

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: P485797

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-27-120-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: P485797
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-24-2-INS-89BC-LD4-5STD-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

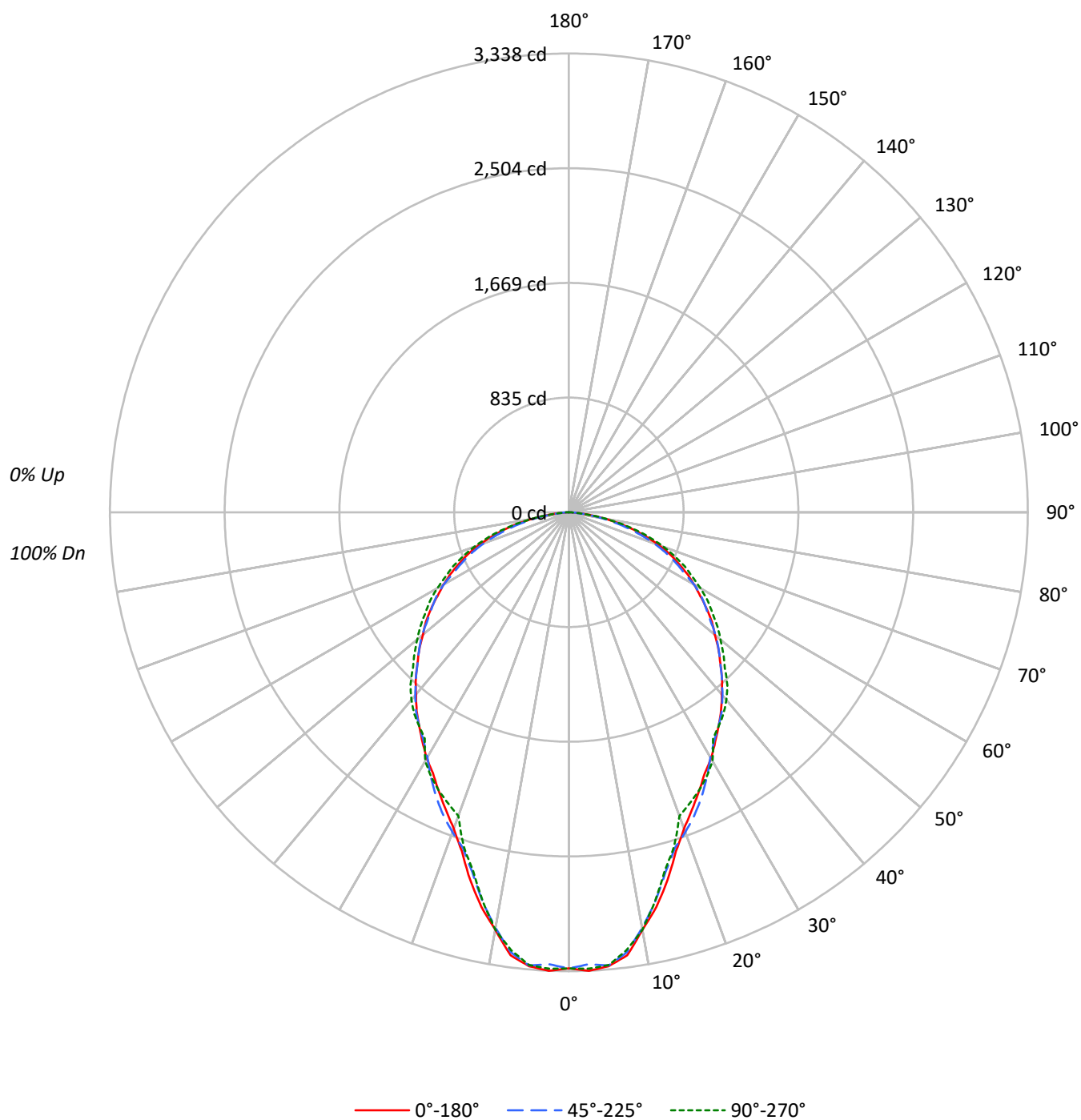
Lumens per Lamp: N/A
Luminaire Lumens: 7095.5 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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					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°	8928	8928	8928
5°	8953	8939	8930
10°	8425	8387	8420
15°	7719	7551	7508
20°	7011	7090	6729
25°	6649	6782	6639
30°	6422	6396	6492
35°	6235	6235	6235
40°	6079	6103	6255
45°	5929	5922	6106
50°	5800	5843	6024
55°	5739	5715	5974
60°	5664	5655	5943
65°	5592	5416	5910
70°	5484	5172	5755
75°	5077	4592	5327
80°	4117	3742	4224
85°	2609	2343	2291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.2	4.3
10°-20°	770.4	10.9
20°-30°	1040.4	14.7
30°-40°	1191.4	16.8
40°-50°	1220.4	17.2
50°-60°	1107.3	15.6
60°-70°	864.3	12.2
70°-80°	490.2	6.9
80°-90°	102.9	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°	2119.0	29.9
0°-40°	3310.4	46.7
0°-60°	5638.2	79.5
0°-90°	7095.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7095.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3318	3318	3318	3318	3318	
5°	3314	3276	3309	3316	3306	310
15°	2771	2780	2710	2724	2695	774
25°	2240	2269	2284	2229	2236	1033
35°	1898	1901	1898	1900	1898	1189
45°	1558	1570	1556	1620	1605	1205
55°	1223	1222	1218	1261	1273	1093
65°	878	859	851	890	928	870
75°	488	452	442	468	512	511
85°	84	76	76	71	74	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3317.8	3317.8	3317.8	3317.8	3317.8
2.5°	3338.5	3312.6	3290.2	3326.4	3323.0
5°	3314.3	3276.4	3309.2	3316.1	3305.7
7.5°	3250.5	3226.4	3228.1	3214.3	3212.6
10°	3083.2	3097.0	3069.4	3093.5	3081.4
12.5°	2940.0	2948.6	2900.3	2910.6	2896.8
15°	2770.9	2779.5	2710.5	2724.3	2695.0
17.5°	2586.3	2617.3	2560.4	2577.6	2546.6
20°	2448.2	2474.1	2475.8	2448.2	2349.9
22.5°	2339.5	2365.4	2386.1	2303.3	2293.0
25°	2239.5	2268.8	2284.3	2229.1	2236.0
27.5°	2139.4	2172.2	2172.2	2184.3	2168.7
30°	2066.9	2080.7	2058.3	2103.2	2089.4
32.5°	1980.7	1985.8	1966.9	1999.7	1951.3
35°	1897.9	1901.3	1897.9	1899.6	1897.9
37.5°	1818.5	1809.9	1825.4	1815.0	1847.8
40°	1730.5	1730.5	1737.4	1754.7	1780.5
42.5°	1649.4	1656.3	1647.7	1696.0	1706.3
45°	1558.0	1570.0	1556.2	1620.1	1604.6
47.5°	1475.2	1480.3	1476.9	1520.0	1523.5
50°	1385.4	1392.3	1395.8	1433.7	1438.9
52.5°	1311.2	1309.5	1297.4	1352.7	1361.3
55°	1223.3	1221.5	1218.1	1261.2	1273.3
57.5°	1133.5	1135.3	1143.9	1168.0	1197.4
60°	1052.4	1043.8	1050.7	1080.1	1104.2
62.5°	969.6	954.1	938.6	986.9	1009.3
65°	878.2	859.2	850.6	890.3	928.2
67.5°	793.6	762.6	757.4	785.0	829.9
70°	697.0	659.1	657.3	678.1	731.5
72.5°	590.1	557.3	548.7	576.3	624.6
75°	488.3	452.0	441.7	467.6	512.4
77.5°	377.8	348.5	341.6	355.4	391.6
80°	265.7	248.4	241.5	246.7	272.6
82.5°	167.4	155.3	151.8	150.1	163.9
85°	84.5	75.9	75.9	70.7	74.2
87.5°	25.9	24.2	22.4	17.3	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)