

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: P485769

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4STD-50-120-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: P485769
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
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

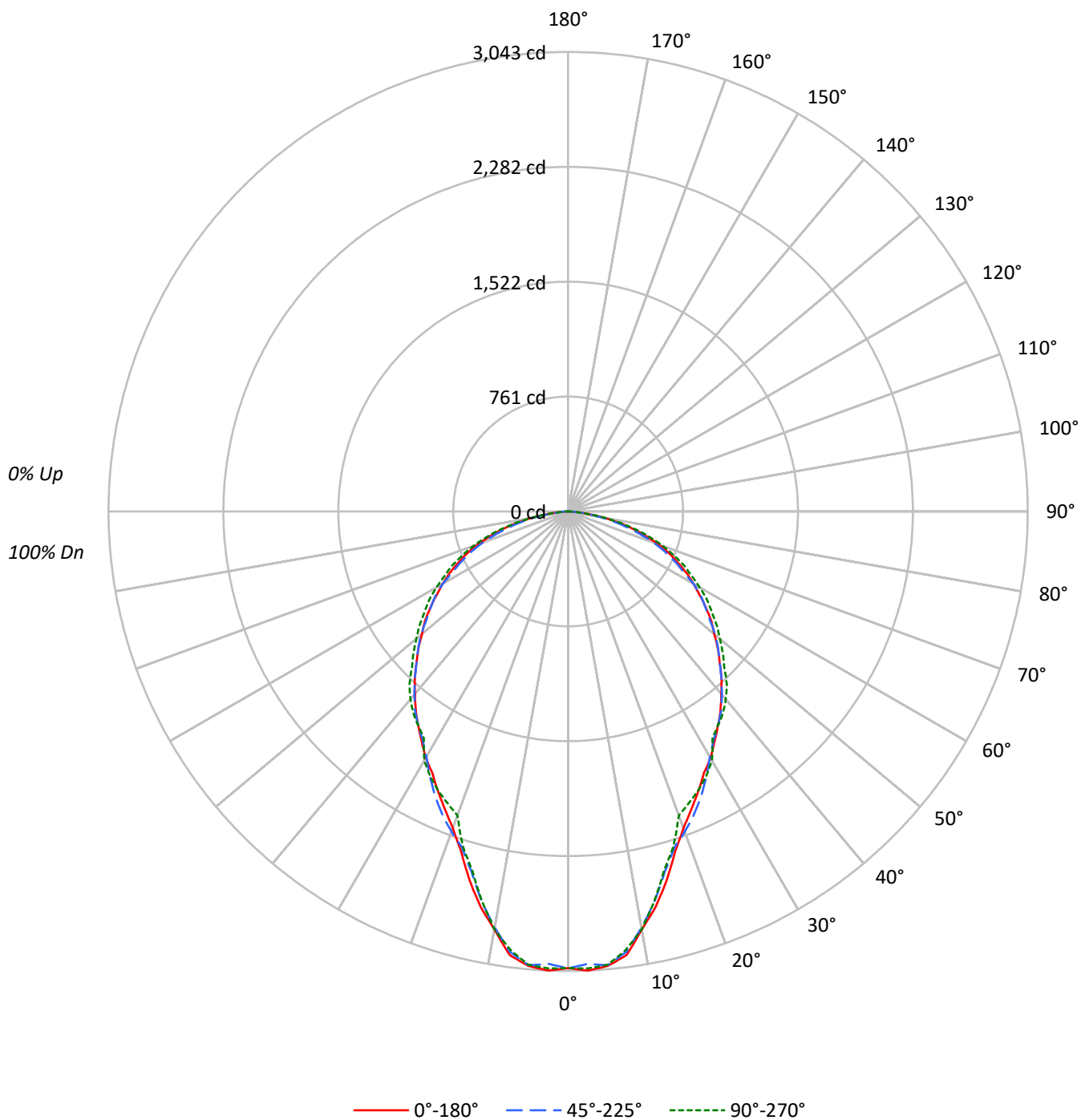
Lumens per Lamp: N/A
Luminaire Lumens: 6467.4 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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					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°	8138	8138	8138
5°	8161	8148	8139
10°	7679	7644	7675
15°	7036	6883	6843
20°	6390	6462	6134
25°	6061	6182	6051
30°	5854	5830	5917
35°	5683	5683	5683
40°	5541	5563	5701
45°	5404	5398	5566
50°	5287	5326	5490
55°	5231	5209	5445
60°	5163	5154	5417
65°	5097	4937	5387
70°	4998	4714	5246
75°	4627	4186	4857
80°	3753	3412	3851
85°	2381	2137	2087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.9	4.3
10°-20°	702.2	10.9
20°-30°	948.3	14.7
30°-40°	1086.0	16.8
40°-50°	1112.4	17.2
50°-60°	1009.3	15.6
60°-70°	787.8	12.2
70°-80°	446.8	6.9
80°-90°	93.8	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°	1931.4	29.9
0°-40°	3017.4	46.7
0°-60°	5139.1	79.5
0°-90°	6467.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6467.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3024	3024	3024	3024	3024	
5°	3021	2986	3016	3022	3013	282
15°	2526	2534	2470	2483	2456	706
25°	2041	2068	2082	2032	2038	942
35°	1730	1733	1730	1731	1730	1084
45°	1420	1431	1418	1477	1462	1098
55°	1115	1113	1110	1150	1161	996
65°	800	783	775	812	846	793
75°	445	412	403	426	467	466
85°	77	69	69	64	68	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3024.1	3024.1	3024.1	3024.1	3024.1
2.5°	3043.0	3019.4	2998.9	3032.0	3028.8
5°	3021.0	2986.4	3016.2	3022.5	3013.1
7.5°	2962.8	2940.8	2942.3	2929.7	2928.2
10°	2810.2	2822.8	2797.6	2819.7	2808.7
12.5°	2679.7	2687.6	2643.5	2653.0	2640.4
15°	2525.6	2533.5	2470.5	2483.1	2456.4
17.5°	2357.3	2385.6	2333.7	2349.5	2321.2
20°	2231.5	2255.1	2256.7	2231.5	2141.9
22.5°	2132.4	2156.0	2174.9	2099.4	2090.0
25°	2041.2	2068.0	2082.1	2031.8	2038.1
27.5°	1950.0	1979.9	1979.9	1990.9	1976.8
30°	1884.0	1896.6	1876.1	1917.0	1904.4
32.5°	1805.3	1810.1	1792.8	1822.6	1778.6
35°	1729.9	1733.0	1729.9	1731.4	1729.9
37.5°	1657.5	1649.7	1663.8	1654.4	1684.3
40°	1577.3	1577.3	1583.6	1599.3	1622.9
42.5°	1503.4	1509.7	1501.8	1545.9	1555.3
45°	1420.1	1431.1	1418.5	1476.7	1462.5
47.5°	1344.6	1349.3	1346.1	1385.5	1388.6
50°	1262.8	1269.1	1272.2	1306.8	1311.5
52.5°	1195.2	1193.6	1182.6	1232.9	1240.8
55°	1115.0	1113.4	1110.3	1149.6	1160.6
57.5°	1033.2	1034.8	1042.6	1064.6	1091.4
60°	959.3	951.4	957.7	984.4	1006.5
62.5°	883.8	869.6	855.5	899.5	920.0
65°	800.5	783.2	775.3	811.5	846.1
67.5°	723.4	695.1	690.4	715.5	756.4
70°	635.3	600.7	599.2	618.0	666.8
72.5°	537.8	507.9	500.1	525.2	569.3
75°	445.0	412.0	402.6	426.2	467.1
77.5°	344.4	317.7	311.4	324.0	357.0
80°	242.2	226.5	220.2	224.9	248.5
82.5°	152.5	141.5	138.4	136.8	149.4
85°	77.1	69.2	69.2	64.5	67.6
87.5°	23.6	22.0	20.4	15.7	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)