

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: P835208

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1STD-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835208
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-35-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

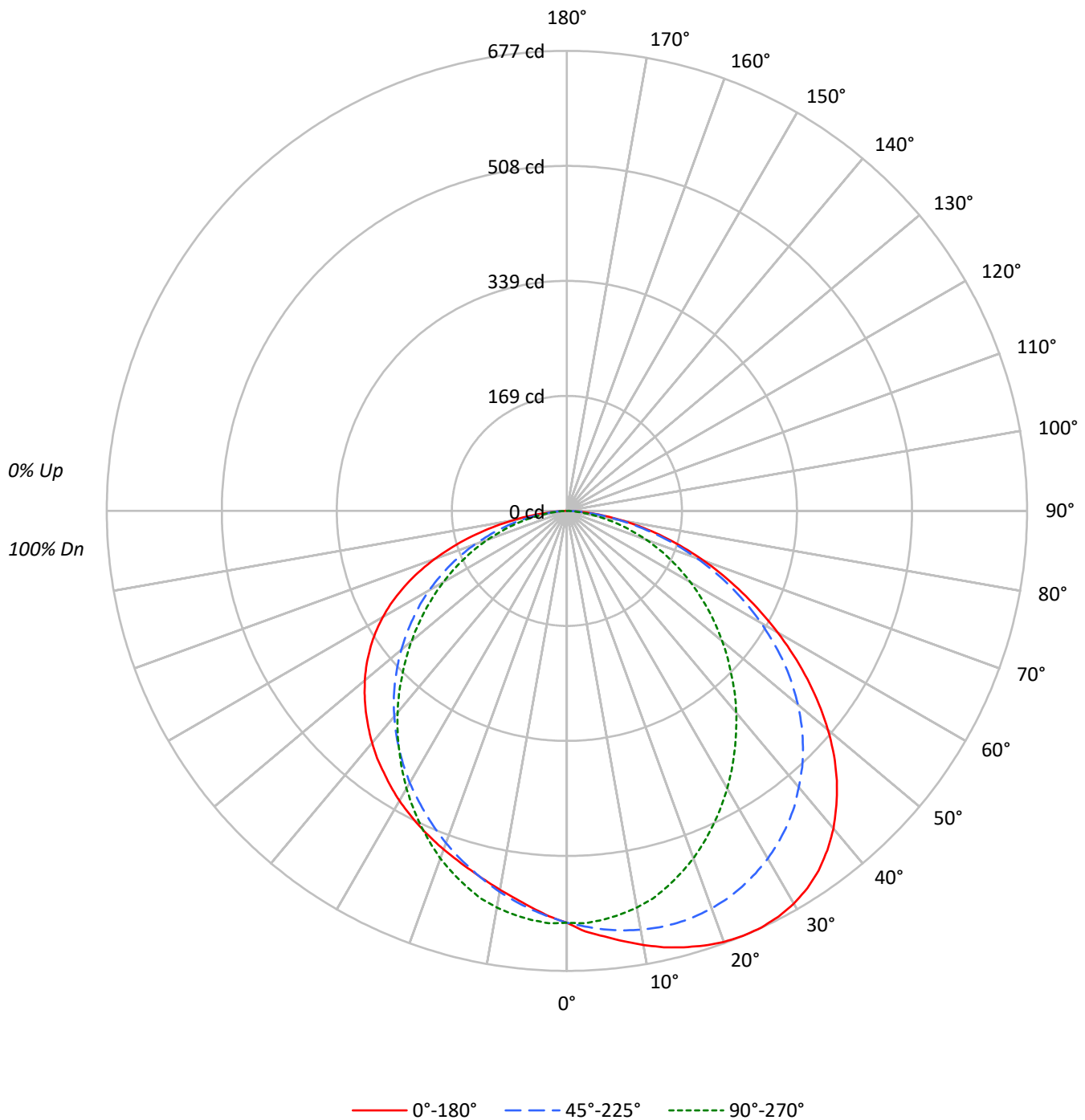
Lumens per Lamp: N/A
Luminaire Lumens: 1782.9 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	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	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1631	1631	1631
5°	1698	1632	1583
10°	1772	1620	1547
15°	1852	1594	1525
20°	1933	1558	1518
25°	2009	1513	1521
30°	2074	1466	1531
35°	2122	1414	1543
40°	2143	1361	1566
45°	2137	1304	1592
50°	2099	1249	1624
55°	2028	1192	1658
60°	1929	1130	1683
65°	1811	1061	1681
70°	1685	979	1631
75°	1530	860	1504
80°	1314	707	1269
85°	1003	482	871

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	3.2
10°-20°	166.0	9.3
20°-30°	254.3	14.3
30°-40°	310.4	17.4
40°-50°	324.6	18.2
50°-60°	293.8	16.5
60°-70°	222.5	12.5
70°-80°	124.0	7.0
80°-90°	29.9	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°	477.8	26.8
0°-40°	788.2	44.2
0°-60°	1406.5	78.9
0°-90°	1782.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1782.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	606	606	606	606	606	
5°	629	618	604	589	586	61
15°	665	628	572	545	547	189
25°	677	610	510	492	512	312
35°	646	565	430	430	470	403
45°	562	491	343	358	418	432
55°	432	390	254	276	354	386
65°	284	268	167	190	264	282
75°	147	139	83	99	145	156
85°	32	29	16	21	28	39
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1
2.5°	619.5	616.6	614.2	615.1	615.7	613.8	612.2	612.5	610.9	613.9	606.8
5°	628.6	626.0	623.2	624.3	623.2	620.4	618.2	617.5	613.3	615.0	607.7
7.5°	638.8	635.9	631.8	633.0	630.8	625.6	622.7	621.0	614.5	614.6	606.5
10°	648.6	646.1	640.6	641.4	637.2	630.4	625.7	623.3	614.2	612.9	604.5
12.5°	657.8	654.3	648.4	648.8	642.8	633.7	627.7	624.3	612.3	608.4	600.2
15°	664.8	661.5	654.3	654.2	646.5	634.6	627.8	623.1	608.0	601.7	593.1
17.5°	670.8	667.7	658.8	658.6	649.3	634.2	626.1	620.2	601.6	593.9	584.4
20°	675.0	672.0	662.0	661.1	650.0	632.2	622.5	615.0	593.3	584.1	573.5
22.5°	677.0	673.9	662.7	661.4	648.4	628.2	617.4	608.5	583.7	571.8	560.8
25°	676.6	673.7	661.0	659.6	645.3	622.3	610.1	599.9	571.7	557.6	546.8
27.5°	673.3	671.0	657.6	655.9	639.8	614.2	601.2	589.9	558.3	542.7	530.9
30°	667.6	665.9	651.7	650.1	632.9	605.3	590.9	577.9	543.8	526.2	514.3
32.5°	658.4	656.9	642.5	641.1	623.6	593.9	578.8	565.4	528.1	508.6	496.7
35°	645.9	644.9	631.0	629.4	611.7	580.9	564.9	550.2	511.7	489.7	478.3
37.5°	629.3	629.3	615.9	614.2	596.8	565.0	549.3	533.6	493.1	469.8	458.5
40°	610.1	611.8	598.2	596.4	579.6	548.0	530.7	514.3	473.1	448.9	437.9
42.5°	587.0	588.6	577.2	575.6	559.9	528.2	512.2	494.3	452.2	427.5	416.1
45°	561.6	563.7	553.5	552.3	537.6	506.6	491.2	473.1	430.3	405.3	394.1
47.5°	533.2	536.0	527.2	526.5	512.8	484.5	468.5	450.0	407.4	382.1	371.6
50°	501.5	505.4	498.1	498.1	485.9	457.7	443.8	425.4	383.5	358.2	347.9
52.5°	467.4	472.4	467.0	467.1	457.2	431.9	417.5	399.4	358.6	333.7	324.2
55°	432.2	437.1	433.6	434.1	426.3	403.3	390.2	372.3	333.2	309.0	299.9
57.5°	395.3	400.6	398.4	399.4	394.0	373.3	359.7	344.1	307.0	283.0	275.3
60°	358.4	363.4	362.2	363.7	360.2	342.3	329.9	313.7	280.6	257.5	250.8
62.5°	321.0	325.6	325.4	327.0	325.1	310.3	299.1	285.4	253.3	232.1	225.9
65°	284.4	288.4	288.2	289.9	289.5	277.6	267.5	254.9	226.0	206.5	201.1
67.5°	248.9	252.2	251.3	253.3	253.8	244.3	235.6	224.3	200.1	181.1	176.5
70°	214.2	216.5	215.3	216.6	217.8	210.6	203.2	193.3	172.4	155.7	151.8
72.5°	180.2	181.8	179.9	181.2	182.3	177.1	171.0	162.4	145.1	130.6	127.4
75°	147.2	149.4	145.6	146.9	147.7	142.6	139.0	132.0	117.0	105.9	103.7
77.5°	115.3	116.6	114.5	113.9	114.5	110.8	108.0	102.5	91.3	82.1	80.8
80°	84.8	85.6	83.5	82.9	83.3	80.7	78.6	74.6	66.6	59.8	59.2
82.5°	56.8	57.2	55.4	54.8	55.1	54.3	51.8	49.0	45.3	39.5	39.3
85°	32.5	32.5	31.1	30.6	30.9	29.5	28.6	27.2	25.7	21.7	22.0
87.5°	11.9	11.9	11.3	11.1	12.5	11.0	10.6	9.9	10.3	8.2	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1
2.5°	608.8	607.4	606.2	602.1	603.9	599.6	599.4	597.8	596.6	594.3	597.2
5°	606.8	604.1	600.7	595.8	597.2	592.2	591.1	589.3	587.7	584.8	587.0
7.5°	603.6	599.2	593.8	587.6	589.6	583.3	581.7	579.7	578.4	575.0	577.0
10°	599.0	592.7	586.4	578.8	580.3	573.5	571.5	569.4	568.2	565.2	567.2
12.5°	591.8	584.3	575.6	567.4	569.0	562.7	560.0	557.8	557.4	554.8	557.2
15°	582.5	572.1	563.2	554.4	556.3	548.9	547.7	545.4	546.1	544.4	547.3
17.5°	570.7	558.7	549.0	539.6	541.5	535.2	534.3	533.2	533.9	533.6	536.8
20°	557.5	544.2	533.1	523.8	524.9	520.0	520.4	520.1	521.5	522.9	527.3
22.5°	542.5	527.5	515.9	506.4	507.9	503.7	505.6	506.1	508.3	511.7	517.2
25°	525.7	509.7	497.5	488.5	489.9	487.1	490.3	491.6	495.2	500.8	506.5
27.5°	508.1	491.1	478.1	469.5	472.3	469.5	474.3	476.9	482.4	488.5	495.5
30°	489.4	471.8	458.4	450.7	453.4	450.8	458.5	462.1	467.5	475.9	484.2
32.5°	469.8	451.2	438.1	432.2	434.0	433.6	442.2	446.2	453.5	463.0	471.9
35°	449.6	430.3	417.1	412.0	414.3	414.8	425.1	429.8	437.7	449.3	458.8
37.5°	428.8	409.1	396.1	392.0	394.0	396.0	408.0	412.7	421.7	434.3	444.7
40°	407.3	387.5	374.8	371.5	373.5	375.6	388.7	395.1	404.9	418.5	429.9
42.5°	385.4	365.7	353.3	350.9	352.9	357.0	371.0	376.9	387.2	402.4	414.9
45°	363.1	342.6	331.9	330.0	332.1	336.9	350.6	357.7	368.7	385.3	398.8
47.5°	340.6	320.6	310.4	309.2	311.3	316.6	331.7	338.2	349.9	367.5	382.1
50°	317.8	298.4	288.5	288.2	290.1	295.8	310.3	318.0	330.0	349.8	364.7
52.5°	294.8	276.1	267.2	267.2	269.1	274.9	289.5	297.4	309.9	330.7	347.2
55°	271.7	254.0	245.5	246.2	248.8	253.8	268.0	276.4	288.9	310.5	328.0
57.5°	248.7	231.8	224.2	225.1	227.6	232.6	246.6	256.0	267.4	289.7	307.6
60°	225.9	210.0	203.2	204.3	206.5	211.6	226.0	234.1	245.5	268.3	286.2
62.5°	202.8	188.4	182.0	183.4	185.3	190.4	204.0	211.8	223.1	245.5	263.5
65°	180.0	166.7	161.2	162.6	164.4	169.0	181.9	189.5	200.2	222.0	239.3
67.5°	157.5	145.3	140.8	142.2	143.6	148.0	158.6	166.8	176.9	197.7	214.0
70°	135.3	124.4	120.4	121.8	123.1	127.1	136.3	143.9	153.2	172.2	187.3
72.5°	113.3	102.7	100.7	101.9	102.9	106.4	115.3	121.2	129.3	146.3	159.2
75°	91.8	82.7	81.3	82.5	83.5	86.1	93.5	98.7	105.5	120.2	130.8
77.5°	71.1	63.5	62.9	63.9	64.8	66.6	72.5	77.9	83.2	94.1	103.5
80°	51.8	45.6	45.6	46.5	46.2	48.5	52.6	57.0	60.8	68.6	75.5
82.5°	34.2	29.3	29.9	30.6	31.0	31.9	34.4	37.8	40.1	44.9	49.4
85°	18.9	15.6	16.3	16.8	16.6	17.6	18.9	20.9	22.1	24.4	26.8
87.5°	7.0	5.8	6.0	6.4	6.6	7.2	7.2	8.3	8.5	8.7	9.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	606.1	606.1	606.1
2.5°	591.7	594.9	597.2
5°	581.5	584.1	586.2
7.5°	571.5	573.9	575.8
10°	562.1	564.8	566.1
12.5°	552.5	555.5	556.6
15°	542.9	546.0	547.3
17.5°	533.1	537.1	538.5
20°	524.0	529.0	530.2
22.5°	514.7	519.9	521.3
25°	504.6	510.7	512.2
27.5°	493.9	501.2	502.6
30°	483.2	491.1	492.6
32.5°	471.6	480.3	481.6
35°	459.6	468.2	469.8
37.5°	446.2	455.6	458.8
40°	432.3	442.5	445.8
42.5°	417.7	428.8	432.3
45°	402.1	414.3	418.3
47.5°	386.3	400.1	403.5
50°	369.2	383.9	388.0
52.5°	351.3	367.4	371.5
55°	332.8	349.0	353.5
57.5°	312.7	329.4	334.1
60°	291.6	308.3	312.8
62.5°	270.0	285.1	289.5
65°	245.9	260.1	264.0
67.5°	220.3	233.3	236.6
70°	193.2	204.4	207.3
72.5°	164.8	172.6	176.5
75°	135.5	141.8	144.7
77.5°	106.1	110.5	112.9
80°	77.4	79.9	81.9
82.5°	50.6	51.7	53.1
85°	27.3	27.3	28.2
87.5°	9.3	8.9	9.3
90°	0.0	0.0	0.0

(END OF REPORT)