

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: P484994

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1LO-30-120-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: P484994
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-12-4-INS-89BC-LD4-1LO-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

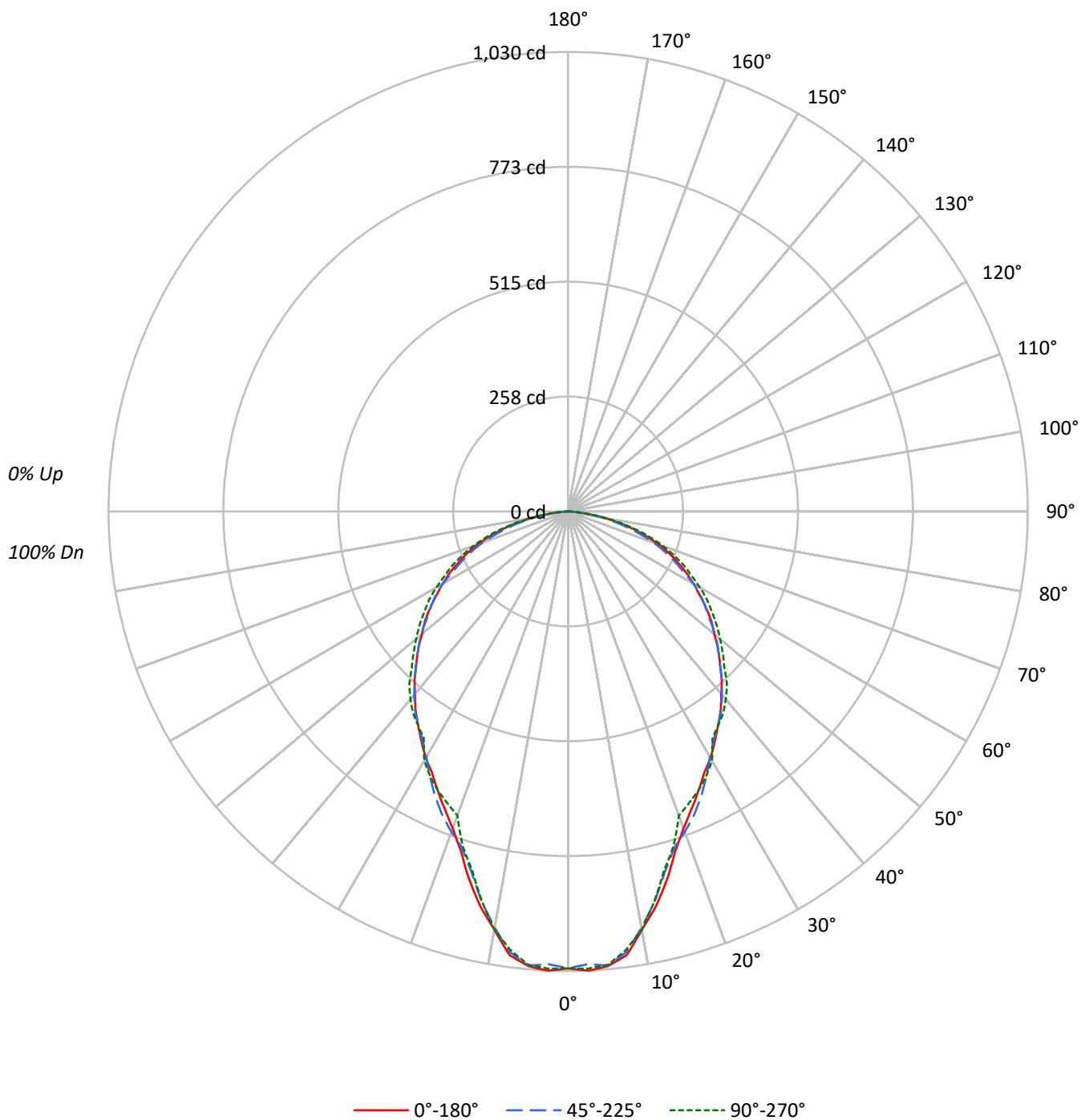
Lumens per Lamp: N/A
Luminaire Lumens: 2190.0 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P484994

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-1LO-30-120-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P484994

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-1LO-30-120-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°	2756	2756	2756
5°	2763	2759	2756
10°	2600	2588	2599
15°	2383	2331	2317
20°	2164	2188	2077
25°	2052	2093	2049
30°	1982	1974	2004
35°	1924	1924	1924
40°	1876	1884	1931
45°	1830	1828	1885
50°	1790	1804	1859
55°	1772	1764	1844
60°	1748	1745	1834
65°	1726	1671	1824
70°	1692	1596	1777
75°	1567	1417	1645
80°	1271	1156	1303
85°	806	722	707



TEST NUMBER: P484994

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-1LO-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	4.3
10°-20°	237.8	10.9
20°-30°	321.1	14.7
30°-40°	367.7	16.8
40°-50°	376.7	17.2
50°-60°	341.8	15.6
60°-70°	266.8	12.2
70°-80°	151.3	6.9
80°-90°	31.8	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°	654.0	29.9
0°-40°	1021.7	46.7
0°-60°	1740.2	79.5
0°-90°	2190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1023	1011	1021	1024	1020	96
15°	855	858	837	841	832	239
25°	691	700	705	688	690	319
35°	586	587	586	586	586	367
45°	481	485	480	500	495	372
55°	378	377	376	389	393	337
65°	271	265	262	275	286	269
75°	151	140	136	144	158	158
85°	26	23	23	22	23	34
90°	0	0	0	0	0	



TEST NUMBER: P484994

CATALOG NUMBER: ORLG-12-4-INS-89BC-LD4-1LO-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1024.0	1024.0	1024.0	1024.0	1024.0
2.5°	1030.4	1022.4	1015.5	1026.7	1025.6
5°	1023.0	1011.2	1021.4	1023.5	1020.3
7.5°	1003.3	995.8	996.3	992.1	991.5
10°	951.6	955.9	947.3	954.8	951.1
12.5°	907.4	910.1	895.2	898.4	894.1
15°	855.2	857.9	836.6	840.8	831.8
17.5°	798.2	807.8	790.3	795.6	786.0
20°	755.6	763.6	764.2	755.6	725.3
22.5°	722.1	730.1	736.5	710.9	707.7
25°	691.2	700.3	705.0	688.0	690.1
27.5°	660.3	670.4	670.4	674.2	669.4
30°	638.0	642.2	635.3	649.1	644.9
32.5°	611.3	612.9	607.1	617.2	602.3
35°	585.8	586.8	585.8	586.3	585.8
37.5°	561.3	558.6	563.4	560.2	570.3
40°	534.1	534.1	536.2	541.6	549.6
42.5°	509.1	511.2	508.6	523.5	526.7
45°	480.9	484.6	480.3	500.0	495.2
47.5°	455.3	456.9	455.8	469.1	470.2
50°	427.6	429.7	430.8	442.5	444.1
52.5°	404.7	404.2	400.5	417.5	420.2
55°	377.6	377.0	376.0	389.3	393.0
57.5°	349.9	350.4	353.1	360.5	369.6
60°	324.8	322.2	324.3	333.4	340.8
62.5°	299.3	294.5	289.7	304.6	311.5
65°	271.1	265.2	262.5	274.8	286.5
67.5°	245.0	235.4	233.8	242.3	256.1
70°	215.1	203.4	202.9	209.3	225.8
72.5°	182.1	172.0	169.3	177.9	192.8
75°	150.7	139.5	136.3	144.3	158.2
77.5°	116.6	107.6	105.4	109.7	120.9
80°	82.0	76.7	74.6	76.1	84.1
82.5°	51.7	47.9	46.9	46.3	50.6
85°	26.1	23.4	23.4	21.8	22.9
87.5°	8.0	7.5	6.9	5.3	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)