

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: P835280

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1STD-27-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835280
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-27-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

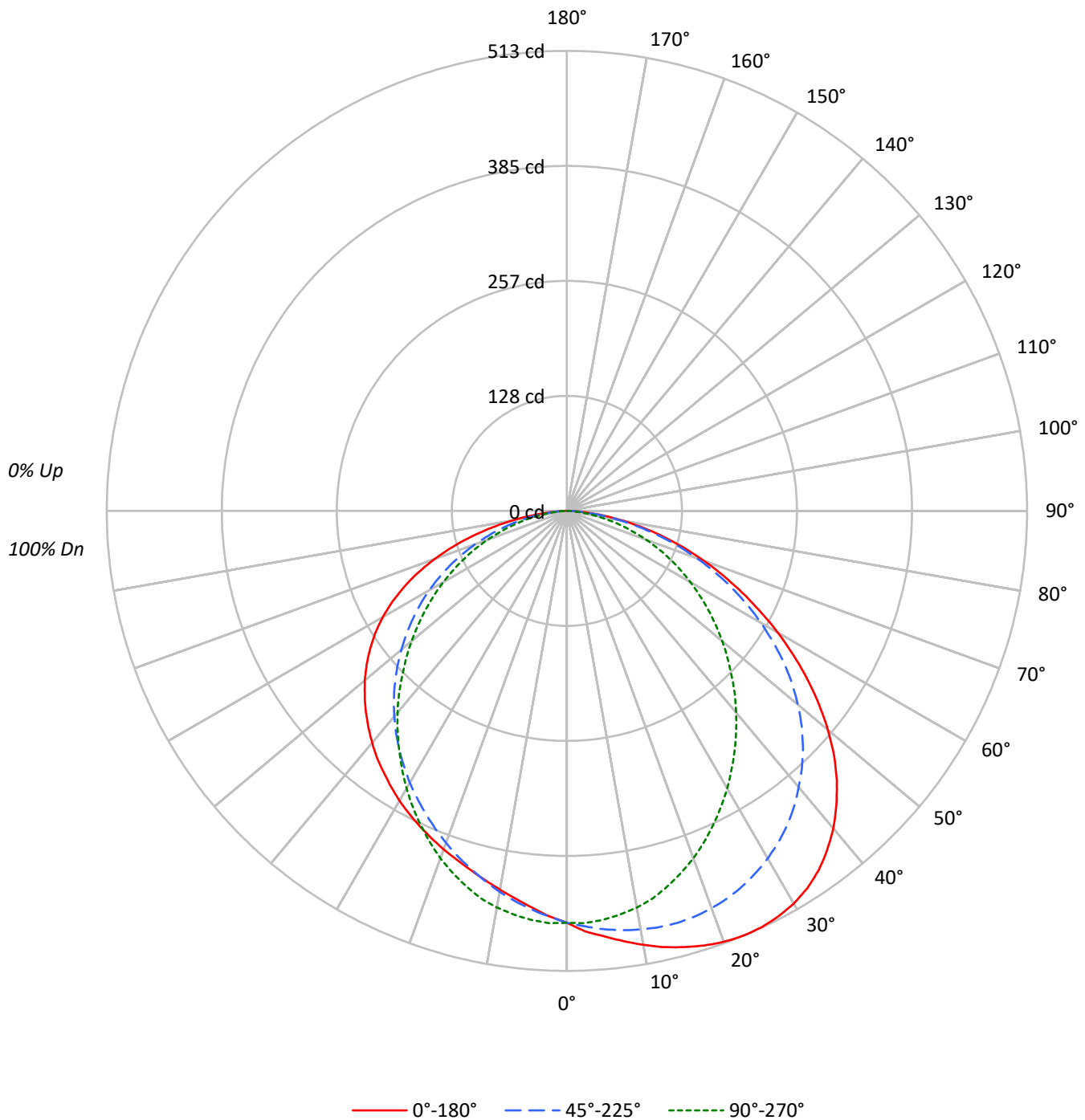
Lumens per Lamp: N/A
Luminaire Lumens: 1350.7 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P835280

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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°	1236	1236	1236
5°	1286	1236	1200
10°	1343	1227	1172
15°	1403	1207	1155
20°	1464	1181	1150
25°	1522	1146	1152
30°	1571	1111	1160
35°	1607	1071	1169
40°	1624	1031	1186
45°	1619	988	1206
50°	1590	946	1231
55°	1536	903	1256
60°	1461	856	1276
65°	1372	804	1273
70°	1277	741	1236
75°	1159	651	1140
80°	995	535	961
85°	760	364	661

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	3.2
10°-20°	125.8	9.3
20°-30°	192.7	14.3
30°-40°	235.1	17.4
40°-50°	245.9	18.2
50°-60°	222.6	16.5
60°-70°	168.5	12.5
70°-80°	93.9	7.0
80°-90°	22.7	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°	362.0	26.8
0°-40°	597.1	44.2
0°-60°	1065.6	78.9
0°-90°	1350.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1350.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	459	459	459	459	459	
5°	476	468	458	446	444	46
15°	504	476	433	413	415	143
25°	513	462	386	372	388	236
35°	489	428	326	326	356	306
45°	426	372	260	271	317	327
55°	327	296	192	209	268	292
65°	216	203	126	144	200	214
75°	112	105	63	75	110	118
85°	25	22	12	16	21	30
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°	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2
2.5°	469.3	467.1	465.3	466.0	466.4	465.0	463.8	464.0	462.8	465.1	459.7
5°	476.2	474.2	472.1	472.9	472.1	470.0	468.3	467.8	464.6	465.9	460.4
7.5°	484.0	481.8	478.6	479.6	477.8	473.9	471.7	470.4	465.5	465.6	459.5
10°	491.4	489.5	485.3	485.9	482.8	477.5	474.0	472.2	465.3	464.3	458.0
12.5°	498.3	495.7	491.2	491.5	487.0	480.1	475.5	472.9	463.9	460.9	454.7
15°	503.6	501.1	495.7	495.6	489.8	480.8	475.6	472.0	460.6	455.9	449.3
17.5°	508.2	505.8	499.1	498.9	491.9	480.5	474.3	469.8	455.8	449.9	442.7
20°	511.4	509.1	501.5	500.8	492.4	478.9	471.6	465.9	449.4	442.5	434.5
22.5°	512.9	510.6	502.0	501.0	491.2	475.9	467.7	461.0	442.2	433.2	424.9
25°	512.6	510.4	500.7	499.7	488.9	471.4	462.2	454.5	433.1	422.4	414.2
27.5°	510.1	508.4	498.2	496.9	484.7	465.3	455.5	446.9	422.9	411.1	402.2
30°	505.7	504.4	493.7	492.5	479.5	458.6	447.6	437.8	412.0	398.7	389.6
32.5°	498.8	497.6	486.8	485.7	472.4	449.9	438.5	428.4	400.1	385.3	376.3
35°	489.3	488.6	478.0	476.8	463.4	440.1	428.0	416.8	387.6	371.0	362.3
37.5°	476.7	476.7	466.6	465.3	452.2	428.1	416.1	404.3	373.6	355.9	347.4
40°	462.2	463.5	453.2	451.8	439.1	415.1	402.1	389.6	358.4	340.0	331.7
42.5°	444.7	445.9	437.3	436.1	424.1	400.2	388.0	374.5	342.6	323.9	315.3
45°	425.5	427.1	419.3	418.4	407.3	383.8	372.2	358.4	326.0	307.0	298.6
47.5°	404.0	406.1	399.4	398.9	388.5	367.0	354.9	340.9	308.6	289.5	281.5
50°	379.9	382.9	377.4	377.4	368.1	346.8	336.2	322.3	290.6	271.4	263.6
52.5°	354.1	357.9	353.8	353.9	346.4	327.2	316.3	302.6	271.7	252.8	245.6
55°	327.4	331.1	328.5	328.9	323.0	305.5	295.6	282.0	252.4	234.1	227.2
57.5°	299.5	303.5	301.8	302.6	298.5	282.8	272.5	260.7	232.5	214.4	208.6
60°	271.5	275.3	274.4	275.5	272.9	259.3	249.9	237.7	212.6	195.1	190.0
62.5°	243.2	246.7	246.5	247.7	246.3	235.1	226.6	216.2	191.9	175.8	171.1
65°	215.5	218.5	218.3	219.6	219.3	210.3	202.6	193.1	171.2	156.5	152.4
67.5°	188.6	191.1	190.4	191.9	192.3	185.1	178.5	169.9	151.6	137.2	133.7
70°	162.3	164.0	163.1	164.1	165.0	159.6	154.0	146.4	130.6	117.9	115.0
72.5°	136.5	137.7	136.3	137.3	138.1	134.2	129.6	123.0	109.9	99.0	96.6
75°	111.5	113.2	110.3	111.3	111.9	108.0	105.3	100.0	88.6	80.2	78.6
77.5°	87.3	88.3	86.7	86.3	86.7	83.9	81.8	77.7	69.2	62.2	61.2
80°	64.2	64.8	63.2	62.8	63.1	61.1	59.5	56.5	50.5	45.3	44.9
82.5°	43.1	43.4	42.0	41.6	41.8	41.2	39.2	37.1	34.3	29.9	29.8
85°	24.6	24.6	23.6	23.2	23.4	22.4	21.7	20.6	19.5	16.5	16.7
87.5°	9.0	9.0	8.5	8.4	9.4	8.3	8.0	7.5	7.8	6.2	6.6
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°	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2	459.2
2.5°	461.2	460.2	459.3	456.2	457.5	454.3	454.1	452.9	451.9	450.2	452.5
5°	459.7	457.7	455.1	451.3	452.5	448.6	447.8	446.4	445.2	443.0	444.7
7.5°	457.3	454.0	449.8	445.1	446.6	441.9	440.7	439.2	438.2	435.6	437.1
10°	453.8	449.0	444.2	438.5	439.6	434.5	433.0	431.4	430.5	428.2	429.7
12.5°	448.3	442.6	436.1	429.9	431.1	426.3	424.2	422.5	422.2	420.3	422.1
15°	441.3	433.4	426.7	420.0	421.4	415.8	414.9	413.2	413.7	412.4	414.6
17.5°	432.4	423.2	415.9	408.8	410.2	405.5	404.8	404.0	404.5	404.3	406.7
20°	422.3	412.3	403.9	396.8	397.7	393.9	394.2	394.0	395.0	396.1	399.5
22.5°	411.0	399.7	390.8	383.6	384.8	381.6	383.0	383.4	385.1	387.6	391.8
25°	398.3	386.1	376.9	370.1	371.2	369.0	371.5	372.5	375.2	379.4	383.7
27.5°	384.9	372.1	362.2	355.7	357.8	355.7	359.3	361.3	365.4	370.1	375.4
30°	370.8	357.4	347.3	341.4	343.5	341.5	347.4	350.1	354.2	360.5	366.8
32.5°	355.9	341.8	331.9	327.4	328.8	328.5	335.0	338.0	343.6	350.8	357.5
35°	340.6	326.0	316.0	312.1	313.8	314.2	322.1	325.6	331.6	340.3	347.6
37.5°	324.9	309.9	300.1	297.0	298.5	300.0	309.1	312.6	319.5	329.0	336.9
40°	308.5	293.6	283.9	281.4	282.9	284.5	294.5	299.3	306.7	317.1	325.7
42.5°	292.0	277.0	267.7	265.9	267.4	270.5	281.0	285.5	293.4	304.8	314.3
45°	275.1	259.5	251.4	250.0	251.6	255.2	265.6	271.0	279.3	291.9	302.1
47.5°	258.0	242.9	235.2	234.3	235.9	239.9	251.3	256.2	265.1	278.4	289.5
50°	240.8	226.0	218.6	218.3	219.8	224.1	235.1	240.9	250.0	265.0	276.3
52.5°	223.3	209.2	202.4	202.4	203.8	208.3	219.3	225.3	234.8	250.5	263.1
55°	205.9	192.4	186.0	186.5	188.5	192.3	203.0	209.4	218.9	235.3	248.5
57.5°	188.4	175.6	169.8	170.5	172.4	176.2	186.8	193.9	202.5	219.5	233.1
60°	171.1	159.1	154.0	154.8	156.5	160.3	171.2	177.3	186.0	203.2	216.8
62.5°	153.7	142.7	137.9	138.9	140.4	144.2	154.6	160.5	169.0	186.0	199.6
65°	136.4	126.3	122.1	123.1	124.6	128.1	137.8	143.5	151.7	168.2	181.3
67.5°	119.3	110.1	106.7	107.7	108.8	112.1	120.1	126.4	134.0	149.7	162.1
70°	102.5	94.2	91.2	92.2	93.2	96.3	103.3	109.0	116.0	130.5	141.9
72.5°	85.8	77.8	76.3	77.2	78.0	80.6	87.3	91.8	98.0	110.8	120.6
75°	69.6	62.6	61.6	62.5	63.2	65.2	70.9	74.8	79.9	91.0	99.1
77.5°	53.9	48.1	47.7	48.4	49.1	50.5	54.9	59.0	63.0	71.3	78.4
80°	39.2	34.5	34.5	35.2	35.0	36.7	39.8	43.2	46.1	52.0	57.2
82.5°	25.9	22.2	22.7	23.2	23.5	24.2	26.1	28.6	30.4	34.0	37.4
85°	14.4	11.8	12.3	12.7	12.5	13.3	14.4	15.9	16.8	18.5	20.3
87.5°	5.3	4.4	4.5	4.8	5.0	5.4	5.4	6.3	6.4	6.6	7.0
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°	459.2	459.2	459.2
2.5°	448.2	450.6	452.5
5°	440.5	442.5	444.1
7.5°	433.0	434.8	436.2
10°	425.9	427.9	428.9
12.5°	418.5	420.8	421.6
15°	411.3	413.6	414.6
17.5°	403.9	406.9	408.0
20°	396.9	400.8	401.7
22.5°	389.9	393.8	394.9
25°	382.3	386.9	388.0
27.5°	374.2	379.7	380.8
30°	366.0	372.1	373.2
32.5°	357.3	363.8	364.8
35°	348.2	354.7	355.9
37.5°	338.0	345.2	347.6
40°	327.5	335.2	337.7
42.5°	316.5	324.9	327.5
45°	304.6	313.8	316.9
47.5°	292.7	303.1	305.7
50°	279.7	290.9	294.0
52.5°	266.2	278.3	281.4
55°	252.1	264.4	267.8
57.5°	236.9	249.5	253.1
60°	220.9	233.6	237.0
62.5°	204.5	216.0	219.3
65°	186.3	197.0	200.0
67.5°	166.9	176.7	179.3
70°	146.3	154.9	157.1
72.5°	124.9	130.8	133.7
75°	102.7	107.4	109.6
77.5°	80.4	83.7	85.5
80°	58.6	60.5	62.0
82.5°	38.3	39.1	40.2
85°	20.7	20.7	21.4
87.5°	7.0	6.7	7.0
90°	0.0	0.0	0.0

(END OF REPORT)