

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: P485626

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1HI-20-120-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: P485626
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-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

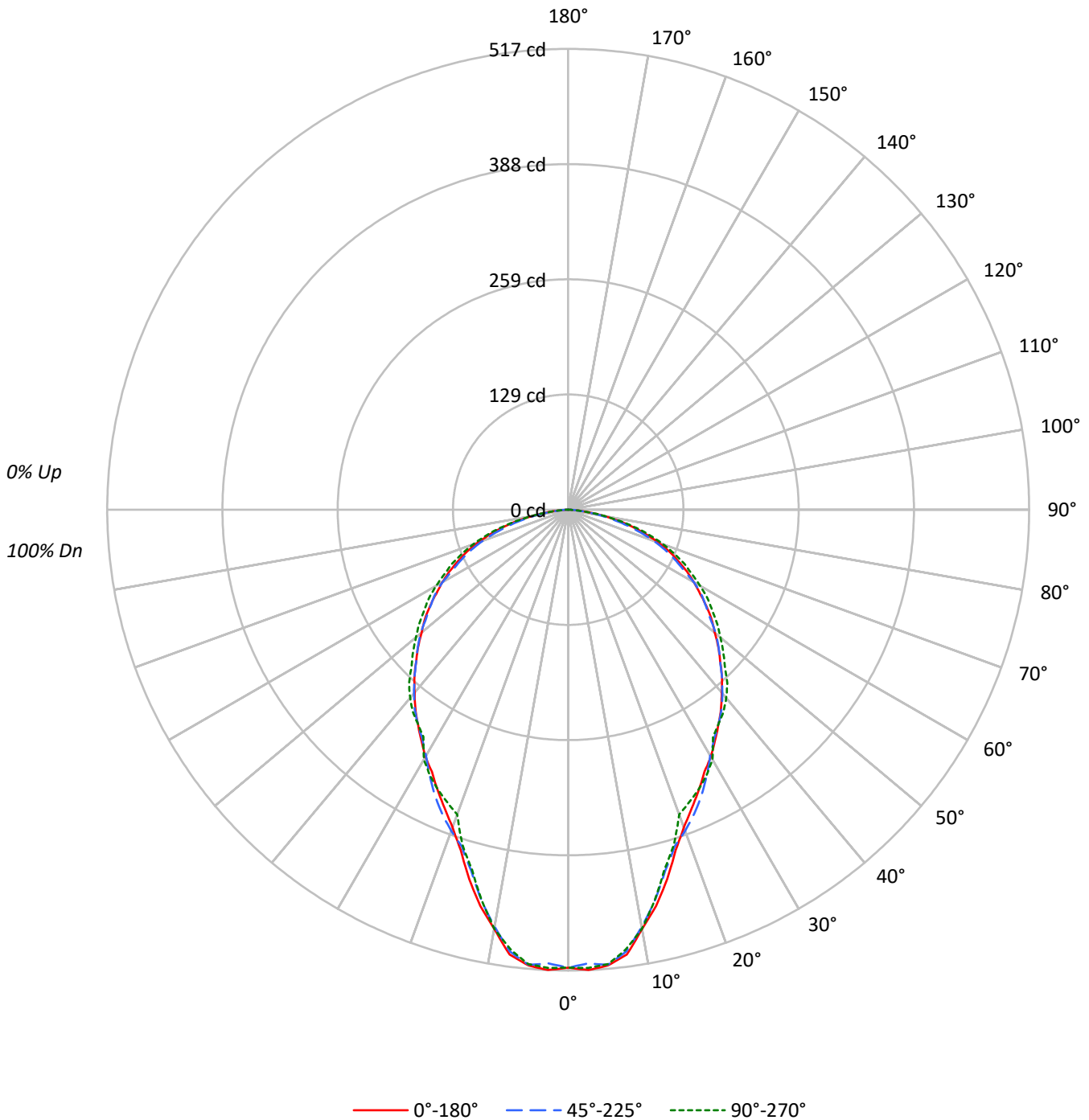
Lumens per Lamp: N/A
Luminaire Lumens: 1098.6 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P485626

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-20-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485626

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-20-120-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°	1382	1382	1382
5°	1386	1384	1383
10°	1304	1298	1304
15°	1195	1169	1163
20°	1086	1098	1042
25°	1029	1050	1028
30°	994	990	1005
35°	965	965	965
40°	941	945	968
45°	918	917	945
50°	898	905	933
55°	889	885	925
60°	877	876	920
65°	866	839	915
70°	849	801	891
75°	786	711	824
80°	637	580	654
85°	404	364	355



TEST NUMBER: P485626

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-20-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	4.3
10°-20°	119.3	10.9
20°-30°	161.1	14.7
30°-40°	184.5	16.8
40°-50°	189.0	17.2
50°-60°	171.5	15.6
60°-70°	133.8	12.2
70°-80°	75.9	6.9
80°-90°	15.9	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°	328.1	29.9
0°-40°	512.5	46.7
0°-60°	872.9	79.5
0°-90°	1098.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1098.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	514	514	514	514	514	
5°	513	507	512	513	512	48
15°	429	430	420	422	417	120
25°	347	351	354	345	346	160
35°	294	294	294	294	294	184
45°	241	243	241	251	248	187
55°	189	189	189	195	197	169
65°	136	133	132	138	144	135
75°	76	70	68	72	79	79
85°	13	12	12	11	12	17
90°	0	0	0	0	0	



TEST NUMBER: P485626

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-20-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	513.7	513.7	513.7	513.7	513.7
2.5°	516.9	512.9	509.4	515.0	514.5
5°	513.2	507.3	512.4	513.4	511.8
7.5°	503.3	499.5	499.8	497.7	497.4
10°	477.4	479.5	475.2	479.0	477.1
12.5°	455.2	456.5	449.1	450.7	448.5
15°	429.0	430.4	419.7	421.8	417.3
17.5°	400.4	405.2	396.4	399.1	394.3
20°	379.1	383.1	383.3	379.1	363.8
22.5°	362.2	366.2	369.4	356.6	355.0
25°	346.7	351.3	353.7	345.1	346.2
27.5°	331.2	336.3	336.3	338.2	335.8
30°	320.0	322.2	318.7	325.6	323.5
32.5°	306.7	307.5	304.5	309.6	302.1
35°	293.8	294.4	293.8	294.1	293.8
37.5°	281.6	280.2	282.6	281.0	286.1
40°	267.9	267.9	269.0	271.7	275.7
42.5°	255.4	256.4	255.1	262.6	264.2
45°	241.2	243.1	241.0	250.8	248.4
47.5°	228.4	229.2	228.7	235.3	235.9
50°	214.5	215.6	216.1	222.0	222.8
52.5°	203.0	202.8	200.9	209.4	210.8
55°	189.4	189.1	188.6	195.3	197.1
57.5°	175.5	175.8	177.1	180.8	185.4
60°	163.0	161.6	162.7	167.2	171.0
62.5°	150.1	147.7	145.3	152.8	156.3
65°	136.0	133.0	131.7	137.8	143.7
67.5°	122.9	118.1	117.3	121.5	128.5
70°	107.9	102.0	101.8	105.0	113.3
72.5°	91.4	86.3	84.9	89.2	96.7
75°	75.6	70.0	68.4	72.4	79.3
77.5°	58.5	54.0	52.9	55.0	60.6
80°	41.1	38.5	37.4	38.2	42.2
82.5°	25.9	24.0	23.5	23.2	25.4
85°	13.1	11.8	11.8	11.0	11.5
87.5°	4.0	3.7	3.5	2.7	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)