

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: P485757

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-50-120-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: P485757
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-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

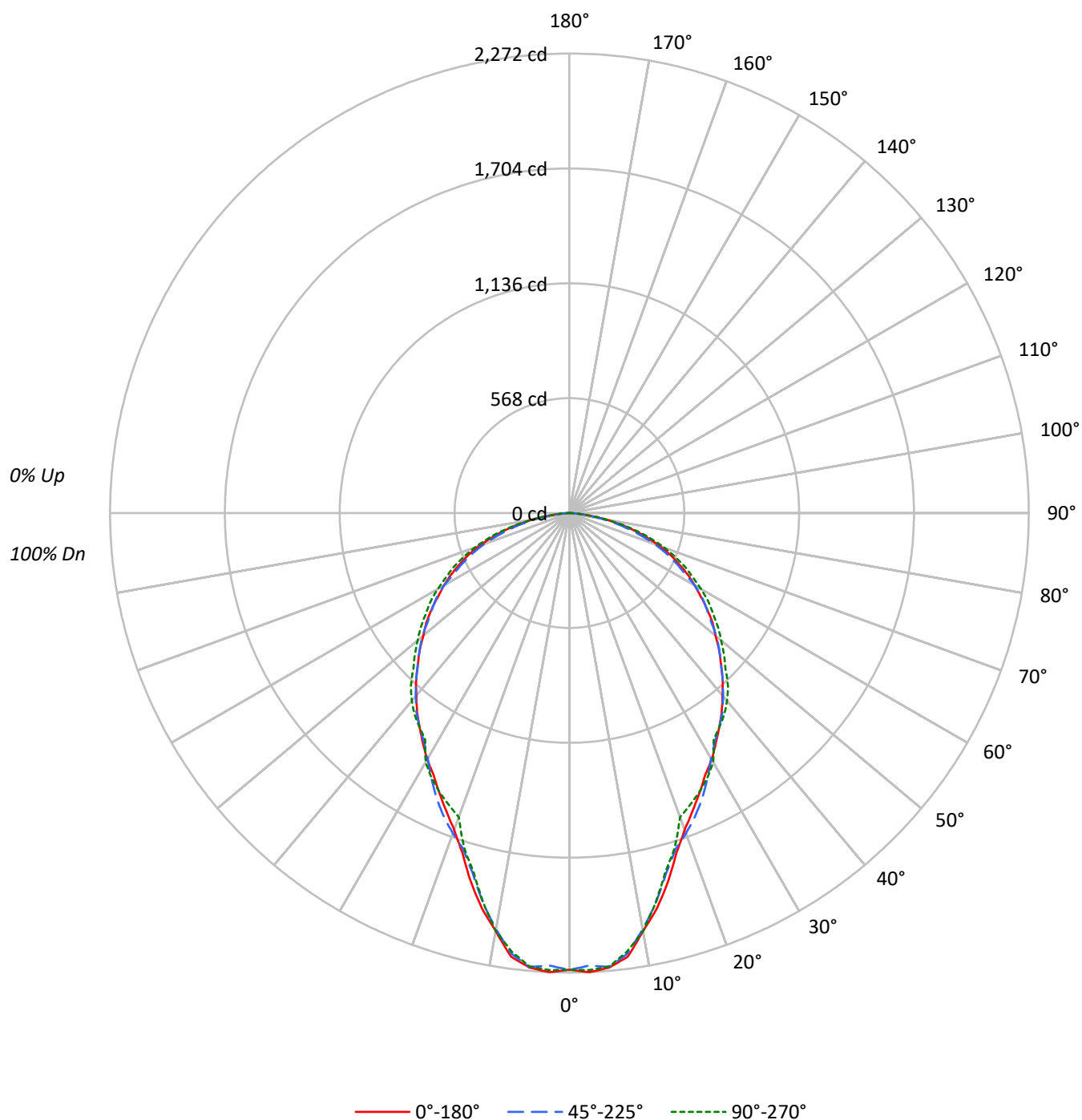
Lumens per Lamp: N/A
Luminaire Lumens: 4829.5 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-4LO-50-120-EDD

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°	6077	6077	6077
5°	6094	6084	6078
10°	5734	5708	5731
15°	5254	5140	5110
20°	4772	4826	4580
25°	4526	4616	4519
30°	4371	4353	4419
35°	4244	4244	4244
40°	4138	4154	4257
45°	4035	4031	4156
50°	3948	3977	4100
55°	3906	3890	4066
60°	3855	3849	4045
65°	3806	3686	4023
70°	3733	3520	3917
75°	3455	3125	3627
80°	2802	2548	2875
85°	1775	1596	1559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.7	4.3
10°-20°	524.4	10.9
20°-30°	708.1	14.7
30°-40°	810.9	16.8
40°-50°	830.7	17.2
50°-60°	753.7	15.6
60°-70°	588.3	12.2
70°-80°	333.6	6.9
80°-90°	70.0	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°	1442.3	29.9
0°-40°	2253.2	46.7
0°-60°	3837.6	79.5
0°-90°	4829.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4829.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2258	2258	2258	2258	2258	
5°	2256	2230	2252	2257	2250	211
15°	1886	1892	1845	1854	1834	527
25°	1524	1544	1555	1517	1522	703
35°	1292	1294	1292	1293	1292	809
45°	1060	1069	1059	1103	1092	820
55°	833	831	829	858	867	744
65°	598	585	579	606	632	592
75°	332	308	301	318	349	348
85°	58	52	52	48	50	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2258.2	2258.2	2258.2	2258.2	2258.2
2.5°	2272.3	2254.7	2239.4	2264.1	2261.8
5°	2255.9	2230.1	2252.4	2257.1	2250.0
7.5°	2212.4	2196.0	2197.2	2187.8	2186.6
10°	2098.5	2107.9	2089.1	2105.6	2097.4
12.5°	2001.1	2006.9	1974.0	1981.1	1971.7
15°	1886.0	1891.8	1844.9	1854.3	1834.3
17.5°	1760.3	1781.5	1742.7	1754.4	1733.3
20°	1666.4	1684.0	1685.2	1666.4	1599.4
22.5°	1592.4	1610.0	1624.1	1567.7	1560.7
25°	1524.3	1544.2	1554.8	1517.2	1521.9
27.5°	1456.2	1478.5	1478.5	1486.7	1476.1
30°	1406.8	1416.2	1401.0	1431.5	1422.1
32.5°	1348.1	1351.7	1338.7	1361.0	1328.2
35°	1291.8	1294.1	1291.8	1292.9	1291.8
37.5°	1237.7	1231.9	1242.4	1235.4	1257.7
40°	1177.9	1177.9	1182.5	1194.3	1211.9
42.5°	1122.7	1127.4	1121.5	1154.4	1161.4
45°	1060.4	1068.6	1059.2	1102.7	1092.1
47.5°	1004.1	1007.6	1005.2	1034.6	1036.9
50°	943.0	947.7	950.0	975.9	979.4
52.5°	892.5	891.3	883.1	920.7	926.5
55°	832.6	831.4	829.1	858.4	866.7
57.5°	771.5	772.7	778.6	795.0	815.0
60°	716.3	710.5	715.2	735.1	751.6
62.5°	660.0	649.4	638.8	671.7	687.0
65°	597.7	584.8	578.9	606.0	631.8
67.5°	540.2	519.1	515.5	534.3	564.9
70°	474.4	448.6	447.4	461.5	497.9
72.5°	401.6	379.3	373.4	392.2	425.1
75°	332.3	307.7	300.6	318.2	348.8
77.5°	257.2	237.2	232.5	241.9	266.6
80°	180.8	169.1	164.4	167.9	185.5
82.5°	113.9	105.7	103.3	102.2	111.6
85°	57.5	51.7	51.7	48.1	50.5
87.5°	17.6	16.4	15.3	11.7	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)