

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: P485688

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-27-120-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: P485688
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-LD4-2STD-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

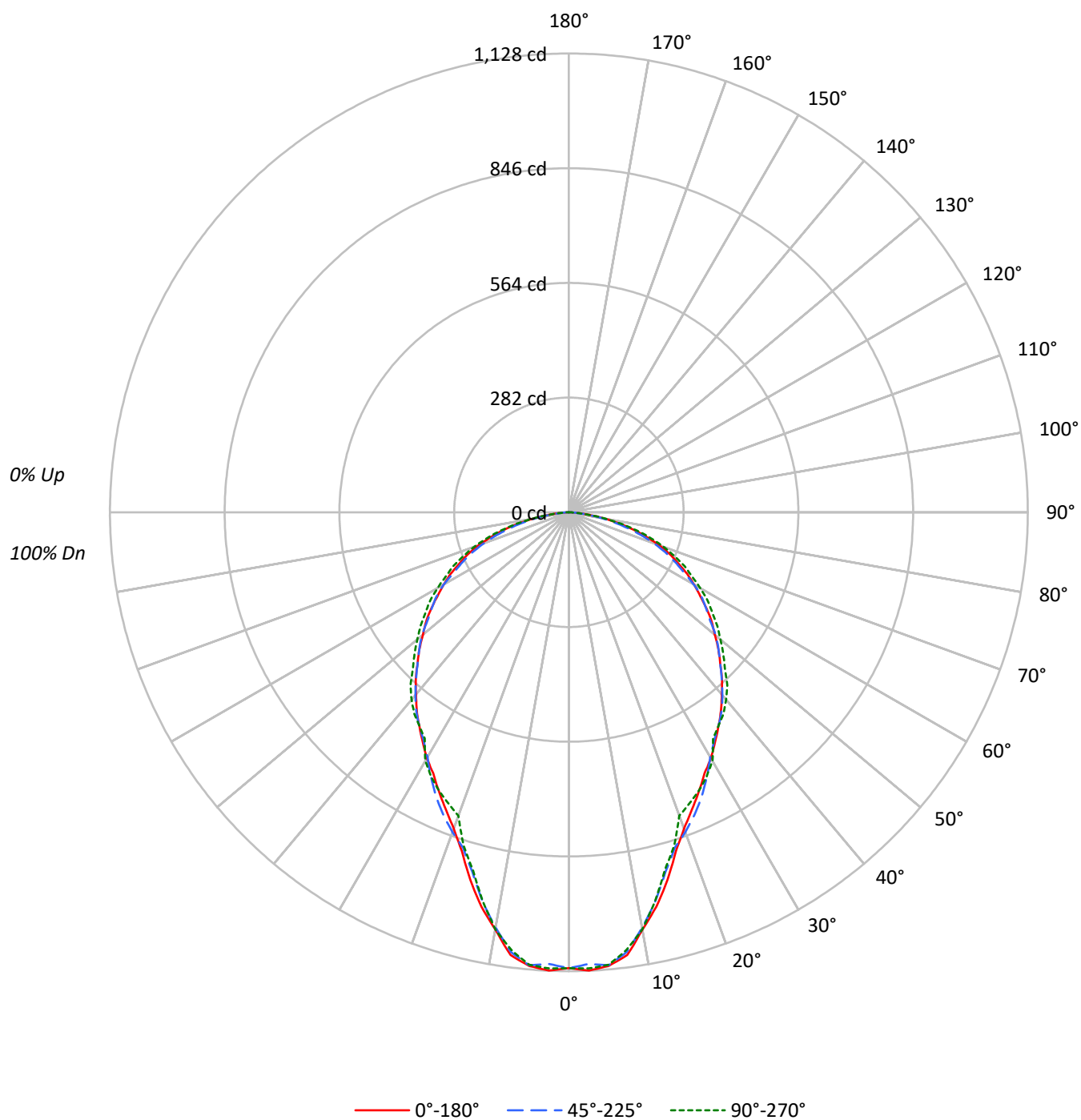
Lumens per Lamp: N/A
Luminaire Lumens: 2396.5 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P485688

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-2STD-27-120-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P485688

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-2STD-27-120-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3016	3016	3016
5°	3024	3019	3016
10°	2845	2833	2844
15°	2607	2550	2536
20°	2368	2395	2273
25°	2246	2291	2242
30°	2169	2160	2193
35°	2106	2106	2106
40°	2053	2061	2113
45°	2003	2000	2062
50°	1959	1973	2035
55°	1939	1930	2018
60°	1913	1910	2007
65°	1889	1829	1996
70°	1852	1747	1944
75°	1714	1551	1800
80°	1390	1265	1427
85°	883	790	775



TEST NUMBER: P485688

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-2STD-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	4.3
10°-20°	260.2	10.9
20°-30°	351.4	14.7
30°-40°	402.4	16.8
40°-50°	412.2	17.2
50°-60°	374.0	15.6
60°-70°	291.9	12.2
70°-80°	165.6	6.9
80°-90°	34.7	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°	715.7	29.9
0°-40°	1118.1	46.7
0°-60°	1904.3	79.5
0°-90°	2396.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2396.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1119	1107	1118	1120	1116	105
15°	936	939	916	920	910	262
25°	756	766	772	753	755	349
35°	641	642	641	642	641	402
45°	526	530	526	547	542	407
55°	413	413	411	426	430	369
65°	297	290	287	301	314	294
75°	165	153	149	158	173	173
85°	29	26	26	24	25	38
90°	0	0	0	0	0	



TEST NUMBER: P485688

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-2STD-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.6	1120.6	1120.6	1120.6	1120.6
2.5°	1127.6	1118.8	1111.3	1123.5	1122.3
5°	1119.4	1106.6	1117.7	1120.0	1116.5
7.5°	1097.9	1089.7	1090.3	1085.6	1085.0
10°	1041.3	1046.0	1036.7	1044.8	1040.8
12.5°	993.0	995.9	979.6	983.1	978.4
15°	935.9	938.8	915.5	920.1	910.2
17.5°	873.5	884.0	864.8	870.6	860.1
20°	826.9	835.6	836.2	826.9	793.7
22.5°	790.2	798.9	805.9	777.9	774.4
25°	756.4	766.3	771.5	752.9	755.2
27.5°	722.6	733.7	733.7	737.7	732.5
30°	698.1	702.8	695.2	710.3	705.7
32.5°	669.0	670.7	664.3	675.4	659.1
35°	641.0	642.2	641.0	641.6	641.0
37.5°	614.2	611.3	616.5	613.0	624.1
40°	584.5	584.5	586.8	592.6	601.4
42.5°	557.1	559.4	556.5	572.8	576.3
45°	526.2	530.3	525.6	547.2	541.9
47.5°	498.2	500.0	498.8	513.4	514.5
50°	467.9	470.3	471.4	484.2	486.0
52.5°	442.9	442.3	438.2	456.9	459.8
55°	413.2	412.6	411.4	426.0	430.1
57.5°	382.9	383.4	386.3	394.5	404.4
60°	355.5	352.5	354.9	364.8	372.9
62.5°	327.5	322.2	317.0	333.3	340.9
65°	296.6	290.2	287.3	300.7	313.5
67.5°	268.1	257.6	255.8	265.1	280.3
70°	235.4	222.6	222.0	229.0	247.1
72.5°	199.3	188.2	185.3	194.6	210.9
75°	164.9	152.7	149.2	157.9	173.1
77.5°	127.6	117.7	115.4	120.0	132.3
80°	89.7	83.9	81.6	83.3	92.1
82.5°	56.5	52.4	51.3	50.7	55.4
85°	28.6	25.6	25.6	23.9	25.1
87.5°	8.7	8.2	7.6	5.8	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)