

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: P487130

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6STD-30-120-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: P487130
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-LD4-6STD-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

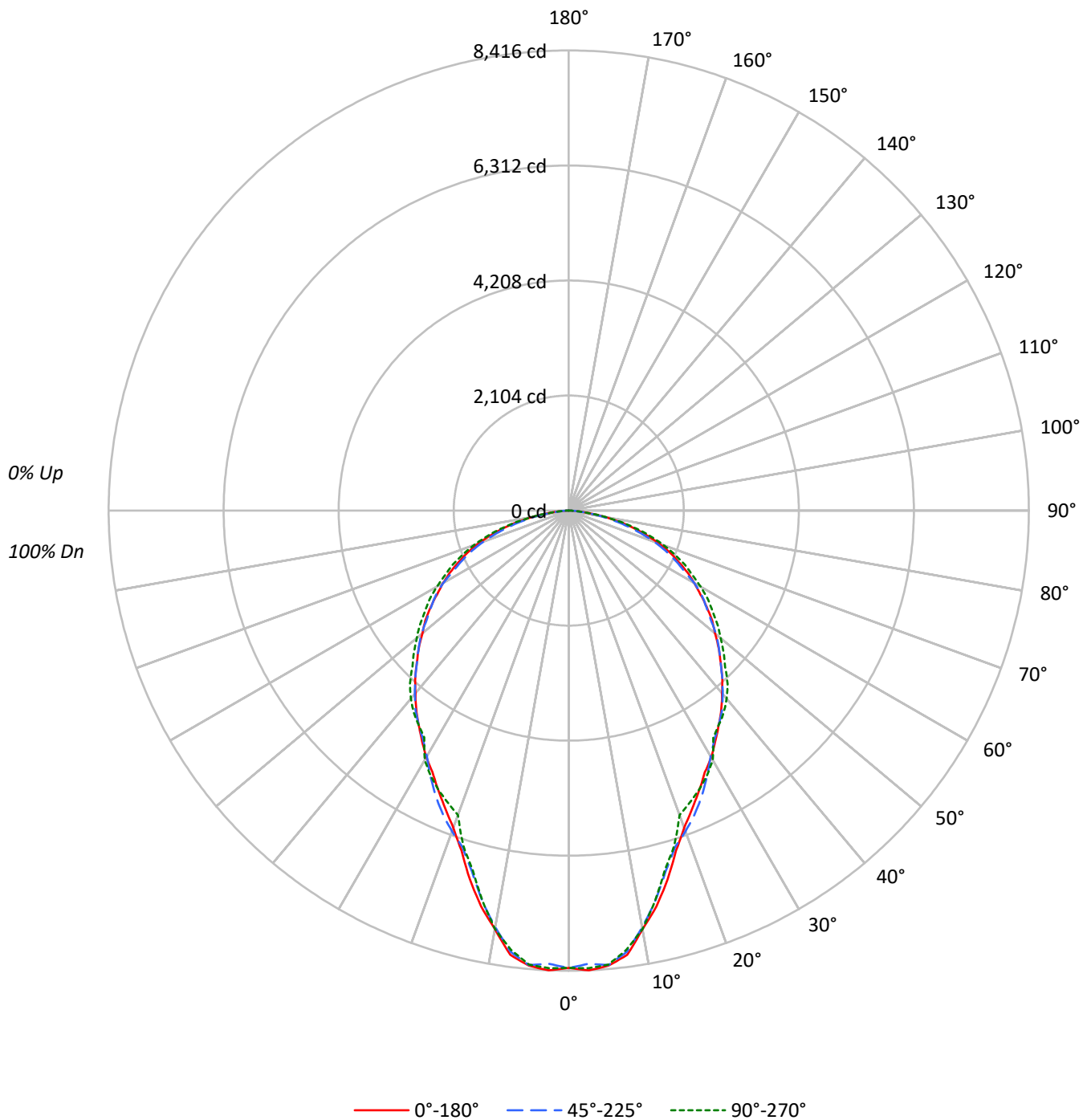
Lumens per Lamp: N/A
Luminaire Lumens: 17888.1 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 199.8
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				0
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°	11254	11254	11254
5°	11285	11268	11256
10°	10620	10572	10614
15°	9730	9518	9464
20°	8837	8937	8483
25°	8382	8550	8369
30°	8096	8062	8184
35°	7859	7859	7859
40°	7663	7693	7884
45°	7474	7465	7697
50°	7311	7366	7593
55°	7234	7203	7530
60°	7140	7128	7491
65°	7049	6827	7450
70°	6913	6519	7255
75°	6399	5789	6716
80°	5190	4718	5325
85°	3290	2955	2887



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	776.9	4.3
10°-20°	1942.2	10.9
20°-30°	2622.9	14.7
30°-40°	3003.7	16.8
40°-50°	3076.7	17.2
50°-60°	2791.7	15.6
60°-70°	2178.9	12.2
70°-80°	1235.8	6.9
80°-90°	259.4	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°	5342.0	29.9
0°-40°	8345.7	46.7
0°-60°	14214.1	79.5
0°-90°	17888.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17888.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8364	8364	8364	8364	8364	
5°	8356	8260	8343	8360	8334	780
15°	6986	7007	6833	6868	6794	1952
25°	5646	5720	5759	5620	5637	2605
35°	4785	4793	4785	4789	4785	2997
45°	3928	3958	3923	4084	4045	3037
55°	3084	3080	3071	3180	3210	2756
65°	2214	2166	2144	2244	2340	2194
75°	1231	1140	1114	1179	1292	1288
85°	213	191	191	178	187	281
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8364.3	8364.3	8364.3	8364.3	8364.3
2.5°	8416.5	8351.3	8294.7	8386.1	8377.4
5°	8355.6	8259.9	8342.6	8360.0	8333.9
7.5°	8194.7	8133.8	8138.1	8103.4	8099.0
10°	7772.8	7807.6	7738.0	7798.9	7768.4
12.5°	7411.8	7433.5	7311.7	7337.8	7303.0
15°	6985.5	7007.2	6833.3	6868.1	6794.1
17.5°	6520.1	6598.4	6454.8	6498.3	6420.0
20°	6172.1	6237.4	6241.7	6172.1	5924.2
22.5°	5898.1	5963.3	6015.5	5806.7	5780.7
25°	5645.8	5719.8	5758.9	5619.7	5637.1
27.5°	5393.5	5476.2	5476.2	5506.6	5467.5
30°	5210.9	5245.6	5189.1	5302.2	5267.4
32.5°	4993.4	5006.4	4958.6	5041.2	4919.4
35°	4784.6	4793.3	4784.6	4788.9	4784.6
37.5°	4584.5	4562.8	4601.9	4575.8	4658.4
40°	4362.7	4362.7	4380.1	4423.6	4488.8
42.5°	4158.2	4175.6	4153.9	4275.7	4301.8
45°	3927.7	3958.2	3923.4	4084.3	4045.2
47.5°	3718.9	3732.0	3723.3	3832.0	3840.7
50°	3492.7	3510.1	3518.8	3614.5	3627.6
52.5°	3305.7	3301.4	3270.9	3410.1	3431.9
55°	3083.9	3079.5	3070.8	3179.6	3210.0
57.5°	2857.7	2862.1	2883.8	2944.7	3018.6
60°	2653.3	2631.5	2648.9	2722.9	2783.8
62.5°	2444.5	2405.3	2366.2	2488.0	2544.5
65°	2214.0	2166.1	2144.4	2244.4	2340.1
67.5°	2000.8	1922.5	1909.5	1979.1	2092.2
70°	1757.2	1661.6	1657.2	1709.4	1844.2
72.5°	1487.6	1404.9	1383.2	1452.8	1574.6
75°	1230.9	1139.6	1113.5	1178.7	1291.8
77.5°	952.6	878.6	861.2	896.0	987.4
80°	669.8	626.3	608.9	622.0	687.2
82.5°	421.9	391.5	382.8	378.4	413.2
85°	213.1	191.4	191.4	178.3	187.0
87.5°	65.2	60.9	56.5	43.5	47.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)