

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: P487051

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4LO-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: P487051
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-LD4-4LO-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

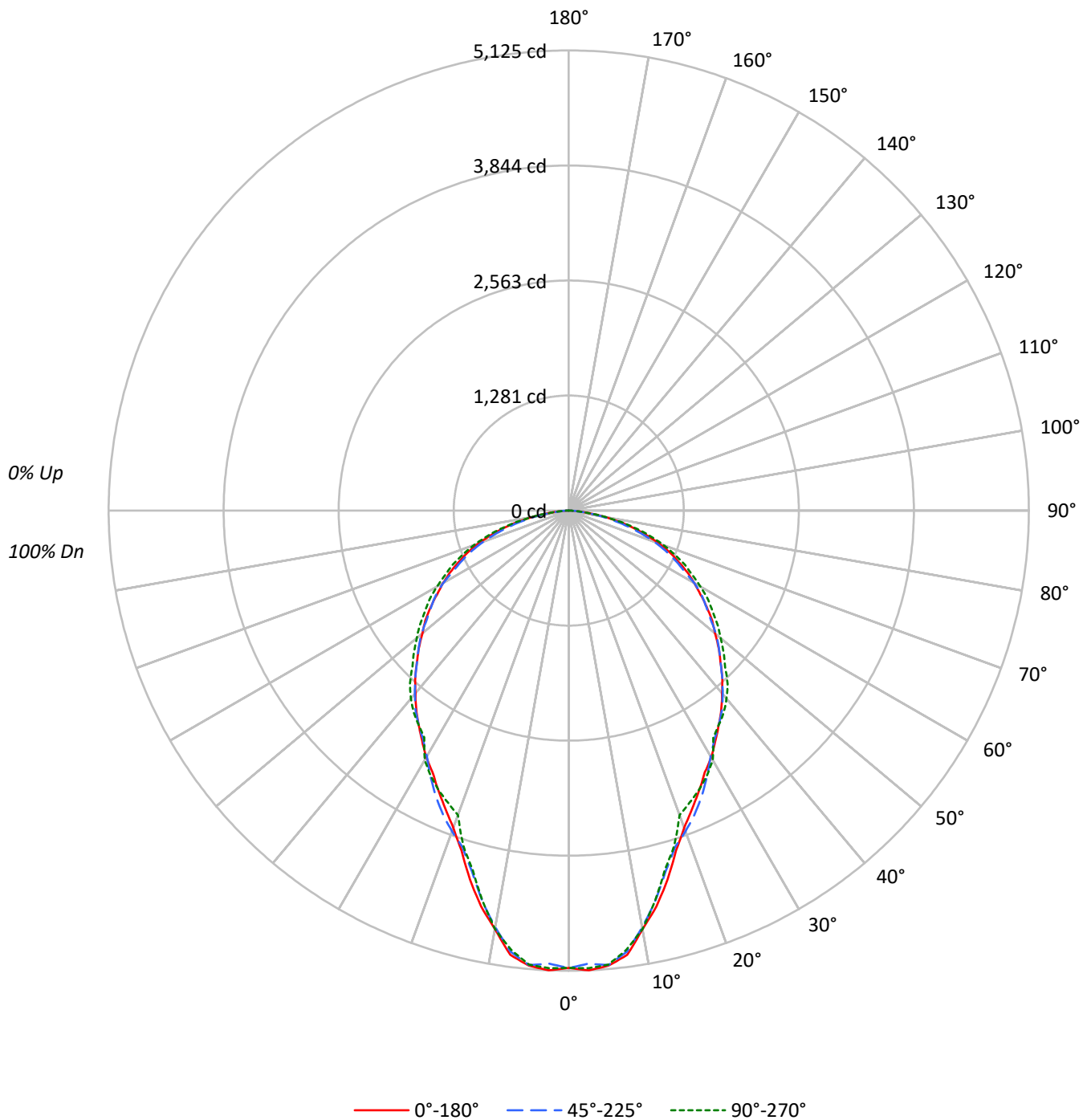
Lumens per Lamp: N/A
Luminaire Lumens: 10892.5 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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	50	30	10
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°	6853	6853	6853
5°	6872	6861	6854
10°	6466	6437	6463
15°	5925	5796	5763
20°	5381	5442	5165
25°	5104	5206	5096
30°	4930	4909	4983
35°	4786	4786	4786
40°	4666	4685	4801
45°	4551	4546	4687
50°	4452	4485	4624
55°	4405	4386	4585
60°	4348	4341	4561
65°	4292	4157	4536
70°	4209	3970	4418
75°	3897	3525	4089
80°	3161	2873	3243
85°	2004	1798	1758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.1	4.3
10°-20°	1182.7	10.9
20°-30°	1597.2	14.7
30°-40°	1829.0	16.8
40°-50°	1873.5	17.2
50°-60°	1699.9	15.6
60°-70°	1326.8	12.2
70°-80°	752.5	6.9
80°-90°	157.9	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°	3252.9	29.9
0°-40°	5081.9	46.7
0°-60°	8655.3	79.5
0°-90°	10892.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10892.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5093	5093	5093	5093	5093	
5°	5088	5030	5080	5091	5075	475
15°	4254	4267	4161	4182	4137	1189
25°	3438	3483	3507	3422	3433	1586
35°	2914	2919	2914	2916	2914	1825
45°	2392	2410	2389	2487	2463	1849
55°	1878	1875	1870	1936	1955	1678
65°	1348	1319	1306	1367	1425	1336
75°	750	694	678	718	787	784
85°	130	116	116	109	114	171
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5093.2	5093.2	5093.2	5093.2	5093.2
2.5°	5125.0	5085.3	5050.9	5106.5	5101.2
5°	5087.9	5029.7	5080.0	5090.6	5074.7
7.5°	4989.9	4952.9	4955.5	4934.3	4931.7
10°	4733.0	4754.2	4711.8	4748.9	4730.4
12.5°	4513.2	4526.4	4452.3	4468.2	4447.0
15°	4253.6	4266.9	4160.9	4182.1	4137.1
17.5°	3970.2	4017.9	3930.5	3957.0	3909.3
20°	3758.4	3798.1	3800.7	3758.4	3607.4
22.5°	3591.5	3631.2	3663.0	3535.9	3520.0
25°	3437.9	3482.9	3506.7	3422.0	3432.6
27.5°	3284.3	3334.6	3334.6	3353.1	3329.3
30°	3173.0	3194.2	3159.8	3228.6	3207.4
32.5°	3040.6	3048.5	3019.4	3069.7	2995.6
35°	2913.5	2918.7	2913.5	2916.1	2913.5
37.5°	2791.6	2778.4	2802.2	2786.3	2836.6
40°	2656.5	2656.5	2667.1	2693.6	2733.3
42.5°	2532.1	2542.6	2529.4	2603.6	2619.5
45°	2391.7	2410.2	2389.0	2487.0	2463.2
47.5°	2264.5	2272.5	2267.2	2333.4	2338.7
50°	2126.8	2137.4	2142.7	2201.0	2208.9
52.5°	2012.9	2010.3	1991.7	2076.5	2089.7
55°	1877.9	1875.2	1869.9	1936.1	1954.7
57.5°	1740.1	1742.8	1756.0	1793.1	1838.1
60°	1615.6	1602.4	1613.0	1658.0	1695.1
62.5°	1488.5	1464.7	1440.8	1515.0	1549.4
65°	1348.1	1319.0	1305.8	1366.7	1424.9
67.5°	1218.4	1170.7	1162.7	1205.1	1274.0
70°	1070.0	1011.8	1009.1	1040.9	1123.0
72.5°	905.8	855.5	842.3	884.6	958.8
75°	749.6	693.9	678.0	717.8	786.6
77.5°	580.0	535.0	524.4	545.6	601.2
80°	407.9	381.4	370.8	378.7	418.5
82.5°	256.9	238.4	233.1	230.4	251.6
85°	129.8	116.5	116.5	108.6	113.9
87.5°	39.7	37.1	34.4	26.5	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)