

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: P485633

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1HI-35-120-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: P485633
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-LD4-1HI-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

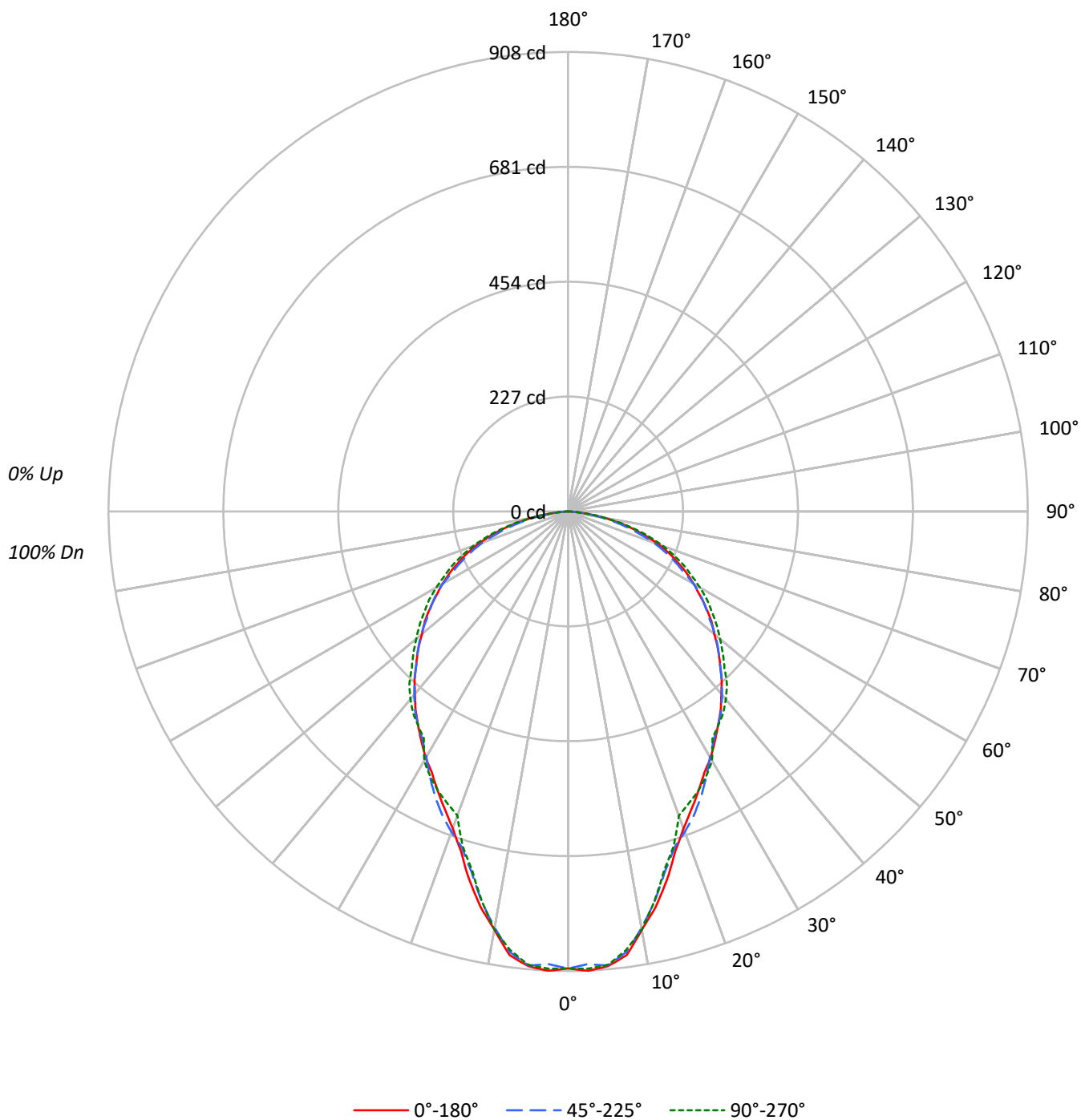
Lumens per Lamp: N/A
Luminaire Lumens: 1930.8 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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: P485633

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-35-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P485633

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-35-120-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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2429	2429	2429
5°	2436	2432	2430
10°	2293	2282	2291
15°	2101	2055	2043
20°	1908	1929	1831
25°	1809	1846	1807
30°	1748	1740	1767
35°	1696	1696	1696
40°	1654	1661	1702
45°	1613	1612	1662
50°	1578	1590	1639
55°	1562	1555	1626
60°	1541	1539	1617
65°	1522	1474	1608
70°	1493	1408	1566
75°	1382	1250	1449
80°	1120	1018	1150
85°	710	639	624



TEST NUMBER: P485633

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-35-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	4.3
10°-20°	209.6	10.9
20°-30°	283.1	14.7
30°-40°	324.2	16.8
40°-50°	332.1	17.2
50°-60°	301.3	15.6
60°-70°	235.2	12.2
70°-80°	133.4	6.9
80°-90°	28.0	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°	576.6	29.9
0°-40°	900.8	46.7
0°-60°	1534.2	79.5
0°-90°	1930.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1930.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	902	892	900	902	900	84
15°	754	756	738	741	733	211
25°	609	617	622	607	608	281
35°	516	517	516	517	516	323
45°	424	427	424	441	437	328
55°	333	332	332	343	346	297
65°	239	234	232	242	253	237
75°	133	123	120	127	139	139
85°	23	21	21	19	20	30
90°	0	0	0	0	0	



TEST NUMBER: P485633

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-35-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.8	902.8	902.8	902.8	902.8
2.5°	908.5	901.4	895.3	905.2	904.2
5°	901.9	891.6	900.5	902.4	899.5
7.5°	884.5	877.9	878.4	874.7	874.2
10°	839.0	842.7	835.2	841.8	838.5
12.5°	800.0	802.4	789.2	792.0	788.3
15°	754.0	756.3	737.6	741.3	733.3
17.5°	703.8	712.2	696.7	701.4	693.0
20°	666.2	673.2	673.7	666.2	639.4
22.5°	636.6	643.7	649.3	626.8	624.0
25°	609.4	617.4	621.6	606.6	608.5
27.5°	582.2	591.1	591.1	594.4	590.1
30°	562.4	566.2	560.1	572.3	568.6
32.5°	539.0	540.4	535.2	544.1	531.0
35°	516.4	517.4	516.4	516.9	516.4
37.5°	494.8	492.5	496.7	493.9	502.8
40°	470.9	470.9	472.8	477.5	484.5
42.5°	448.8	450.7	448.4	461.5	464.3
45°	423.9	427.2	423.5	440.8	436.6
47.5°	401.4	402.8	401.9	413.6	414.6
50°	377.0	378.9	379.8	390.1	391.6
52.5°	356.8	356.3	353.1	368.1	370.4
55°	332.9	332.4	331.5	343.2	346.5
57.5°	308.5	308.9	311.3	317.8	325.8
60°	286.4	284.0	285.9	293.9	300.5
62.5°	263.9	259.6	255.4	268.5	274.7
65°	239.0	233.8	231.5	242.3	252.6
67.5°	216.0	207.5	206.1	213.6	225.8
70°	189.7	179.3	178.9	184.5	199.1
72.5°	160.6	151.6	149.3	156.8	170.0
75°	132.9	123.0	120.2	127.2	139.4
77.5°	102.8	94.8	93.0	96.7	106.6
80°	72.3	67.6	65.7	67.1	74.2
82.5°	45.5	42.3	41.3	40.8	44.6
85°	23.0	20.7	20.7	19.2	20.2
87.5°	7.0	6.6	6.1	4.7	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)