

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: P835352

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1STD-50-120-EDD-90**

Issue Date: 5/16/2024

Test Information

Test Method: LM-79-08
Report Number: P835352
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-ASY2-LD4-1STD-50-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

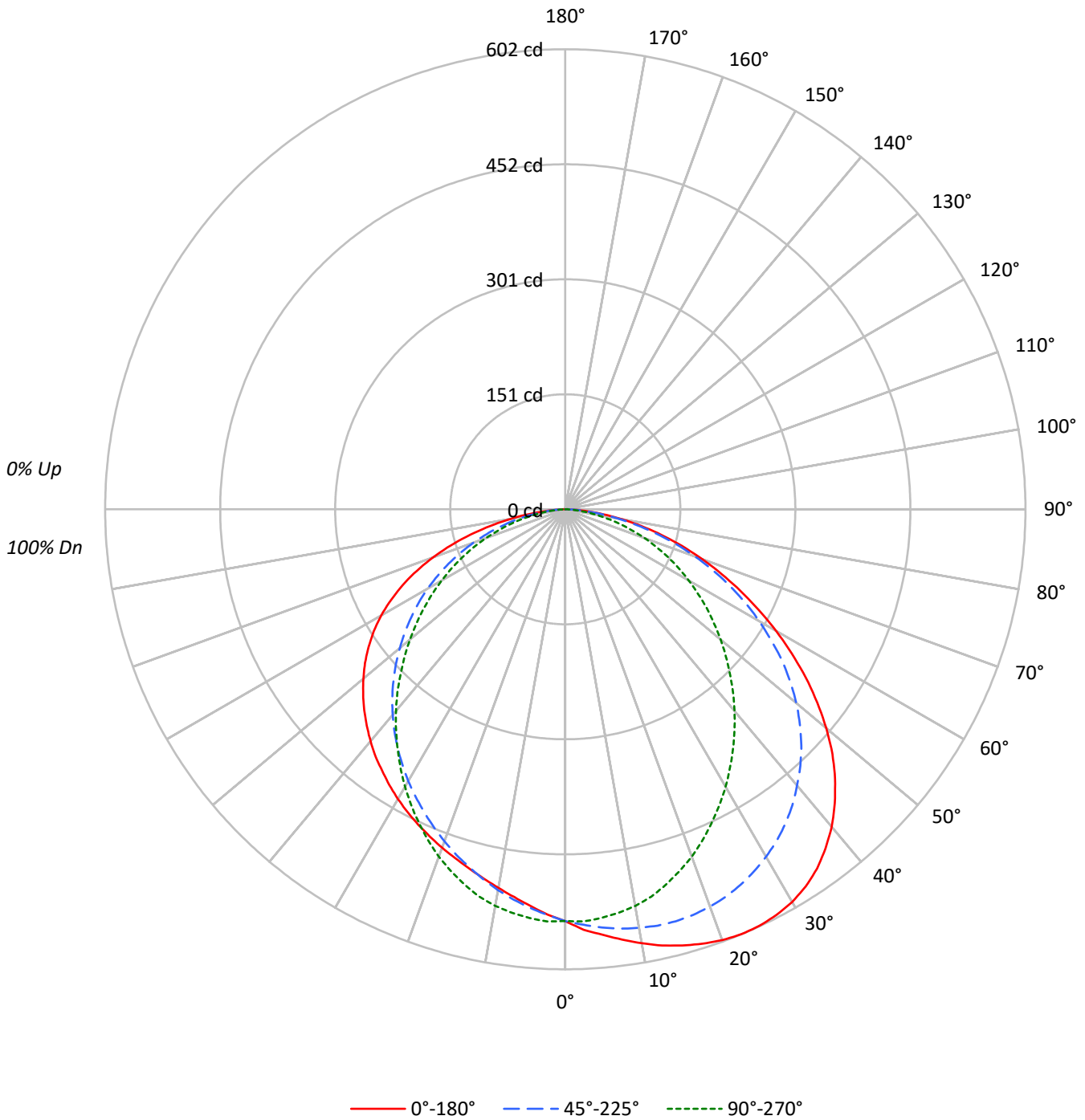
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1584.8 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P835352
CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-50-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P835352

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-50-120-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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1450	1450	1450
5°	1509	1451	1408
10°	1576	1440	1375
15°	1646	1417	1355
20°	1718	1385	1350
25°	1786	1345	1352
30°	1844	1303	1360
35°	1886	1257	1372
40°	1905	1210	1392
45°	1900	1159	1415
50°	1866	1110	1444
55°	1802	1059	1474
60°	1714	1005	1496
65°	1610	943	1494
70°	1498	870	1450
75°	1360	764	1337
80°	1168	628	1128
85°	892	429	775



TEST NUMBER: P835352
 CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-50-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	3.2
10°-20°	147.6	9.3
20°-30°	226.1	14.3
30°-40°	275.9	17.4
40°-50°	288.5	18.2
50°-60°	261.1	16.5
60°-70°	197.8	12.5
70°-80°	110.2	7.0
80°-90°	26.6	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°	424.7	26.8
0°-40°	700.6	44.2
0°-60°	1250.2	78.9
0°-90°	1584.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1584.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	539	539	539	539	539	
5°	559	550	537	524	521	54
15°	591	558	508	485	486	168
25°	601	542	453	437	455	277
35°	574	502	382	382	418	358
45°	499	437	304	318	372	384
55°	384	347	226	246	314	343
65°	253	238	148	168	235	251
75°	131	124	74	88	129	139
85°	29	25	14	19	25	35
90°	0	0	0	0	0	

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



TEST NUMBER: P835352

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-50-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8
2.5°	550.7	548.1	546.0	546.8	547.2	545.6	544.2	544.4	543.0	545.7	539.4
5°	558.8	556.4	554.0	554.9	554.0	551.5	549.5	548.9	545.1	546.7	540.2
7.5°	567.9	565.3	561.6	562.7	560.7	556.1	553.5	552.0	546.2	546.3	539.1
10°	576.6	574.3	569.4	570.1	566.4	560.3	556.2	554.1	546.0	544.8	537.4
12.5°	584.7	581.6	576.3	576.7	571.4	563.3	558.0	554.9	544.3	540.8	533.5
15°	590.9	588.0	581.6	581.5	574.7	564.1	558.1	553.8	540.4	534.9	527.2
17.5°	596.2	593.5	585.6	585.4	577.2	563.7	556.5	551.2	534.8	527.9	519.5
20°	600.0	597.3	588.5	587.6	577.7	562.0	553.4	546.7	527.3	519.2	509.8
22.5°	601.8	599.1	589.1	587.9	576.3	558.4	548.8	540.9	518.9	508.3	498.5
25°	601.4	598.8	587.5	586.3	573.6	553.1	542.3	533.2	508.1	495.7	486.0
27.5°	598.5	596.5	584.6	583.0	568.7	546.0	534.4	524.4	496.3	482.4	471.9
30°	593.4	591.9	579.3	577.9	562.6	538.1	525.2	513.7	483.4	467.8	457.2
32.5°	585.3	583.9	571.2	569.9	554.3	527.9	514.5	502.6	469.4	452.1	441.5
35°	574.1	573.3	560.9	559.5	543.7	516.4	502.1	489.1	454.8	435.3	425.1
37.5°	559.4	559.4	547.5	546.0	530.5	502.3	488.2	474.4	438.3	417.6	407.6
40°	542.3	543.8	531.7	530.2	515.2	487.1	471.8	457.2	420.5	399.0	389.2
42.5°	521.8	523.2	513.1	511.7	497.7	469.5	455.3	439.4	401.9	380.0	369.9
45°	499.2	501.1	492.0	491.0	477.9	450.3	436.7	420.5	382.5	360.2	350.3
47.5°	474.0	476.5	468.6	468.0	455.9	430.7	416.4	400.0	362.1	339.6	330.3
50°	445.7	449.3	442.8	442.8	432.0	406.9	394.5	378.1	340.9	318.4	309.2
52.5°	415.5	419.9	415.1	415.2	406.4	383.9	371.1	355.1	318.8	296.6	288.2
55°	384.1	388.5	385.4	385.9	379.0	358.5	346.8	330.9	296.2	274.6	266.6
57.5°	351.4	356.1	354.1	355.1	350.2	331.9	319.7	305.8	272.9	251.5	244.7
60°	318.5	323.0	322.0	323.3	320.2	304.3	293.2	278.9	249.4	228.9	222.9
62.5°	285.3	289.5	289.2	290.6	289.0	275.8	265.9	253.7	225.2	206.3	200.8
65°	252.8	256.4	256.1	257.7	257.3	246.7	237.8	226.6	200.9	183.6	178.8
67.5°	221.3	224.2	223.4	225.2	225.6	217.2	209.4	199.4	177.8	161.0	156.9
70°	190.4	192.4	191.4	192.5	193.6	187.2	180.6	171.8	153.2	138.4	135.0
72.5°	160.2	161.6	159.9	161.1	162.0	157.4	152.0	144.4	129.0	116.1	113.3
75°	130.8	132.8	129.4	130.6	131.3	126.7	123.5	117.3	104.0	94.1	92.2
77.5°	102.5	103.6	101.7	101.3	101.7	98.5	96.0	91.1	81.1	73.0	71.8
80°	75.4	76.1	74.2	73.7	74.1	71.7	69.8	66.3	59.2	53.1	52.6
82.5°	50.5	50.9	49.2	48.8	49.0	48.3	46.0	43.6	40.3	35.1	35.0
85°	28.9	28.9	27.7	27.2	27.4	26.3	25.4	24.1	22.8	19.3	19.5
87.5°	10.6	10.6	10.0	9.9	11.1	9.8	9.4	8.8	9.2	7.3	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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



TEST NUMBER: P835352

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-50-120-EDD-90

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8	538.8
2.5°	541.1	539.9	538.9	535.2	536.8	533.0	532.8	531.3	530.3	528.3	530.9
5°	539.4	537.0	533.9	529.6	530.9	526.4	525.5	523.8	522.4	519.8	521.8
7.5°	536.5	532.6	527.8	522.3	524.0	518.5	517.1	515.3	514.2	511.1	512.9
10°	532.4	526.9	521.2	514.5	515.8	509.8	508.0	506.1	505.1	502.4	504.1
12.5°	526.0	519.3	511.7	504.4	505.8	500.1	497.8	495.8	495.4	493.2	495.3
15°	517.8	508.5	500.6	492.8	494.5	487.9	486.8	484.8	485.4	483.9	486.5
17.5°	507.3	496.6	488.0	479.6	481.3	475.8	474.9	474.0	474.6	474.4	477.2
20°	495.5	483.8	473.9	465.6	466.6	462.2	462.6	462.3	463.5	464.8	468.7
22.5°	482.2	468.9	458.6	450.1	451.5	447.7	449.4	449.9	451.9	454.8	459.7
25°	467.3	453.0	442.2	434.2	435.5	433.0	435.8	437.0	440.2	445.1	450.2
27.5°	451.6	436.5	425.0	417.4	419.8	417.4	421.6	423.9	428.8	434.2	440.4
30°	435.0	419.4	407.5	400.6	403.0	400.7	407.6	410.8	415.6	423.0	430.4
32.5°	417.6	401.1	389.4	384.1	385.8	385.4	393.1	396.6	403.1	411.6	419.5
35°	399.7	382.5	370.7	366.2	368.2	368.7	377.9	382.0	389.1	399.3	407.8
37.5°	381.2	363.7	352.1	348.5	350.2	352.0	362.7	366.8	374.8	386.0	395.3
40°	362.0	344.5	333.2	330.2	332.0	333.9	345.5	351.2	359.9	372.0	382.1
42.5°	342.6	325.0	314.1	312.0	313.7	317.4	329.7	335.0	344.2	357.6	368.8
45°	322.8	304.5	295.0	293.3	295.2	299.5	311.6	318.0	327.7	342.5	354.5
47.5°	302.8	285.0	275.9	274.9	276.7	281.5	294.9	300.6	311.0	326.7	339.6
50°	282.5	265.2	256.5	256.1	257.9	263.0	275.8	282.6	293.3	310.9	324.2
52.5°	262.0	245.4	237.5	237.5	239.2	244.4	257.3	264.4	275.4	293.9	308.7
55°	241.5	225.8	218.2	218.8	221.2	225.6	238.2	245.7	256.8	276.0	291.6
57.5°	221.0	206.1	199.3	200.1	202.3	206.8	219.2	227.5	237.6	257.5	273.4
60°	200.8	186.7	180.6	181.6	183.6	188.1	200.9	208.1	218.2	238.5	254.4
62.5°	180.3	167.5	161.8	163.0	164.8	169.2	181.4	188.3	198.3	218.2	234.2
65°	160.0	148.1	143.3	144.5	146.1	150.3	161.7	168.4	177.9	197.4	212.7
67.5°	140.0	129.2	125.2	126.4	127.7	131.5	141.0	148.3	157.2	175.7	190.2
70°	120.2	110.6	107.0	108.2	109.4	112.9	121.2	127.9	136.1	153.1	166.5
72.5°	100.7	91.3	89.5	90.6	91.5	94.6	102.5	107.8	114.9	130.0	141.6
75°	81.6	73.5	72.3	73.4	74.2	76.5	83.1	87.7	93.7	106.8	116.2
77.5°	63.2	56.4	55.9	56.8	57.6	59.2	64.4	69.2	74.0	83.6	92.0
80°	46.0	40.5	40.5	41.3	41.1	43.1	46.8	50.6	54.1	61.0	67.1
82.5°	30.4	26.0	26.6	27.2	27.6	28.4	30.6	33.6	35.7	39.9	43.9
85°	16.8	13.9	14.5	15.0	14.7	15.7	16.8	18.6	19.7	21.7	23.8
87.5°	6.2	5.2	5.3	5.7	5.9	6.4	6.4	7.4	7.5	7.8	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P835352

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-50-120-EDD-90

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	538.8	538.8	538.8
2.5°	525.9	528.8	530.9
5°	516.9	519.2	521.1
7.5°	508.0	510.2	511.8
10°	499.7	502.0	503.2
12.5°	491.1	493.8	494.7
15°	482.6	485.3	486.5
17.5°	473.9	477.4	478.7
20°	465.8	470.2	471.3
22.5°	457.5	462.1	463.4
25°	448.6	454.0	455.3
27.5°	439.0	445.5	446.8
30°	429.5	436.5	437.8
32.5°	419.2	426.9	428.1
35°	408.5	416.2	417.6
37.5°	396.6	405.0	407.8
40°	384.3	393.3	396.3
42.5°	371.3	381.2	384.3
45°	357.4	368.2	371.8
47.5°	343.4	355.6	358.7
50°	328.2	341.3	344.9
52.5°	312.3	326.6	330.2
55°	295.8	310.2	314.2
57.5°	277.9	292.8	297.0
60°	259.2	274.0	278.0
62.5°	240.0	253.4	257.3
65°	218.6	231.2	234.7
67.5°	195.8	207.4	210.3
70°	171.7	181.7	184.3
72.5°	146.5	153.4	156.9
75°	120.5	126.0	128.6
77.5°	94.3	98.2	100.3
80°	68.8	71.0	72.8
82.5°	45.0	45.9	47.2
85°	24.3	24.3	25.1
87.5°	8.2	7.9	8.2
90°	0.0	0.0	0.0

(END OF REPORT)