

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: P487123

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-40-120-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: P487123
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-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

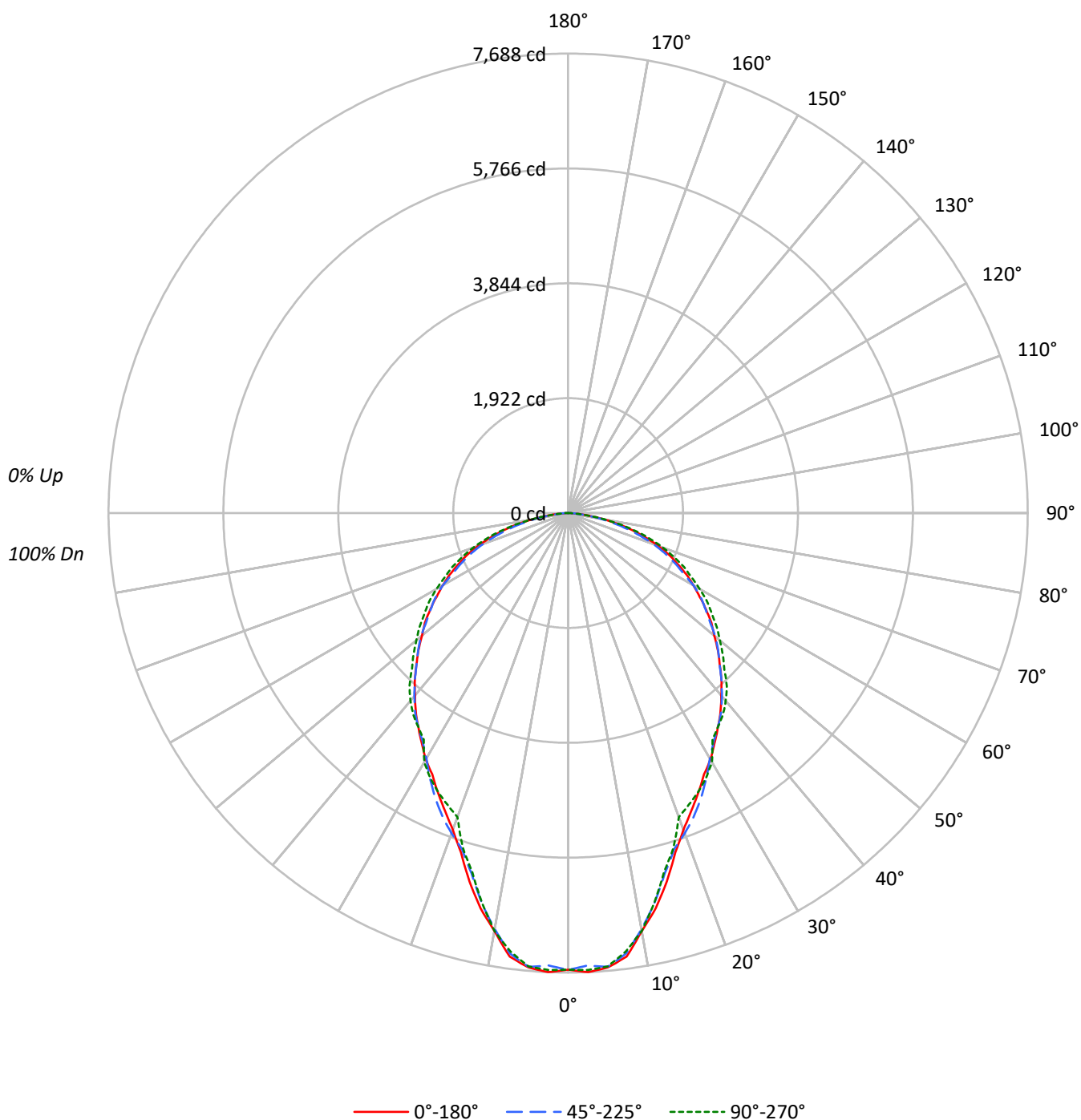
Lumens per Lamp: N/A
Luminaire Lumens: 16338.8 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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°	10279	10279	10279
5°	10308	10292	10281
10°	9700	9656	9694
15°	8888	8694	8644
20°	8072	8163	7748
25°	7656	7809	7644
30°	7395	7364	7475
35°	7178	7178	7178
40°	6999	7027	7201
45°	6826	6819	7030
50°	6678	6728	6936
55°	6608	6580	6878
60°	6522	6511	6842
65°	6438	6236	6805
70°	6314	5955	6627
75°	5845	5287	6134
80°	4740	4310	4864
85°	3006	2699	2637



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	709.6	4.3
10°-20°	1774.0	10.9
20°-30°	2395.8	14.7
30°-40°	2743.5	16.8
40°-50°	2810.2	17.2
50°-60°	2549.9	15.6
60°-70°	1990.1	12.2
70°-80°	1128.8	6.9
80°-90°	236.9	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°	4879.3	29.9
0°-40°	7622.8	46.7
0°-60°	12983.0	79.5
0°-90°	16338.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16338.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7640	7640	7640	7640	7640	
5°	7632	7544	7620	7636	7612	713
15°	6380	6400	6241	6273	6206	1783
25°	5157	5224	5260	5133	5149	2380
35°	4370	4378	4370	4374	4370	2738
45°	3588	3615	3584	3731	3695	2774
55°	2817	2813	2805	2904	2932	2517
65°	2022	1978	1959	2050	2137	2004
75°	1124	1041	1017	1077	1180	1176
85°	195	175	175	163	171	257
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7639.9	7639.9	7639.9	7639.9	7639.9
2.5°	7687.6	7628.0	7576.3	7659.8	7651.8
5°	7631.9	7544.5	7620.0	7635.9	7612.1
7.5°	7484.9	7429.3	7433.3	7401.5	7397.5
10°	7099.6	7131.4	7067.8	7123.4	7095.6
12.5°	6769.8	6789.7	6678.4	6702.3	6670.5
15°	6380.5	6400.3	6241.4	6273.2	6205.7
17.5°	5955.4	6026.9	5895.8	5935.5	5864.0
20°	5637.5	5697.1	5701.1	5637.5	5411.1
22.5°	5387.3	5446.8	5494.5	5303.8	5280.0
25°	5156.8	5224.4	5260.1	5133.0	5148.9
27.5°	4926.4	5001.9	5001.9	5029.7	4993.9
30°	4759.5	4791.3	4739.7	4843.0	4811.2
32.5°	4560.9	4572.8	4529.1	4604.6	4493.4
35°	4370.2	4378.1	4370.2	4374.2	4370.2
37.5°	4187.4	4167.6	4203.3	4179.5	4255.0
40°	3984.8	3984.8	4000.7	4040.4	4100.0
42.5°	3798.1	3814.0	3794.1	3905.4	3929.2
45°	3587.5	3615.3	3583.6	3730.6	3694.8
47.5°	3396.8	3408.7	3400.8	3500.1	3508.1
50°	3190.2	3206.1	3214.1	3301.5	3313.4
52.5°	3019.4	3015.4	2987.6	3114.8	3134.6
55°	2816.8	2812.8	2804.9	2904.2	2932.0
57.5°	2610.2	2614.2	2634.0	2689.7	2757.2
60°	2423.5	2403.6	2419.5	2487.0	2542.7
62.5°	2232.8	2197.0	2161.3	2272.5	2324.1
65°	2022.2	1978.5	1958.6	2050.0	2137.4
67.5°	1827.5	1756.0	1744.1	1807.7	1911.0
70°	1605.1	1517.6	1513.7	1561.4	1684.5
72.5°	1358.7	1283.2	1263.4	1326.9	1438.2
75°	1124.3	1040.9	1017.1	1076.7	1180.0
77.5°	870.1	802.5	786.6	818.4	901.8
80°	611.8	572.1	556.2	568.1	627.7
82.5°	385.4	357.6	349.6	345.6	377.4
85°	194.7	174.8	174.8	162.9	170.8
87.5°	59.6	55.6	51.6	39.7	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)