

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: P485019

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-30-120-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: P485019
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-LD4-2HI-30-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

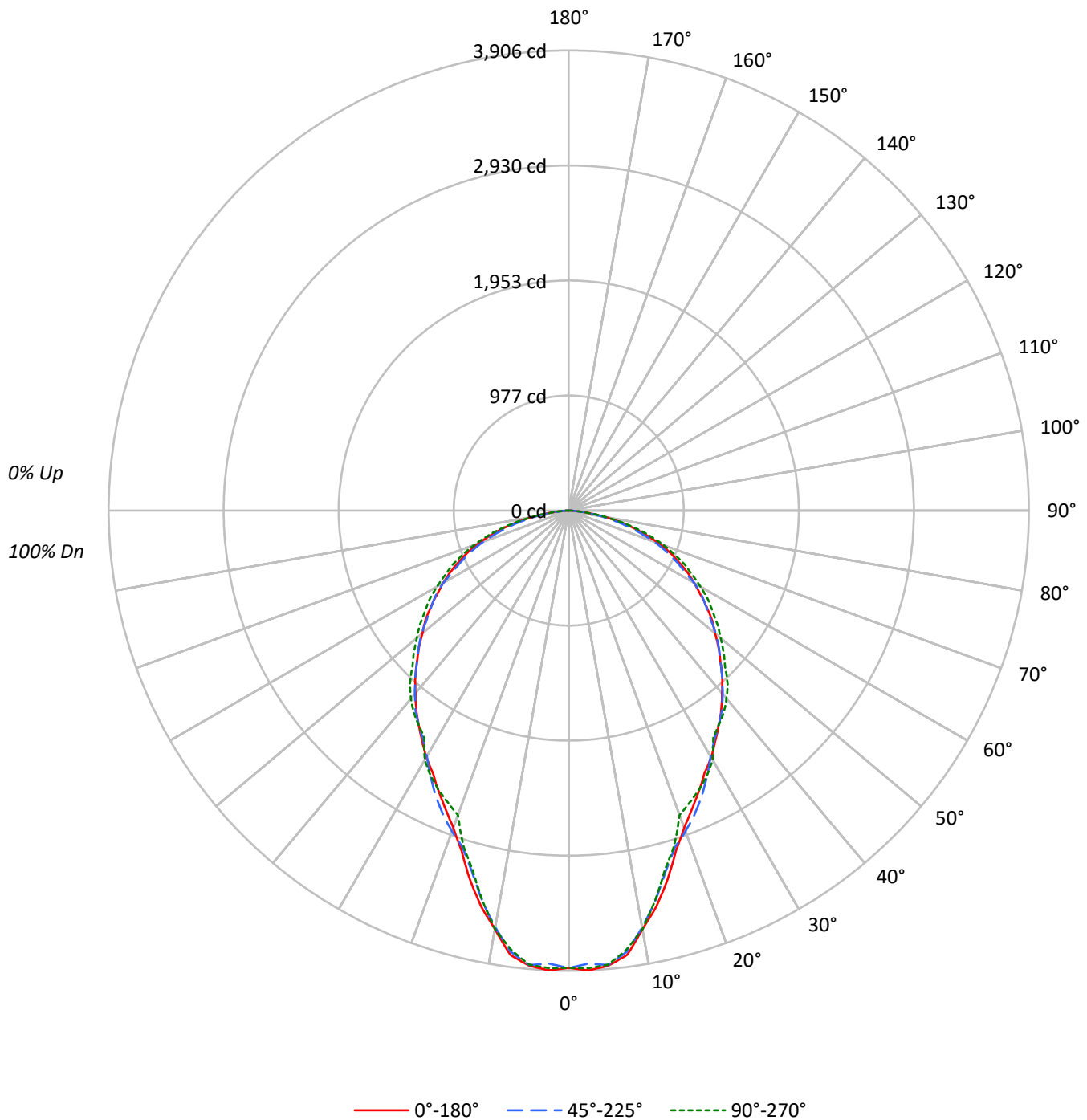
Lumens per Lamp: N/A
Luminaire Lumens: 8301.7 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	10446	10446	10446
5°	10475	10458	10448
10°	9857	9813	9851
15°	9032	8835	8784
20°	8203	8295	7873
25°	7780	7936	7768
30°	7514	7483	7596
35°	7295	7295	7295
40°	7112	7141	7318
45°	6937	6929	7144
50°	6786	6837	7048
55°	6715	6686	6989
60°	6627	6616	6953
65°	6543	6337	6915
70°	6416	6051	6734
75°	5940	5373	6233
80°	4818	4379	4942
85°	3054	2742	2680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.5	4.3
10°-20°	901.4	10.9
20°-30°	1217.3	14.7
30°-40°	1394.0	16.8
40°-50°	1427.9	17.2
50°-60°	1295.6	15.6
60°-70°	1011.2	12.2
70°-80°	573.5	6.9
80°-90°	120.4	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°	2479.2	29.9
0°-40°	3873.1	46.7
0°-60°	6596.6	79.5
0°-90°	8301.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8301.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3882	3882	3882	3882	3882	
5°	3878	3833	3872	3880	3868	362
15°	3242	3252	3171	3187	3153	906
25°	2620	2654	2673	2608	2616	1209
35°	2220	2224	2220	2222	2220	1391
45°	1823	1837	1821	1896	1877	1409
55°	1431	1429	1425	1476	1490	1279
65°	1028	1005	995	1042	1086	1018
75°	571	529	517	547	600	598
85°	99	89	89	83	87	131
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3881.8	3881.8	3881.8	3881.8	3881.8
2.5°	3906.0	3875.8	3849.5	3891.9	3887.9
5°	3877.8	3833.4	3871.7	3879.8	3867.7
7.5°	3803.1	3774.8	3776.8	3760.7	3758.7
10°	3607.3	3623.4	3591.1	3619.4	3605.3
12.5°	3439.7	3449.8	3393.3	3405.4	3389.3
15°	3241.9	3252.0	3171.3	3187.4	3153.1
17.5°	3025.9	3062.2	2995.6	3015.8	2979.5
20°	2864.4	2894.7	2896.7	2864.4	2749.4
22.5°	2737.2	2767.5	2791.8	2694.9	2682.7
25°	2620.2	2654.5	2672.7	2608.1	2616.1
27.5°	2503.1	2541.4	2541.4	2555.6	2537.4
30°	2418.3	2434.5	2408.2	2460.7	2444.5
32.5°	2317.4	2323.4	2301.2	2339.6	2283.1
35°	2220.5	2224.5	2220.5	2222.5	2220.5
37.5°	2127.6	2117.5	2135.7	2123.6	2161.9
40°	2024.7	2024.7	2032.8	2052.9	2083.2
42.5°	1929.8	1937.9	1927.8	1984.3	1996.4
45°	1822.8	1836.9	1820.8	1895.5	1877.3
47.5°	1725.9	1732.0	1727.9	1778.4	1782.4
50°	1621.0	1629.0	1633.1	1677.5	1683.5
52.5°	1534.2	1532.1	1518.0	1582.6	1592.7
55°	1431.2	1429.2	1425.1	1475.6	1489.7
57.5°	1326.2	1328.3	1338.3	1366.6	1400.9
60°	1231.4	1221.3	1229.3	1263.7	1291.9
62.5°	1134.5	1116.3	1098.1	1154.7	1180.9
65°	1027.5	1005.3	995.2	1041.6	1086.0
67.5°	928.6	892.2	886.2	918.5	971.0
70°	815.5	771.1	769.1	793.3	855.9
72.5°	690.4	652.0	641.9	674.2	730.7
75°	571.3	528.9	516.8	547.0	599.5
77.5°	442.1	407.8	399.7	415.8	458.2
80°	310.9	290.7	282.6	288.7	318.9
82.5°	195.8	181.7	177.6	175.6	191.8
85°	98.9	88.8	88.8	82.8	86.8
87.5°	30.3	28.3	26.2	20.2	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)