

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: P835209

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835209
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-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

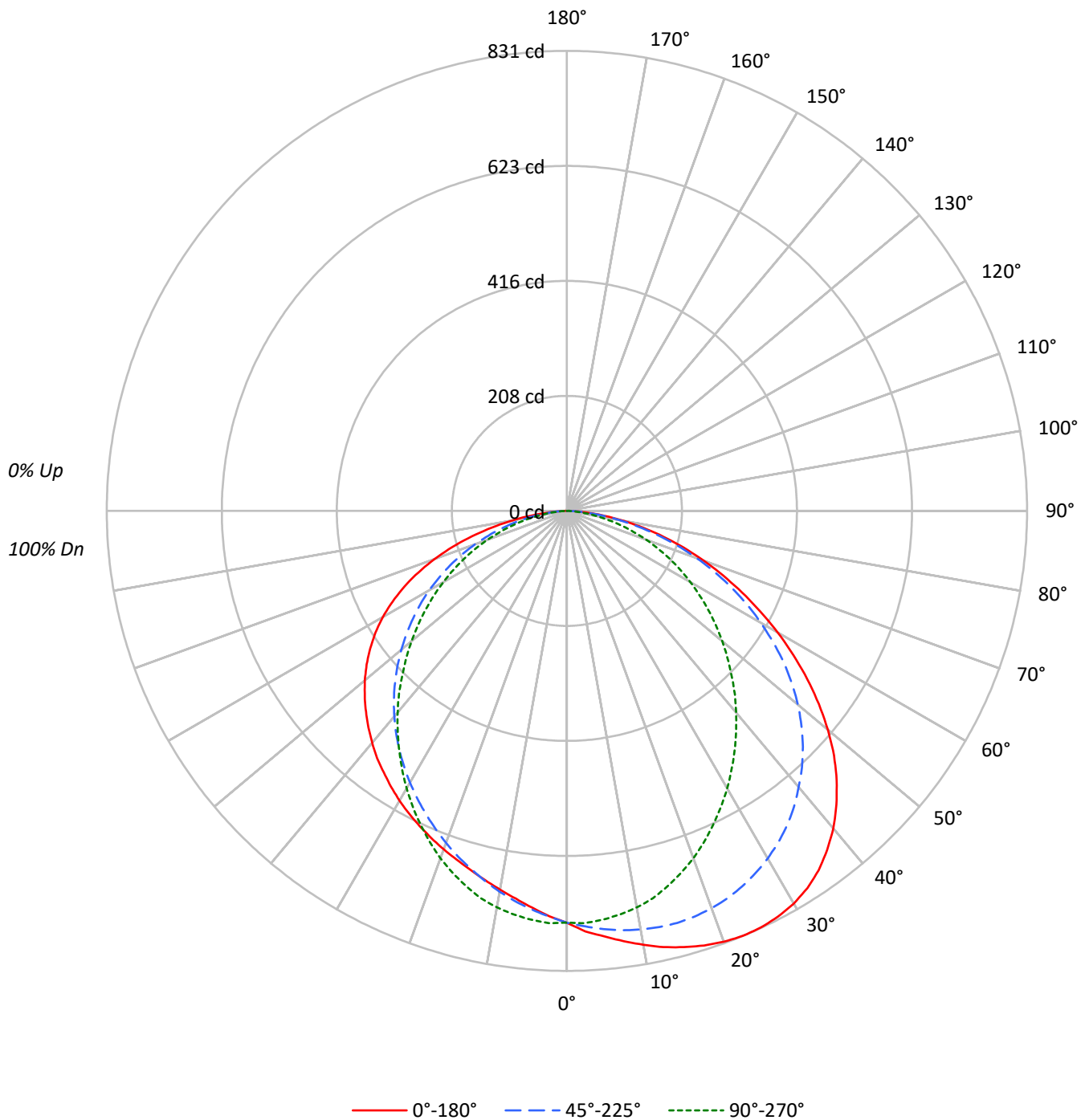
Lumens per Lamp: N/A
Luminaire Lumens: 2187.8 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1HI-35-120-EDD

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	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°	2002	2002	2002
5°	2084	2002	1943
10°	2175	1987	1898
15°	2273	1956	1871
20°	2372	1912	1863
25°	2465	1857	1866
30°	2545	1799	1878
35°	2603	1735	1894
40°	2630	1670	1922
45°	2622	1600	1953
50°	2576	1533	1994
55°	2488	1462	2035
60°	2366	1387	2066
65°	2222	1302	2063
70°	2068	1201	2002
75°	1878	1054	1845
80°	1612	866	1557
85°	1229	593	1068

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.5	3.2
10°-20°	203.7	9.3
20°-30°	312.1	14.3
30°-40°	380.8	17.4
40°-50°	398.3	18.2
50°-60°	360.5	16.5
60°-70°	273.0	12.5
70°-80°	152.1	7.0
80°-90°	36.7	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°	586.3	26.8
0°-40°	967.2	44.2
0°-60°	1725.9	78.9
0°-90°	2187.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2187.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	744	744	744	744	744	
5°	771	758	741	723	719	74
15°	816	770	702	669	672	231
25°	830	749	625	603	628	383
35°	792	693	528	527	576	495
45°	689	603	420	439	513	530
55°	530	479	312	339	434	473
65°	349	328	204	232	324	346
75°	181	170	101	121	178	192
85°	40	35	19	26	35	48
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°	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8
2.5°	760.2	756.6	753.7	754.8	755.5	753.2	751.2	751.6	749.6	753.3	744.6
5°	771.4	768.1	764.7	766.0	764.7	761.3	758.5	757.7	752.5	754.6	745.7
7.5°	783.9	780.3	775.3	776.8	774.0	767.6	764.1	762.0	754.0	754.2	744.2
10°	795.9	792.8	786.0	787.0	782.0	773.5	767.8	764.9	753.7	752.0	741.8
12.5°	807.2	802.9	795.6	796.1	788.8	777.6	770.2	766.0	751.4	746.5	736.4
15°	815.8	811.7	802.9	802.8	793.3	778.7	770.4	764.6	746.0	738.4	727.8
17.5°	823.1	819.3	808.5	808.1	796.7	778.2	768.3	761.0	738.2	728.8	717.1
20°	828.3	824.5	812.4	811.2	797.6	775.8	763.9	754.6	728.0	716.8	703.8
22.5°	830.7	827.0	813.2	811.5	795.6	770.9	757.6	746.7	716.3	701.6	688.2
25°	830.2	826.7	811.1	809.4	791.9	763.6	748.6	736.1	701.5	684.3	670.9
27.5°	826.2	823.4	807.0	804.9	785.0	753.7	737.7	723.9	685.1	665.9	651.4
30°	819.2	817.1	799.7	797.7	776.6	742.8	725.1	709.1	667.3	645.7	631.1
32.5°	808.0	806.0	788.5	786.7	765.2	728.8	710.3	693.8	648.0	624.1	609.5
35°	792.5	791.4	774.3	772.4	750.6	712.9	693.2	675.1	627.8	600.9	586.9
37.5°	772.2	772.2	755.8	753.7	732.4	693.4	674.0	654.8	605.1	576.5	562.6
40°	748.6	750.7	734.0	731.9	711.2	672.4	651.2	631.1	580.5	550.8	537.3
42.5°	720.3	722.3	708.3	706.4	687.0	648.2	628.5	606.5	554.8	524.6	510.6
45°	689.1	691.7	679.2	677.7	659.7	621.7	602.8	580.5	528.0	497.3	483.6
47.5°	654.3	657.8	646.9	646.0	629.3	594.5	574.8	552.2	499.9	468.8	456.0
50°	615.3	620.2	611.3	611.3	596.3	561.7	544.6	522.0	470.6	439.6	426.9
52.5°	573.5	579.7	573.1	573.2	561.0	530.0	512.3	490.1	440.1	409.5	397.8
55°	530.3	536.3	532.1	532.7	523.1	494.9	478.8	456.8	408.9	379.1	368.1
57.5°	485.1	491.6	488.8	490.1	483.5	458.1	441.4	422.2	376.7	347.2	337.8
60°	439.7	445.9	444.5	446.3	442.0	420.1	404.8	385.0	344.3	316.0	307.7
62.5°	393.9	399.6	399.3	401.2	398.9	380.7	367.1	350.2	310.8	284.8	277.2
65°	349.0	353.9	353.6	355.7	355.2	340.6	328.2	312.8	277.3	253.4	246.8
67.5°	305.5	309.5	308.4	310.8	311.5	299.8	289.0	275.2	245.5	222.2	216.5
70°	262.9	265.6	264.2	265.8	267.3	258.5	249.4	237.2	211.5	191.0	186.3
72.5°	221.1	223.0	220.8	222.4	223.7	217.4	209.9	199.3	178.0	160.3	156.4
75°	180.6	183.4	178.7	180.3	181.3	174.9	170.5	161.9	143.5	129.9	127.3
77.5°	141.4	143.1	140.5	139.8	140.5	135.9	132.5	125.8	112.0	100.8	99.2
80°	104.0	105.0	102.4	101.8	102.3	99.0	96.4	91.5	81.8	73.3	72.7
82.5°	69.7	70.2	68.0	67.3	67.6	66.7	63.6	60.2	55.6	48.4	48.3
85°	39.8	39.8	38.2	37.6	37.9	36.3	35.1	33.3	31.5	26.7	27.0
87.5°	14.6	14.6	13.8	13.7	15.3	13.5	13.0	12.2	12.7	10.1	10.7
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8	743.8
2.5°	747.0	745.4	743.9	738.9	741.0	735.8	735.5	733.5	732.0	729.3	732.9
5°	744.6	741.3	737.1	731.1	732.9	726.7	725.4	723.1	721.2	717.6	720.3
7.5°	740.7	735.3	728.6	721.0	723.4	715.8	713.8	711.4	709.8	705.5	708.0
10°	735.0	727.3	719.5	710.3	712.0	703.8	701.3	698.7	697.3	693.5	696.0
12.5°	726.2	716.9	706.4	696.3	698.2	690.4	687.2	684.4	683.9	680.8	683.8
15°	714.8	702.0	691.1	680.3	682.6	673.5	672.1	669.3	670.1	668.0	671.6
17.5°	700.3	685.6	673.7	662.1	664.4	656.8	655.6	654.3	655.2	654.8	658.7
20°	684.1	667.8	654.2	642.8	644.1	638.1	638.6	638.2	639.9	641.7	647.0
22.5°	665.7	647.3	633.0	621.3	623.3	618.1	620.4	621.0	623.8	627.8	634.7
25°	645.1	625.4	610.4	599.4	601.2	597.8	601.7	603.3	607.7	614.5	621.5
27.5°	623.5	602.6	586.7	576.1	579.6	576.1	582.0	585.2	591.9	599.4	608.0
30°	600.5	578.9	562.5	553.1	556.3	553.2	562.6	567.0	573.7	583.9	594.2
32.5°	576.5	553.7	537.6	530.3	532.6	532.1	542.7	547.5	556.5	568.2	579.1
35°	551.8	528.0	511.8	505.6	508.4	509.0	521.7	527.4	537.1	551.3	563.0
37.5°	526.2	502.0	486.1	481.0	483.5	485.9	500.7	506.4	517.5	532.9	545.7
40°	499.7	475.5	459.9	455.8	458.3	460.9	477.0	484.8	496.8	513.6	527.5
42.5°	472.9	448.7	433.6	430.6	433.1	438.1	455.2	462.5	475.2	493.7	509.2
45°	445.6	420.4	407.2	405.0	407.6	413.4	430.2	438.9	452.4	472.7	489.3
47.5°	418.0	393.4	380.9	379.4	382.0	388.5	407.1	415.0	429.3	451.0	468.8
50°	390.0	366.1	354.1	353.6	356.0	363.0	380.7	390.2	405.0	429.2	447.6
52.5°	361.7	338.8	327.9	327.9	330.2	337.3	355.2	365.0	380.2	405.8	426.1
55°	333.4	311.6	301.2	302.1	305.3	311.5	328.9	339.1	354.6	381.1	402.5
57.5°	305.1	284.5	275.1	276.2	279.3	285.5	302.5	314.1	328.1	355.5	377.5
60°	277.2	257.7	249.4	250.7	253.4	259.6	277.3	287.3	301.2	329.2	351.1
62.5°	248.9	231.2	223.4	225.0	227.4	233.6	250.4	259.9	273.8	301.2	323.3
65°	220.9	204.5	197.8	199.5	201.7	207.4	223.2	232.5	245.6	272.5	293.6
67.5°	193.3	178.3	172.8	174.4	176.2	181.6	194.6	204.7	217.0	242.6	262.5
70°	166.0	152.7	147.8	149.4	151.0	155.9	167.3	176.5	187.9	211.3	229.9
72.5°	139.0	126.0	123.6	125.0	126.3	130.5	141.4	148.8	158.7	179.5	195.4
75°	112.7	101.4	99.8	101.3	102.4	105.7	114.8	121.1	129.4	147.4	160.5
77.5°	87.3	77.9	77.2	78.4	79.5	81.8	88.9	95.6	102.1	115.4	127.0
80°	63.6	55.9	55.9	57.1	56.7	59.5	64.5	69.9	74.6	84.2	92.7
82.5°	41.9	35.9	36.7	37.6	38.0	39.2	42.3	46.3	49.3	55.1	60.6
85°	23.2	19.2	20.0	20.6	20.3	21.6	23.2	25.7	27.1	29.9	32.8
87.5°	8.6	7.2	7.3	7.8	8.1	8.8	8.8	10.2	10.4	10.7	11.4
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°	743.8	743.8	743.8
2.5°	726.0	729.9	732.9
5°	713.5	716.8	719.4
7.5°	701.3	704.2	706.5
10°	689.8	693.0	694.7
12.5°	677.9	681.6	683.0
15°	666.2	669.9	671.6
17.5°	654.2	659.1	660.8
20°	643.0	649.1	650.6
22.5°	631.6	637.9	639.7
25°	619.2	626.7	628.5
27.5°	606.1	615.0	616.8
30°	592.9	602.6	604.4
32.5°	578.7	589.3	590.9
35°	564.0	574.5	576.5
37.5°	547.5	559.1	563.0
40°	530.5	543.0	547.0
42.5°	512.6	526.2	530.5
45°	493.4	508.4	513.2
47.5°	474.0	491.0	495.2
50°	453.1	471.1	476.2
52.5°	431.1	450.8	455.8
55°	408.4	428.2	433.7
57.5°	383.7	404.1	410.0
60°	357.8	378.3	383.8
62.5°	331.3	349.8	355.2
65°	301.7	319.1	324.0
67.5°	270.4	286.3	290.3
70°	237.0	250.8	254.4
72.5°	202.2	211.8	216.5
75°	166.3	173.9	177.5
77.5°	130.2	135.6	138.5
80°	94.9	98.0	100.5
82.5°	62.1	63.4	65.2
85°	33.5	33.5	34.6
87.5°	11.4	10.9	11.4
90°	0.0	0.0	0.0

(END OF REPORT)