

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: P485821

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-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: P485821
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-LD4-6LO-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

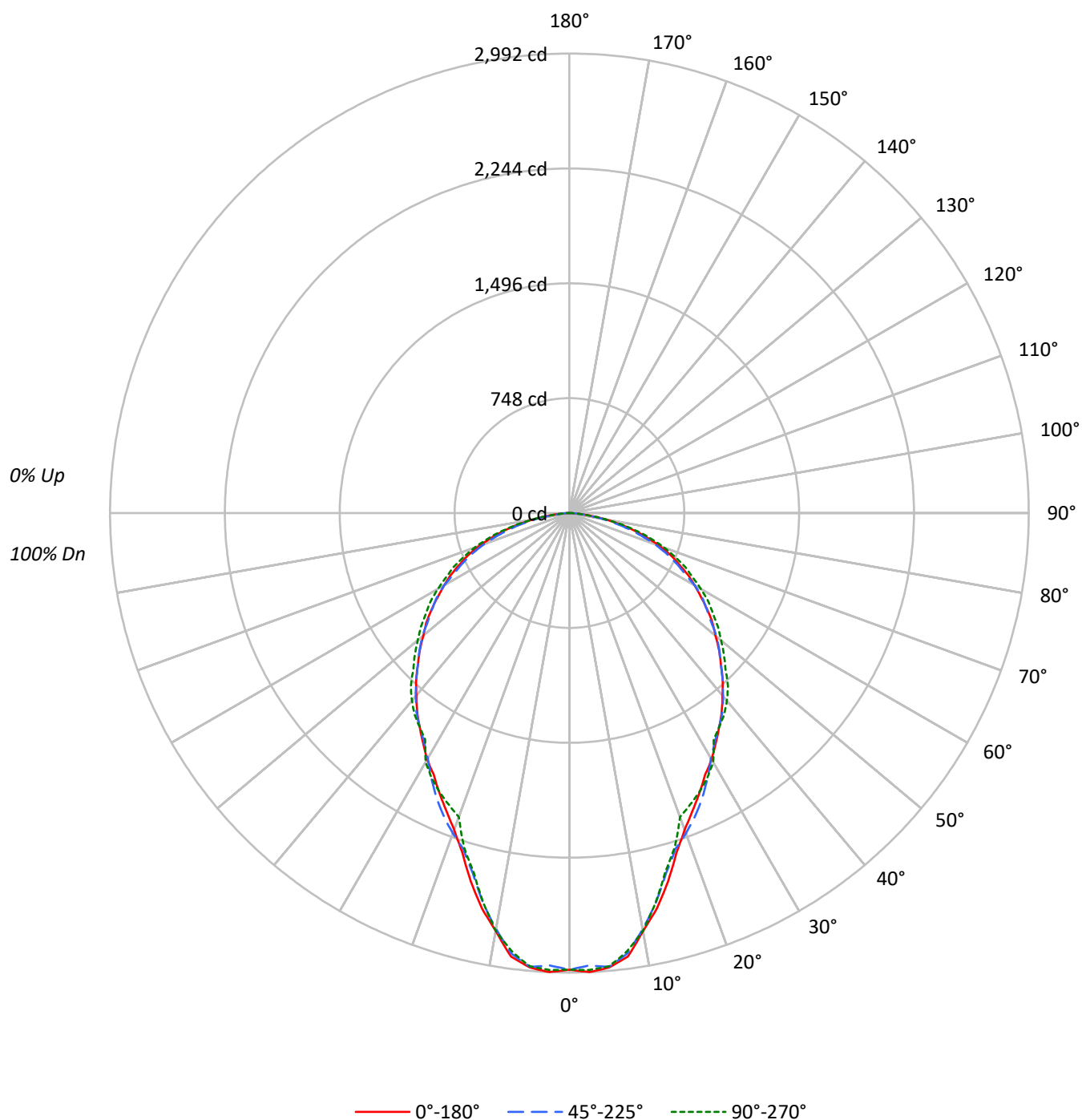
Lumens per Lamp: N/A
Luminaire Lumens: 6358.1 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8000	8000	8000
5°	8022	8010	8002
10°	7549	7515	7545
15°	6917	6766	6728
20°	6282	6353	6030
25°	5958	6078	5949
30°	5755	5731	5817
35°	5587	5587	5587
40°	5447	5469	5605
45°	5313	5307	5472
50°	5197	5236	5398
55°	5142	5121	5353
60°	5076	5067	5325
65°	5011	4853	5296
70°	4914	4634	5157
75°	4549	4115	4774
80°	3690	3353	3786
85°	2340	2100	2053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.1	4.3
10°-20°	690.3	10.9
20°-30°	932.3	14.7
30°-40°	1067.6	16.8
40°-50°	1093.6	17.2
50°-60°	992.3	15.6
60°-70°	774.4	12.2
70°-80°	439.3	6.9
80°-90°	92.2	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°	1898.8	29.9
0°-40°	2966.4	46.7
0°-60°	5052.2	79.5
0°-90°	6358.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6358.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2973	2973	2973	2973	2973	
5°	2970	2936	2965	2971	2962	277
15°	2483	2491	2429	2441	2415	694
25°	2007	2033	2047	1998	2004	926
35°	1701	1704	1701	1702	1701	1065
45°	1396	1407	1394	1452	1438	1079
55°	1096	1095	1092	1130	1141	980
65°	787	770	762	798	832	780
75°	438	405	396	419	459	458
85°	76	68	68	63	66	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2973.0	2973.0	2973.0	2973.0	2973.0
2.5°	2991.5	2968.4	2948.3	2980.7	2977.6
5°	2969.9	2935.9	2965.3	2971.4	2962.2
7.5°	2912.7	2891.1	2892.6	2880.2	2878.7
10°	2762.7	2775.1	2750.4	2772.0	2761.2
12.5°	2634.4	2642.1	2598.9	2608.1	2595.8
15°	2482.9	2490.6	2428.8	2441.2	2414.9
17.5°	2317.5	2345.3	2294.3	2309.8	2281.9
20°	2193.8	2217.0	2218.5	2193.8	2105.7
22.5°	2096.4	2119.6	2138.1	2063.9	2054.7
25°	2006.7	2033.0	2046.9	1997.5	2003.6
27.5°	1917.1	1946.4	1946.4	1957.3	1943.3
30°	1852.1	1864.5	1844.4	1884.6	1872.2
32.5°	1774.8	1779.5	1762.5	1791.8	1748.5
35°	1700.6	1703.7	1700.6	1702.2	1700.6
37.5°	1629.5	1621.8	1635.7	1626.4	1655.8
40°	1550.7	1550.7	1556.8	1572.3	1595.5
42.5°	1478.0	1484.2	1476.4	1519.7	1529.0
45°	1396.1	1406.9	1394.5	1451.7	1437.8
47.5°	1321.8	1326.5	1323.4	1362.0	1365.1
50°	1241.5	1247.6	1250.7	1284.7	1289.4
52.5°	1175.0	1173.4	1162.6	1212.1	1219.8
55°	1096.1	1094.6	1091.5	1130.1	1141.0
57.5°	1015.7	1017.3	1025.0	1046.7	1072.9
60°	943.1	935.3	941.5	967.8	989.5
62.5°	868.9	854.9	841.0	884.3	904.4
65°	786.9	769.9	762.2	797.7	831.8
67.5°	711.2	683.3	678.7	703.4	743.6
70°	624.6	590.6	589.0	607.6	655.5
72.5°	528.7	499.4	491.6	516.4	559.7
75°	437.5	405.1	395.8	419.0	459.2
77.5°	338.6	312.3	306.1	318.5	350.9
80°	238.1	222.6	216.4	221.1	244.3
82.5°	150.0	139.1	136.0	134.5	146.9
85°	75.8	68.0	68.0	63.4	66.5
87.5°	23.2	21.6	20.1	15.5	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)