

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: P487001

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-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: P487001
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-LD4-3HI-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

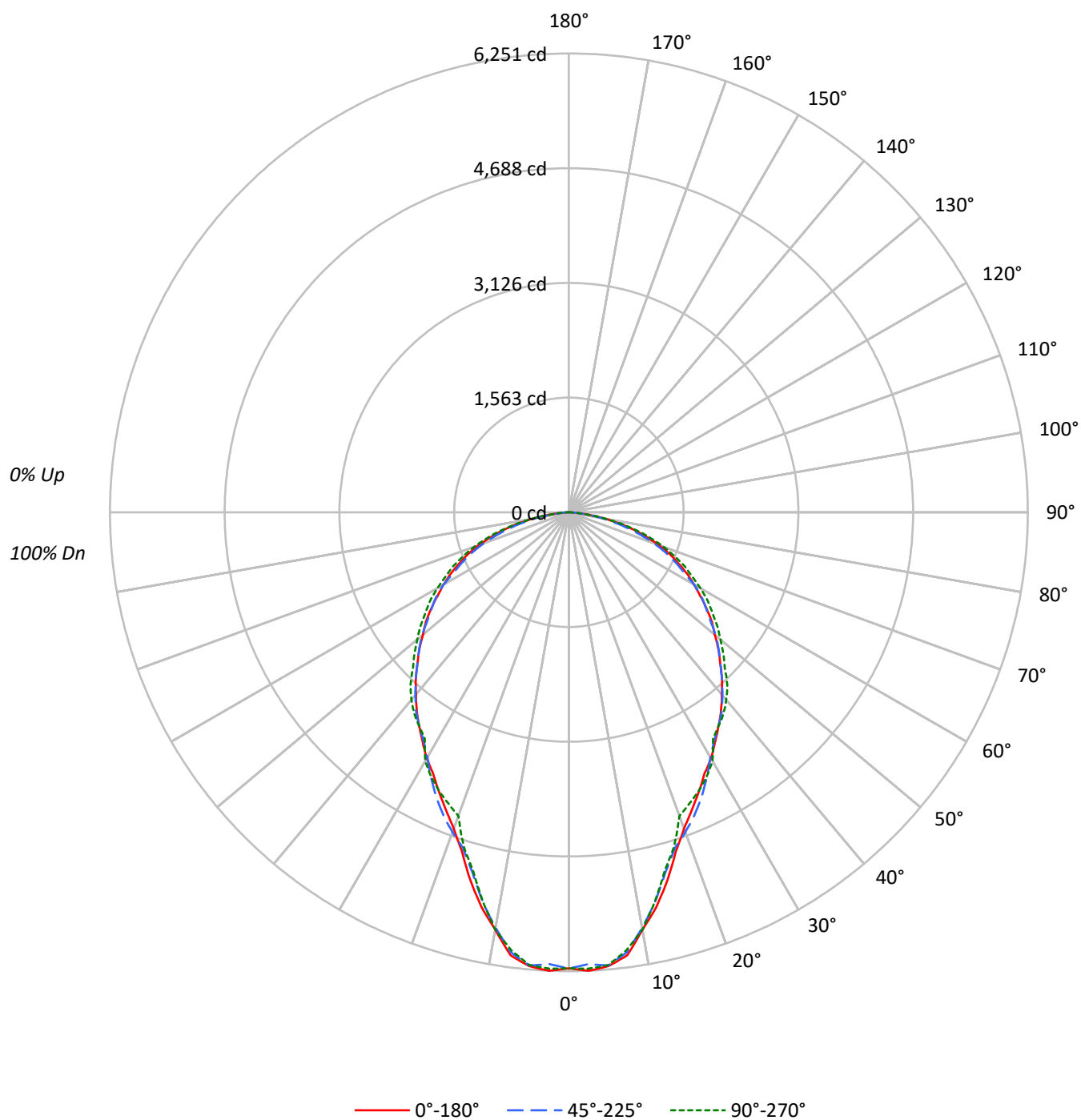
Lumens per Lamp: N/A
Luminaire Lumens: 13286.1 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	8359	8359	8359
5°	8382	8369	8360
10°	7887	7852	7883
15°	7227	7070	7029
20°	6564	6638	6300
25°	6225	6350	6216
30°	6013	5988	6078
35°	5837	5837	5837
40°	5691	5714	5856
45°	5551	5545	5717
50°	5430	5471	5640
55°	5373	5350	5593
60°	5303	5294	5564
65°	5235	5071	5534
70°	5135	4842	5389
75°	4753	4299	4988
80°	3855	3505	3955
85°	2444	2194	2144



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	577.0	4.3
10°-20°	1442.5	10.9
20°-30°	1948.1	14.7
30°-40°	2230.9	16.8
40°-50°	2285.2	17.2
50°-60°	2073.5	15.6
60°-70°	1618.3	12.2
70°-80°	917.9	6.9
80°-90°	192.7	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°	3967.7	29.9
0°-40°	6198.6	46.7
0°-60°	10557.2	79.5
0°-90°	13286.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13286.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6212	6212	6212	6212	6212	
5°	6206	6135	6196	6209	6190	580
15°	5188	5204	5075	5101	5046	1450
25°	4193	4248	4277	4174	4187	1935
35°	3554	3560	3554	3557	3554	2226
45°	2917	2940	2914	3034	3004	2256
55°	2290	2287	2281	2362	2384	2047
65°	1644	1609	1593	1667	1738	1630
75°	914	846	827	876	960	956
85°	158	142	142	132	139	209
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6212.5	6212.5	6212.5	6212.5	6212.5
2.5°	6251.2	6202.8	6160.8	6228.6	6222.2
5°	6206.0	6134.9	6196.3	6209.2	6189.9
7.5°	6086.5	6041.2	6044.5	6018.6	6015.4
10°	5773.1	5799.0	5747.3	5792.5	5769.9
12.5°	5505.0	5521.1	5430.7	5450.0	5424.2
15°	5188.4	5204.5	5075.3	5101.1	5046.2
17.5°	4842.7	4900.8	4794.2	4826.5	4768.4
20°	4584.2	4632.7	4635.9	4584.2	4400.1
22.5°	4380.7	4429.2	4467.9	4312.9	4293.5
25°	4193.3	4248.3	4277.3	4174.0	4186.9
27.5°	4006.0	4067.3	4067.3	4090.0	4060.9
30°	3870.3	3896.1	3854.1	3938.1	3912.3
32.5°	3708.7	3718.4	3682.9	3744.3	3653.8
35°	3553.7	3560.1	3553.7	3556.9	3553.7
37.5°	3405.1	3388.9	3418.0	3398.6	3460.0
40°	3240.3	3240.3	3253.2	3285.5	3334.0
42.5°	3088.5	3101.4	3085.2	3175.7	3195.1
45°	2917.2	2939.9	2914.0	3033.5	3004.5
47.5°	2762.2	2771.9	2765.4	2846.2	2852.6
50°	2594.2	2607.1	2613.6	2684.6	2694.3
52.5°	2455.3	2452.0	2429.4	2532.8	2549.0
55°	2290.5	2287.3	2280.8	2361.6	2384.2
57.5°	2122.5	2125.7	2141.9	2187.1	2242.0
60°	1970.7	1954.5	1967.4	2022.4	2067.6
62.5°	1815.6	1786.5	1757.5	1847.9	1889.9
65°	1644.4	1608.8	1592.7	1667.0	1738.1
67.5°	1486.1	1427.9	1418.2	1469.9	1553.9
70°	1305.2	1234.1	1230.9	1269.6	1369.8
72.5°	1104.9	1043.5	1027.3	1079.0	1169.5
75°	914.3	846.4	827.0	875.5	959.5
77.5°	707.5	652.6	639.7	665.5	733.3
80°	497.5	465.2	452.3	462.0	510.4
82.5°	313.4	290.8	284.3	281.1	306.9
85°	158.3	142.1	142.1	132.5	138.9
87.5°	48.5	45.2	42.0	32.3	35.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)