

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: P485768

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4STD-50-120-EDD-90**

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: P485768
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-LD4-4STD-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

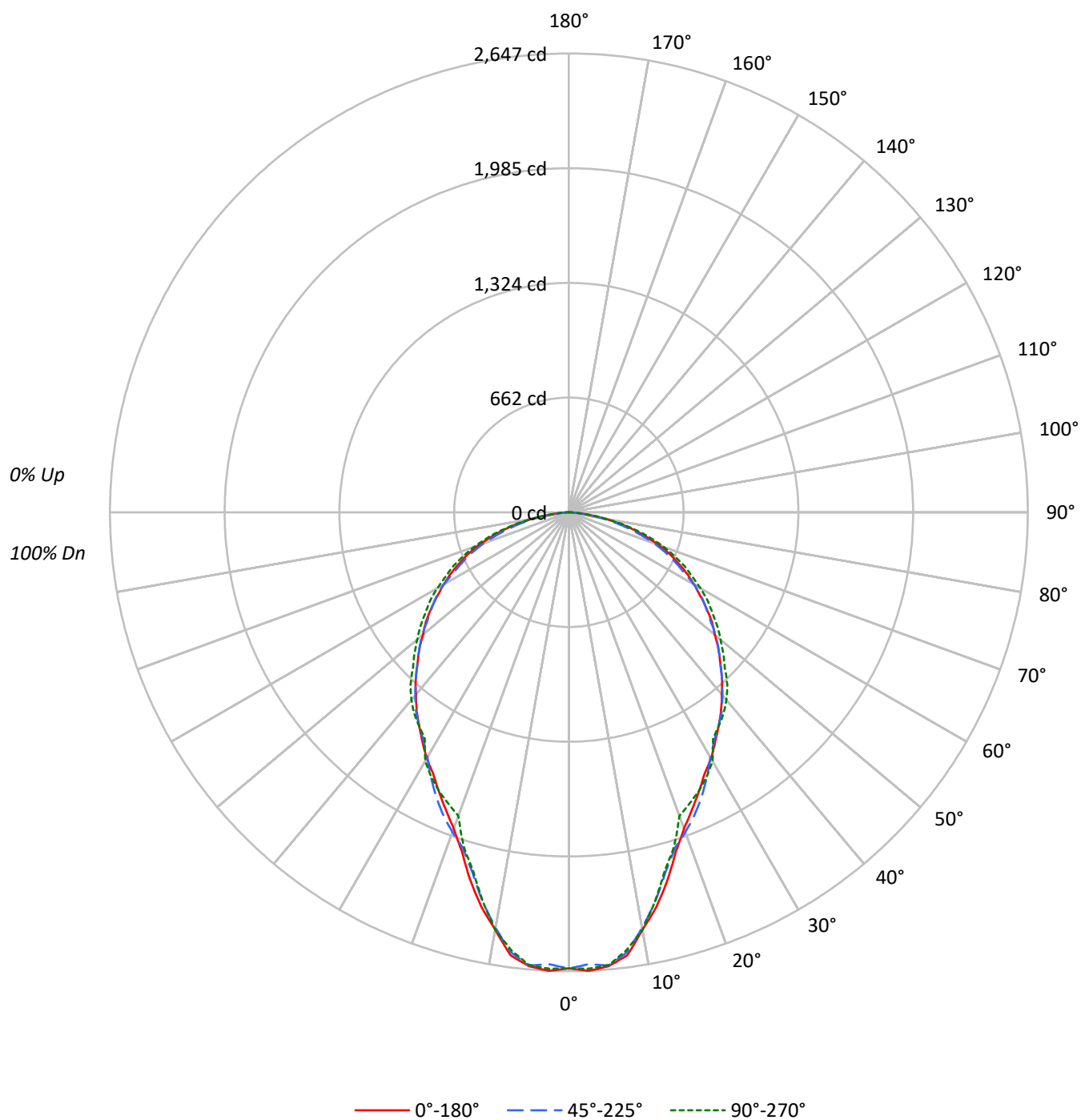
Lumens per Lamp: N/A
Luminaire Lumens: 5626.7 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
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°	7080	7080	7080
5°	7100	7089	7081
10°	6681	6651	6677
15°	6121	5988	5954
20°	5560	5622	5336
25°	5273	5379	5265
30°	5093	5072	5148
35°	4944	4944	4944
40°	4821	4840	4960
45°	4702	4697	4842
50°	4599	4634	4777
55°	4551	4532	4737
60°	4492	4484	4712
65°	4434	4295	4687
70°	4349	4102	4564
75°	4026	3642	4224
80°	3265	2968	3350
85°	2069	1859	1815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.4	4.3
10°-20°	610.9	10.9
20°-30°	825.0	14.7
30°-40°	944.8	16.8
40°-50°	967.8	17.2
50°-60°	878.1	15.6
60°-70°	685.4	12.2
70°-80°	388.7	6.9
80°-90°	81.6	1.4
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°	1680.3	29.9
0°-40°	2625.1	46.7
0°-60°	4471.0	79.5
0°-90°	5626.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5626.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2631	2631	2631	2631	2631	
5°	2628	2598	2624	2630	2621	245
15°	2197	2204	2149	2160	2137	614
25°	1776	1799	1812	1768	1773	819
35°	1505	1508	1505	1506	1505	943
45°	1236	1245	1234	1285	1272	955
55°	970	969	966	1000	1010	867
65°	696	681	674	706	736	690
75°	387	358	350	371	406	405
85°	67	60	60	56	59	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2631.0	2631.0	2631.0	2631.0	2631.0
2.5°	2647.4	2626.9	2609.1	2637.8	2635.1
5°	2628.3	2598.2	2624.2	2629.6	2621.4
7.5°	2577.6	2558.5	2559.9	2548.9	2547.5
10°	2444.9	2455.9	2434.0	2453.1	2443.6
12.5°	2331.4	2338.2	2299.9	2308.1	2297.2
15°	2197.3	2204.1	2149.4	2160.3	2137.1
17.5°	2050.9	2075.5	2030.4	2044.1	2019.4
20°	1941.4	1962.0	1963.3	1941.4	1863.5
22.5°	1855.2	1875.8	1892.2	1826.5	1818.3
25°	1775.9	1799.1	1811.5	1767.7	1773.2
27.5°	1696.5	1722.5	1722.5	1732.1	1719.8
30°	1639.1	1650.0	1632.2	1667.8	1656.9
32.5°	1570.7	1574.8	1559.7	1585.7	1547.4
35°	1505.0	1507.7	1505.0	1506.4	1505.0
37.5°	1442.1	1435.2	1447.5	1439.3	1465.3
40°	1372.3	1372.3	1377.8	1391.4	1412.0
42.5°	1308.0	1313.4	1306.6	1344.9	1353.1
45°	1235.5	1245.0	1234.1	1284.7	1272.4
47.5°	1169.8	1173.9	1171.2	1205.4	1208.1
50°	1098.6	1104.1	1106.9	1137.0	1141.1
52.5°	1039.8	1038.4	1028.9	1072.6	1079.5
55°	970.0	968.7	965.9	1000.1	1009.7
57.5°	898.9	900.3	907.1	926.3	949.5
60°	834.6	827.7	833.2	856.5	875.6
62.5°	768.9	756.6	744.3	782.6	800.4
65°	696.4	681.4	674.5	706.0	736.1
67.5°	629.4	604.7	600.6	622.5	658.1
70°	552.7	522.6	521.3	537.7	580.1
72.5°	467.9	441.9	435.1	457.0	495.3
75°	387.2	358.5	350.3	370.8	406.3
77.5°	299.6	276.4	270.9	281.8	310.6
80°	210.7	197.0	191.5	195.6	216.2
82.5°	132.7	123.1	120.4	119.0	130.0
85°	67.0	60.2	60.2	56.1	58.8
87.5°	20.5	19.2	17.8	13.7	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)