

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: P485752

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-35-120-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: P485752
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-LD4-4LO-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

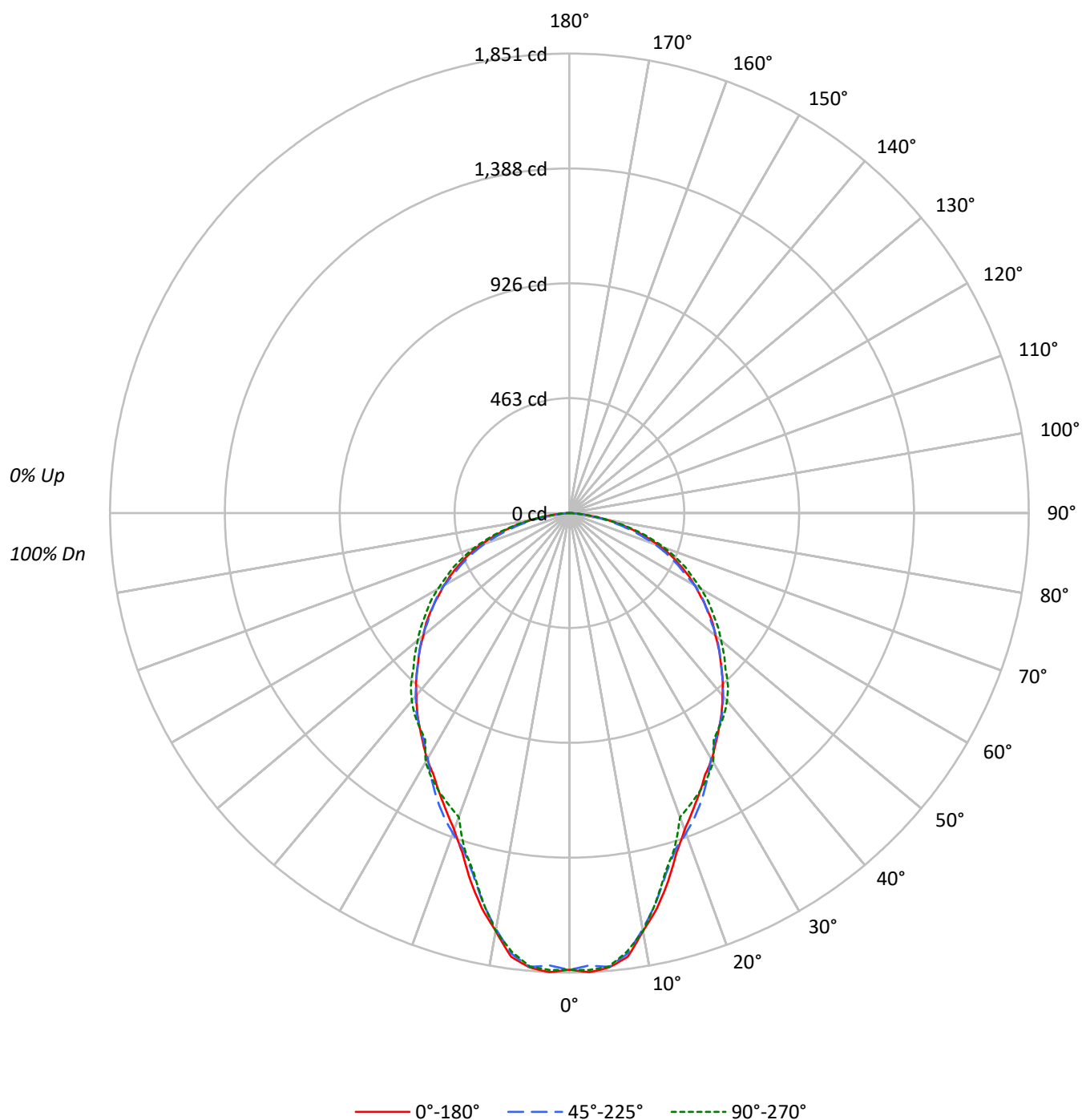
Lumens per Lamp: N/A
Luminaire Lumens: 3934.3 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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				10
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°	4950	4950	4950
5°	4964	4957	4951
10°	4671	4650	4669
15°	4280	4187	4163
20°	3887	3931	3731
25°	3687	3761	3681
30°	3561	3546	3600
35°	3457	3457	3457
40°	3371	3384	3468
45°	3288	3284	3386
50°	3216	3240	3340
55°	3182	3169	3312
60°	3141	3136	3295
65°	3100	3003	3277
70°	3041	2868	3191
75°	2815	2546	2954
80°	2283	2075	2343
85°	1448	1300	1269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.9	4.3
10°-20°	427.2	10.9
20°-30°	576.9	14.7
30°-40°	660.6	16.8
40°-50°	676.7	17.2
50°-60°	614.0	15.6
60°-70°	479.2	12.2
70°-80°	271.8	6.9
80°-90°	57.0	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°	1174.9	29.9
0°-40°	1835.5	46.7
0°-60°	3126.2	79.5
0°-90°	3934.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3934.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1840	1840	1840	1840	1840	
5°	1838	1817	1835	1839	1833	172
15°	1536	1541	1503	1511	1494	429
25°	1242	1258	1267	1236	1240	573
35°	1052	1054	1052	1053	1052	659
45°	864	871	863	898	890	668
55°	678	677	675	699	706	606
65°	487	476	472	494	515	483
75°	271	251	245	259	284	283
85°	47	42	42	39	41	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1839.6	1839.6	1839.6	1839.6	1839.6
2.5°	1851.1	1836.8	1824.3	1844.4	1842.5
5°	1837.7	1816.7	1834.9	1838.7	1832.9
7.5°	1802.3	1788.9	1789.9	1782.2	1781.3
10°	1709.5	1717.2	1701.9	1715.3	1708.6
12.5°	1630.1	1634.9	1608.1	1613.9	1606.2
15°	1536.4	1541.2	1502.9	1510.6	1494.3
17.5°	1434.0	1451.2	1419.7	1429.2	1412.0
20°	1357.5	1371.8	1372.8	1357.5	1303.0
22.5°	1297.2	1311.6	1323.1	1277.1	1271.4
25°	1241.7	1258.0	1266.6	1236.0	1239.8
27.5°	1186.3	1204.4	1204.4	1211.1	1202.5
30°	1146.1	1153.7	1141.3	1166.2	1158.5
32.5°	1098.2	1101.1	1090.6	1108.8	1082.0
35°	1052.3	1054.2	1052.3	1053.3	1052.3
37.5°	1008.3	1003.5	1012.1	1006.4	1024.6
40°	959.5	959.5	963.4	972.9	987.3
42.5°	914.6	918.4	913.6	940.4	946.1
45°	863.9	870.6	862.9	898.3	889.7
47.5°	817.9	820.8	818.9	842.8	844.7
50°	768.2	772.0	773.9	795.0	797.8
52.5°	727.1	726.1	719.4	750.0	754.8
55°	678.3	677.3	675.4	699.3	706.0
57.5°	628.5	629.5	634.3	647.7	663.9
60°	583.6	578.8	582.6	598.9	612.3
62.5°	537.6	529.0	520.4	547.2	559.6
65°	486.9	476.4	471.6	493.6	514.7
67.5°	440.1	422.8	420.0	435.3	460.2
70°	386.5	365.4	364.5	376.0	405.6
72.5°	327.2	309.0	304.2	319.5	346.3
75°	270.7	250.6	244.9	259.3	284.1
77.5°	209.5	193.2	189.4	197.1	217.2
80°	147.3	137.8	133.9	136.8	151.2
82.5°	92.8	86.1	84.2	83.2	90.9
85°	46.9	42.1	42.1	39.2	41.1
87.5°	14.3	13.4	12.4	9.6	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)