

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: P835190

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835190
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
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

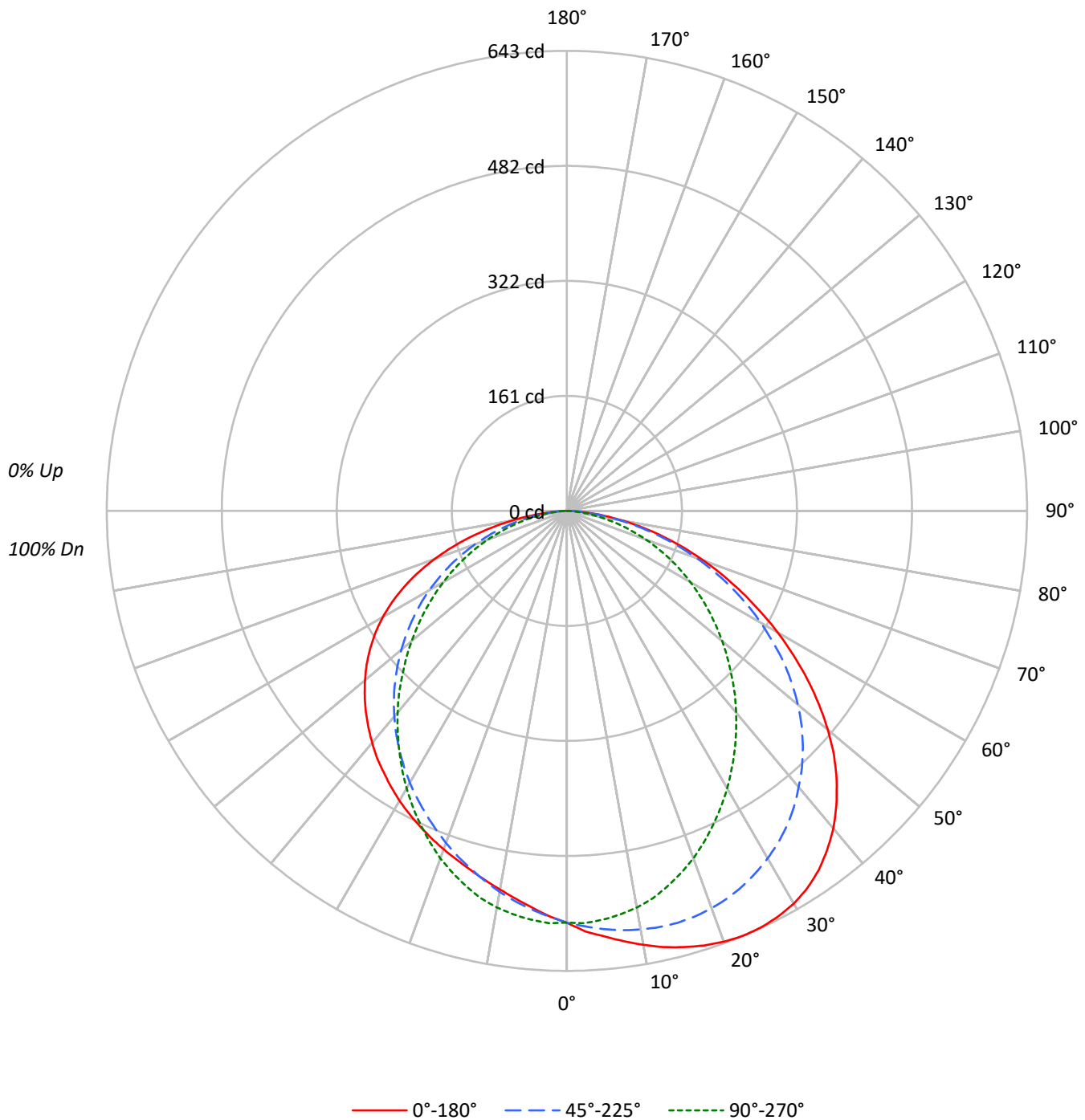
Lumens per Lamp: N/A
Luminaire Lumens: 1692.8 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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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°	1549	1549	1549
5°	1612	1549	1504
10°	1683	1538	1469
15°	1758	1513	1448
20°	1835	1480	1442
25°	1907	1437	1444
30°	1970	1392	1453
35°	2014	1342	1465
40°	2035	1292	1487
45°	2029	1238	1511
50°	1993	1186	1542
55°	1925	1131	1574
60°	1831	1073	1598
65°	1720	1007	1596
70°	1600	929	1549
75°	1454	816	1429
80°	1247	671	1204
85°	951	457	827

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	3.2
10°-20°	157.6	9.3
20°-30°	241.5	14.3
30°-40°	294.7	17.4
40°-50°	308.2	18.2
50°-60°	278.9	16.5
60°-70°	211.2	12.5
70°-80°	117.7	7.0
80°-90°	28.4	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°	453.7	26.8
0°-40°	748.4	44.2
0°-60°	1335.5	78.9
0°-90°	1692.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1692.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	576	576	576	576	576	
5°	597	587	574	560	557	58
15°	631	596	543	518	520	179
25°	642	579	484	467	486	296
35°	613	536	409	408	446	383
45°	533	466	325	340	397	410
55°	410	370	241	262	336	366
65°	270	254	158	180	251	268
75°	140	132	78	94	137	148
85°	31	27	15	20	27	37
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°	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5
2.5°	588.2	585.4	583.2	584.1	584.6	582.8	581.3	581.5	580.0	582.9	576.1
5°	596.9	594.4	591.7	592.7	591.7	589.1	586.9	586.3	582.3	583.9	577.0
7.5°	606.6	603.8	599.9	601.0	598.9	594.0	591.2	589.6	583.4	583.6	575.9
10°	615.9	613.5	608.2	609.0	605.1	598.5	594.1	591.9	583.2	581.9	574.0
12.5°	624.6	621.3	615.6	616.0	610.3	601.7	596.0	592.7	581.4	577.6	569.8
15°	631.2	628.1	621.3	621.2	613.9	602.5	596.1	591.6	577.3	571.3	563.2
17.5°	636.9	634.0	625.6	625.3	616.5	602.2	594.5	588.8	571.2	563.9	554.9
20°	640.9	638.0	628.6	627.7	617.1	600.3	591.1	583.9	563.3	554.6	544.6
22.5°	642.8	639.9	629.2	628.0	615.6	596.5	586.2	577.8	554.2	542.9	532.5
25°	642.4	639.7	627.6	626.3	612.7	590.8	579.3	569.6	542.8	529.5	519.1
27.5°	639.3	637.1	624.4	622.8	607.5	583.2	570.8	560.2	530.1	515.2	504.1
30°	633.9	632.2	618.8	617.3	600.9	574.7	561.0	548.7	516.4	499.6	488.3
32.5°	625.2	623.7	610.1	608.7	592.1	563.9	549.6	536.9	501.4	482.9	471.6
35°	613.2	612.4	599.1	597.6	580.8	551.6	536.4	522.4	485.8	464.9	454.1
37.5°	597.5	597.5	584.8	583.2	566.7	536.5	521.5	506.7	468.2	446.1	435.4
40°	579.3	580.9	568.0	566.3	550.3	520.3	503.9	488.3	449.2	426.2	415.7
42.5°	557.4	558.9	548.1	546.6	531.6	501.5	486.3	469.3	429.3	405.9	395.1
45°	533.2	535.2	525.6	524.4	510.5	481.0	466.4	449.2	408.6	384.8	374.2
47.5°	506.3	509.0	500.5	499.9	486.9	460.0	444.8	427.3	386.8	362.8	352.8
50°	476.1	479.9	473.0	473.0	461.4	434.6	421.4	403.9	364.2	340.1	330.3
52.5°	443.8	448.6	443.4	443.5	434.1	410.1	396.4	379.3	340.5	316.9	307.8
55°	410.3	415.0	411.7	412.2	404.8	382.9	370.5	353.5	316.4	293.3	284.8
57.5°	375.4	380.4	378.3	379.3	374.1	354.5	341.5	326.7	291.5	268.7	261.4
60°	340.3	345.0	343.9	345.3	342.0	325.0	313.2	297.9	266.4	244.5	238.1
62.5°	304.8	309.2	308.9	310.5	308.7	294.6	284.0	271.0	240.5	220.4	214.5
65°	270.1	273.9	273.6	275.2	274.9	263.5	254.0	242.0	214.6	196.1	191.0
67.5°	236.4	239.5	238.6	240.5	241.0	232.0	223.7	213.0	189.9	172.0	167.6
70°	203.4	205.5	204.4	205.7	206.8	200.0	193.0	183.5	163.7	147.8	144.2
72.5°	171.1	172.6	170.8	172.1	173.1	168.2	162.4	154.2	137.7	124.0	121.0
75°	139.8	141.9	138.2	139.5	140.3	135.4	132.0	125.3	111.1	100.5	98.5
77.5°	109.4	110.7	108.7	108.2	108.7	105.2	102.5	97.4	86.7	78.0	76.7
80°	80.5	81.3	79.2	78.7	79.1	76.6	74.6	70.8	63.3	56.7	56.2
82.5°	54.0	54.3	52.6	52.1	52.3	51.6	49.2	46.5	43.0	37.5	37.4
85°	30.8	30.8	29.6	29.1	29.3	28.1	27.2	25.8	24.4	20.6	20.9
87.5°	11.3	11.3	10.7	10.6	11.8	10.4	10.1	9.4	9.8	7.8	8.3
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5	575.5
2.5°	578.0	576.8	575.6	571.7	573.4	569.3	569.1	567.6	566.4	564.3	567.1
5°	576.1	573.6	570.3	565.7	567.1	562.3	561.3	559.5	558.0	555.2	557.4
7.5°	573.1	569.0	563.8	557.9	559.8	553.9	552.4	550.5	549.2	545.9	547.8
10°	568.7	562.8	556.8	549.6	551.0	544.6	542.7	540.7	539.5	536.6	538.5
12.5°	561.9	554.7	546.6	538.8	540.3	534.2	531.7	529.6	529.2	526.8	529.1
15°	553.1	543.2	534.7	526.4	528.2	521.2	520.0	517.9	518.5	516.9	519.6
17.5°	541.9	530.5	521.3	512.4	514.1	508.2	507.3	506.3	506.9	506.7	509.7
20°	529.3	516.8	506.2	497.4	498.4	493.7	494.1	493.9	495.1	496.5	500.7
22.5°	515.1	500.9	489.8	480.8	482.3	478.3	480.0	480.5	482.7	485.8	491.1
25°	499.1	483.9	472.4	463.8	465.2	462.5	465.6	466.8	470.2	475.5	480.9
27.5°	482.4	466.3	454.0	445.8	448.5	445.8	450.3	452.9	458.0	463.8	470.5
30°	464.7	447.9	435.2	427.9	430.5	428.1	435.4	438.8	443.9	451.8	459.8
32.5°	446.1	428.4	416.0	410.3	412.1	411.7	419.9	423.7	430.6	439.6	448.1
35°	426.9	408.6	396.0	391.2	393.4	393.9	403.7	408.1	415.6	426.6	435.6
37.5°	407.2	388.4	376.1	372.2	374.1	376.0	387.4	391.8	400.4	412.3	422.3
40°	386.7	367.9	355.9	352.7	354.6	356.6	369.1	375.1	384.4	397.4	408.2
42.5°	365.9	347.2	335.5	333.2	335.1	339.0	352.2	357.9	367.7	382.0	394.0
45°	344.8	325.3	315.1	313.3	315.4	319.9	332.8	339.6	350.1	365.8	378.6
47.5°	323.4	304.4	294.7	293.6	295.6	300.6	315.0	321.1	332.2	348.9	362.8
50°	301.8	283.3	274.0	273.6	275.5	280.9	294.6	301.9	313.3	332.1	346.3
52.5°	279.9	262.2	253.7	253.7	255.5	261.0	274.9	282.4	294.2	314.0	329.7
55°	258.0	241.1	233.1	233.7	236.2	241.0	254.5	262.4	274.4	294.9	311.5
57.5°	236.1	220.1	212.8	213.7	216.1	220.9	234.1	243.0	253.8	275.1	292.1
60°	214.5	199.4	193.0	194.0	196.1	200.9	214.6	222.3	233.1	254.7	271.7
62.5°	192.6	178.9	172.8	174.1	176.0	180.8	193.7	201.1	211.8	233.1	250.2
65°	171.0	158.2	153.1	154.3	156.1	160.5	172.7	179.9	190.1	210.8	227.2
67.5°	149.6	138.0	133.7	135.0	136.4	140.5	150.6	158.4	167.9	187.7	203.2
70°	128.4	118.1	114.3	115.6	116.9	120.6	129.4	136.6	145.4	163.5	177.9
72.5°	107.6	97.5	95.6	96.7	97.7	101.0	109.4	115.1	122.8	138.9	151.2
75°	87.2	78.5	77.2	78.4	79.2	81.8	88.8	93.7	100.1	114.1	124.2
77.5°	67.6	60.3	59.8	60.6	61.5	63.3	68.8	74.0	79.0	89.3	98.2
80°	49.2	43.3	43.3	44.2	43.9	46.0	49.9	54.1	57.7	65.2	71.7
82.5°	32.5	27.8	28.4	29.1	29.4	30.3	32.7	35.9	38.1	42.6	46.9
85°	18.0	14.8	15.5	16.0	15.7	16.7	18.0	19.9	21.0	23.1	25.4
87.5°	6.7	5.5	5.7	6.0	6.3	6.8	6.8	7.9	8.1	8.3	8.8
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°	575.5	575.5	575.5
2.5°	561.8	564.8	567.1
5°	552.1	554.6	556.6
7.5°	542.7	544.9	546.7
10°	533.7	536.3	537.5
12.5°	524.6	527.4	528.5
15°	515.5	518.4	519.6
17.5°	506.2	510.0	511.3
20°	497.5	502.3	503.4
22.5°	488.7	493.6	495.0
25°	479.1	484.9	486.3
27.5°	469.0	475.9	477.3
30°	458.8	466.3	467.7
32.5°	447.8	456.0	457.3
35°	436.4	444.6	446.1
37.5°	423.7	432.6	435.6
40°	410.5	420.1	423.3
42.5°	396.6	407.2	410.5
45°	381.8	393.4	397.1
47.5°	366.8	379.9	383.2
50°	350.6	364.5	368.4
52.5°	333.6	348.8	352.7
55°	316.0	331.3	335.6
57.5°	296.9	312.7	317.2
60°	276.9	292.7	297.0
62.5°	256.4	270.7	274.9
65°	233.5	246.9	250.7
67.5°	209.2	221.5	224.7
70°	183.4	194.1	196.9
72.5°	156.5	163.9	167.6
75°	128.7	134.6	137.4
77.5°	100.8	104.9	107.2
80°	73.5	75.9	77.7
82.5°	48.1	49.1	50.4
85°	25.9	25.9	26.8
87.5°	8.8	8.4	8.8
90°	0.0	0.0	0.0

(END OF REPORT)