

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: P485749

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-27-120-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: P485749
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-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

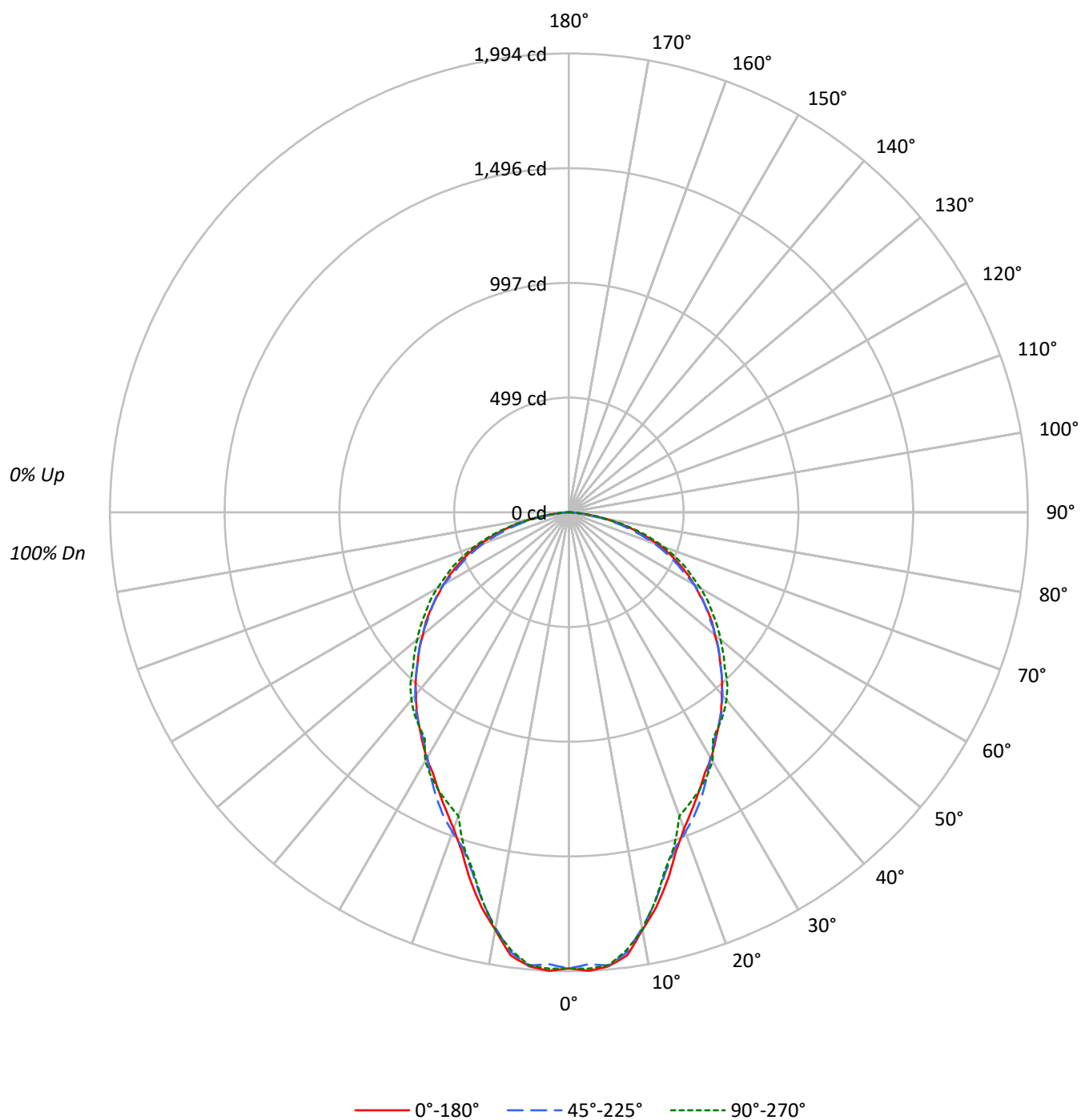
Lumens per Lamp: N/A
Luminaire Lumens: 4238.8 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P485749

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4LO-27-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P485749

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4LO-27-120-EDD

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°	5334	5334	5334
5°	5348	5340	5334
10°	5033	5010	5030
15°	4612	4511	4485
20°	4188	4235	4020
25°	3972	4052	3966
30°	3837	3821	3879
35°	3725	3725	3725
40°	3632	3646	3737
45°	3542	3538	3648
50°	3465	3491	3599
55°	3429	3414	3569
60°	3384	3378	3550
65°	3340	3235	3531
70°	3276	3090	3438
75°	3033	2744	3183
80°	2459	2236	2523
85°	1559	1402	1368



TEST NUMBER: P485749

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4LO-27-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.1	4.3
10°-20°	460.2	10.9
20°-30°	621.5	14.7
30°-40°	711.8	16.8
40°-50°	729.1	17.2
50°-60°	661.5	15.6
60°-70°	516.3	12.2
70°-80°	292.8	6.9
80°-90°	61.5	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°	1265.9	29.9
0°-40°	1977.6	46.7
0°-60°	3368.2	79.5
0°-90°	4238.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4238.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1982	1982	1982	1982	1982	
5°	1980	1957	1977	1981	1975	185
15°	1655	1660	1619	1628	1610	463
25°	1338	1355	1365	1332	1336	617
35°	1134	1136	1134	1135	1134	710
45°	931	938	930	968	958	720
55°	731	730	728	753	761	653
65°	525	513	508	532	554	520
75°	292	270	264	279	306	305
85°	50	45	45	42	44	67
90°	0	0	0	0	0	



TEST NUMBER: P485749

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4LO-27-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1982.0	1982.0	1982.0	1982.0	1982.0
2.5°	1994.4	1978.9	1965.5	1987.2	1985.1
5°	1980.0	1957.3	1976.9	1981.0	1974.8
7.5°	1941.8	1927.4	1928.4	1920.2	1919.2
10°	1841.9	1850.1	1833.6	1848.0	1840.8
12.5°	1756.3	1761.5	1732.6	1738.8	1730.5
15°	1655.3	1660.5	1619.2	1627.5	1609.9
17.5°	1545.0	1563.6	1529.6	1539.9	1521.3
20°	1462.6	1478.0	1479.0	1462.6	1403.8
22.5°	1397.6	1413.1	1425.5	1376.0	1369.8
25°	1337.8	1355.4	1364.6	1331.7	1335.8
27.5°	1278.1	1297.6	1297.6	1304.9	1295.6
30°	1234.8	1243.0	1229.6	1256.4	1248.2
32.5°	1183.2	1186.3	1175.0	1194.6	1165.7
35°	1133.8	1135.8	1133.8	1134.8	1133.8
37.5°	1086.4	1081.2	1090.5	1084.3	1103.9
40°	1033.8	1033.8	1037.9	1048.2	1063.7
42.5°	985.3	989.5	984.3	1013.2	1019.4
45°	930.7	937.9	929.7	967.8	958.5
47.5°	881.2	884.3	882.3	908.0	910.1
50°	827.6	831.8	833.8	856.5	859.6
52.5°	783.3	782.3	775.1	808.1	813.2
55°	730.8	729.7	727.7	753.4	760.7
57.5°	677.2	678.2	683.4	697.8	715.3
60°	628.7	623.6	627.7	645.2	659.6
62.5°	579.3	570.0	560.7	589.6	603.0
65°	524.6	513.3	508.1	531.8	554.5
67.5°	474.1	455.6	452.5	469.0	495.8
70°	416.4	393.7	392.7	405.1	437.0
72.5°	352.5	332.9	327.8	344.3	373.1
75°	291.7	270.0	263.9	279.3	306.1
77.5°	225.7	208.2	204.1	212.3	234.0
80°	158.7	148.4	144.3	147.4	162.8
82.5°	100.0	92.8	90.7	89.7	97.9
85°	50.5	45.4	45.4	42.3	44.3
87.5°	15.5	14.4	13.4	10.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)