

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: P835298

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835298
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-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

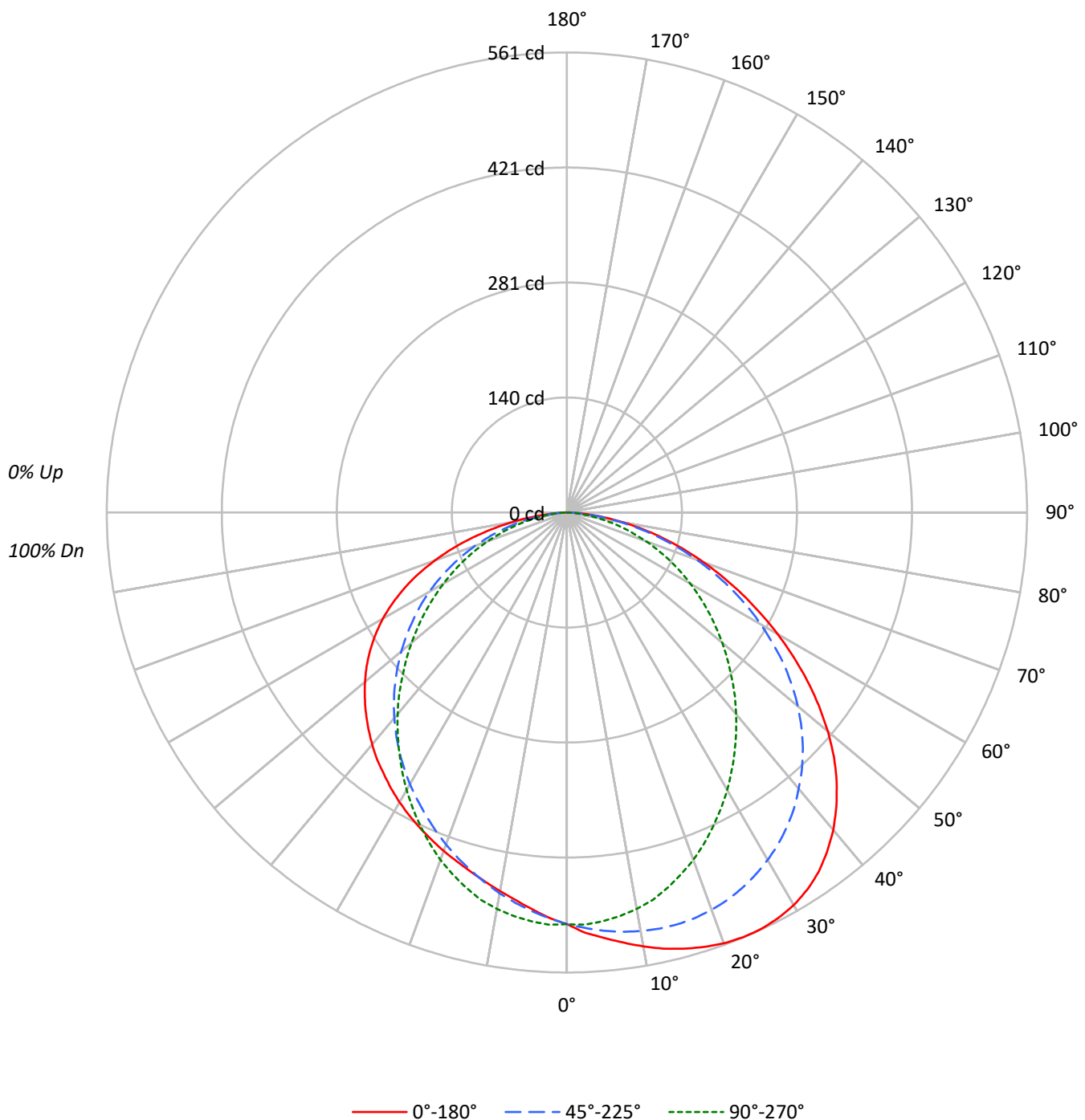
Lumens per Lamp: N/A
Luminaire Lumens: 1476.7 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

Peachtree City, GA 30269



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CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1STD-30-120-EDD-90

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1351	1351	1351
5°	1407	1352	1312
10°	1468	1341	1281
15°	1534	1320	1263
20°	1601	1291	1258
25°	1664	1253	1260
30°	1718	1214	1268
35°	1758	1171	1278
40°	1775	1128	1297
45°	1770	1080	1318
50°	1739	1034	1346
55°	1680	987	1374
60°	1597	936	1394
65°	1500	879	1393
70°	1396	810	1351
75°	1267	712	1246
80°	1088	584	1051
85°	831	398	722

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	3.2
10°-20°	137.5	9.3
20°-30°	210.7	14.3
30°-40°	257.1	17.4
40°-50°	268.8	18.2
50°-60°	243.3	16.5
60°-70°	184.3	12.5
70°-80°	102.7	7.0
80°-90°	24.8	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°	395.8	26.8
0°-40°	652.8	44.2
0°-60°	1165.0	78.9
0°-90°	1476.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1476.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	502	502	502	502	502	
5°	521	512	500	488	486	50
15°	551	520	474	452	453	156
25°	560	505	422	407	424	259
35°	535	468	356	356	389	334
45°	465	407	284	296	346	358
55°	358	323	210	229	293	319
65°	236	222	138	157	219	234
75°	122	115	68	82	120	129
85°	27	24	13	17	23	32
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°	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0
2.5°	513.1	510.7	508.7	509.5	509.9	508.4	507.1	507.3	506.0	508.5	502.6
5°	520.7	518.5	516.2	517.1	516.2	513.9	512.0	511.5	508.0	509.4	503.3
7.5°	529.1	526.7	523.3	524.3	522.4	518.2	515.7	514.3	508.9	509.1	502.4
10°	537.3	535.2	530.6	531.2	527.8	522.1	518.3	516.3	508.7	507.6	500.7
12.5°	544.8	542.0	537.0	537.4	532.4	524.9	519.9	517.1	507.2	503.9	497.1
15°	550.6	547.9	542.0	541.9	535.5	525.6	520.0	516.1	503.6	498.4	491.3
17.5°	555.6	553.1	545.7	545.5	537.8	525.3	518.6	513.7	498.3	491.9	484.0
20°	559.1	556.6	548.3	547.6	538.4	523.7	515.6	509.4	491.4	483.8	475.0
22.5°	560.7	558.2	548.9	547.8	537.0	520.4	511.4	504.0	483.5	473.6	464.5
25°	560.4	558.0	547.5	546.4	534.5	515.4	505.3	496.9	473.5	461.9	452.9
27.5°	557.7	555.8	544.7	543.3	529.9	508.7	498.0	488.6	462.4	449.5	439.7
30°	552.9	551.5	539.8	538.5	524.2	501.4	489.4	478.7	450.5	435.9	426.0
32.5°	545.4	544.1	532.2	531.0	516.5	491.9	479.4	468.3	437.4	421.3	411.4
35°	535.0	534.2	522.7	521.3	506.6	481.2	467.9	455.7	423.8	405.6	396.1
37.5°	521.2	521.2	510.2	508.7	494.4	468.0	455.0	442.0	408.4	389.1	379.8
40°	505.3	506.8	495.4	494.0	480.1	453.9	439.6	426.0	391.9	371.8	362.7
42.5°	486.2	487.5	478.1	476.8	463.7	437.5	424.2	409.4	374.5	354.1	344.7
45°	465.2	466.9	458.5	457.5	445.3	419.6	406.9	391.9	356.4	335.7	326.5
47.5°	441.7	444.0	436.6	436.1	424.8	401.3	388.0	372.8	337.4	316.5	307.8
50°	415.3	418.6	412.6	412.6	402.5	379.1	367.6	352.4	317.7	296.7	288.2
52.5°	387.1	391.3	386.8	386.9	378.7	357.7	345.8	330.8	297.0	276.4	268.5
55°	358.0	362.0	359.2	359.6	353.1	334.0	323.2	308.4	276.0	255.9	248.4
57.5°	327.4	331.8	330.0	330.8	326.3	309.2	297.9	285.0	254.3	234.4	228.0
60°	296.8	301.0	300.0	301.2	298.4	283.6	273.2	259.8	232.4	213.3	207.7
62.5°	265.9	269.7	269.5	270.8	269.3	257.0	247.8	236.4	209.8	192.3	187.1
65°	235.6	238.9	238.7	240.1	239.8	229.9	221.6	211.1	187.2	171.1	166.6
67.5°	206.2	208.9	208.2	209.8	210.3	202.3	195.1	185.8	165.7	150.0	146.2
70°	177.4	179.3	178.3	179.4	180.4	174.5	168.3	160.1	142.8	128.9	125.8
72.5°	149.2	150.6	149.0	150.1	151.0	146.7	141.7	134.5	120.2	108.2	105.6
75°	121.9	123.8	120.6	121.7	122.4	118.1	115.1	109.3	96.9	87.7	85.9
77.5°	95.5	96.6	94.8	94.4	94.8	91.7	89.4	84.9	75.6	68.0	66.9
80°	70.2	70.9	69.1	68.7	69.0	66.8	65.1	61.8	55.2	49.5	49.1
82.5°	47.1	47.4	45.9	45.4	45.6	45.0	42.9	40.6	37.5	32.7	32.6
85°	26.9	26.9	25.8	25.3	25.6	24.5	23.7	22.5	21.3	18.0	18.2
87.5°	9.9	9.9	9.3	9.2	10.3	9.1	8.8	8.2	8.6	6.8	7.2
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°	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0	502.0
2.5°	504.2	503.1	502.1	498.7	500.2	496.7	496.4	495.1	494.1	492.3	494.7
5°	502.6	500.4	497.5	493.5	494.7	490.5	489.6	488.1	486.8	484.4	486.2
7.5°	499.9	496.3	491.8	486.7	488.3	483.2	481.8	480.2	479.1	476.2	477.9
10°	496.1	490.9	485.7	479.4	480.6	475.0	473.4	471.6	470.6	468.1	469.8
12.5°	490.2	483.9	476.8	470.0	471.3	466.0	463.8	462.0	461.7	459.6	461.5
15°	482.5	473.8	466.5	459.2	460.8	454.6	453.6	451.8	452.3	450.9	453.3
17.5°	472.7	462.7	454.7	446.9	448.5	443.3	442.6	441.7	442.2	442.0	444.6
20°	461.8	450.8	441.6	433.9	434.8	430.7	431.0	430.8	431.9	433.1	436.7
22.5°	449.4	437.0	427.3	419.4	420.7	417.2	418.7	419.2	421.0	423.8	428.4
25°	435.4	422.1	412.1	404.6	405.8	403.5	406.1	407.2	410.2	414.8	419.5
27.5°	420.8	406.8	396.0	388.9	391.2	388.9	392.8	395.0	399.5	404.6	410.4
30°	405.4	390.8	379.7	373.3	375.5	373.4	379.8	382.8	387.3	394.2	401.1
32.5°	389.1	373.8	362.9	358.0	359.5	359.2	366.3	369.6	375.6	383.5	390.9
35°	372.4	356.4	345.4	341.3	343.1	343.6	352.1	356.0	362.6	372.1	380.0
37.5°	355.2	338.9	328.1	324.7	326.3	328.0	338.0	341.8	349.3	359.7	368.4
40°	337.3	321.0	310.4	307.7	309.3	311.1	322.0	327.2	335.3	346.6	356.1
42.5°	319.2	302.9	292.7	290.7	292.3	295.7	307.3	312.2	320.8	333.3	343.7
45°	300.8	283.8	274.9	273.3	275.1	279.1	290.4	296.3	305.4	319.1	330.3
47.5°	282.1	265.6	257.1	256.1	257.9	262.3	274.8	280.2	289.8	304.4	316.5
50°	263.3	247.1	239.0	238.7	240.3	245.0	257.0	263.4	273.3	289.7	302.1
52.5°	244.2	228.7	221.3	221.3	222.9	227.7	239.8	246.4	256.7	273.9	287.6
55°	225.1	210.4	203.3	203.9	206.1	210.3	222.0	228.9	239.3	257.2	271.7
57.5°	206.0	192.0	185.7	186.4	188.5	192.7	204.2	212.0	221.4	240.0	254.8
60°	187.1	173.9	168.3	169.2	171.1	175.2	187.2	193.9	203.3	222.2	237.0
62.5°	168.0	156.0	150.8	151.9	153.5	157.7	169.0	175.5	184.8	203.3	218.3
65°	149.1	138.0	133.5	134.6	136.2	140.0	150.7	156.9	165.8	183.9	198.2
67.5°	130.5	120.4	116.6	117.7	119.0	122.6	131.4	138.2	146.5	163.7	177.2
70°	112.0	103.0	99.7	100.8	101.9	105.2	112.9	119.2	126.9	142.7	155.2
72.5°	93.8	85.0	83.4	84.4	85.3	88.1	95.5	100.4	107.1	121.1	131.9
75°	76.0	68.5	67.4	68.4	69.1	71.3	77.5	81.8	87.3	99.5	108.3
77.5°	58.9	52.6	52.1	52.9	53.7	55.2	60.0	64.5	68.9	77.9	85.7
80°	42.9	37.7	37.7	38.5	38.3	40.2	43.6	47.2	50.4	56.8	62.5
82.5°	28.3	24.3	24.8	25.3	25.7	26.4	28.5	31.3	33.2	37.2	40.9
85°	15.7	12.9	13.5	13.9	13.7	14.6	15.7	17.3	18.3	20.2	22.2
87.5°	5.8	4.8	4.9	5.3	5.5	5.9	5.9	6.9	7.0	7.2	7.7
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):

	160°	170°	180°
0°	502.0	502.0	502.0
2.5°	490.1	492.7	494.7
5°	481.6	483.8	485.6
7.5°	473.4	475.4	476.9
10°	465.6	467.8	468.9
12.5°	457.6	460.1	461.0
15°	449.7	452.2	453.3
17.5°	441.6	444.9	446.1
20°	434.0	438.2	439.2
22.5°	426.3	430.6	431.8
25°	418.0	423.0	424.2
27.5°	409.1	415.1	416.3
30°	400.2	406.8	408.0
32.5°	390.7	397.8	398.9
35°	380.7	387.8	389.1
37.5°	369.6	377.4	380.0
40°	358.1	366.5	369.3
42.5°	346.0	355.2	358.1
45°	333.0	343.1	346.4
47.5°	320.0	331.4	334.2
50°	305.8	318.0	321.4
52.5°	291.0	304.3	307.7
55°	275.7	289.0	292.8
57.5°	259.0	272.8	276.7
60°	241.5	255.4	259.1
62.5°	223.6	236.1	239.8
65°	203.7	215.4	218.7
67.5°	182.5	193.2	196.0
70°	160.0	169.3	171.7
72.5°	136.5	143.0	146.2
75°	112.3	117.4	119.8
77.5°	87.9	91.5	93.5
80°	64.1	66.2	67.8
82.5°	41.9	42.8	44.0
85°	22.6	22.6	23.4
87.5°	7.7	7.4	7.7
90°	0.0	0.0	0.0

(END OF REPORT)