

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: P485835

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-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: P485835
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-LD4-6STD-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

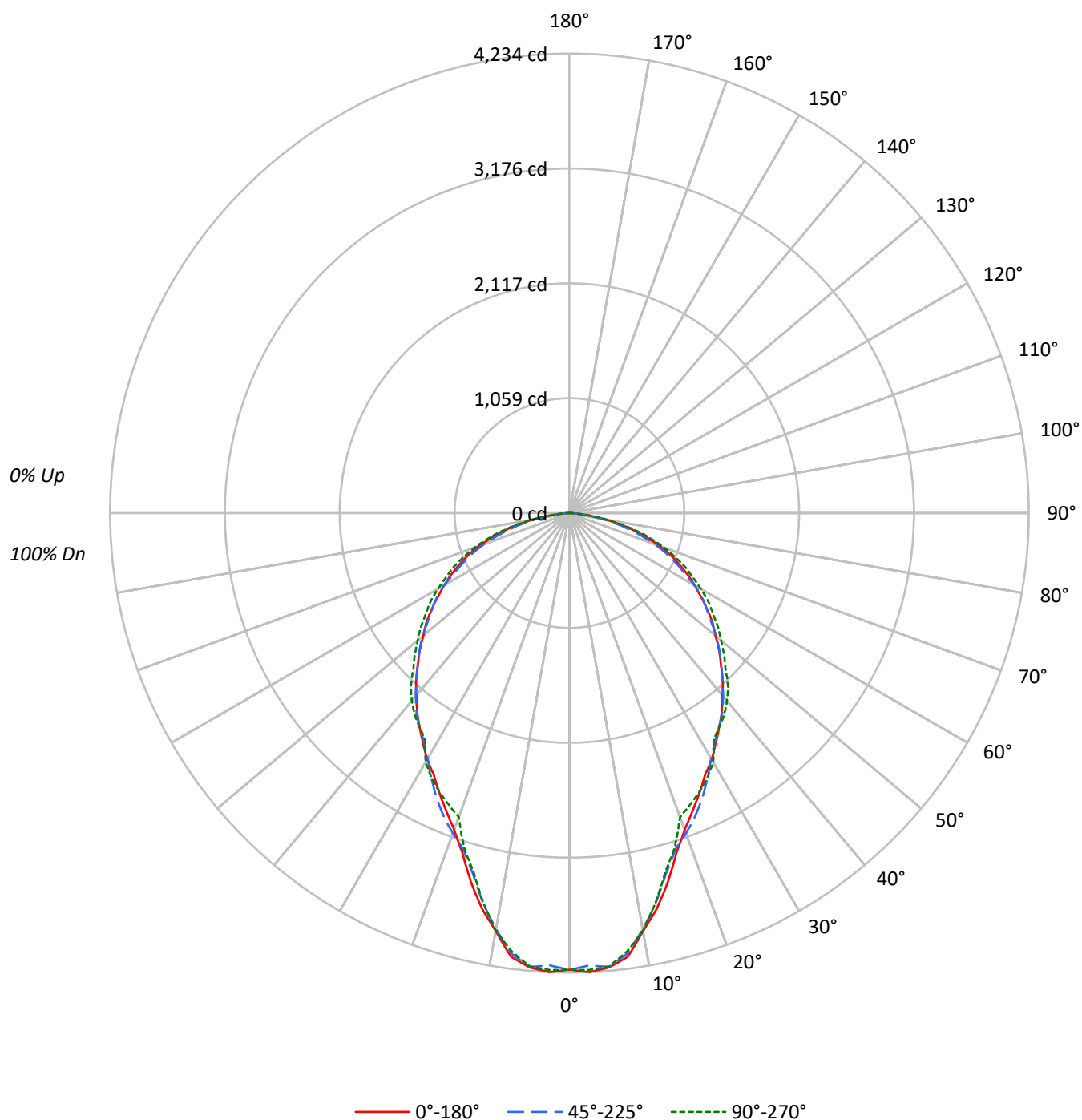
Lumens per Lamp: N/A
Luminaire Lumens: 8998.7 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	11323	11323	11323
5°	11354	11337	11325
10°	10684	10636	10678
15°	9790	9577	9522
20°	8891	8992	8534
25°	8433	8602	8420
30°	8145	8111	8234
35°	7907	7907	7907
40°	7710	7740	7932
45°	7520	7511	7744
50°	7356	7411	7640
55°	7279	7248	7576
60°	7183	7172	7537
65°	7091	6869	7496
70°	6955	6559	7300
75°	6438	5824	6757
80°	5222	4747	5357
85°	3310	2973	2905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	390.8	4.3
10°-20°	977.0	10.9
20°-30°	1319.5	14.7
30°-40°	1511.0	16.8
40°-50°	1547.7	17.2
50°-60°	1404.4	15.6
60°-70°	1096.1	12.2
70°-80°	621.7	6.9
80°-90°	130.5	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°	2687.3	29.9
0°-40°	4198.3	46.7
0°-60°	7150.4	79.5
0°-90°	8998.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8998.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4208	4208	4208	4208	4208	
5°	4203	4155	4197	4206	4192	393
15°	3514	3525	3438	3455	3418	982
25°	2840	2877	2897	2827	2836	1311
35°	2407	2411	2407	2409	2407	1508
45°	1976	1991	1974	2055	2035	1528
55°	1551	1549	1545	1600	1615	1386
65°	1114	1090	1079	1129	1177	1104
75°	619	573	560	593	650	648
85°	107	96	96	90	94	142
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4207.7	4207.7	4207.7	4207.7	4207.7
2.5°	4234.0	4201.2	4172.7	4218.7	4214.3
5°	4203.3	4155.2	4196.8	4205.5	4192.4
7.5°	4122.4	4091.7	4093.9	4076.4	4074.2
10°	3910.1	3927.6	3892.6	3923.3	3907.9
12.5°	3728.5	3739.5	3678.2	3691.3	3673.8
15°	3514.1	3525.0	3437.5	3455.0	3417.8
17.5°	3280.0	3319.3	3247.1	3269.0	3229.6
20°	3104.9	3137.7	3139.9	3104.9	2980.2
22.5°	2967.1	2999.9	3026.1	2921.1	2908.0
25°	2840.2	2877.4	2897.0	2827.0	2835.8
27.5°	2713.2	2754.8	2754.8	2770.1	2750.4
30°	2621.3	2638.8	2610.4	2667.3	2649.8
32.5°	2511.9	2518.5	2494.4	2536.0	2474.7
35°	2406.9	2411.3	2406.9	2409.1	2406.9
37.5°	2306.3	2295.3	2315.0	2301.9	2343.5
40°	2194.7	2194.7	2203.4	2225.3	2258.1
42.5°	2091.8	2100.6	2089.6	2150.9	2164.0
45°	1975.9	1991.2	1973.7	2054.6	2034.9
47.5°	1870.8	1877.4	1873.0	1927.7	1932.1
50°	1757.0	1765.8	1770.2	1818.3	1824.9
52.5°	1663.0	1660.8	1645.5	1715.5	1726.4
55°	1551.4	1549.2	1544.8	1599.5	1614.8
57.5°	1437.6	1439.8	1450.7	1481.3	1518.5
60°	1334.7	1323.8	1332.6	1369.8	1400.4
62.5°	1229.7	1210.0	1190.3	1251.6	1280.0
65°	1113.7	1089.7	1078.7	1129.1	1177.2
67.5°	1006.5	967.1	960.6	995.6	1052.5
70°	884.0	835.9	833.7	859.9	927.8
72.5°	748.3	706.8	695.8	730.8	792.1
75°	619.2	573.3	560.2	593.0	649.9
77.5°	479.2	442.0	433.2	450.7	496.7
80°	337.0	315.1	306.3	312.9	345.7
82.5°	212.2	196.9	192.6	190.4	207.9
85°	107.2	96.3	96.3	89.7	94.1
87.5°	32.8	30.6	28.4	21.9	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)