

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: P487121

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-35-120-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: P487121
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-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

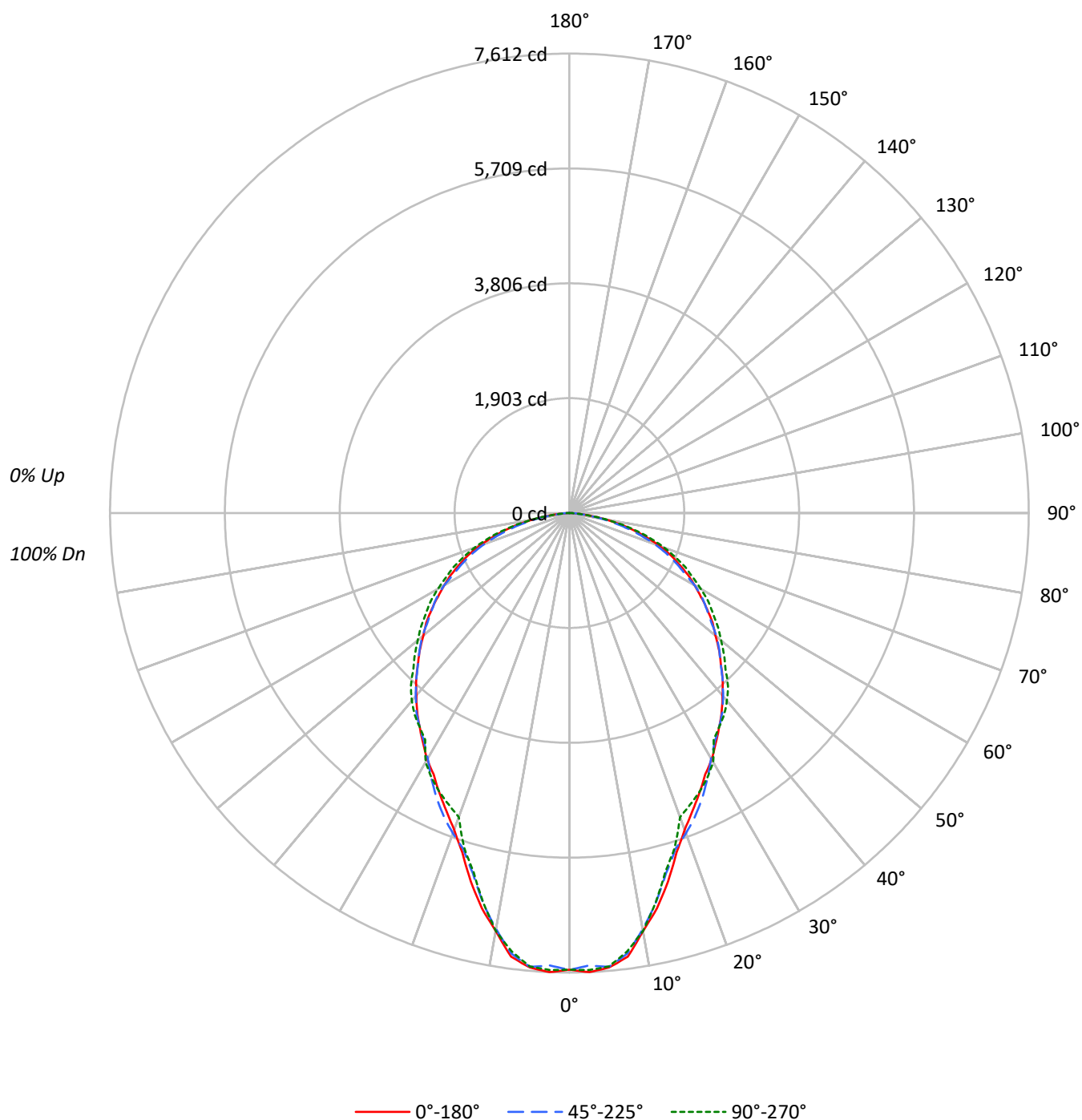
Lumens per Lamp: N/A
Luminaire Lumens: 16177.1 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-6LO-35-120-EDD

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°	10178	10178	10178
5°	10206	10190	10179
10°	9604	9561	9598
15°	8800	8608	8559
20°	7992	8082	7671
25°	7580	7732	7568
30°	7321	7291	7401
35°	7107	7107	7107
40°	6930	6957	7130
45°	6759	6751	6961
50°	6612	6661	6867
55°	6542	6514	6810
60°	6457	6447	6775
65°	6374	6174	6738
70°	6252	5896	6561
75°	5787	5235	6073
80°	4694	4267	4816
85°	2975	2672	2611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	702.6	4.3
10°-20°	1756.4	10.9
20°-30°	2372.1	14.7
30°-40°	2716.3	16.8
40°-50°	2782.4	17.2
50°-60°	2524.7	15.6
60°-70°	1970.4	12.2
70°-80°	1117.6	6.9
80°-90°	234.6	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°	4831.1	29.9
0°-40°	7547.4	46.7
0°-60°	12854.5	79.5
0°-90°	16177.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16177.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7564	7564	7564	7564	7564	
5°	7556	7470	7545	7560	7537	706
15°	6317	6337	6180	6211	6144	1766
25°	5106	5173	5208	5082	5098	2356
35°	4327	4335	4327	4331	4327	2710
45°	3552	3580	3548	3694	3658	2746
55°	2789	2785	2777	2875	2903	2492
65°	2002	1959	1939	2030	2116	1984
75°	1113	1031	1007	1066	1168	1165
85°	193	173	173	161	169	255
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7564.3	7564.3	7564.3	7564.3	7564.3
2.5°	7611.5	7552.5	7501.3	7583.9	7576.1
5°	7556.4	7469.9	7544.6	7560.3	7536.7
7.5°	7410.9	7355.8	7359.7	7328.3	7324.3
10°	7029.3	7060.8	6997.8	7052.9	7025.4
12.5°	6702.8	6722.5	6612.4	6636.0	6604.5
15°	6317.3	6337.0	6179.7	6211.1	6144.3
17.5°	5896.4	5967.2	5837.4	5876.8	5806.0
20°	5581.8	5640.8	5644.7	5581.8	5357.5
22.5°	5333.9	5392.9	5440.1	5251.3	5227.7
25°	5105.8	5172.7	5208.1	5082.2	5097.9
27.5°	4877.6	4952.4	4952.4	4979.9	4944.5
30°	4712.4	4743.9	4692.8	4795.0	4763.6
32.5°	4515.8	4527.6	4484.3	4559.0	4448.9
35°	4326.9	4334.8	4326.9	4330.9	4326.9
37.5°	4146.0	4126.3	4161.7	4138.1	4212.9
40°	3945.4	3945.4	3961.1	4000.5	4059.5
42.5°	3760.5	3776.2	3756.6	3866.7	3890.3
45°	3552.0	3579.6	3548.1	3693.6	3658.2
47.5°	3363.2	3375.0	3367.1	3465.5	3473.4
50°	3158.7	3174.4	3182.3	3268.8	3280.6
52.5°	2989.5	2985.6	2958.1	3083.9	3103.6
55°	2788.9	2785.0	2777.1	2875.4	2903.0
57.5°	2584.4	2588.3	2608.0	2663.0	2729.9
60°	2399.5	2379.8	2395.6	2462.4	2517.5
62.5°	2210.7	2175.3	2139.9	2250.0	2301.1
65°	2002.2	1958.9	1939.3	2029.7	2116.3
67.5°	1809.4	1738.6	1726.8	1789.8	1892.1
70°	1589.2	1502.6	1498.7	1545.9	1667.8
72.5°	1345.3	1270.5	1250.9	1313.8	1424.0
75°	1113.2	1030.6	1007.0	1066.0	1168.3
77.5°	861.5	794.6	778.8	810.3	892.9
80°	605.8	566.4	550.7	562.5	621.5
82.5°	381.6	354.0	346.2	342.2	373.7
85°	192.7	173.1	173.1	161.3	169.1
87.5°	59.0	55.1	51.1	39.3	43.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)