

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: P487107

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6HI-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: P487107
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-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

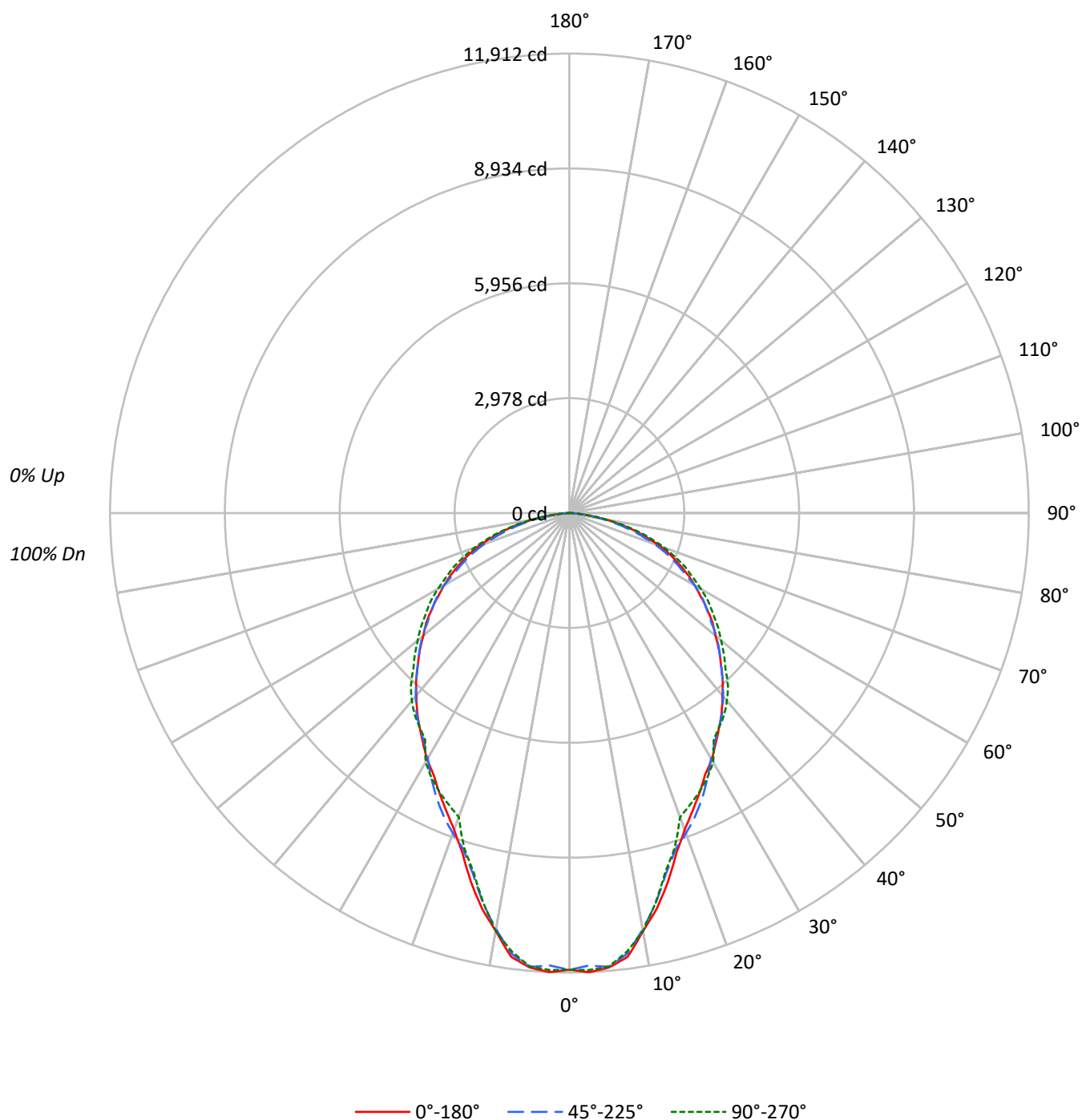
Lumens per Lamp: N/A
Luminaire Lumens: 25317.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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				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°	15928	15928	15928
5°	15972	15947	15931
10°	15030	14963	15021
15°	13772	13471	13394
20°	12508	12649	12005
25°	11863	12100	11844
30°	11458	11410	11582
35°	11123	11123	11123
40°	10845	10888	11158
45°	10578	10566	10894
50°	10347	10425	10747
55°	10238	10195	10657
60°	10105	10088	10602
65°	9976	9662	10544
70°	9784	9227	10268
75°	9057	8192	9505
80°	7345	6678	7537
85°	4656	4182	4086



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1099.5	4.3
10°-20°	2748.8	10.9
20°-30°	3712.2	14.7
30°-40°	4251.1	16.8
40°-50°	4354.5	17.2
50°-60°	3951.1	15.6
60°-70°	3083.7	12.2
70°-80°	1749.0	6.9
80°-90°	367.1	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°	7560.6	29.9
0°-40°	11811.6	46.7
0°-60°	20117.1	79.5
0°-90°	25317.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	25317.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11838	11838	11838	11838	11838	
5°	11826	11690	11807	11832	11795	###
15°	9887	9917	9671	9720	9616	2763
25°	7990	8095	8151	7954	7978	3687
35°	6772	6784	6772	6778	6772	4242
45°	5559	5602	5553	5780	5725	4298
55°	4365	4358	4346	4500	4543	3900
65°	3133	3066	3035	3176	3312	3105
75°	1742	1613	1576	1668	1828	1823
85°	302	271	271	252	265	398
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11838.0	11838.0	11838.0	11838.0	11838.0
2.5°	11911.9	11819.6	11739.5	11868.8	11856.5
5°	11825.7	11690.3	11807.2	11831.9	11794.9
7.5°	11597.9	11511.8	11517.9	11468.7	11462.5
10°	11000.8	11050.1	10951.6	11037.7	10994.6
12.5°	10489.9	10520.6	10348.3	10385.2	10336.0
15°	9886.6	9917.3	9671.1	9720.4	9615.7
17.5°	9227.9	9338.7	9135.5	9197.1	9086.3
20°	8735.4	8827.7	8833.9	8735.4	8384.5
22.5°	8347.6	8439.9	8513.8	8218.3	8181.3
25°	7990.5	8095.2	8150.6	7953.6	7978.2
27.5°	7633.5	7750.4	7750.4	7793.5	7738.1
30°	7374.9	7424.2	7344.1	7504.2	7454.9
32.5°	7067.1	7085.6	7017.9	7134.8	6962.5
35°	6771.6	6783.9	6771.6	6777.8	6771.6
37.5°	6488.4	6457.7	6513.1	6476.1	6593.1
40°	6174.5	6174.5	6199.1	6260.7	6353.0
42.5°	5885.2	5909.8	5879.0	6051.4	6088.3
45°	5558.9	5602.0	5552.7	5780.5	5725.1
47.5°	5263.4	5281.9	5269.6	5423.5	5435.8
50°	4943.3	4967.9	4980.2	5115.7	5134.1
52.5°	4678.6	4672.4	4629.3	4826.3	4857.1
55°	4364.6	4358.5	4346.1	4500.0	4543.1
57.5°	4044.5	4050.7	4081.4	4167.6	4272.3
60°	3755.2	3724.4	3749.0	3853.7	3939.9
62.5°	3459.7	3404.3	3348.9	3521.2	3601.3
65°	3133.4	3065.7	3034.9	3176.5	3311.9
67.5°	2831.8	2721.0	2702.5	2801.0	2961.0
70°	2487.0	2351.6	2345.4	2419.3	2610.2
72.5°	2105.4	1988.4	1957.6	2056.1	2228.5
75°	1742.2	1612.9	1575.9	1668.3	1828.3
77.5°	1348.2	1243.5	1218.9	1268.1	1397.4
80°	948.0	886.5	861.8	880.3	972.7
82.5°	597.1	554.0	541.7	535.6	584.8
85°	301.6	270.9	270.9	252.4	264.7
87.5°	92.3	86.2	80.0	61.6	67.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)