

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: P485826

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-40-120-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: P485826
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-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

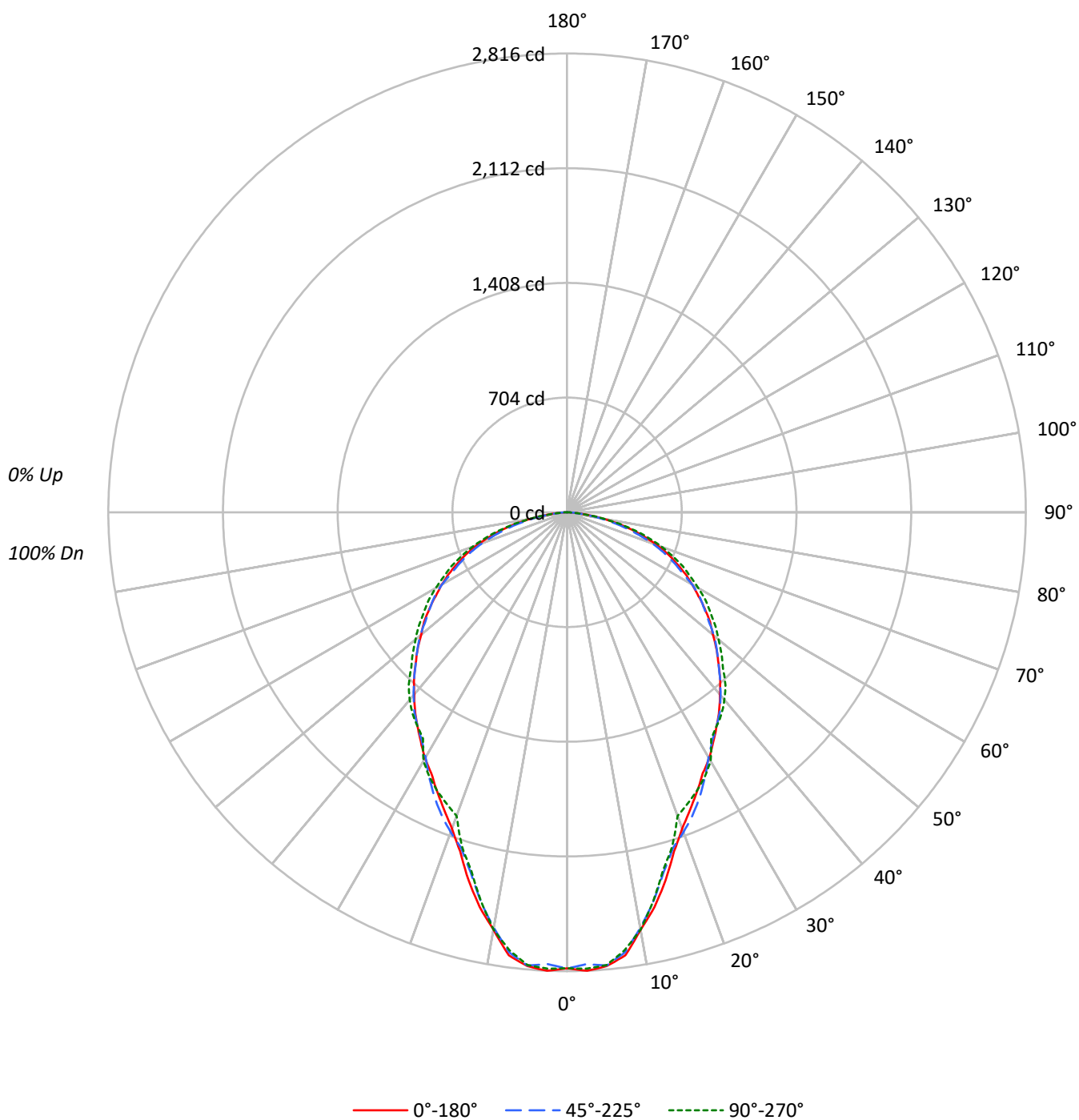
Lumens per Lamp: N/A
Luminaire Lumens: 5985.2 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	7531	7531	7531
5°	7552	7540	7532
10°	7106	7075	7102
15°	6511	6369	6333
20°	5914	5981	5676
25°	5609	5721	5600
30°	5418	5395	5476
35°	5259	5259	5259
40°	5128	5148	5276
45°	5001	4996	5151
50°	4892	4929	5081
55°	4841	4821	5039
60°	4778	4770	5013
65°	4717	4569	4986
70°	4626	4363	4855
75°	4283	3874	4494
80°	3473	3157	3563
85°	2201	1976	1933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.9	4.3
10°-20°	649.8	10.9
20°-30°	877.6	14.7
30°-40°	1005.0	16.8
40°-50°	1029.4	17.2
50°-60°	934.1	15.6
60°-70°	729.0	12.2
70°-80°	413.5	6.9
80°-90°	86.8	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°	1787.4	29.9
0°-40°	2792.4	46.7
0°-60°	4755.9	79.5
0°-90°	5985.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5985.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2799	2799	2799	2799	2799	
5°	2796	2764	2791	2797	2788	261
15°	2337	2345	2286	2298	2273	653
25°	1889	1914	1927	1880	1886	872
35°	1601	1604	1601	1602	1601	1003
45°	1314	1324	1313	1367	1354	1016
55°	1032	1030	1028	1064	1074	922
65°	741	725	718	751	783	734
75°	412	381	373	394	432	431
85°	71	64	64	60	63	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2798.6	2798.6	2798.6	2798.6	2798.6
2.5°	2816.1	2794.3	2775.3	2805.9	2803.0
5°	2795.7	2763.7	2791.4	2797.2	2788.4
7.5°	2741.9	2721.5	2723.0	2711.3	2709.9
10°	2600.7	2612.3	2589.1	2609.4	2599.2
12.5°	2479.9	2487.2	2446.4	2455.2	2443.5
15°	2337.3	2344.6	2286.3	2298.0	2273.3
17.5°	2181.6	2207.8	2159.7	2174.3	2148.1
20°	2065.1	2087.0	2088.4	2065.1	1982.2
22.5°	1973.4	1995.3	2012.7	1942.9	1934.2
25°	1889.0	1913.8	1926.9	1880.3	1886.1
27.5°	1804.6	1832.3	1832.3	1842.5	1829.4
30°	1743.5	1755.1	1736.2	1774.1	1762.4
32.5°	1670.7	1675.1	1659.1	1686.7	1646.0
35°	1600.9	1603.8	1600.9	1602.3	1600.9
37.5°	1533.9	1526.7	1539.8	1531.0	1558.7
40°	1459.7	1459.7	1465.5	1480.1	1501.9
42.5°	1391.3	1397.1	1389.9	1430.6	1439.3
45°	1314.2	1324.4	1312.7	1366.6	1353.5
47.5°	1244.3	1248.7	1245.8	1282.2	1285.1
50°	1168.6	1174.5	1177.4	1209.4	1213.8
52.5°	1106.1	1104.6	1094.4	1141.0	1148.3
55°	1031.8	1030.4	1027.5	1063.9	1074.0
57.5°	956.2	957.6	964.9	985.3	1010.0
60°	887.8	880.5	886.3	911.0	931.4
62.5°	817.9	804.8	791.7	832.5	851.4
65°	740.8	724.8	717.5	751.0	783.0
67.5°	669.5	643.3	638.9	662.2	700.0
70°	588.0	555.9	554.5	572.0	617.1
72.5°	497.7	470.1	462.8	486.1	526.8
75°	411.9	381.3	372.6	394.4	432.2
77.5°	318.7	294.0	288.2	299.8	330.4
80°	224.1	209.6	203.7	208.1	229.9
82.5°	141.2	131.0	128.1	126.6	138.3
85°	71.3	64.0	64.0	59.7	62.6
87.5°	21.8	20.4	18.9	14.6	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)