

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P834454

Luminaire Tested: **ORLG-12-4-INS-OPL-LD4-2LO-20-120-EDD-90**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P834454  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-12-4-INS-OPL-LD4-2LO-20-120-EDD-90  
Description: 1FT x 4FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 2000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

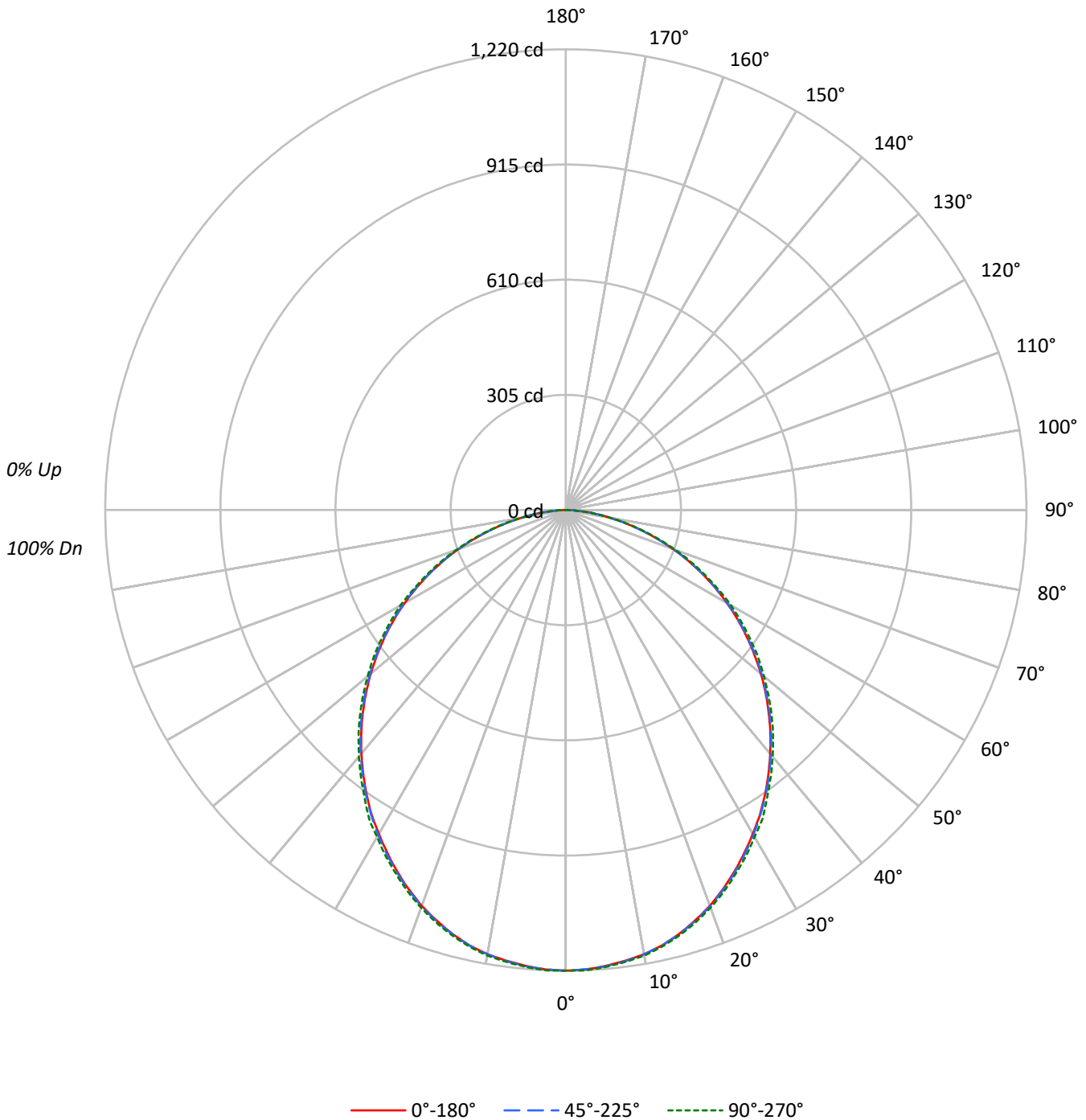
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3296.2 lumens  
Efficiency: N/A  
Efficacy: 70.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): 120  
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: 28.75 FT

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### Luminous Intensity Polar Plot



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**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	94	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3282	3282	3282
5°	3274	3277	3281
10°	3263	3264	3274
15°	3236	3239	3248
20°	3194	3198	3210
25°	3137	3144	3159
30°	3078	3088	3107
35°	3022	3029	3053
40°	2958	2968	2994
45°	2893	2906	2935
50°	2823	2835	2869
55°	2743	2756	2801
60°	2652	2663	2723
65°	2536	2544	2592
70°	2381	2382	2434
75°	2164	2155	2205
80°	1860	1852	1883
85°	1442	1420	1426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.3	3.5
10°-20°	327.9	9.9
20°-30°	488.1	14.8
30°-40°	577.3	17.5
40°-50°	589.3	17.9
50°-60°	525.9	16.0
60°-70°	396.1	12.0
70°-80°	220.9	6.7
80°-90°	55.4	1.7
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°	931.3	28.3
0°-40°	1508.5	45.8
0°-60°	2623.8	79.6
0°-90°	3296.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3296.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1212	1214	1213	1213	1214	115
15°	1162	1163	1162	1164	1166	327
25°	1056	1058	1059	1062	1064	487
35°	920	919	922	926	929	575
45°	760	760	764	767	771	586
55°	585	584	587	592	597	523
65°	398	397	400	403	407	394
75°	208	206	207	208	212	221
85°	47	46	46	46	46	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1219.8	1219.8	1219.8	1219.8	1219.8
2.5°	1217.8	1219.8	1217.3	1217.8	1220.1
5°	1212.0	1214.3	1213.0	1213.3	1214.5
7.5°	1203.9	1207.0	1205.2	1205.7	1207.0
10°	1194.3	1196.6	1194.6	1195.8	1198.1
12.5°	1180.7	1181.7	1180.7	1181.2	1183.7
15°	1161.7	1163.0	1162.5	1163.5	1165.8
17.5°	1139.5	1141.0	1140.8	1142.8	1144.6
20°	1115.5	1115.8	1116.8	1118.8	1120.8
22.5°	1087.2	1088.0	1089.0	1091.8	1093.8
25°	1056.4	1057.7	1059.0	1061.7	1063.8
27.5°	1023.9	1025.1	1026.9	1029.9	1033.2
30°	990.5	990.5	993.8	996.8	999.9
32.5°	956.9	955.7	958.7	962.5	969.8
35°	919.8	918.8	922.1	925.6	929.4
37.5°	881.2	880.4	884.2	888.0	891.5
40°	842.0	841.0	844.8	848.6	852.4
42.5°	801.9	801.4	804.9	808.7	812.7
45°	760.2	759.9	763.5	767.3	771.3
47.5°	717.8	717.3	720.8	724.8	728.4
50°	674.3	673.8	677.3	681.4	685.2
52.5°	629.6	629.6	632.9	636.4	642.2
55°	584.7	583.9	587.4	591.5	597.0
57.5°	539.2	538.2	541.5	545.5	550.6
60°	492.7	491.7	494.8	498.8	505.9
62.5°	445.8	444.2	447.3	451.1	455.4
65°	398.3	396.8	399.5	403.1	407.1
67.5°	350.5	348.8	351.6	354.6	358.4
70°	302.6	300.8	302.8	305.8	309.4
72.5°	254.8	253.1	254.8	256.1	260.4
75°	208.1	206.3	207.3	208.4	212.1
77.5°	162.6	160.9	162.9	163.4	165.7
80°	120.0	118.2	119.5	119.7	121.5
82.5°	81.1	79.6	81.3	80.1	81.6
85°	46.7	45.5	46.0	45.5	46.2
87.5°	18.4	17.4	17.7	16.7	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)