

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: P835299

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1HI-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835299
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-LD4-1HI-30-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

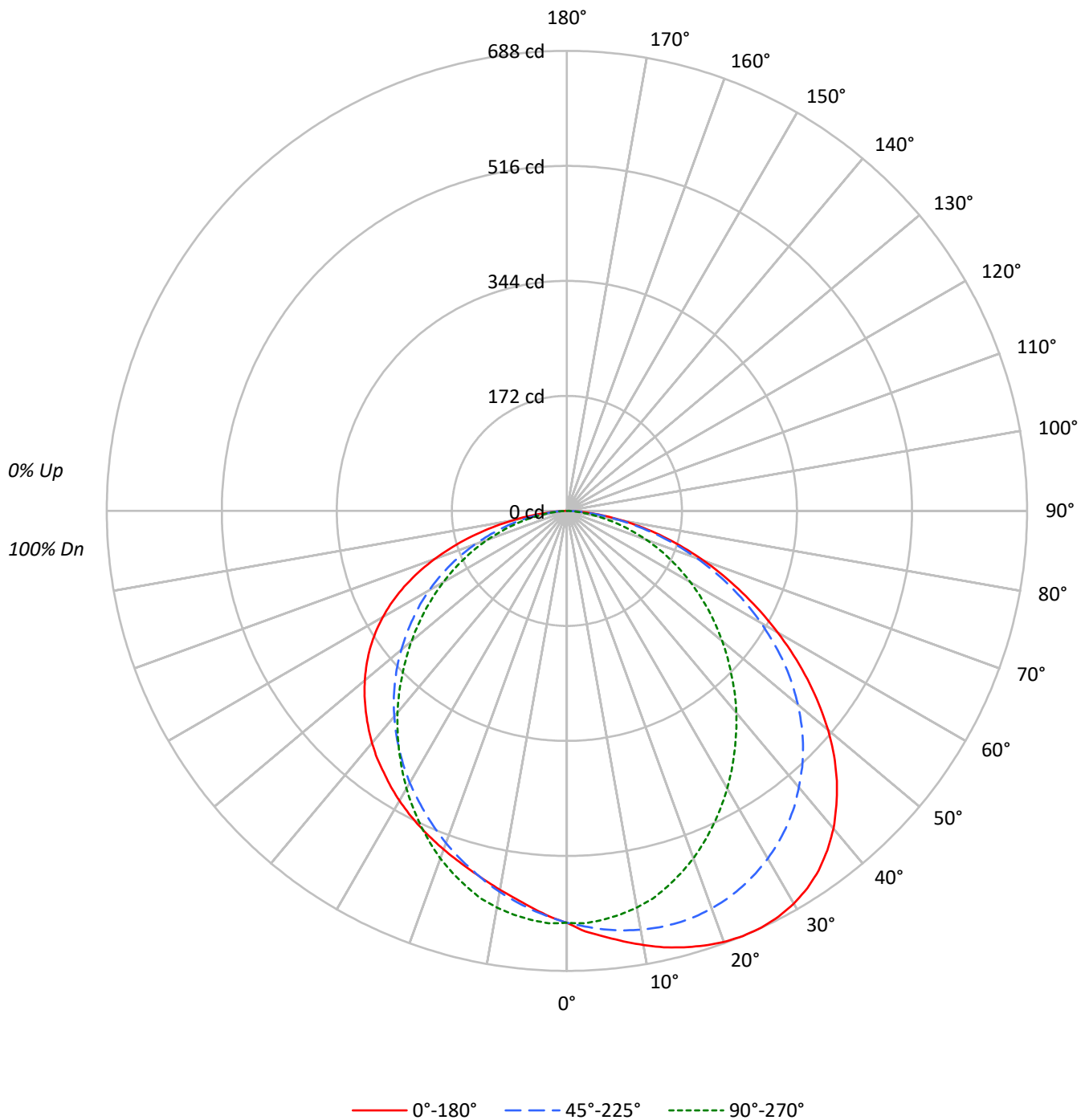
Lumens per Lamp: N/A
Luminaire Lumens: 1812.1 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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: P835299

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Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	94	97	94	91		94	91	88		90
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		79
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		69
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		62
5	76	63	54	47	73	61	53	47	59	52	46		57	51	46		55
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		50
7	65	51	42	36	63	50	42	36	49	41	36		47	40	35		46
8	60	46	38	32	59	46	38	32	44	37	32		43	36	31		42
9	56	43	34	29	55	42	34	29	41	34	29		40	33	28		39
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1658	1658	1658
5°	1726	1659	1609
10°	1802	1646	1572
15°	1882	1620	1550
20°	1965	1584	1543
25°	2042	1538	1546
30°	2108	1490	1556
35°	2156	1437	1569
40°	2178	1384	1592
45°	2172	1325	1618
50°	2134	1269	1651
55°	2061	1211	1686
60°	1960	1149	1711
65°	1841	1079	1709
70°	1713	995	1658
75°	1555	873	1528
80°	1336	717	1289
85°	1019	491	886

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	3.2
10°-20°	168.7	9.3
20°-30°	258.5	14.3
30°-40°	315.4	17.4
40°-50°	329.9	18.2
50°-60°	298.6	16.5
60°-70°	226.1	12.5
70°-80°	126.0	7.0
80°-90°	30.4	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°	485.6	26.8
0°-40°	801.1	44.2
0°-60°	1429.6	78.9
0°-90°	1812.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1812.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	616	616	616	616	616	
5°	639	628	614	599	596	62
15°	676	638	581	554	556	192
25°	688	620	518	500	521	317
35°	656	574	437	437	478	410
45°	571	499	348	364	425	439
55°	439	397	258	281	359	392
65°	289	272	169	193	268	287
75°	150	141	84	100	147	159
85°	33	29	16	21	29	40
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°	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
2.5°	629.6	626.7	624.2	625.2	625.7	623.8	622.2	622.5	620.9	624.0	616.7
5°	638.9	636.2	633.4	634.5	633.4	630.6	628.3	627.6	623.3	625.1	617.7
7.5°	649.3	646.3	642.2	643.4	641.1	635.8	632.9	631.1	624.5	624.7	616.4
10°	659.3	656.7	651.0	651.9	647.7	640.7	636.0	633.5	624.2	622.9	614.4
12.5°	668.6	665.0	659.0	659.4	653.3	644.0	638.0	634.5	622.4	618.3	610.0
15°	675.7	672.3	665.0	664.9	657.1	645.0	638.1	633.3	617.9	611.6	602.8
17.5°	681.7	678.6	669.6	669.4	659.9	644.6	636.4	630.3	611.5	603.6	594.0
20°	686.1	683.0	672.9	671.9	660.6	642.6	632.7	625.1	603.0	593.7	582.9
22.5°	688.1	685.0	673.5	672.2	659.0	638.5	627.5	618.5	593.3	581.2	570.0
25°	687.7	684.7	671.8	670.4	655.9	632.5	620.1	609.7	581.0	566.8	555.7
27.5°	684.3	682.0	668.4	666.7	650.2	624.2	611.1	599.6	567.4	551.5	539.6
30°	678.5	676.8	662.4	660.7	643.2	615.2	600.6	587.4	552.7	534.8	522.7
32.5°	669.2	667.6	653.1	651.6	633.8	603.6	588.3	574.7	536.7	516.9	504.8
35°	656.4	655.5	641.4	639.7	621.7	590.5	574.2	559.2	520.0	497.7	486.1
37.5°	639.6	639.6	626.0	624.2	606.6	574.3	558.3	542.4	501.2	477.5	466.0
40°	620.1	621.8	608.0	606.2	589.1	556.9	539.4	522.7	480.8	456.2	445.0
42.5°	596.6	598.3	586.7	585.1	569.0	536.9	520.6	502.4	459.6	434.5	422.9
45°	570.8	572.9	562.6	561.4	546.4	514.9	499.3	480.8	437.4	411.9	400.6
47.5°	542.0	544.8	535.8	535.1	521.2	492.4	476.1	457.4	414.1	388.3	377.7
50°	509.7	513.7	506.3	506.3	493.9	465.2	451.1	432.4	389.8	364.1	353.6
52.5°	475.1	480.2	474.7	474.8	464.7	439.0	424.3	406.0	364.5	339.2	329.5
55°	439.2	444.2	440.7	441.3	433.3	409.9	396.6	378.4	338.7	314.0	304.9
57.5°	401.8	407.2	404.9	406.0	400.5	379.5	365.6	349.7	312.0	287.6	279.8
60°	364.2	369.4	368.1	369.6	366.1	347.9	335.3	318.9	285.2	261.8	254.9
62.5°	326.3	331.0	330.7	332.3	330.4	315.4	304.0	290.0	257.5	235.9	229.6
65°	289.1	293.1	292.9	294.6	294.2	282.1	271.9	259.1	229.7	209.9	204.4
67.5°	253.0	256.4	255.4	257.5	258.0	248.3	239.4	228.0	203.3	184.1	179.4
70°	217.7	220.0	218.8	220.2	221.4	214.1	206.6	196.5	175.2	158.2	154.3
72.5°	183.1	184.7	182.9	184.2	185.3	180.0	173.8	165.1	147.4	132.8	129.5
75°	149.6	151.9	148.0	149.3	150.1	144.9	141.3	134.1	118.9	107.6	105.4
77.5°	117.1	118.5	116.3	115.8	116.3	112.6	109.7	104.2	92.8	83.5	82.1
80°	86.2	87.0	84.8	84.3	84.7	82.0	79.8	75.8	67.7	60.7	60.2
82.5°	57.8	58.2	56.3	55.7	56.0	55.2	52.6	49.8	46.1	40.1	40.0
85°	33.0	33.0	31.6	31.1	31.4	30.0	29.1	27.6	26.1	22.1	22.4
87.5°	12.1	12.1	11.4	11.3	12.7	11.2	10.8	10.1	10.5	8.3	8.9
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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CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1HI-30-120-EDD-90

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
2.5°	618.7	617.4	616.2	612.0	613.7	609.4	609.2	607.6	606.3	604.1	607.0
5°	616.7	614.0	610.5	605.5	607.0	601.9	600.8	598.9	597.3	594.4	596.6
7.5°	613.5	609.0	603.5	597.2	599.2	592.9	591.3	589.2	587.9	584.4	586.4
10°	608.8	602.4	596.0	588.3	589.8	582.9	580.9	578.7	577.5	574.4	576.4
12.5°	601.5	593.8	585.1	576.7	578.3	571.9	569.2	566.9	566.5	563.9	566.3
15°	592.1	581.4	572.4	563.5	565.4	557.9	556.7	554.4	555.0	553.3	556.3
17.5°	580.1	567.8	558.0	548.4	550.3	544.0	543.1	542.0	542.7	542.4	545.6
20°	566.6	553.2	541.8	532.4	533.5	528.5	528.9	528.6	530.0	531.5	535.9
22.5°	551.4	536.2	524.3	514.6	516.3	511.9	513.8	514.4	516.7	520.0	525.7
25°	534.3	518.0	505.6	496.5	497.9	495.1	498.3	499.7	503.3	509.0	514.8
27.5°	516.4	499.2	486.0	477.2	480.0	477.2	482.1	484.7	490.3	496.5	503.6
30°	497.4	479.5	465.9	458.1	460.8	458.2	466.0	469.7	475.2	483.7	492.2
32.5°	477.5	458.6	445.3	439.2	441.1	440.7	449.5	453.5	460.9	470.6	479.6
35°	457.0	437.4	423.9	418.8	421.1	421.6	432.1	436.8	444.9	456.6	466.3
37.5°	435.9	415.8	402.6	398.4	400.5	402.5	414.7	419.4	428.6	441.4	452.0
40°	413.9	393.9	380.9	377.6	379.6	381.7	395.1	401.5	411.5	425.4	436.9
42.5°	391.7	371.6	359.1	356.7	358.7	362.9	377.0	383.1	393.6	408.9	421.7
45°	369.1	348.2	337.3	335.4	337.6	342.4	356.3	363.6	374.7	391.6	405.3
47.5°	346.2	325.9	315.5	314.3	316.4	321.8	337.2	343.8	355.6	373.5	388.3
50°	323.0	303.2	293.3	292.9	294.9	300.7	315.4	323.2	335.4	355.5	370.7
52.5°	299.6	280.6	271.6	271.6	273.5	279.4	294.2	302.3	315.0	336.1	352.9
55°	276.2	258.1	249.5	250.2	252.9	258.0	272.4	280.9	293.7	315.6	333.4
57.5°	252.7	235.6	227.8	228.8	231.3	236.5	250.6	260.1	271.7	294.5	312.7
60°	229.6	213.4	206.6	207.6	209.9	215.0	229.7	237.9	249.5	272.7	290.8
62.5°	206.2	191.5	185.0	186.4	188.4	193.5	207.4	215.3	226.8	249.5	267.8
65°	183.0	169.4	163.9	165.2	167.1	171.8	184.9	192.6	203.5	225.7	243.2
67.5°	160.1	147.7	143.1	144.5	146.0	150.4	161.2	169.5	179.8	200.9	217.5
70°	137.5	126.4	122.4	123.7	125.1	129.1	138.6	146.2	155.7	175.0	190.4
72.5°	115.1	104.4	102.3	103.5	104.6	108.1	117.1	123.2	131.4	148.7	161.9
75°	93.3	84.0	82.7	83.9	84.8	87.5	95.1	100.3	107.2	122.1	132.9
77.5°	72.3	64.5	64.0	64.9	65.8	67.7	73.7	79.2	84.6	95.6	105.2
80°	52.6	46.3	46.3	47.3	47.0	49.3	53.5	57.9	61.8	69.8	76.8
82.5°	34.7	29.8	30.4	31.1	31.5	32.5	35.0	38.4	40.8	45.6	50.2
85°	19.3	15.9	16.6	17.1	16.8	17.9	19.3	21.3	22.5	24.8	27.2
87.5°	7.1	5.9	6.1	6.5	6.7	7.3	7.3	8.5	8.6	8.9	9.4
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°	616.0	616.0	616.0
2.5°	601.4	604.6	607.0
5°	591.0	593.7	595.8
7.5°	580.9	583.3	585.2
10°	571.3	574.0	575.4
12.5°	561.5	564.6	565.7
15°	551.8	554.9	556.3
17.5°	541.8	545.9	547.4
20°	532.6	537.7	538.9
22.5°	523.1	528.4	529.9
25°	512.9	519.1	520.6
27.5°	502.0	509.4	510.9
30°	491.1	499.2	500.6
32.5°	479.4	488.1	489.5
35°	467.1	475.9	477.5
37.5°	453.5	463.1	466.3
40°	439.4	449.7	453.1
42.5°	424.6	435.9	439.4
45°	408.7	421.1	425.1
47.5°	392.6	406.7	410.2
50°	375.3	390.2	394.4
52.5°	357.1	373.4	377.6
55°	338.2	354.7	359.3
57.5°	317.8	334.7	339.6
60°	296.4	313.3	317.9
62.5°	274.4	289.8	294.2
65°	249.9	264.3	268.4
67.5°	223.9	237.1	240.5
70°	196.3	207.8	210.7
72.5°	167.5	175.5	179.4
75°	137.7	144.1	147.0
77.5°	107.9	112.3	114.7
80°	78.6	81.2	83.2
82.5°	51.4	52.5	54.0
85°	27.7	27.7	28.7
87.5°	9.4	9.0	9.4
90°	0.0	0.0	0.0

(END OF REPORT)