

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: P487063

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-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: P487063
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-LD4-4STD-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

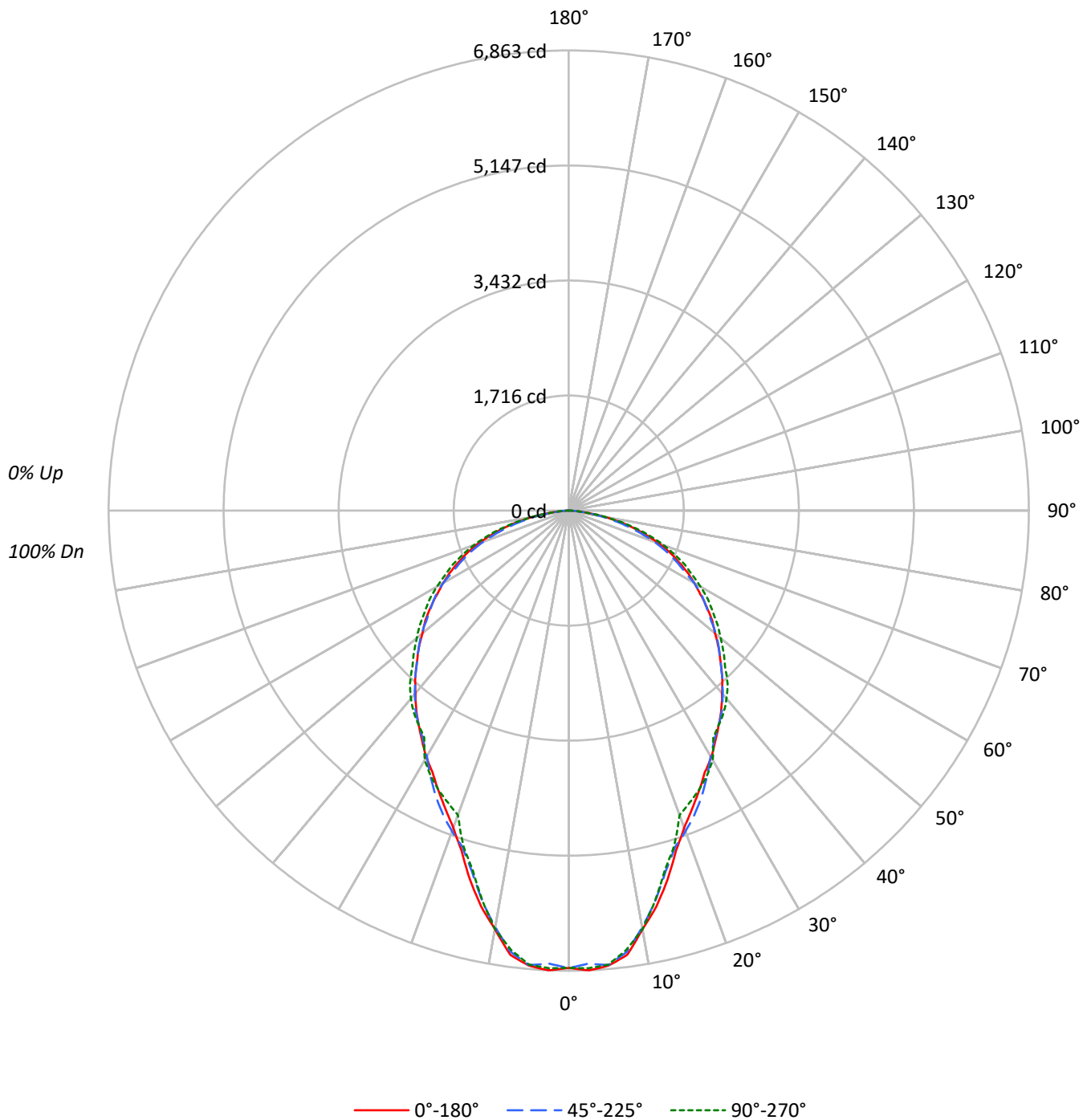
Lumens per Lamp: N/A
Luminaire Lumens: 14586.9 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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
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°	9177	9177	9177
5°	9203	9188	9179
10°	8660	8621	8655
15°	7935	7762	7717
20°	7207	7288	6917
25°	6835	6972	6824
30°	6602	6574	6673
35°	6409	6409	6409
40°	6249	6273	6429
45°	6095	6088	6277
50°	5962	6006	6192
55°	5899	5874	6140
60°	5822	5813	6109
65°	5748	5567	6075
70°	5637	5316	5916
75°	5218	4720	5476
80°	4232	3848	4342
85°	2683	2410	2354



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	633.5	4.3
10°-20°	1583.8	10.9
20°-30°	2138.9	14.7
30°-40°	2449.3	16.8
40°-50°	2508.9	17.2
50°-60°	2276.5	15.6
60°-70°	1776.7	12.2
70°-80°	1007.7	6.9
80°-90°	211.5	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°	4356.2	29.9
0°-40°	6805.5	46.7
0°-60°	11590.9	79.5
0°-90°	14586.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14586.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6821	6821	6821	6821	6821	
5°	6814	6736	6803	6817	6796	636
15°	5696	5714	5572	5601	5540	1592
25°	4604	4664	4696	4583	4597	2124
35°	3902	3909	3902	3905	3902	2444
45°	3203	3228	3199	3331	3299	2476
55°	2515	2511	2504	2593	2618	2247
65°	1805	1766	1749	1830	1908	1789
75°	1004	929	908	961	1053	1050
85°	174	156	156	145	152	230
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6820.7	6820.7	6820.7	6820.7	6820.7
2.5°	6863.3	6810.1	6764.0	6838.4	6831.4
5°	6813.6	6735.6	6803.0	6817.2	6795.9
7.5°	6682.4	6632.7	6636.3	6607.9	6604.4
10°	6338.3	6366.7	6310.0	6359.6	6334.8
12.5°	6043.9	6061.7	5962.4	5983.6	5955.3
15°	5696.3	5714.1	5572.2	5600.6	5540.3
17.5°	5316.8	5380.7	5263.6	5299.1	5235.2
20°	5033.1	5086.3	5089.8	5033.1	4830.9
22.5°	4809.6	4862.8	4905.4	4735.1	4713.8
25°	4603.9	4664.2	4696.1	4582.6	4596.8
27.5°	4398.2	4465.6	4465.6	4490.4	4458.5
30°	4249.2	4277.6	4231.5	4323.7	4295.3
32.5°	4071.9	4082.5	4043.5	4110.9	4011.6
35°	3901.6	3908.7	3901.6	3905.2	3901.6
37.5°	3738.4	3720.7	3752.6	3731.4	3798.7
40°	3557.6	3557.6	3571.7	3607.2	3660.4
42.5°	3390.8	3405.0	3387.3	3486.6	3507.9
45°	3202.9	3227.7	3199.3	3330.6	3298.6
47.5°	3032.6	3043.3	3036.2	3124.8	3131.9
50°	2848.2	2862.4	2869.5	2947.5	2958.1
52.5°	2695.7	2692.1	2667.3	2780.8	2798.5
55°	2514.8	2511.2	2504.1	2592.8	2617.6
57.5°	2330.3	2333.9	2351.6	2401.3	2461.6
60°	2163.6	2145.9	2160.1	2220.4	2270.0
62.5°	1993.4	1961.4	1929.5	2028.8	2074.9
65°	1805.4	1766.4	1748.6	1830.2	1908.2
67.5°	1631.6	1567.7	1557.1	1613.8	1706.1
70°	1433.0	1354.9	1351.4	1393.9	1503.9
72.5°	1213.0	1145.7	1127.9	1184.7	1284.0
75°	1003.8	929.3	908.0	961.2	1053.4
77.5°	776.8	716.5	702.3	730.7	805.1
80°	546.2	510.8	496.6	507.2	560.4
82.5°	344.1	319.2	312.1	308.6	337.0
85°	173.8	156.1	156.1	145.4	152.5
87.5°	53.2	49.7	46.1	35.5	39.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)