

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: P835696

Luminaire Tested: **ORLG-24-2-INS-OPL-LD4-2LO-20-120-EDD-90**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835696  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-2-INS-OPL-LD4-2LO-20-120-EDD-90  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 2000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

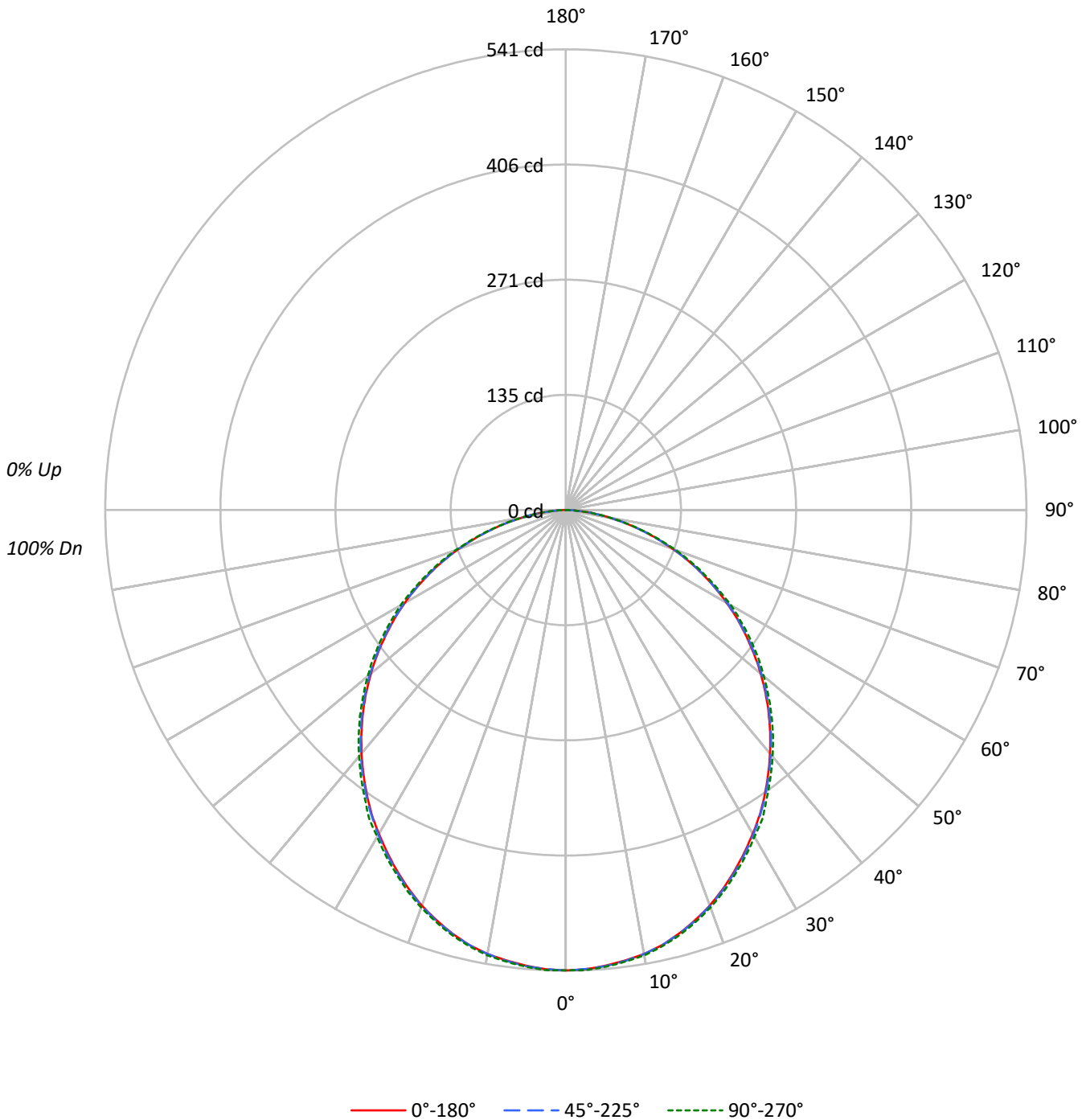
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1460.8 lumens  
Efficiency: N/A  
Efficacy: 62.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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

TEST NUMBER: P835696  
CATALOG NUMBER: ORLG-24-2-INS-OPL-LD4-2LO-20-120-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P835696

CATALOG NUMBER: ORLG-24-2-INS-OPL-LD4-2LO-20-120-EDD-90

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51	51	51	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44	44	44	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38	38	38	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	34	34	34	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27	27	27	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	25	25

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

	0°	45°	90°
0°	1455	1455	1455
5°	1451	1452	1454
10°	1446	1447	1451
15°	1434	1435	1439
20°	1416	1417	1422
25°	1390	1393	1400
30°	1364	1368	1377
35°	1339	1342	1353
40°	1311	1315	1327
45°	1282	1288	1301
50°	1251	1257	1271
55°	1216	1221	1241
60°	1175	1180	1207
65°	1124	1128	1149
70°	1055	1056	1079
75°	959	955	977
80°	824	820	834
85°	639	630	633



TEST NUMBER: P835696  
 CATALOG NUMBER: ORLG-24-2-INS-OPL-LD4-2LO-20-120-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	3.5
10°-20°	145.3	9.9
20°-30°	216.3	14.8
30°-40°	255.8	17.5
40°-50°	261.2	17.9
50°-60°	233.1	16.0
60°-70°	175.5	12.0
70°-80°	97.9	6.7
80°-90°	24.5	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°	412.7	28.3
0°-40°	668.6	45.8
0°-60°	1162.8	79.6
0°-90°	1460.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1460.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	537	538	538	538	538	51
15°	515	515	515	516	517	145
25°	468	469	469	470	471	216
35°	408	407	409	410	412	255
45°	337	337	338	340	342	260
55°	259	259	260	262	265	232
65°	176	176	177	179	180	175
75°	92	91	92	92	94	98
85°	21	20	20	20	20	25
90°	0	0	0	0	0	

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



TEST NUMBER: P835696

CATALOG NUMBER: ORLG-24-2-INS-OPL-LD4-2LO-20-120-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	540.6	540.6	540.6	540.6	540.6
2.5°	539.7	540.6	539.5	539.7	540.7
5°	537.1	538.1	537.6	537.7	538.3
7.5°	533.6	534.9	534.1	534.3	534.9
10°	529.3	530.3	529.4	530.0	531.0
12.5°	523.3	523.7	523.3	523.5	524.6
15°	514.9	515.4	515.2	515.6	516.7
17.5°	505.0	505.7	505.6	506.5	507.3
20°	494.4	494.5	494.9	495.8	496.7
22.5°	481.8	482.2	482.6	483.9	484.8
25°	468.2	468.7	469.3	470.5	471.4
27.5°	453.8	454.3	455.1	456.4	457.9
30°	439.0	439.0	440.4	441.8	443.1
32.5°	424.1	423.5	424.9	426.6	429.8
35°	407.6	407.2	408.6	410.2	411.9
37.5°	390.5	390.2	391.9	393.5	395.1
40°	373.2	372.7	374.4	376.1	377.8
42.5°	355.4	355.1	356.7	358.4	360.2
45°	336.9	336.8	338.4	340.0	341.8
47.5°	318.1	317.9	319.4	321.2	322.8
50°	298.8	298.6	300.2	302.0	303.7
52.5°	279.0	279.0	280.5	282.1	284.6
55°	259.1	258.8	260.3	262.1	264.6
57.5°	239.0	238.5	240.0	241.8	244.0
60°	218.4	217.9	219.3	221.1	224.2
62.5°	197.6	196.9	198.2	199.9	201.8
65°	176.5	175.8	177.1	178.6	180.4
67.5°	155.4	154.6	155.8	157.1	158.8
70°	134.1	133.3	134.2	135.5	137.1
72.5°	112.9	112.2	112.9	113.5	115.4
75°	92.2	91.4	91.9	92.3	94.0
77.5°	72.1	71.3	72.2	72.4	73.4
80°	53.2	52.4	52.9	53.1	53.8
82.5°	35.9	35.3	36.0	35.5	36.2
85°	20.7	20.1	20.4	20.1	20.5
87.5°	8.2	7.7	7.8	7.4	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)