

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: P485712

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-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: P485712
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-LD4-3LO-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

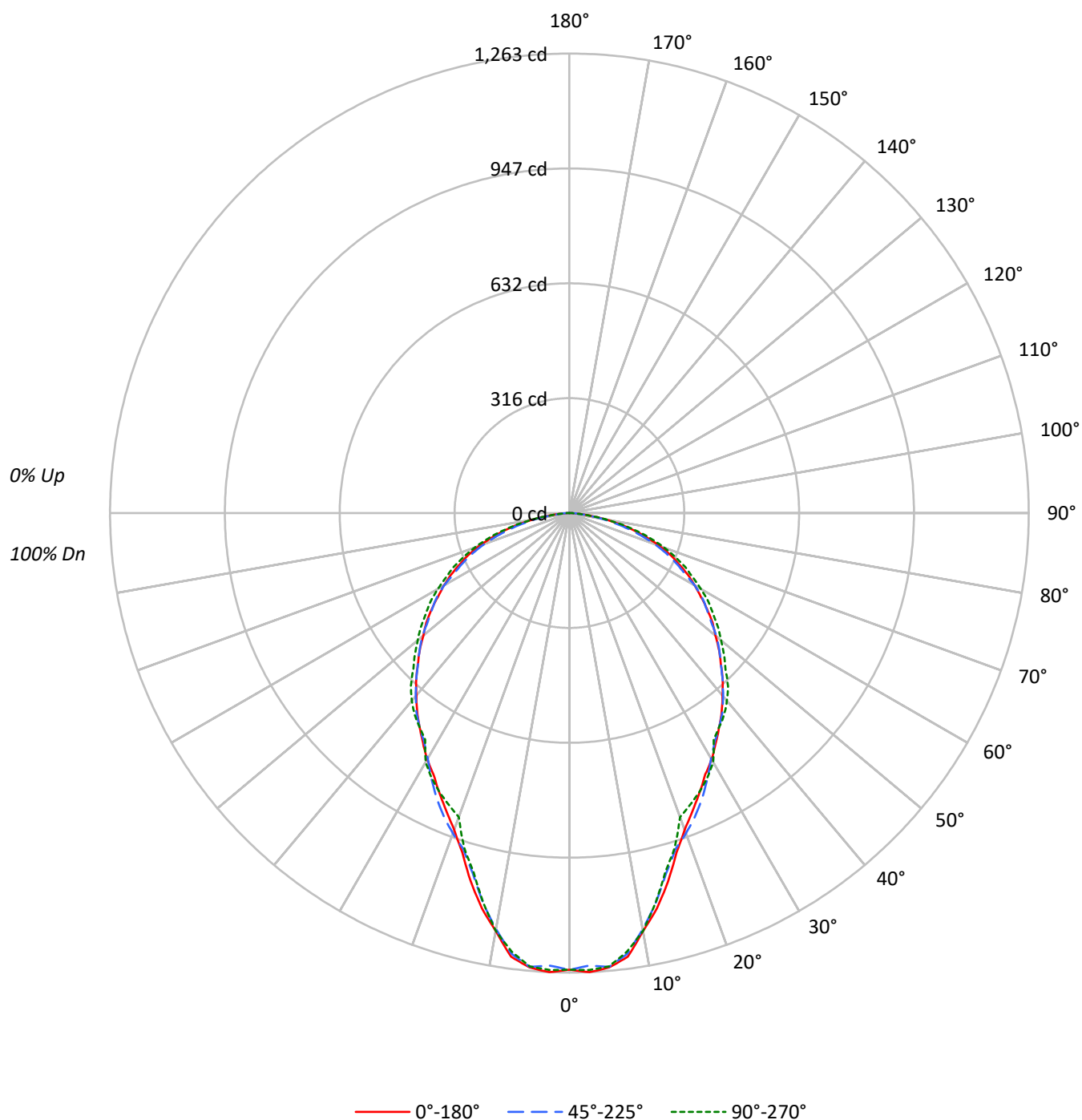
Lumens per Lamp: N/A
Luminaire Lumens: 2684.4 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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: P485712

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3LO-27-120-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P485712

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3LO-27-120-EDD-90

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°	3378	3378	3378
5°	3387	3382	3378
10°	3187	3173	3186
15°	2920	2857	2841
20°	2652	2682	2546
25°	2515	2566	2512
30°	2430	2420	2456
35°	2359	2359	2359
40°	2300	2309	2366
45°	2243	2241	2310
50°	2194	2211	2279
55°	2171	2162	2260
60°	2143	2139	2248
65°	2115	2049	2236
70°	2075	1957	2178
75°	1920	1737	2016
80°	1557	1416	1598
85°	988	886	868



TEST NUMBER: P485712

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3LO-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	4.3
10°-20°	291.5	10.9
20°-30°	393.6	14.7
30°-40°	450.7	16.8
40°-50°	461.7	17.2
50°-60°	418.9	15.6
60°-70°	327.0	12.2
70°-80°	185.5	6.9
80°-90°	38.9	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°	801.7	29.9
0°-40°	1252.4	46.7
0°-60°	2133.0	79.5
0°-90°	2684.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2684.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1255	1255	1255	1255	1255	
5°	1254	1240	1252	1255	1251	117
15°	1048	1052	1025	1031	1020	293
25°	847	858	864	843	846	391
35°	718	719	718	719	718	450
45°	589	594	589	613	607	456
55°	463	462	461	477	482	414
65°	332	325	322	337	351	329
75°	185	171	167	177	194	193
85°	32	29	29	27	28	42
90°	0	0	0	0	0	



TEST NUMBER: P485712

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3LO-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1255.2	1255.2	1255.2	1255.2	1255.2
2.5°	1263.0	1253.2	1244.8	1258.5	1257.2
5°	1253.9	1239.5	1251.9	1254.6	1250.6
7.5°	1229.7	1220.6	1221.3	1216.0	1215.4
10°	1166.4	1171.7	1161.2	1170.3	1165.8
12.5°	1112.3	1115.5	1097.2	1101.2	1095.9
15°	1048.3	1051.6	1025.4	1030.7	1019.6
17.5°	978.4	990.2	968.7	975.2	963.4
20°	926.2	936.0	936.7	926.2	889.0
22.5°	885.1	894.9	902.7	871.4	867.5
25°	847.2	858.3	864.2	843.3	845.9
27.5°	809.4	821.8	821.8	826.4	820.5
30°	782.0	787.2	778.7	795.7	790.5
32.5°	749.3	751.3	744.1	756.5	738.2
35°	718.0	719.3	718.0	718.7	718.0
37.5°	688.0	684.7	690.6	686.7	699.1
40°	654.7	654.7	657.3	663.8	673.6
42.5°	624.0	626.6	623.4	641.6	645.6
45°	589.4	594.0	588.8	612.9	607.0
47.5°	558.1	560.0	558.7	575.1	576.4
50°	524.1	526.8	528.1	542.4	544.4
52.5°	496.1	495.4	490.9	511.7	515.0
55°	462.8	462.1	460.8	477.1	481.7
57.5°	428.8	429.5	432.8	441.9	453.0
60°	398.2	394.9	397.5	408.6	417.7
62.5°	366.8	361.0	355.1	373.4	381.8
65°	332.2	325.1	321.8	336.8	351.2
67.5°	300.3	288.5	286.5	297.0	314.0
70°	263.7	249.3	248.7	256.5	276.8
72.5°	223.2	210.8	207.6	218.0	236.3
75°	184.7	171.0	167.1	176.9	193.9
77.5°	142.9	131.9	129.2	134.5	148.2
80°	100.5	94.0	91.4	93.3	103.1
82.5°	63.3	58.7	57.4	56.8	62.0
85°	32.0	28.7	28.7	26.8	28.1
87.5°	9.8	9.1	8.5	6.5	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)