

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: P484992

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1LO-27-120-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: P484992
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-12-4-INS-89BC-LD4-1LO-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

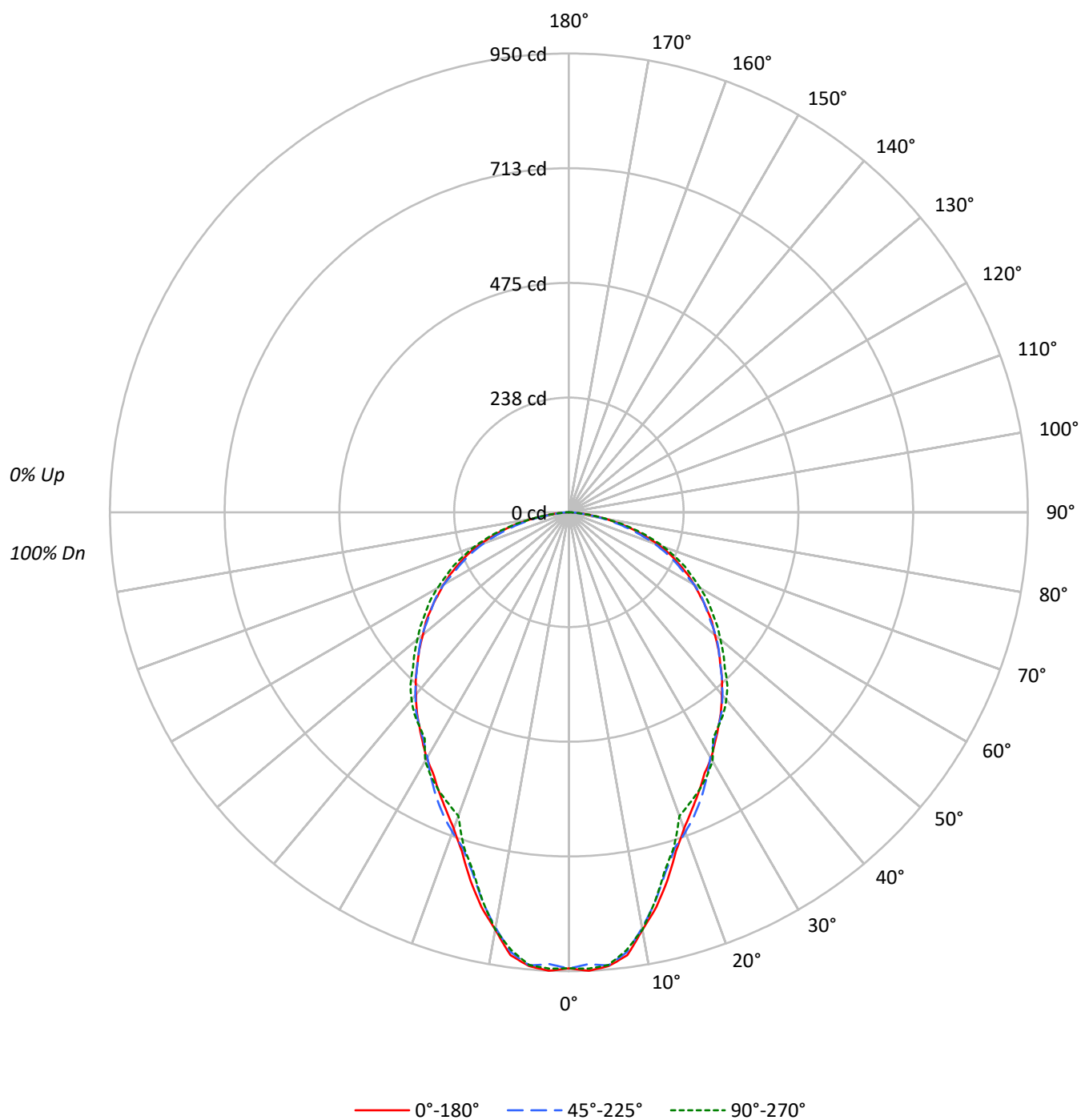
Lumens per Lamp: N/A
Luminaire Lumens: 2019.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2541	2541	2541
5°	2548	2544	2541
10°	2397	2387	2396
15°	2196	2149	2136
20°	1995	2017	1915
25°	1892	1930	1889
30°	1827	1820	1847
35°	1774	1774	1774
40°	1730	1737	1780
45°	1687	1685	1738
50°	1650	1663	1714
55°	1633	1626	1700
60°	1612	1609	1691
65°	1591	1541	1682
70°	1560	1471	1638
75°	1444	1307	1516
80°	1172	1065	1203
85°	744	667	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	4.3
10°-20°	219.2	10.9
20°-30°	296.1	14.7
30°-40°	339.0	16.8
40°-50°	347.3	17.2
50°-60°	315.1	15.6
60°-70°	245.9	12.2
70°-80°	139.5	6.9
80°-90°	29.3	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°	602.9	29.9
0°-40°	942.0	46.7
0°-60°	1604.3	79.5
0°-90°	2019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	943	932	942	944	941	88
15°	788	791	771	775	767	220
25°	637	646	650	634	636	294
35°	540	541	540	540	540	338
45°	443	447	443	461	457	343
55°	348	348	347	359	362	311
65°	250	244	242	253	264	248
75°	139	129	126	133	146	145
85°	24	22	22	20	21	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	944.1	944.1	944.1	944.1	944.1
2.5°	950.0	942.6	936.2	946.5	945.5
5°	943.1	932.3	941.6	943.6	940.6
7.5°	924.9	918.0	918.5	914.6	914.1
10°	877.3	881.2	873.4	880.2	876.8
12.5°	836.6	839.0	825.3	828.2	824.3
15°	788.4	790.9	771.3	775.2	766.8
17.5°	735.9	744.7	728.5	733.5	724.6
20°	696.6	704.0	704.5	696.6	668.7
22.5°	665.7	673.1	679.0	655.4	652.5
25°	637.2	645.6	650.0	634.3	636.3
27.5°	608.8	618.1	618.1	621.5	617.1
30°	588.1	592.1	585.7	598.4	594.5
32.5°	563.6	565.1	559.7	569.0	555.2
35°	540.0	541.0	540.0	540.5	540.0
37.5°	517.4	515.0	519.4	516.5	525.8
40°	492.4	492.4	494.4	499.3	506.6
42.5°	469.3	471.3	468.8	482.6	485.5
45°	443.3	446.8	442.8	461.0	456.6
47.5°	419.7	421.2	420.2	432.5	433.5
50°	394.2	396.2	397.2	408.0	409.4
52.5°	373.1	372.6	369.2	384.9	387.3
55°	348.1	347.6	346.6	358.9	362.3
57.5°	322.5	323.0	325.5	332.4	340.7
60°	299.5	297.0	299.0	307.3	314.2
62.5°	275.9	271.5	267.1	280.8	287.2
65°	249.9	244.5	242.0	253.3	264.1
67.5°	225.8	217.0	215.5	223.4	236.1
70°	198.3	187.5	187.0	192.9	208.2
72.5°	167.9	158.6	156.1	164.0	177.7
75°	138.9	128.6	125.7	133.0	145.8
77.5°	107.5	99.2	97.2	101.1	111.4
80°	75.6	70.7	68.7	70.2	77.6
82.5°	47.6	44.2	43.2	42.7	46.6
85°	24.1	21.6	21.6	20.1	21.1
87.5°	7.4	6.9	6.4	4.9	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)