

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: P835207

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835207
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-LD4-1LO-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

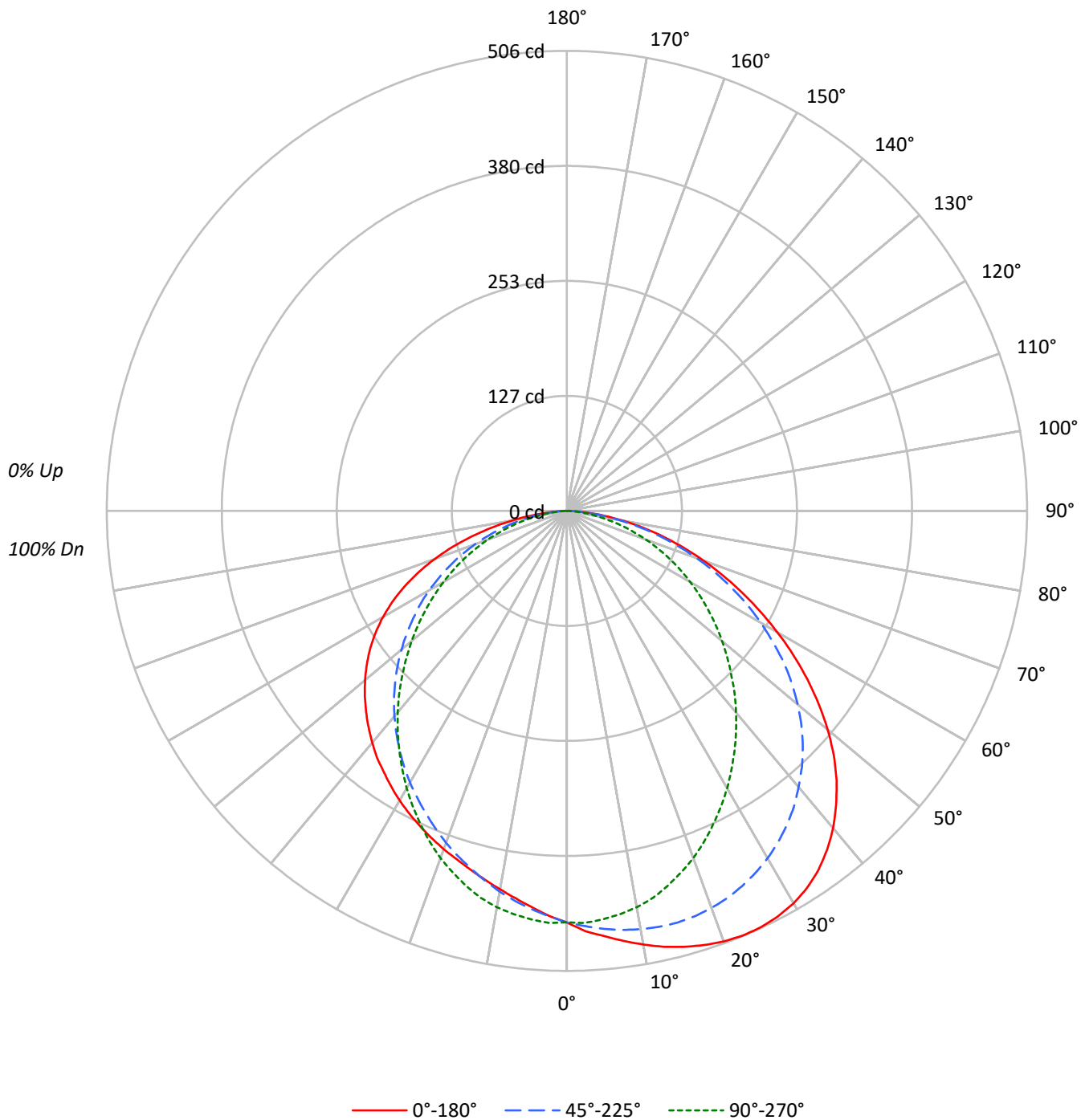
Lumens per Lamp: N/A
Luminaire Lumens: 1331.2 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1218	1218	1218
5°	1268	1219	1182
10°	1323	1209	1155
15°	1383	1190	1138
20°	1443	1164	1134
25°	1500	1130	1135
30°	1549	1095	1143
35°	1584	1055	1152
40°	1600	1016	1169
45°	1596	973	1188
50°	1567	933	1213
55°	1514	890	1238
60°	1440	844	1257
65°	1352	792	1255
70°	1259	731	1218
75°	1143	642	1123
80°	981	527	947
85°	747	361	651

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	3.2
10°-20°	124.0	9.3
20°-30°	189.9	14.3
30°-40°	231.7	17.4
40°-50°	242.3	18.2
50°-60°	219.3	16.5
60°-70°	166.1	12.5
70°-80°	92.6	7.0
80°-90°	22.3	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°	356.8	26.8
0°-40°	588.5	44.2
0°-60°	1050.2	78.9
0°-90°	1331.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	453	453	453	453	453	
5°	469	462	451	440	438	45
15°	496	469	427	407	409	141
25°	505	456	380	367	382	233
35°	482	422	321	321	351	301
45°	419	367	256	267	312	323
55°	323	291	190	206	264	288
65°	212	200	124	142	197	211
75°	110	104	62	74	108	117
85°	24	21	12	16	21	29
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°	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6
2.5°	462.6	460.4	458.6	459.3	459.7	458.3	457.1	457.3	456.1	458.4	453.1
5°	469.4	467.4	465.3	466.1	465.3	463.2	461.6	461.1	457.9	459.2	453.7
7.5°	477.0	474.8	471.8	472.6	471.0	467.1	464.9	463.6	458.8	458.9	452.9
10°	484.3	482.4	478.3	478.9	475.8	470.7	467.2	465.4	458.6	457.6	451.4
12.5°	491.1	488.6	484.1	484.4	480.0	473.1	468.7	466.1	457.2	454.2	448.1
15°	496.4	493.9	488.6	488.5	482.7	473.8	468.8	465.2	453.9	449.3	442.9
17.5°	500.8	498.6	491.9	491.7	484.8	473.5	467.5	463.0	449.2	443.5	436.3
20°	504.0	501.7	494.3	493.6	485.3	472.0	464.8	459.2	443.0	436.1	428.2
22.5°	505.5	503.2	494.8	493.8	484.1	469.1	461.0	454.3	435.8	426.9	418.7
25°	505.2	503.0	493.5	492.5	481.8	464.6	455.5	447.9	426.8	416.4	408.2
27.5°	502.7	501.0	491.0	489.8	477.7	458.6	448.9	440.5	416.9	405.2	396.4
30°	498.5	497.2	486.6	485.4	472.5	452.0	441.2	431.5	406.1	392.9	384.0
32.5°	491.6	490.4	479.8	478.7	465.6	443.5	432.2	422.2	394.3	379.8	370.9
35°	482.2	481.5	471.2	470.0	456.7	433.8	421.8	410.8	382.0	365.6	357.1
37.5°	469.9	469.9	459.9	458.6	445.6	421.9	410.1	398.5	368.2	350.8	342.4
40°	455.5	456.8	446.6	445.3	432.8	409.1	396.3	384.0	353.2	335.1	326.9
42.5°	438.3	439.5	431.0	429.8	418.0	394.4	382.4	369.1	337.6	319.2	310.7
45°	419.3	420.9	413.3	412.4	401.4	378.3	366.8	353.2	321.3	302.6	294.3
47.5°	398.2	400.2	393.6	393.1	382.9	361.8	349.8	336.0	304.2	285.3	277.5
50°	374.4	377.4	371.9	371.9	362.8	341.8	331.4	317.6	286.4	267.5	259.8
52.5°	349.0	352.8	348.7	348.8	341.4	322.5	311.7	298.2	267.8	249.2	242.1
55°	322.7	326.3	323.8	324.2	318.3	301.1	291.3	278.0	248.8	230.7	224.0
57.5°	295.2	299.1	297.5	298.2	294.2	278.8	268.6	256.9	229.2	211.3	205.6
60°	267.6	271.3	270.4	271.5	269.0	255.6	246.3	234.2	209.5	192.3	187.3
62.5°	239.7	243.1	242.9	244.1	242.8	231.7	223.4	213.1	189.1	173.3	168.7
65°	212.4	215.4	215.2	216.4	216.1	207.2	199.7	190.3	168.8	154.2	150.2
67.5°	185.9	188.3	187.7	189.1	189.5	182.4	175.9	167.5	149.4	135.2	131.8
70°	160.0	161.6	160.7	161.7	162.6	157.3	151.7	144.3	128.7	116.2	113.4
72.5°	134.5	135.7	134.3	135.3	136.1	132.3	127.7	121.3	108.3	97.5	95.2
75°	109.9	111.6	108.7	109.7	110.3	106.4	103.8	98.5	87.3	79.0	77.5
77.5°	86.1	87.1	85.5	85.1	85.5	82.7	80.6	76.6	68.2	61.3	60.3
80°	63.3	63.9	62.3	61.9	62.2	60.2	58.7	55.7	49.8	44.6	44.2
82.5°	42.4	42.7	41.3	41.0	41.2	40.6	38.7	36.6	33.8	29.5	29.4
85°	24.2	24.2	23.2	22.9	23.0	22.1	21.4	20.3	19.2	16.2	16.4
87.5°	8.9	8.9	8.4	8.3	9.3	8.2	7.9	7.4	7.7	6.1	6.5
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°	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6
2.5°	454.5	453.6	452.7	449.6	450.9	447.7	447.5	446.3	445.4	443.8	445.9
5°	453.1	451.1	448.5	444.8	445.9	442.2	441.4	440.0	438.8	436.6	438.3
7.5°	450.7	447.4	443.4	438.7	440.2	435.5	434.4	432.9	431.9	429.3	430.8
10°	447.2	442.6	437.8	432.2	433.3	428.2	426.7	425.2	424.3	422.0	423.5
12.5°	441.9	436.2	429.8	423.7	424.9	420.1	418.1	416.5	416.2	414.3	416.1
15°	435.0	427.1	420.5	414.0	415.4	409.8	408.9	407.3	407.8	406.5	408.6
17.5°	426.2	417.1	409.9	402.9	404.3	399.6	398.9	398.2	398.7	398.5	400.8
20°	416.3	406.4	398.1	391.1	391.9	388.3	388.6	388.4	389.4	390.4	393.7
22.5°	405.1	393.9	385.2	378.1	379.3	376.1	377.5	377.9	379.6	382.0	386.2
25°	392.5	380.5	371.4	364.7	365.8	363.7	366.1	367.1	369.8	373.9	378.2
27.5°	379.4	366.7	357.0	350.6	352.7	350.6	354.1	356.1	360.2	364.7	370.0
30°	365.4	352.3	342.3	336.5	338.5	336.6	342.4	345.0	349.1	355.3	361.6
32.5°	350.8	336.9	327.1	322.7	324.1	323.8	330.2	333.2	338.6	345.7	352.4
35°	335.7	321.3	311.4	307.6	309.3	309.7	317.4	320.9	326.8	335.4	342.6
37.5°	320.2	305.5	295.8	292.7	294.2	295.7	304.7	308.1	314.9	324.3	332.1
40°	304.1	289.3	279.8	277.4	278.9	280.4	290.2	295.0	302.3	312.5	321.0
42.5°	287.8	273.0	263.8	262.0	263.5	266.6	277.0	281.4	289.1	300.4	309.8
45°	271.1	255.8	247.8	246.4	248.0	251.6	261.7	267.1	275.3	287.7	297.8
47.5°	254.3	239.4	231.8	230.9	232.5	236.4	247.7	252.5	261.2	274.4	285.3
50°	237.3	222.8	215.4	215.2	216.6	220.9	231.7	237.4	246.4	261.2	272.3
52.5°	220.1	206.2	199.5	199.5	200.9	205.3	216.1	222.1	231.4	246.9	259.3
55°	202.9	189.6	183.3	183.8	185.8	189.5	200.1	206.3	215.7	231.9	244.9
57.5°	185.7	173.1	167.4	168.1	169.9	173.7	184.1	191.1	199.6	216.3	229.7
60°	168.7	156.8	151.7	152.5	154.2	158.0	168.8	174.8	183.3	200.3	213.7
62.5°	151.4	140.7	135.9	136.9	138.4	142.1	152.3	158.2	166.6	183.3	196.8
65°	134.4	124.4	120.4	121.4	122.8	126.2	135.8	141.5	149.5	165.8	178.7
67.5°	117.6	108.5	105.2	106.1	107.2	110.5	118.4	124.5	132.1	147.6	159.8
70°	101.0	92.9	89.9	90.9	91.9	94.9	101.8	107.4	114.4	128.6	139.9
72.5°	84.6	76.7	75.2	76.1	76.9	79.4	86.1	90.5	96.5	109.2	118.9
75°	68.6	61.7	60.7	61.6	62.3	64.3	69.8	73.7	78.7	89.7	97.6
77.5°	53.1	47.4	47.0	47.7	48.4	49.8	54.1	58.2	62.1	70.2	77.3
80°	38.7	34.0	34.0	34.7	34.5	36.2	39.3	42.5	45.4	51.2	56.4
82.5°	25.5	21.9	22.4	22.9	23.1	23.8	25.7	28.2	30.0	33.5	36.9
85°	14.1	11.7	12.2	12.6	12.4	13.2	14.1	15.6	16.5	18.2	20.0
87.5°	5.2	4.4	4.5	4.7	4.9	5.3	5.3	6.2	6.3	6.5	6.9
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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CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	452.6	452.6	452.6
2.5°	441.8	444.2	445.9
5°	434.2	436.1	437.7
7.5°	426.7	428.5	429.9
10°	419.7	421.7	422.7
12.5°	412.5	414.8	415.6
15°	405.4	407.7	408.6
17.5°	398.1	401.0	402.1
20°	391.2	395.0	395.9
22.5°	384.3	388.2	389.3
25°	376.8	381.3	382.4
27.5°	368.8	374.2	375.3
30°	360.8	366.7	367.8
32.5°	352.2	358.6	359.6
35°	343.2	349.6	350.8
37.5°	333.2	340.2	342.6
40°	322.8	330.4	332.9
42.5°	311.9	320.2	322.8
45°	300.2	309.3	312.3
47.5°	288.5	298.7	301.3
50°	275.7	286.7	289.7
52.5°	262.3	274.3	277.4
55°	248.5	260.6	263.9
57.5°	233.5	245.9	249.5
60°	217.7	230.2	233.6
62.5°	201.6	212.9	216.1
65°	183.6	194.2	197.1
67.5°	164.5	174.2	176.7
70°	144.2	152.6	154.8
72.5°	123.1	128.9	131.8
75°	101.2	105.8	108.0
77.5°	79.2	82.5	84.3
80°	57.8	59.6	61.1
82.5°	37.8	38.6	39.7
85°	20.4	20.4	21.1
87.5°	6.9	6.6	6.9
90°	0.0	0.0	0.0

(END OF REPORT)