

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: P838178

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD-90**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P838178
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

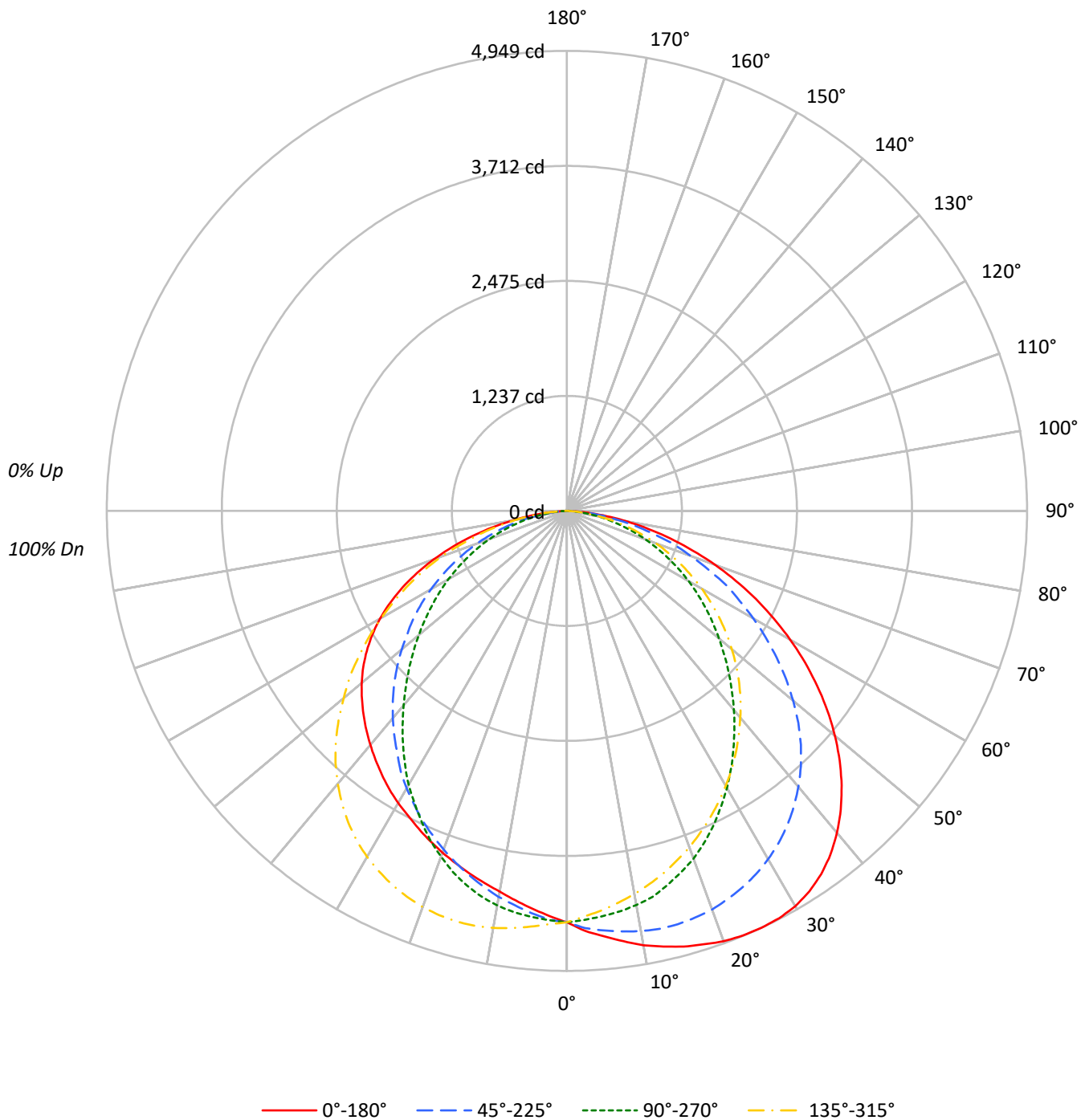
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12983.1 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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: 25 FT

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Luminous Intensity Polar Plot



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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	89	90	88	86	84		
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	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°	270°
0°	5954	5954	5954	5954
5°	6206	5911	5800	5921
10°	6482	5881	5682	5889
15°	6759	5806	5626	5808
20°	7055	5701	5602	5668
25°	7347	5541	5601	5485
30°	7631	5349	5639	5289
35°	7833	5129	5695	5048
40°	7938	4908	5775	4797
45°	7953	4685	5887	4567
50°	7878	4470	6031	4352
55°	7715	4271	6165	4153
60°	7472	4064	6247	3958
65°	7138	3825	6215	3737
70°	6668	3545	5994	3480
75°	6000	3161	5501	3145
80°	5087	2648	4623	2687
85°	3538	1752	2932	1800

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.1	3.2
10°-20°	1216.7	9.4
20°-30°	1864.6	14.4
30°-40°	2267.2	17.5
40°-50°	2356.9	18.2
50°-60°	2129.0	16.4
60°-70°	1618.6	12.5
70°-80°	902.3	7.0
80°-90°	207.8	1.6
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°	3501.4	27.0
0°-40°	5768.6	44.4
0°-60°	10254.5	79.0
0°-90°	12983.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12983.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4425	4425	4425	4425	4425	
5°	4595	4377	4294	4384	4595	443
15°	4853	4168	4039	4169	4853	1376
25°	4949	3733	3773	3694	4949	2286
35°	4769	3123	3467	3073	4769	2979
45°	4180	2462	3094	2400	4180	3218
55°	3289	1821	2628	1770	3289	2936
65°	2242	1202	1952	1174	2242	2216
75°	1154	608	1058	605	1154	1226
85°	229	114	190	117	229	289
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3
2.5°	4523.3	4457.3	4458.3	4516.1	4471.7	4493.4	4431.5	4455.2	4448.0	4453.1	4402.6
5°	4594.6	4523.3	4522.3	4571.8	4522.3	4531.6	4453.1	4468.6	4445.9	4431.5	4376.8
7.5°	4669.9	4598.7	4591.5	4634.8	4569.8	4562.6	4475.8	4475.8	4434.6	4398.4	4346.8
10°	4744.2	4670.9	4661.7	4694.7	4614.2	4590.4	4485.1	4468.6	4413.9	4360.2	4304.5
12.5°	4800.0	4725.7	4718.4	4739.1	4648.2	4604.9	4485.1	4453.1	4372.6	4297.3	4253.9
15°	4852.6	4776.2	4756.6	4766.9	4662.7	4604.9	4470.7	4421.1	4317.9	4218.8	4168.2
17.5°	4889.8	4816.5	4796.9	4795.8	4669.9	4587.3	4439.7	4371.6	4247.7	4128.0	4077.4
20°	4926.9	4853.7	4828.9	4810.3	4667.8	4563.6	4394.3	4302.4	4157.9	4023.7	3981.4
22.5°	4945.5	4870.2	4843.3	4815.5	4654.4	4520.2	4338.6	4221.9	4056.8	3896.8	3861.7
25°	4948.6	4871.2	4842.3	4802.0	4627.6	4468.6	4266.3	4124.9	3940.1	3762.6	3732.6
27.5°	4940.4	4855.7	4826.8	4778.3	4587.3	4405.7	4180.6	4014.4	3816.2	3620.1	3588.1
30°	4911.5	4825.8	4797.9	4734.9	4530.6	4328.2	4086.7	3891.6	3678.9	3470.4	3442.6
32.5°	4853.7	4770.0	4747.3	4684.4	4468.6	4238.4	3977.3	3759.5	3527.2	3328.0	3286.7
35°	4769.0	4685.4	4670.9	4604.9	4381.9	4131.1	3857.5	3615.0	3366.2	3162.8	3122.6
37.5°	4658.6	4588.4	4566.7	4501.7	4279.7	4009.3	3720.2	3458.0	3202.0	2983.2	2958.4
40°	4519.2	4453.1	4436.6	4378.8	4161.0	3874.0	3571.6	3296.0	3032.8	2829.4	2794.3
42.5°	4360.2	4298.3	4289.0	4229.1	4014.4	3724.4	3410.6	3127.7	2856.2	2660.1	2625.0
45°	4179.6	4119.7	4117.7	4060.9	3854.4	3558.2	3241.3	2957.4	2683.9	2480.5	2461.9
47.5°	3980.4	3926.7	3926.7	3874.0	3675.9	3375.5	3066.8	2779.9	2510.4	2330.8	2297.8
50°	3763.6	3713.0	3697.5	3671.7	3478.7	3176.2	2883.1	2606.4	2339.1	2167.7	2135.7
52.5°	3532.4	3489.0	3499.3	3451.9	3265.0	2968.8	2697.3	2411.3	2166.7	2010.8	1978.8
55°	3288.8	3226.8	3236.1	3218.6	3042.0	2755.1	2488.8	2250.3	1997.4	1850.8	1820.9
57.5°	3035.9	2955.3	2988.4	2978.0	2804.6	2536.2	2297.8	2067.6	1829.2	1693.9	1665.0
60°	2776.8	2699.3	2733.4	2724.1	2561.0	2317.4	2100.6	1887.0	1661.9	1539.1	1510.2
62.5°	2510.4	2439.2	2470.2	2463.0	2313.3	2093.4	1904.5	1708.4	1493.7	1383.2	1356.4
65°	2242.1	2173.9	2201.8	2196.6	2058.3	1891.1	1703.2	1523.6	1324.4	1228.4	1201.5
67.5°	1967.5	1904.5	1930.3	1930.3	1803.3	1643.3	1500.9	1336.8	1158.2	1075.6	1050.8
70°	1695.0	1636.1	1658.8	1656.8	1549.4	1419.3	1296.5	1149.9	989.9	921.8	901.2
72.5°	1420.4	1368.8	1389.4	1387.3	1297.5	1213.9	1092.1	965.2	825.8	771.1	752.5
75°	1154.1	1105.5	1125.2	1123.1	1049.8	971.4	889.8	784.5	664.8	626.6	608.0
77.5°	900.1	850.6	867.1	867.1	813.4	756.6	691.6	610.1	525.4	484.1	470.7
80°	656.5	632.8	624.5	625.5	589.4	552.3	519.2	440.8	378.8	351.0	341.7
82.5°	431.5	411.9	403.6	405.7	385.0	362.3	341.7	287.0	245.7	229.2	224.0
85°	229.2	214.7	207.5	212.6	208.5	196.1	185.8	148.6	122.8	116.6	113.5
87.5°	72.3	63.0	57.8	76.4	65.0	57.8	55.7	44.4	34.1	34.1	33.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3
2.5°	4419.1	4419.1	4378.8	4369.5	4365.4	4370.6	4330.3	4323.1	4380.9	4361.3	4316.9
5°	4384.0	4381.9	4325.1	4314.8	4314.8	4308.6	4263.2	4252.9	4310.7	4294.2	4245.7
7.5°	4340.6	4334.4	4267.3	4260.1	4249.8	4245.7	4195.1	4187.9	4237.4	4227.1	4181.7
10°	4288.0	4281.8	4202.3	4197.1	4185.8	4177.5	4130.0	4124.9	4175.5	4158.9	4122.8
12.5°	4218.8	4207.5	4125.9	4120.8	4111.5	4108.4	4061.9	4059.9	4115.6	4099.1	4060.9
15°	4128.0	4118.7	4027.9	4029.9	4030.9	4030.9	3993.8	3991.7	4046.4	4039.2	3997.9
17.5°	4027.9	4015.5	3928.8	3934.9	3942.2	3950.4	3921.5	3926.7	3984.5	3975.2	3938.0
20°	3914.3	3901.9	3817.3	3834.8	3850.3	3866.8	3848.2	3862.7	3916.4	3912.2	3884.4
22.5°	3787.3	3774.9	3696.5	3723.3	3749.1	3780.1	3771.9	3788.4	3845.1	3844.1	3819.3
25°	3632.5	3635.6	3566.4	3599.5	3642.8	3686.2	3689.3	3716.1	3779.1	3772.9	3750.2
27.5°	3488.0	3492.1	3418.8	3474.6	3532.4	3588.1	3601.5	3638.7	3702.7	3697.5	3677.9
30°	3336.2	3341.4	3270.2	3346.6	3416.8	3484.9	3513.8	3564.4	3629.4	3629.4	3608.8
32.5°	3178.3	3187.6	3113.3	3215.5	3297.0	3376.5	3427.1	3479.7	3554.0	3552.0	3534.4
35°	3016.2	3026.6	2958.4	3088.5	3170.0	3267.1	3330.0	3400.2	3466.3	3467.3	3453.9
37.5°	2851.1	2863.5	2801.5	2944.0	3036.9	3151.5	3232.0	3302.2	3375.5	3379.6	3367.2
40°	2687.0	2700.4	2646.7	2784.0	2901.7	3029.7	3122.6	3205.1	3285.7	3287.7	3279.5
42.5°	2522.8	2537.3	2497.0	2631.2	2764.4	2901.7	3011.1	3105.0	3187.6	3192.8	3183.5
45°	2362.8	2375.2	2346.3	2492.9	2620.9	2770.6	2896.5	3002.8	3086.4	3093.7	3090.6
47.5°	2203.9	2215.2	2189.4	2323.6	2471.2	2630.2	2775.7	2893.4	2982.2	2990.4	2988.4
50°	2048.0	2057.3	2029.4	2169.8	2316.4	2485.7	2637.4	2773.7	2872.8	2881.0	2880.0
52.5°	1893.2	1902.4	1878.7	2026.3	2159.5	2338.1	2503.2	2650.8	2748.9	2761.3	2763.3
55°	1743.5	1747.6	1729.0	1870.4	1999.5	2186.3	2376.2	2519.7	2617.8	2628.1	2634.3
57.5°	1593.8	1594.8	1579.3	1714.6	1838.4	2029.4	2228.6	2379.3	2472.2	2482.6	2491.9
60°	1445.2	1444.1	1426.6	1557.7	1676.4	1865.3	2072.8	2222.4	2312.2	2321.5	2333.9
62.5°	1297.5	1294.4	1279.0	1399.7	1511.2	1698.1	1906.6	2051.1	2136.8	2143.0	2159.5
65°	1151.0	1147.9	1133.4	1244.9	1346.1	1524.6	1729.0	1866.3	1943.7	1952.0	1948.9
67.5°	1006.4	1000.3	988.9	1089.0	1180.9	1346.1	1542.2	1673.3	1737.3	1744.5	1764.1
70°	861.9	854.7	828.9	935.2	1015.7	1163.3	1346.1	1462.7	1516.4	1523.6	1520.5
72.5°	719.5	712.3	684.4	782.4	850.6	979.6	1142.7	1239.7	1286.2	1292.4	1292.4
75°	581.2	577.0	559.5	633.8	690.6	795.9	934.2	1014.7	1050.8	1058.1	1056.0
77.5°	448.0	444.9	427.4	491.4	535.7	614.2	725.7	788.6	815.5	823.7	841.3
80°	321.0	320.0	292.1	355.1	374.7	440.8	522.3	570.8	585.3	596.6	609.0
82.5°	205.4	206.5	178.6	232.3	240.5	282.8	333.4	363.4	373.7	383.0	392.3
85°	100.1	104.3	88.8	122.8	123.9	145.5	167.2	178.6	182.7	189.9	198.2
87.5°	25.8	29.9	16.5	35.1	31.0	40.3	46.5	49.5	48.5	53.7	56.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3
2.5°	4331.3	4364.4	4347.8	4401.5	4422.2	4389.1	4446.9	4448.0	4406.7	4455.2	4482.0
5°	4264.2	4298.3	4288.0	4343.7	4369.5	4340.6	4410.8	4424.2	4384.0	4438.7	4482.0
7.5°	4196.1	4236.4	4222.9	4279.7	4310.7	4288.0	4363.3	4385.0	4354.0	4413.9	4471.7
10°	4137.3	4171.3	4156.9	4216.8	4243.6	4225.0	4299.3	4339.6	4310.7	4384.0	4453.1
12.5°	4079.5	4107.3	4090.8	4140.4	4166.2	4142.4	4233.3	4270.4	4249.8	4326.2	4414.9
15°	4005.1	4036.1	4013.4	4057.8	4077.4	4056.8	4131.1	4195.1	4169.3	4252.9	4350.9
17.5°	3948.4	3965.9	3934.9	3970.0	3981.4	3953.5	4028.9	4091.9	4073.3	4164.1	4277.7
20°	3885.4	3899.9	3856.5	3876.1	3875.1	3840.0	3909.1	3971.1	3958.7	4058.8	4187.9
22.5°	3815.2	3822.4	3771.9	3776.0	3773.9	3716.1	3778.0	3841.0	3835.9	3937.0	4081.5
25°	3740.9	3741.9	3676.9	3674.8	3652.1	3584.0	3638.7	3709.9	3694.4	3803.9	3955.6
27.5°	3667.6	3657.3	3578.8	3560.2	3524.1	3442.6	3491.1	3555.1	3545.8	3653.1	3821.4
30°	3589.1	3575.7	3479.7	3445.7	3393.0	3299.1	3339.3	3399.2	3404.4	3498.3	3674.8
32.5°	3514.8	3480.8	3374.4	3324.9	3258.8	3149.4	3171.1	3232.0	3240.2	3335.2	3516.9
35°	3418.8	3396.1	3265.0	3180.4	3115.3	2995.6	3018.3	3060.6	3073.0	3165.9	3350.7
37.5°	3328.0	3291.9	3152.5	3049.3	2965.7	2839.7	2845.9	2889.3	2901.7	2995.6	3178.3
40°	3234.0	3182.4	3032.8	2912.0	2816.0	2683.9	2676.6	2722.1	2731.3	2823.2	2988.4
42.5°	3133.9	3072.0	2903.7	2771.6	2661.1	2527.0	2512.5	2551.7	2562.1	2651.9	2813.9
45°	3032.8	2958.4	2771.6	2627.1	2506.3	2369.0	2354.6	2384.5	2400.0	2484.6	2640.5
47.5°	2925.4	2838.7	2635.3	2474.3	2349.4	2212.1	2194.6	2224.5	2236.9	2320.5	2468.1
50°	2812.9	2707.6	2495.0	2317.4	2193.5	2058.3	2032.5	2067.6	2079.0	2157.4	2301.9
52.5°	2689.0	2572.4	2345.3	2159.5	2035.6	1906.6	1875.6	1909.7	1923.1	1999.5	2132.6
55°	2557.9	2432.0	2194.6	2013.9	1879.7	1753.8	1728.0	1741.4	1770.3	1842.6	1966.4
57.5°	2410.3	2285.4	2035.6	1851.9	1722.8	1602.1	1580.4	1592.8	1619.6	1689.8	1801.3
60°	2253.4	2121.3	1873.5	1689.8	1564.9	1450.3	1430.7	1442.1	1471.0	1535.0	1638.2
62.5°	2098.6	1949.9	1706.3	1523.6	1410.1	1303.7	1298.6	1294.4	1321.3	1383.2	1474.1
65°	1910.7	1768.2	1531.9	1358.4	1255.2	1159.2	1138.6	1147.9	1173.7	1230.4	1325.4
67.5°	1709.4	1580.4	1353.3	1193.3	1101.4	1015.7	998.2	1002.3	1029.2	1078.7	1161.3
70°	1495.7	1382.2	1170.6	1027.1	949.7	869.2	857.8	858.8	884.6	928.0	1000.3
72.5°	1271.7	1169.5	985.8	863.0	799.0	741.2	730.8	718.4	742.2	779.4	841.3
75°	1043.6	953.8	802.1	701.9	651.4	602.8	593.5	581.2	604.9	636.9	685.4
77.5°	813.4	741.2	623.5	546.1	506.8	470.7	462.4	449.0	472.8	496.5	534.7
80°	588.4	535.7	465.5	384.0	370.6	346.8	338.6	324.1	346.8	362.3	391.2
82.5°	379.9	344.8	304.5	247.7	245.7	228.1	224.0	207.5	228.1	237.4	259.1
85°	192.0	175.5	165.2	125.9	130.1	118.7	117.7	100.1	116.6	120.8	133.2
87.5°	54.7	57.8	51.6	31.0	39.2	37.2	37.2	26.8	37.2	37.2	42.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838178

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3	4425.3
2.5°	4429.4	4446.9	4451.1	4450.0	4461.4	4523.3	4502.7	4523.3
5°	4439.7	4478.9	4489.3	4503.7	4522.3	4592.5	4569.8	4594.6
7.5°	4445.9	4504.8	4527.5	4555.3	4585.3	4663.7	4645.1	4669.9
10°	4445.9	4522.3	4555.3	4601.8	4642.0	4732.9	4715.3	4744.2
12.5°	4427.3	4525.4	4571.8	4636.9	4688.5	4786.6	4779.3	4800.0
15°	4389.1	4509.9	4573.9	4657.5	4721.5	4830.9	4827.8	4852.6
17.5°	4337.5	4483.1	4560.5	4665.8	4746.3	4869.1	4876.4	4889.8
20°	4272.5	4432.5	4533.7	4662.7	4763.8	4899.1	4908.4	4926.9
22.5°	4186.8	4371.6	4493.4	4649.3	4765.9	4911.5	4928.0	4945.5
25°	4085.7	4298.3	4440.8	4623.5	4755.6	4910.4	4933.1	4948.6
27.5°	3970.0	4203.3	4373.7	4582.2	4726.7	4893.9	4921.8	4940.4
30°	3835.9	4102.2	4297.3	4528.5	4687.5	4862.9	4892.9	4911.5
32.5°	3697.5	3990.7	4206.4	4459.3	4630.7	4813.4	4839.2	4853.7
35°	3546.8	3855.5	4097.0	4370.6	4557.4	4733.9	4753.5	4769.0
37.5°	3382.7	3708.9	3972.1	4270.4	4454.2	4623.5	4641.0	4658.6
40°	3213.4	3555.1	3831.7	4147.6	4331.3	4488.2	4506.8	4519.2
42.5°	3043.1	3384.8	3682.0	4003.1	4185.8	4336.5	4347.8	4360.2
45°	2870.7	3208.2	3513.8	3843.1	4023.7	4165.1	4169.3	4179.6
47.5°	2695.2	3025.5	3329.0	3660.4	3838.9	3968.0	3972.1	3980.4
50°	2518.7	2842.8	3131.9	3463.2	3637.7	3773.9	3755.3	3763.6
52.5°	2345.3	2650.8	2946.1	3250.6	3423.0	3543.7	3548.9	3532.4
55°	2175.0	2463.0	2734.4	3027.6	3191.7	3285.7	3282.6	3288.8
57.5°	2002.6	2273.0	2521.8	2790.2	2950.2	3039.0	3057.5	3035.9
60°	1827.1	2081.0	2304.0	2546.6	2701.4	2775.7	2797.4	2776.8
62.5°	1652.6	1885.9	2088.2	2299.9	2443.3	2535.2	2533.1	2510.4
65°	1478.2	1689.8	1870.4	2050.1	2175.0	2266.8	2262.7	2242.1
67.5°	1317.2	1491.6	1653.7	1799.2	1907.6	1970.6	1992.2	1967.5
70°	1139.6	1290.3	1432.8	1549.4	1639.2	1696.0	1716.6	1695.0
72.5°	962.1	1090.1	1190.2	1302.7	1371.9	1419.3	1441.0	1420.4
75°	786.6	891.9	973.4	1061.2	1109.7	1149.9	1174.7	1154.1
77.5°	616.3	697.8	762.8	826.8	882.6	891.9	913.5	900.1
80°	454.2	513.0	560.5	602.8	643.1	647.2	664.8	656.5
82.5°	302.5	341.7	354.1	398.4	424.3	420.1	437.7	431.5
85°	160.0	183.7	205.4	218.8	233.3	219.9	235.4	229.2
87.5°	53.7	56.8	49.5	70.2	77.4	66.1	75.4	72.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)