

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: P486989

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-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: P486989
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-24-4-INS-89BC-LD4-2STD-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

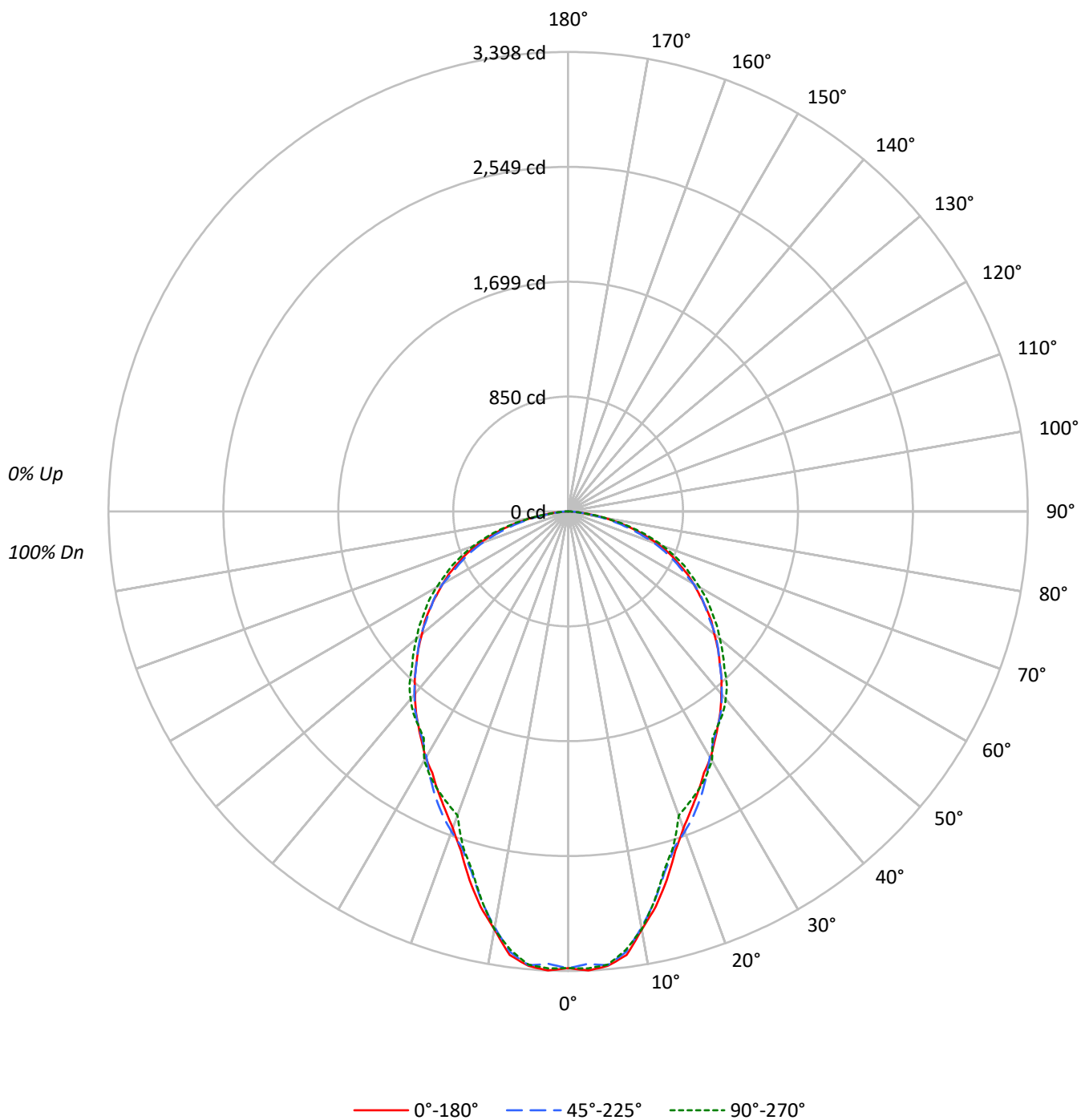
Lumens per Lamp: N/A
Luminaire Lumens: 7221.2 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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: P486989

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-2STD-35-120-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P486989

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-2STD-35-120-EDD

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°	4543	4543	4543
5°	4556	4549	4544
10°	4287	4268	4285
15°	3928	3842	3820
20°	3568	3608	3424
25°	3384	3451	3378
30°	3268	3255	3304
35°	3173	3173	3173
40°	3093	3106	3183
45°	3017	3014	3107
50°	2951	2973	3065
55°	2920	2908	3040
60°	2882	2877	3024
65°	2845	2756	3008
70°	2791	2632	2929
75°	2583	2337	2711
80°	2095	1905	2149
85°	1328	1193	1166



TEST NUMBER: P486989

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-2STD-35-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.6	4.3
10°-20°	784.0	10.9
20°-30°	1058.9	14.7
30°-40°	1212.5	16.8
40°-50°	1242.0	17.2
50°-60°	1127.0	15.6
60°-70°	879.6	12.2
70°-80°	498.9	6.9
80°-90°	104.7	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°	2156.5	29.9
0°-40°	3369.0	46.7
0°-60°	5738.0	79.5
0°-90°	7221.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7221.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3377	3377	3377	3377	3377	
5°	3373	3334	3368	3375	3364	315
15°	2820	2829	2758	2772	2743	788
25°	2279	2309	2325	2269	2276	1052
35°	1932	1935	1932	1933	1932	1210
45°	1586	1598	1584	1649	1633	1226
55°	1245	1243	1240	1284	1296	1113
65°	894	874	866	906	945	886
75°	497	460	450	476	522	520
85°	86	77	77	72	76	114
90°	0	0	0	0	0	



TEST NUMBER: P486989

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-2STD-35-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3376.6	3376.6	3376.6	3376.6	3376.6
2.5°	3397.6	3371.3	3348.5	3385.4	3381.8
5°	3373.1	3334.4	3367.8	3374.8	3364.3
7.5°	3308.1	3283.5	3285.3	3271.2	3269.5
10°	3137.8	3151.8	3123.7	3148.3	3136.0
12.5°	2992.0	3000.8	2951.6	2962.2	2948.1
15°	2820.0	2828.7	2758.5	2772.5	2742.7
17.5°	2632.1	2663.7	2605.7	2623.3	2591.7
20°	2491.6	2517.9	2519.7	2491.6	2391.5
22.5°	2381.0	2407.3	2428.4	2344.1	2333.6
25°	2279.1	2309.0	2324.8	2268.6	2275.6
27.5°	2177.3	2210.7	2210.7	2223.0	2207.2
30°	2103.6	2117.6	2094.8	2140.4	2126.4
32.5°	2015.8	2021.0	2001.7	2035.1	1985.9
35°	1931.5	1935.0	1931.5	1933.2	1931.5
37.5°	1850.7	1841.9	1857.7	1847.2	1880.6
40°	1761.2	1761.2	1768.2	1785.7	1812.1
42.5°	1678.6	1685.7	1676.9	1726.0	1736.6
45°	1585.6	1597.9	1583.8	1648.8	1633.0
47.5°	1501.3	1506.6	1503.0	1546.9	1550.4
50°	1410.0	1417.0	1420.5	1459.1	1464.4
52.5°	1334.5	1332.7	1320.4	1376.6	1385.4
55°	1244.9	1243.2	1239.7	1283.6	1295.8
57.5°	1153.6	1155.4	1164.2	1188.7	1218.6
60°	1071.1	1062.3	1069.3	1099.2	1123.8
62.5°	986.8	971.0	955.2	1004.4	1027.2
65°	893.7	874.4	865.7	906.0	944.7
67.5°	807.7	776.1	770.8	798.9	844.6
70°	709.4	670.7	669.0	690.1	744.5
72.5°	600.5	567.2	558.4	586.5	635.6
75°	496.9	460.0	449.5	475.8	521.5
77.5°	384.5	354.7	347.7	361.7	398.6
80°	270.4	252.8	245.8	251.1	277.4
82.5°	170.3	158.0	154.5	152.8	166.8
85°	86.0	77.3	77.3	72.0	75.5
87.5°	26.3	24.6	22.8	17.6	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)