

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: P485078

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3STD-30-120-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: P485078
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-LD4-3STD-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

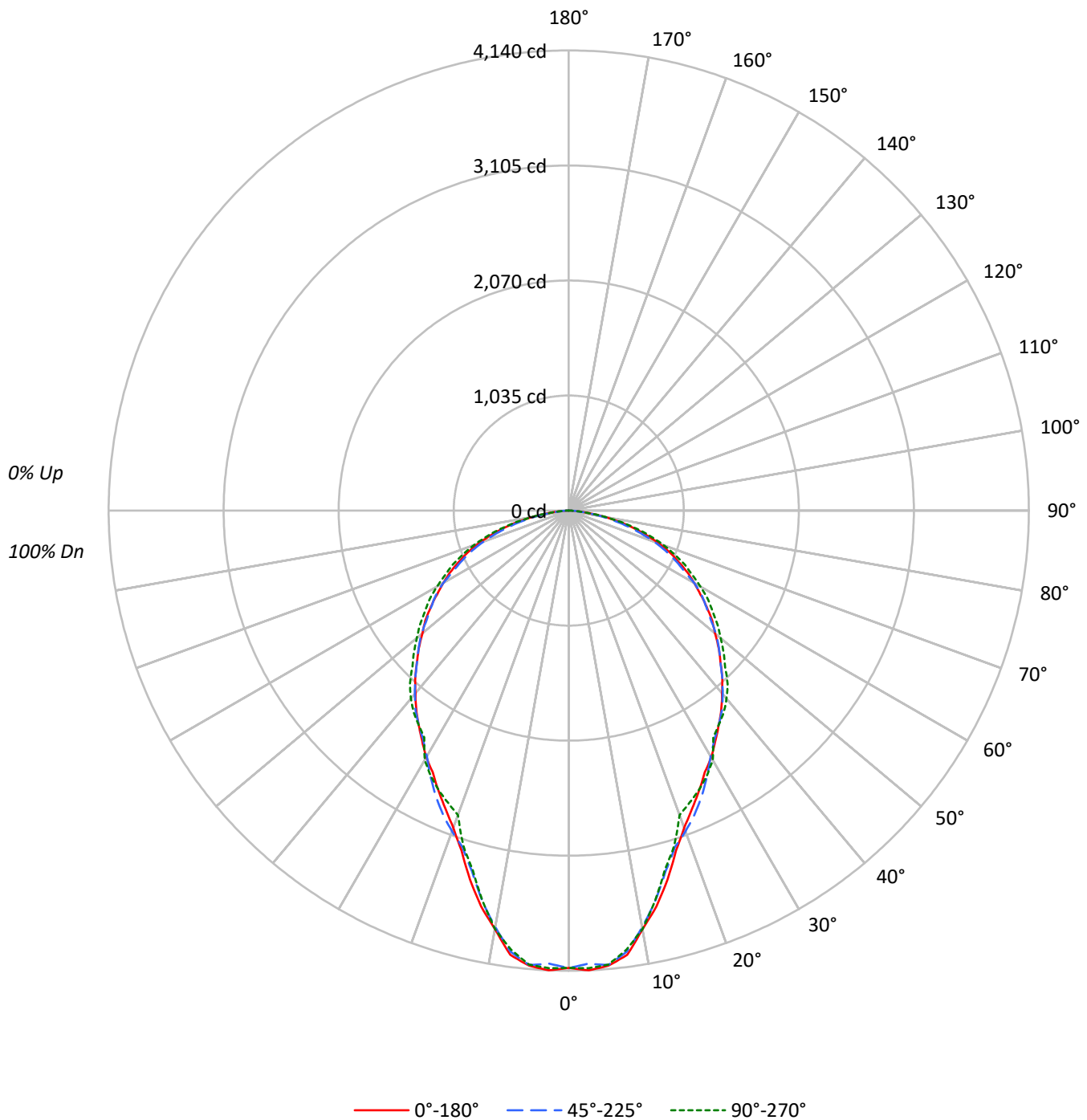
Lumens per Lamp: N/A
Luminaire Lumens: 8798.5 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11071	11071	11071
5°	11102	11084	11073
10°	10447	10400	10441
15°	9572	9363	9310
20°	8694	8792	8344
25°	8245	8410	8233
30°	7964	7931	8050
35°	7731	7731	7731
40°	7538	7568	7756
45°	7352	7344	7572
50°	7192	7246	7470
55°	7116	7086	7408
60°	7023	7012	7369
65°	6934	6716	7329
70°	6800	6413	7137
75°	6295	5695	6606
80°	5106	4641	5238
85°	3236	2905	2841



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.1	4.3
10°-20°	955.3	10.9
20°-30°	1290.1	14.7
30°-40°	1477.4	16.8
40°-50°	1513.3	17.2
50°-60°	1373.1	15.6
60°-70°	1071.7	12.2
70°-80°	607.8	6.9
80°-90°	127.6	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°	2627.5	29.9
0°-40°	4104.9	46.7
0°-60°	6991.4	79.5
0°-90°	8798.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8798.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4114	4114	4114	4114	4114	
5°	4110	4063	4103	4112	4099	384
15°	3436	3447	3361	3378	3342	960
25°	2777	2813	2833	2764	2773	1281
35°	2353	2358	2353	2356	2353	1474
45°	1932	1947	1930	2009	1990	1494
55°	1517	1515	1510	1564	1579	1356
65°	1089	1065	1055	1104	1151	1079
75°	606	560	548	580	635	633
85°	105	94	94	88	92	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4114.1	4114.1	4114.1	4114.1	4114.1
2.5°	4139.8	4107.7	4079.9	4124.8	4120.5
5°	4109.8	4062.8	4103.4	4112.0	4099.1
7.5°	4030.7	4000.7	4002.9	3985.7	3983.6
10°	3823.1	3840.3	3806.0	3836.0	3821.0
12.5°	3645.6	3656.3	3596.4	3609.2	3592.1
15°	3435.9	3446.6	3361.0	3378.1	3341.8
17.5°	3207.0	3245.5	3174.9	3196.3	3157.8
20°	3035.8	3067.9	3070.1	3035.8	2913.9
22.5°	2901.1	2933.1	2958.8	2856.1	2843.3
25°	2777.0	2813.3	2832.6	2764.1	2772.7
27.5°	2652.9	2693.5	2693.5	2708.5	2689.3
30°	2563.0	2580.1	2552.3	2608.0	2590.8
32.5°	2456.1	2462.5	2438.9	2479.6	2419.7
35°	2353.4	2357.6	2353.4	2355.5	2353.4
37.5°	2254.9	2244.3	2263.5	2250.7	2291.3
40°	2145.8	2145.8	2154.4	2175.8	2207.9
42.5°	2045.3	2053.8	2043.1	2103.1	2115.9
45°	1931.9	1946.9	1929.8	2008.9	1989.7
47.5°	1829.2	1835.6	1831.3	1884.8	1889.1
50°	1718.0	1726.5	1730.8	1777.9	1784.3
52.5°	1626.0	1623.8	1608.8	1677.3	1688.0
55°	1516.8	1514.7	1510.4	1563.9	1578.9
57.5°	1405.6	1407.7	1418.4	1448.4	1484.8
60°	1305.0	1294.3	1302.9	1339.3	1369.2
62.5°	1202.4	1183.1	1163.8	1223.7	1251.6
65°	1089.0	1065.4	1054.7	1103.9	1151.0
67.5°	984.1	945.6	939.2	973.4	1029.1
70°	864.3	817.3	815.1	840.8	907.1
72.5°	731.7	691.0	680.3	714.6	774.5
75°	605.5	560.5	547.7	579.8	635.4
77.5°	468.5	432.2	423.6	440.7	485.6
80°	329.5	308.1	299.5	305.9	338.0
82.5°	207.5	192.5	188.3	186.1	203.2
85°	104.8	94.1	94.1	87.7	92.0
87.5°	32.1	30.0	27.8	21.4	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)