

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: P485649

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-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: P485649
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-LD4-1LO-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

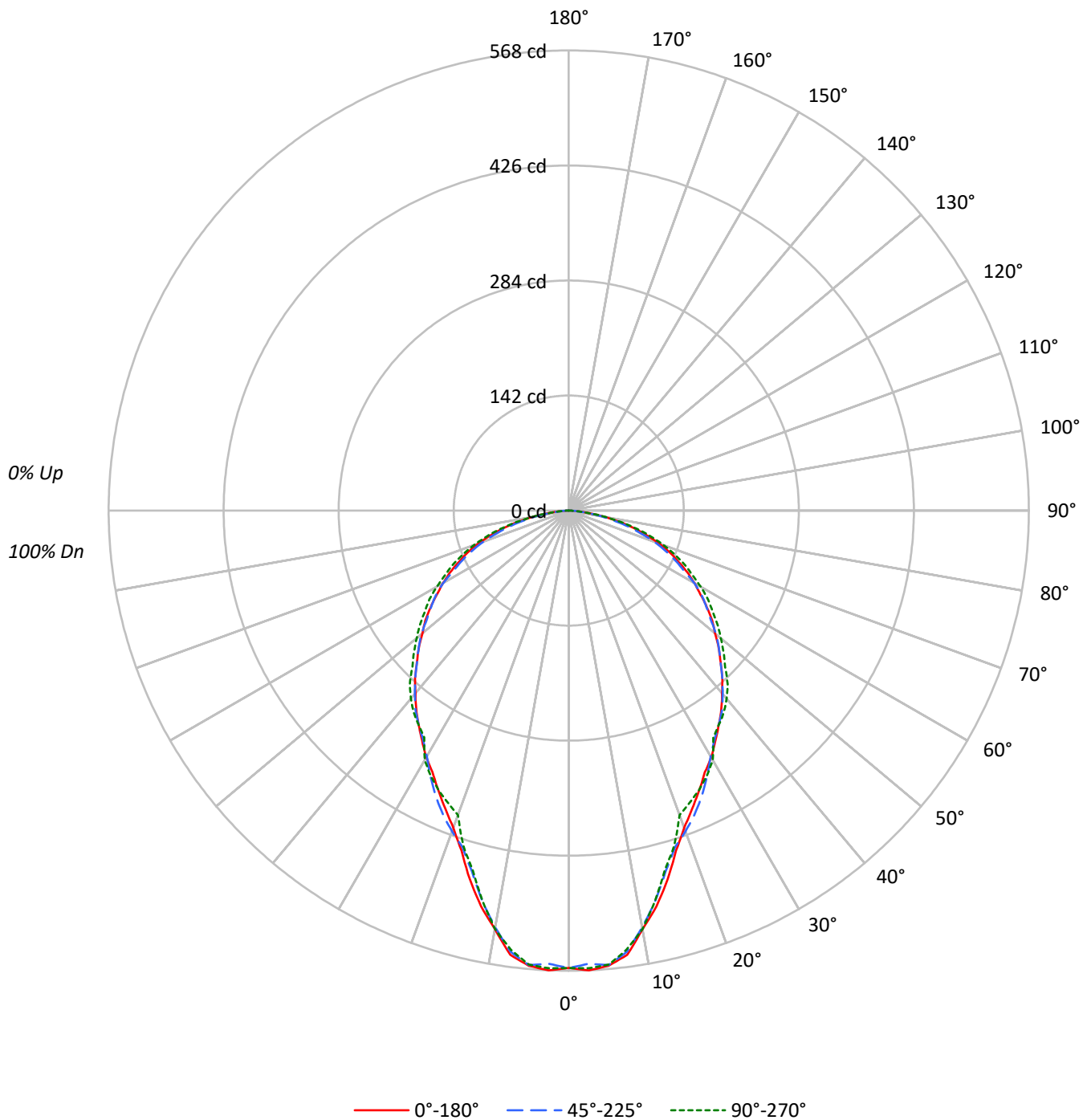
Lumens per Lamp: N/A
Luminaire Lumens: 1207.4 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P485649

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1LO-50-120-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P485649

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1LO-50-120-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			
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°	1519	1519	1519
5°	1524	1521	1519
10°	1433	1427	1433
15°	1314	1285	1278
20°	1193	1206	1145
25°	1132	1154	1130
30°	1093	1088	1105
35°	1061	1061	1061
40°	1035	1038	1064
45°	1009	1008	1039
50°	987	994	1025
55°	977	973	1017
60°	964	962	1011
65°	951	921	1006
70°	933	880	980
75°	864	782	907
80°	700	637	719
85°	445	398	389



TEST NUMBER: P485649

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1LO-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	4.3
10°-20°	131.1	10.9
20°-30°	177.0	14.7
30°-40°	202.7	16.8
40°-50°	207.7	17.2
50°-60°	188.4	15.6
60°-70°	147.1	12.2
70°-80°	83.4	6.9
80°-90°	17.5	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°	360.6	29.9
0°-40°	563.3	46.7
0°-60°	959.4	79.5
0°-90°	1207.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1207.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	565	565	565	565	565	
5°	564	558	563	564	562	53
15°	472	473	461	464	459	132
25°	381	386	389	379	380	176
35°	323	324	323	323	323	202
45°	265	267	265	276	273	205
55°	208	208	207	215	217	186
65°	149	146	145	152	158	148
75°	83	77	75	80	87	87
85°	14	13	13	12	13	19
90°	0	0	0	0	0	



TEST NUMBER: P485649

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1LO-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	564.6	564.6	564.6	564.6	564.6
2.5°	568.1	563.7	559.9	566.0	565.5
5°	564.0	557.5	563.1	564.3	562.5
7.5°	553.1	549.0	549.3	547.0	546.7
10°	524.6	527.0	522.3	526.4	524.3
12.5°	500.3	501.7	493.5	495.3	492.9
15°	471.5	473.0	461.2	463.6	458.6
17.5°	440.1	445.4	435.7	438.6	433.3
20°	416.6	421.0	421.3	416.6	399.9
22.5°	398.1	402.5	406.0	391.9	390.2
25°	381.1	386.1	388.7	379.3	380.5
27.5°	364.0	369.6	369.6	371.7	369.0
30°	351.7	354.1	350.3	357.9	355.5
32.5°	337.0	337.9	334.7	340.3	332.0
35°	322.9	323.5	322.9	323.2	322.9
37.5°	309.4	308.0	310.6	308.9	314.4
40°	294.5	294.5	295.6	298.6	303.0
42.5°	280.7	281.8	280.4	288.6	290.4
45°	265.1	267.2	264.8	275.7	273.0
47.5°	251.0	251.9	251.3	258.7	259.2
50°	235.8	236.9	237.5	244.0	244.9
52.5°	223.1	222.8	220.8	230.2	231.6
55°	208.2	207.9	207.3	214.6	216.7
57.5°	192.9	193.2	194.6	198.8	203.8
60°	179.1	177.6	178.8	183.8	187.9
62.5°	165.0	162.4	159.7	167.9	171.7
65°	149.4	146.2	144.7	151.5	158.0
67.5°	135.1	129.8	128.9	133.6	141.2
70°	118.6	112.2	111.9	115.4	124.5
72.5°	100.4	94.8	93.4	98.1	106.3
75°	83.1	76.9	75.2	79.6	87.2
77.5°	64.3	59.3	58.1	60.5	66.6
80°	45.2	42.3	41.1	42.0	46.4
82.5°	28.5	26.4	25.8	25.5	27.9
85°	14.4	12.9	12.9	12.0	12.6
87.5°	4.4	4.1	3.8	2.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)