

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: P485050

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3HI-20-120-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: P485050
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-LD4-3HI-20-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

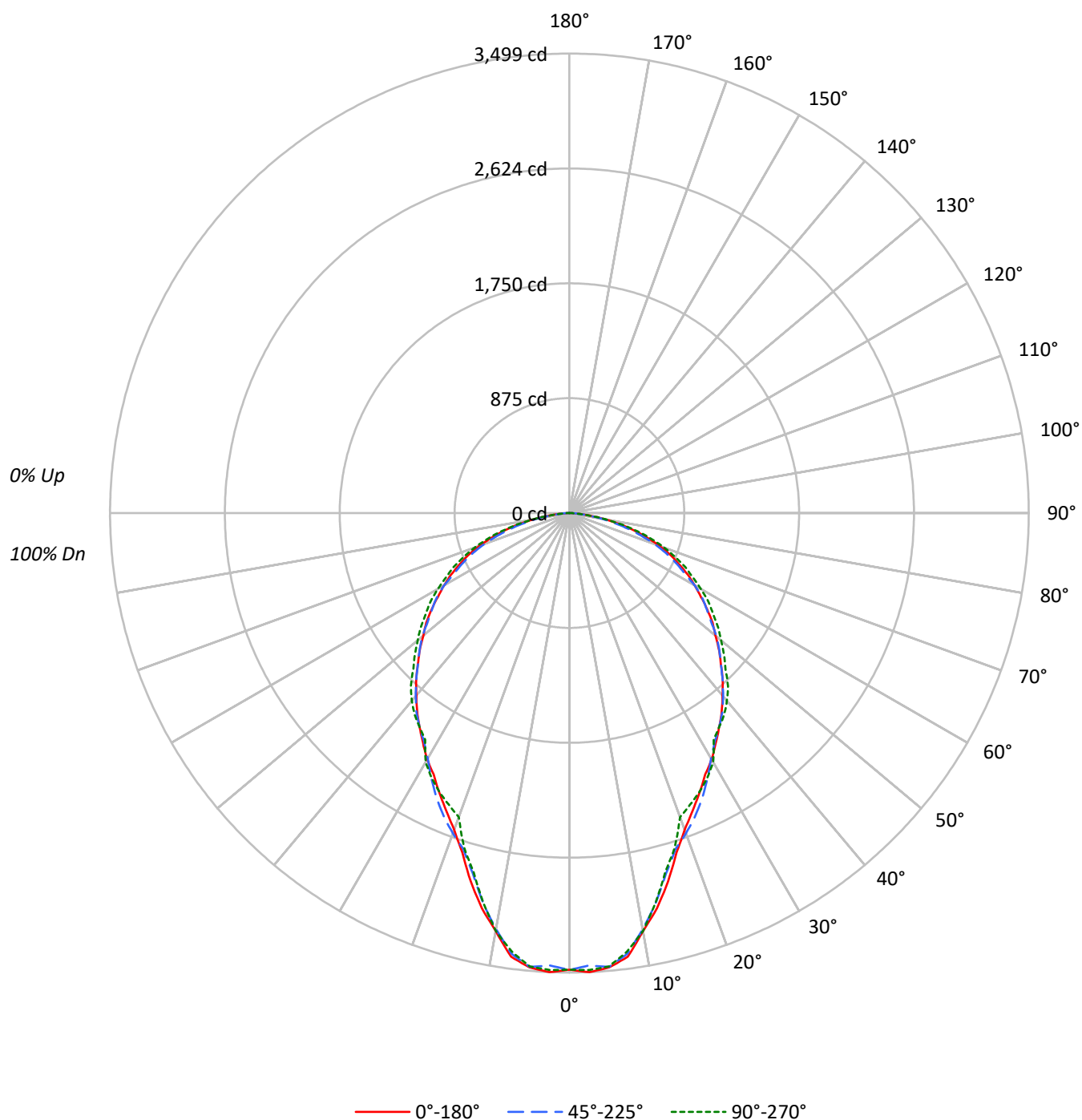
Lumens per Lamp: N/A
Luminaire Lumens: 7436.6 lumens
Efficiency: N/A
Efficacy: 56.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	9357	9357	9357
5°	9383	9369	9359
10°	8830	8790	8825
15°	8091	7914	7869
20°	7348	7431	7053
25°	6969	7108	6958
30°	6731	6703	6804
35°	6534	6534	6534
40°	6371	6396	6555
45°	6214	6207	6400
50°	6079	6124	6314
55°	6015	5989	6261
60°	5936	5927	6229
65°	5861	5677	6194
70°	5747	5420	6032
75°	5320	4813	5584
80°	4316	3924	4427
85°	2736	2458	2402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.0	4.3
10°-20°	807.4	10.9
20°-30°	1090.4	14.7
30°-40°	1248.7	16.8
40°-50°	1279.1	17.2
50°-60°	1160.6	15.6
60°-70°	905.8	12.2
70°-80°	513.8	6.9
80°-90°	107.8	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°	2220.8	29.9
0°-40°	3469.5	46.7
0°-60°	5909.2	79.5
0°-90°	7436.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7436.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3477	3477	3477	3477	3477	
5°	3474	3434	3468	3476	3465	324
15°	2904	2913	2841	2855	2824	812
25°	2347	2378	2394	2336	2344	1083
35°	1989	1993	1989	1991	1989	1246
45°	1633	1646	1631	1698	1682	1262
55°	1282	1280	1277	1322	1334	1146
65°	920	900	892	933	973	912
75°	512	474	463	490	537	535
85°	89	80	80	74	78	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3477.3	3477.3	3477.3	3477.3	3477.3
2.5°	3499.0	3471.9	3448.4	3486.3	3482.7
5°	3473.7	3433.9	3468.3	3475.5	3464.6
7.5°	3406.8	3381.5	3383.3	3368.8	3367.0
10°	3231.4	3245.8	3216.9	3242.2	3229.6
12.5°	3081.3	3090.3	3039.7	3050.5	3036.1
15°	2904.1	2913.1	2840.8	2855.2	2824.5
17.5°	2710.6	2743.1	2683.5	2701.5	2669.0
20°	2565.9	2593.1	2594.9	2565.9	2462.9
22.5°	2452.0	2479.1	2500.8	2414.0	2403.2
25°	2347.1	2377.9	2394.1	2336.3	2343.5
27.5°	2242.2	2276.6	2276.6	2289.3	2273.0
30°	2166.3	2180.8	2157.3	2204.3	2189.8
32.5°	2075.9	2081.3	2061.4	2095.8	2045.1
35°	1989.1	1992.7	1989.1	1990.9	1989.1
37.5°	1905.9	1896.9	1913.1	1902.3	1936.7
40°	1813.7	1813.7	1820.9	1839.0	1866.1
42.5°	1728.7	1735.9	1726.9	1777.5	1788.4
45°	1632.9	1645.5	1631.1	1698.0	1681.7
47.5°	1546.1	1551.5	1547.9	1593.1	1596.7
50°	1452.0	1459.3	1462.9	1502.7	1508.1
52.5°	1374.3	1372.5	1359.8	1417.7	1426.7
55°	1282.1	1280.3	1276.6	1321.8	1334.5
57.5°	1188.0	1189.8	1198.9	1224.2	1254.9
60°	1103.0	1094.0	1101.2	1132.0	1157.3
62.5°	1016.2	1000.0	983.7	1034.3	1057.8
65°	920.4	900.5	891.5	933.1	972.8
67.5°	831.8	799.3	793.8	822.8	869.8
70°	730.5	690.8	688.9	710.6	766.7
72.5°	618.4	584.1	575.0	604.0	654.6
75°	511.7	473.8	462.9	490.0	537.1
77.5°	396.0	365.3	358.0	372.5	410.5
80°	278.5	260.4	253.2	258.6	285.7
82.5°	175.4	162.7	159.1	157.3	171.8
85°	88.6	79.6	79.6	74.1	77.8
87.5°	27.1	25.3	23.5	18.1	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)