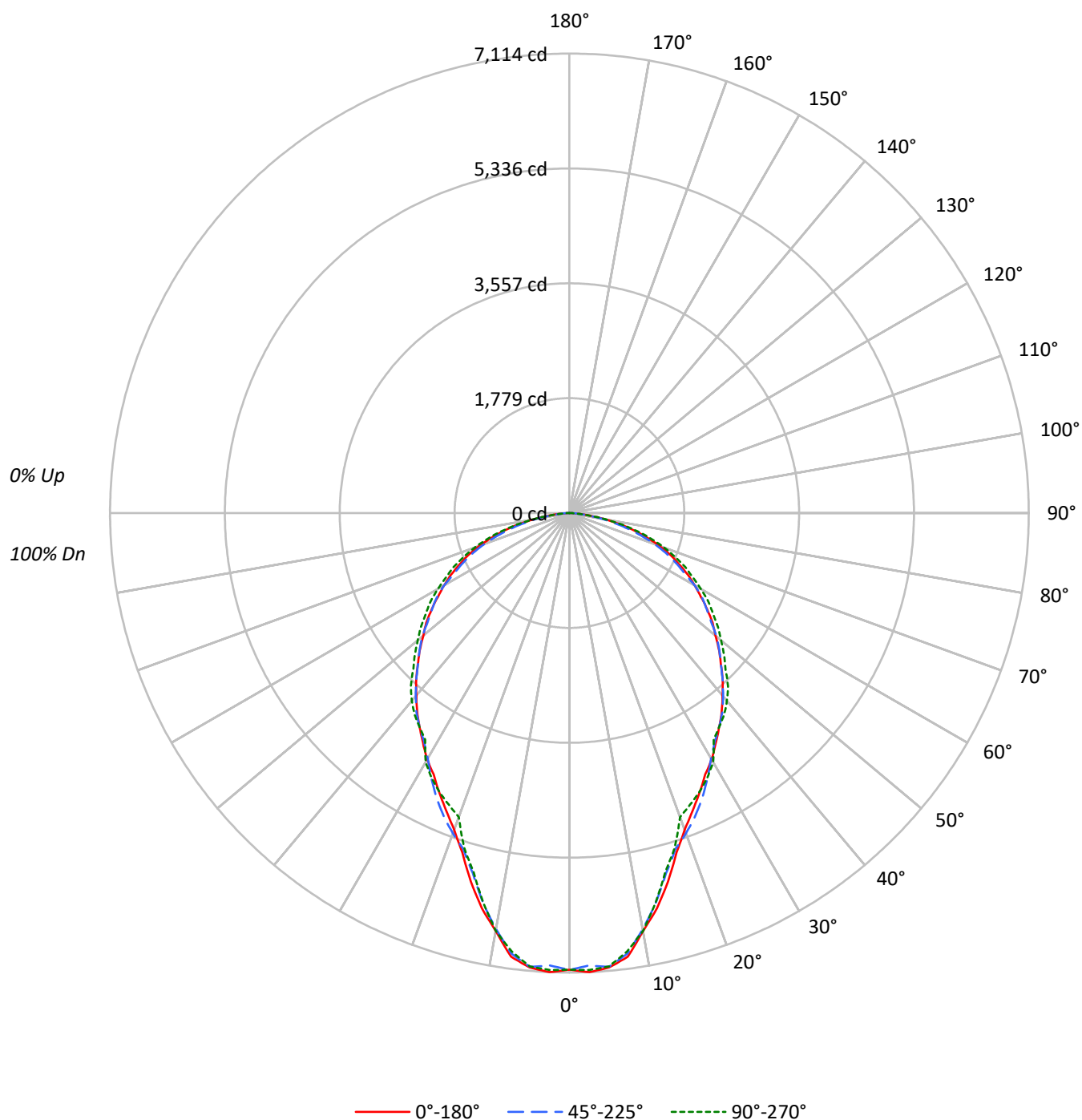
Lumens per Lamp: N/A
Luminaire Lumens: 15119.3 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 264
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
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°	9512	9512	9512
5°	9539	9524	9514
10°	8976	8936	8971
15°	8224	8045	7999
20°	7470	7554	7170
25°	7084	7226	7073
30°	6843	6814	6917
35°	6642	6642	6642
40°	6477	6502	6664
45°	6317	6310	6506
50°	6179	6226	6418
55°	6114	6088	6365
60°	6035	6025	6332
65°	5958	5770	6297
70°	5843	5510	6132
75°	5409	4893	5676
80°	4387	3988	4501
85°	2780	2498	2441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	656.6	4.3
10°-20°	1641.6	10.9
20°-30°	2217.0	14.7
30°-40°	2538.7	16.8
40°-50°	2600.5	17.2
50°-60°	2359.6	15.6
60°-70°	1841.6	12.2
70°-80°	1044.5	6.9
80°-90°	219.2	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°	4515.2	29.9
0°-40°	7053.9	46.7
0°-60°	12013.9	79.5
0°-90°	15119.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15119.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7070	7070	7070	7070	7070	
5°	7062	6981	7051	7066	7044	660
15°	5904	5923	5776	5805	5742	1650
25°	4772	4834	4868	4750	4765	2202
35°	4044	4051	4044	4048	4044	2533
45°	3320	3346	3316	3452	3419	2567
55°	2606	2603	2596	2687	2713	2329
65°	1871	1831	1812	1897	1978	1855
75°	1040	963	941	996	1092	1088
85°	180	162	162	151	158	238
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7069.7	7069.7	7069.7	7069.7	7069.7
2.5°	7113.8	7058.6	7010.8	7088.0	7080.7
5°	7062.3	6981.4	7051.3	7066.0	7043.9
7.5°	6926.3	6874.8	6878.5	6849.1	6845.4
10°	6569.7	6599.1	6540.3	6591.7	6566.0
12.5°	6264.5	6282.9	6180.0	6202.0	6172.6
15°	5904.3	5922.6	5775.6	5805.0	5742.5
17.5°	5510.9	5577.1	5455.7	5492.5	5426.3
20°	5216.8	5271.9	5275.6	5216.8	5007.2
22.5°	4985.2	5040.3	5084.4	4908.0	4885.9
25°	4771.9	4834.4	4867.5	4749.9	4764.6
27.5°	4558.7	4628.6	4628.6	4654.3	4621.2
30°	4404.3	4433.7	4385.9	4481.5	4452.1
32.5°	4220.5	4231.5	4191.1	4260.9	4158.0
35°	4044.0	4051.4	4044.0	4047.7	4044.0
37.5°	3874.9	3856.5	3889.6	3867.5	3937.4
40°	3687.4	3687.4	3702.1	3738.9	3794.0
42.5°	3514.6	3529.3	3510.9	3613.9	3635.9
45°	3319.8	3345.5	3316.1	3452.1	3419.0
47.5°	3143.3	3154.3	3147.0	3238.9	3246.2
50°	2952.1	2966.8	2974.2	3055.1	3066.1
52.5°	2794.0	2790.4	2764.6	2882.3	2900.7
55°	2606.5	2602.9	2595.5	2687.4	2713.2
57.5°	2415.4	2419.1	2437.4	2488.9	2551.4
60°	2242.6	2224.2	2238.9	2301.4	2352.9
62.5°	2066.1	2033.0	1999.9	2102.9	2150.7
65°	1871.3	1830.8	1812.5	1897.0	1977.9
67.5°	1691.1	1625.0	1613.9	1672.7	1768.3
70°	1485.3	1404.4	1400.7	1444.8	1558.8
72.5°	1257.3	1187.5	1169.1	1227.9	1330.8
75°	1040.4	963.2	941.2	996.3	1091.9
77.5°	805.1	742.6	727.9	757.3	834.5
80°	566.2	529.4	514.7	525.7	580.9
82.5°	356.6	330.9	323.5	319.8	349.3
85°	180.1	161.8	161.8	150.7	158.1
87.5°	55.1	51.5	47.8	36.8	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)