

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: P834225

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-3HI-40-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834225
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-3HI-40-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

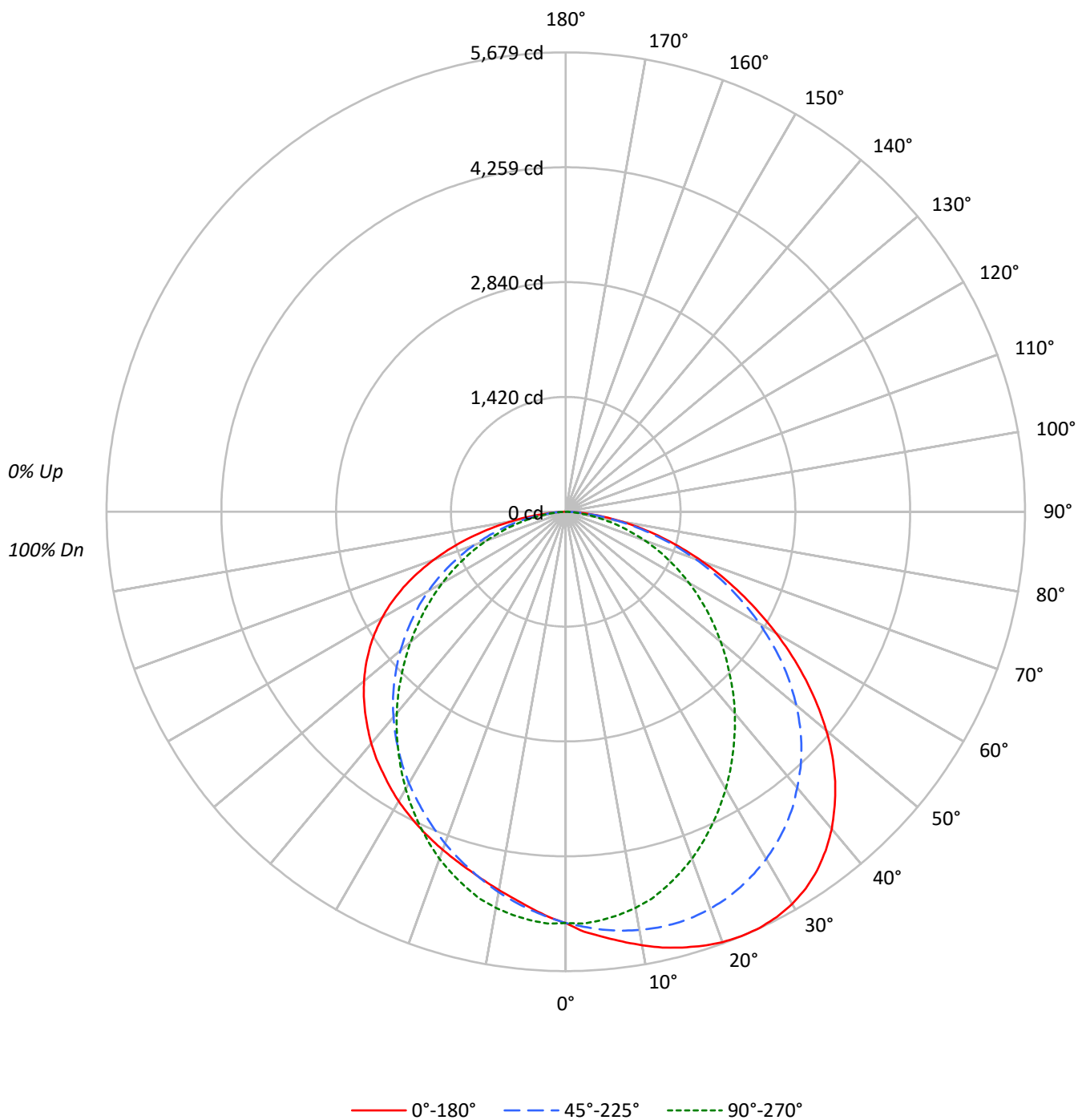
Lumens per Lamp: N/A
Luminaire Lumens: 14956.6 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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
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°	13683	13683	13683
5°	14245	13690	13285
10°	14869	13587	12977
15°	15537	13370	12791
20°	16216	13074	12737
25°	16853	12695	12757
30°	17402	12298	12840
35°	17799	11858	12946
40°	17979	11419	13137
45°	17929	10938	13353
50°	17611	10478	13628
55°	17009	9995	13911
60°	16180	9481	14122
65°	15194	8902	14104
70°	14139	8211	13685
75°	12838	7210	12618
80°	11023	5924	10643
85°	8407	4048	7308

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.2	3.2
10°-20°	1392.6	9.3
20°-30°	2133.5	14.3
30°-40°	2603.7	17.4
40°-50°	2722.9	18.2
50°-60°	2464.4	16.5
60°-70°	1866.4	12.5
70°-80°	1040.1	7.0
80°-90°	250.9	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°	4008.4	26.8
0°-40°	6612.0	44.2
0°-60°	11799.2	78.9
0°-90°	14956.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14956.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5085	5085	5085	5085	5085	
5°	5274	5186	5068	4944	4918	508
15°	5577	5267	4799	4576	4591	1582
25°	5676	5118	4276	4124	4297	2618
35°	5418	4739	3610	3605	3941	3383
45°	4711	4121	2874	3001	3509	3625
55°	3625	3273	2130	2318	2965	3235
65°	2386	2244	1398	1589	2215	2367
75°	1235	1166	694	828	1214	1310
85°	272	240	131	176	237	328
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°	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6
2.5°	5196.9	5172.4	5152.4	5160.2	5164.6	5149.1	5135.7	5138.0	5124.6	5150.2	5090.2
5°	5273.6	5251.3	5228.0	5236.9	5228.0	5204.7	5185.8	5180.2	5144.6	5159.1	5098.0
7.5°	5359.1	5334.7	5300.2	5310.2	5291.3	5248.0	5223.5	5209.1	5154.6	5155.8	5088.0
10°	5441.4	5420.3	5373.6	5380.3	5345.8	5288.0	5249.1	5229.1	5152.4	5141.3	5071.3
12.5°	5518.1	5489.2	5439.2	5442.5	5392.5	5315.8	5265.8	5236.9	5136.9	5103.5	5034.6
15°	5577.0	5549.2	5489.2	5488.1	5423.6	5323.6	5266.9	5226.9	5100.2	5047.9	4975.7
17.5°	5627.0	5601.4	5527.0	5524.7	5446.9	5320.2	5252.4	5202.4	5046.8	4982.4	4902.4
20°	5662.5	5637.0	5553.6	5545.9	5452.5	5303.6	5222.4	5159.1	4976.8	4900.1	4811.2
22.5°	5679.2	5653.7	5559.2	5548.1	5439.2	5270.2	5179.1	5104.6	4896.8	4796.8	4704.5
25°	5675.9	5651.4	5544.7	5533.6	5413.6	5220.2	5118.0	5032.4	4795.7	4677.9	4586.7
27.5°	5648.1	5629.2	5517.0	5502.5	5366.9	5152.4	5043.5	4949.0	4683.4	4552.3	4453.4
30°	5600.3	5585.9	5466.9	5453.6	5309.1	5078.0	4956.8	4847.9	4562.3	4414.5	4314.4
32.5°	5523.6	5510.3	5390.3	5378.0	5231.3	4982.4	4855.7	4743.4	4430.0	4266.6	4166.6
35°	5418.0	5410.3	5293.6	5280.2	5131.3	4873.5	4739.0	4615.6	4292.2	4107.7	4012.1
37.5°	5279.1	5279.1	5166.9	5152.4	5006.8	4740.1	4607.8	4476.7	4136.6	3941.0	3846.5
40°	5118.0	5132.4	5017.9	5003.5	4862.3	4596.7	4452.2	4314.4	3968.8	3765.4	3673.2
42.5°	4924.6	4937.9	4842.3	4829.0	4696.7	4431.1	4296.6	4146.6	3793.2	3586.5	3490.9
45°	4711.2	4729.0	4643.4	4633.4	4510.0	4250.0	4121.0	3968.8	3609.8	3399.8	3306.4
47.5°	4473.4	4496.7	4422.2	4416.7	4302.2	4064.4	3929.9	3775.4	3417.5	3205.3	3117.5
50°	4206.6	4240.0	4178.8	4178.8	4076.6	3839.9	3723.2	3568.7	3217.5	3005.2	2918.5
52.5°	3921.0	3963.2	3917.7	3918.8	3835.4	3623.1	3502.0	3350.8	3008.5	2799.6	2719.6
55°	3625.4	3666.5	3637.6	3642.0	3576.5	3383.1	3273.1	3123.0	2795.2	2591.8	2516.2
57.5°	3316.4	3360.9	3342.0	3350.8	3305.3	3131.9	3017.4	2886.3	2575.1	2373.9	2309.5
60°	3006.3	3048.6	3038.5	3050.8	3021.9	2871.8	2767.4	2631.8	2353.9	2160.5	2103.9
62.5°	2692.9	2731.8	2729.6	2742.9	2727.4	2602.9	2509.5	2393.9	2125.0	1947.2	1894.9
65°	2386.2	2419.5	2417.3	2431.7	2428.4	2328.4	2243.9	2138.3	1896.0	1732.7	1687.1
67.5°	2088.3	2116.1	2108.3	2125.0	2129.4	2049.4	1976.1	1881.6	1678.2	1519.3	1480.4
70°	1797.1	1816.0	1806.0	1817.1	1827.1	1767.1	1704.9	1621.5	1445.9	1305.9	1273.7
72.5°	1511.5	1524.8	1509.3	1520.4	1529.3	1485.9	1434.8	1362.6	1217.0	1095.8	1069.2
75°	1234.8	1253.7	1221.4	1232.5	1239.2	1195.9	1165.9	1106.9	981.4	888.0	870.2
77.5°	966.9	978.0	960.2	955.8	960.2	929.1	905.8	860.2	765.7	689.1	677.9
80°	711.3	718.0	700.2	695.7	699.1	676.8	659.1	625.7	559.0	501.2	496.8
82.5°	476.8	480.1	464.6	460.1	462.3	455.7	434.6	411.2	380.1	331.2	330.1
85°	272.3	272.3	261.2	256.7	259.0	247.8	240.1	227.8	215.6	182.3	184.5
87.5°	100.0	100.0	94.5	93.4	104.5	92.2	88.9	83.4	86.7	68.9	73.4
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6	5084.6
2.5°	5106.9	5095.7	5085.7	5051.3	5065.7	5030.2	5027.9	5014.6	5004.6	4985.7	5010.2
5°	5090.2	5068.0	5039.1	4997.9	5010.2	4967.9	4959.0	4943.5	4930.1	4905.7	4924.6
7.5°	5063.5	5026.8	4981.3	4929.0	4945.7	4893.5	4880.1	4863.5	4852.3	4823.4	4840.1
10°	5024.6	4972.4	4919.0	4855.7	4867.9	4811.2	4794.5	4776.8	4766.8	4741.2	4757.9
12.5°	4964.6	4901.2	4829.0	4760.1	4773.4	4720.1	4697.9	4679.0	4675.6	4654.5	4674.5
15°	4886.8	4799.0	4724.5	4651.2	4666.7	4604.5	4594.5	4575.6	4581.2	4566.7	4591.2
17.5°	4787.9	4686.7	4605.6	4526.7	4542.3	4490.0	4482.2	4473.4	4478.9	4476.7	4503.4
20°	4676.7	4565.6	4472.2	4394.4	4403.3	4362.2	4365.6	4363.3	4374.4	4386.7	4423.3
22.5°	4551.2	4425.6	4327.8	4247.7	4261.1	4225.5	4241.1	4245.5	4264.4	4292.2	4338.9
25°	4410.0	4275.5	4173.3	4097.7	4109.9	4086.6	4113.3	4124.4	4154.4	4201.1	4248.9
27.5°	4262.2	4119.9	4011.0	3938.8	3962.1	3938.8	3978.8	4001.0	4046.6	4097.7	4156.6
30°	4105.5	3957.7	3845.4	3781.0	3803.2	3782.1	3846.5	3876.5	3922.1	3992.1	4062.1
32.5°	3941.0	3785.4	3675.4	3625.4	3640.9	3637.6	3709.8	3743.2	3804.3	3884.3	3958.8
35°	3772.1	3609.8	3498.7	3456.4	3475.3	3479.8	3566.5	3605.4	3672.0	3768.7	3848.8
37.5°	3597.6	3432.0	3323.1	3288.6	3305.3	3322.0	3423.1	3462.0	3537.6	3643.1	3730.9
40°	3416.4	3250.8	3144.1	3116.3	3133.0	3150.8	3260.8	3314.2	3396.4	3510.9	3606.5
42.5°	3233.0	3067.4	2964.1	2944.1	2960.8	2995.2	3111.9	3161.9	3248.6	3375.3	3480.9
45°	3046.3	2874.1	2784.0	2768.5	2786.3	2826.3	2940.7	3000.8	3093.0	3231.9	3345.3
47.5°	2857.4	2689.6	2604.0	2594.0	2611.8	2656.2	2782.9	2837.4	2935.2	3083.0	3205.3
50°	2666.2	2502.9	2420.6	2417.3	2434.0	2481.7	2602.9	2667.3	2768.5	2934.1	3059.7
52.5°	2472.8	2316.1	2241.7	2241.7	2257.2	2306.1	2428.4	2495.1	2599.5	2774.0	2913.0
55°	2279.5	2130.5	2059.4	2065.0	2087.2	2129.4	2248.3	2318.4	2423.9	2605.1	2751.8
57.5°	2086.1	1944.9	1880.5	1888.3	1909.4	1951.6	2068.3	2147.2	2242.8	2430.6	2580.7
60°	1894.9	1761.6	1704.9	1713.8	1732.7	1774.9	1896.0	1963.8	2059.4	2250.6	2400.6
62.5°	1701.5	1580.4	1527.1	1538.2	1554.8	1597.1	1711.5	1777.1	1871.6	2059.4	2210.6
65°	1510.4	1398.1	1352.6	1363.7	1379.2	1418.1	1525.9	1589.3	1679.3	1862.7	2007.2
67.5°	1321.4	1219.2	1181.4	1192.5	1204.7	1241.4	1330.3	1399.2	1483.7	1658.2	1794.9
70°	1134.7	1043.6	1010.3	1021.4	1032.5	1065.8	1143.6	1207.0	1284.8	1444.8	1571.5
72.5°	950.2	861.3	844.7	854.7	863.6	892.4	966.9	1016.9	1084.7	1227.0	1335.9
75°	770.2	693.5	682.4	692.4	700.2	722.4	784.6	828.0	884.7	1008.0	1096.9
77.5°	596.8	532.4	527.9	535.7	543.5	559.0	607.9	653.5	698.0	789.1	868.0
80°	434.6	382.3	382.3	390.1	387.9	406.8	441.2	477.9	510.1	575.7	633.5
82.5°	286.7	245.6	251.2	256.7	260.1	267.8	289.0	316.7	336.8	376.8	414.5
85°	158.9	131.1	136.7	141.1	138.9	147.8	158.9	175.6	185.6	204.5	224.5
87.5°	58.9	48.9	50.0	53.3	55.6	60.0	60.0	70.0	71.1	73.4	77.8
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°	5084.6	5084.6	5084.6
2.5°	4963.5	4990.2	5010.2
5°	4877.9	4900.1	4917.9
7.5°	4794.5	4814.6	4830.1
10°	4715.6	4737.9	4749.0
12.5°	4634.5	4660.1	4669.0
15°	4554.5	4580.1	4591.2
17.5°	4472.2	4505.6	4517.8
20°	4395.6	4437.8	4447.8
22.5°	4317.8	4361.1	4373.3
25°	4233.3	4284.4	4296.6
27.5°	4143.3	4204.4	4216.6
30°	4053.3	4119.9	4132.2
32.5°	3956.6	4028.8	4039.9
35°	3855.4	3927.7	3941.0
37.5°	3743.2	3822.1	3848.8
40°	3626.5	3712.1	3739.8
42.5°	3504.2	3597.6	3626.5
45°	3373.1	3475.3	3508.7
47.5°	3240.8	3356.4	3385.3
50°	3097.5	3220.8	3255.3
52.5°	2947.4	3081.9	3116.3
55°	2791.8	2927.4	2965.2
57.5°	2622.9	2762.9	2802.9
60°	2446.2	2586.2	2624.0
62.5°	2265.0	2391.7	2428.4
65°	2062.7	2181.7	2215.0
67.5°	1848.2	1957.2	1984.9
70°	1620.4	1714.9	1739.3
72.5°	1382.6	1448.1	1480.4
75°	1137.0	1189.2	1213.6
77.5°	890.2	926.9	946.9
80°	649.1	670.2	686.8
82.5°	424.6	433.4	445.7
85°	228.9	228.9	236.7
87.5°	77.8	74.5	77.8
90°	0.0	0.0	0.0

(END OF REPORT)