

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



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: P837874

Luminaire Tested: **ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD**

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: P837874
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

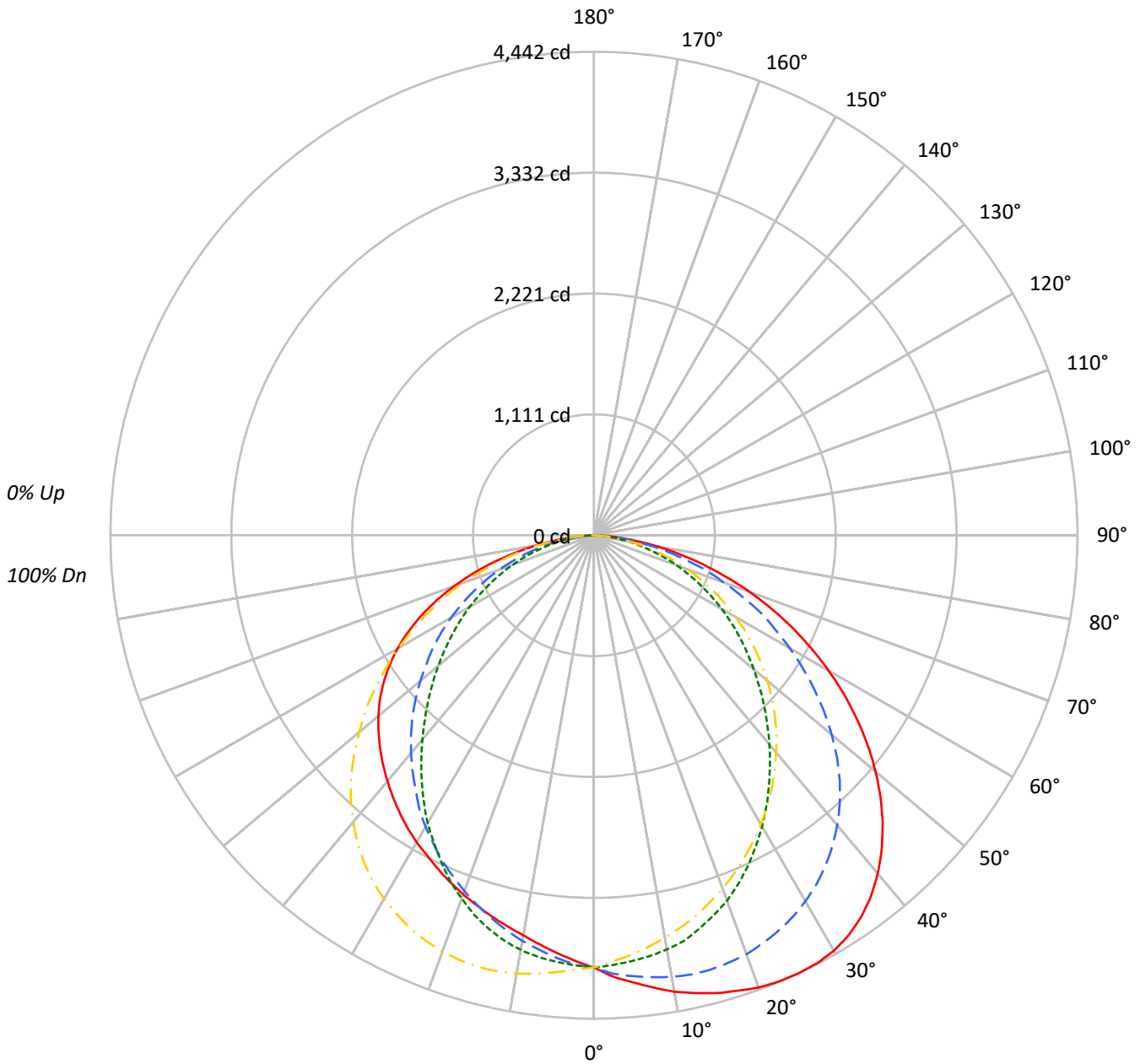
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11653.3 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' 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: 25 FT

TEST NUMBER: P837874
CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - 90°-270° - · - 135°-315°

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



TEST NUMBER: P837874

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	59
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10689	10689	10689	10689
5°	11140	10612	10411	10629
10°	11636	10557	10200	10573
15°	12134	10423	10100	10425
20°	12664	10234	10056	10175
25°	13188	9948	10055	9846
30°	13698	9601	10122	9495
35°	14062	9207	10224	9061
40°	14249	8811	10366	8612
45°	14277	8410	10567	8198
50°	14142	8025	10826	7812
55°	13849	7668	11067	7455
60°	13413	7295	11214	7106
65°	12814	6867	11156	6708
70°	11969	6364	10759	6247
75°	10770	5674	9874	5645
80°	9132	4753	8298	4824
85°	6351	3146	5264	3233

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837874

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.1	3.2
10°-20°	1092.0	9.4
20°-30°	1673.6	14.4
30°-40°	2035.0	17.5
40°-50°	2115.5	18.2
50°-60°	1910.9	16.4
60°-70°	1452.8	12.5
70°-80°	809.9	7.0
80°-90°	186.5	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°	3142.7	27.0
0°-40°	5177.7	44.4
0°-60°	9204.1	79.0
0°-90°	11653.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11653.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3972	3972	3972	3972	3972	
5°	4124	3928	3854	3935	4124	398
15°	4356	3741	3626	3742	4356	1235
25°	4442	3350	3386	3316	4442	2052
35°	4280	2803	3112	2758	4280	2674
45°	3752	2210	2777	2154	3752	2888
55°	2952	1634	2359	1589	2952	2635
65°	2012	1078	1752	1054	2012	1989
75°	1036	546	950	543	1036	1100
85°	206	102	170	105	206	259
90°	0	0	0	0	0	

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



TEST NUMBER: P837874

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0
2.5°	4060.0	4000.7	4001.6	4053.5	4013.7	4033.1	3977.6	3998.9	3992.4	3997.0	3951.6
5°	4123.9	4060.0	4059.1	4103.6	4059.1	4067.4	3997.0	4010.9	3990.5	3977.6	3928.5
7.5°	4191.6	4127.7	4121.2	4160.1	4101.7	4095.2	4017.4	4017.4	3980.3	3947.9	3901.6
10°	4258.3	4192.5	4184.2	4213.8	4141.6	4120.2	4025.7	4010.9	3961.8	3913.6	3863.6
12.5°	4308.3	4241.6	4235.1	4253.7	4172.1	4133.2	4025.7	3997.0	3924.7	3857.1	3818.2
15°	4355.6	4287.0	4269.4	4278.7	4185.1	4133.2	4012.8	3968.3	3875.6	3786.7	3741.3
17.5°	4388.9	4323.1	4305.5	4304.6	4191.6	4117.5	3985.0	3923.8	3812.6	3705.2	3659.8
20°	4422.3	4356.5	4334.3	4317.6	4189.7	4096.2	3944.2	3861.7	3732.0	3611.6	3573.6
22.5°	4439.0	4371.3	4347.2	4322.2	4177.7	4057.2	3894.2	3789.5	3641.2	3497.6	3466.1
25°	4441.7	4372.3	4346.3	4310.2	4153.6	4010.9	3829.3	3702.4	3536.5	3377.2	3350.3
27.5°	4434.3	4358.4	4332.4	4288.9	4117.5	3954.4	3752.4	3603.2	3425.3	3249.3	3220.6
30°	4408.4	4331.5	4306.5	4250.0	4066.5	3884.9	3668.1	3493.0	3302.1	3115.0	3089.9
32.5°	4356.5	4281.5	4261.1	4204.6	4010.9	3804.3	3569.9	3374.4	3165.9	2987.1	2950.0
35°	4280.5	4205.5	4192.5	4133.2	3933.1	3707.9	3462.4	3244.7	3021.4	2838.9	2802.7
37.5°	4181.4	4118.4	4098.9	4040.6	3841.4	3598.6	3339.2	3103.8	2874.1	2677.6	2655.4
40°	4056.3	3997.0	3982.2	3930.3	3734.8	3477.2	3205.8	2958.4	2722.1	2539.6	2508.1
42.5°	3913.6	3858.0	3849.7	3796.0	3603.2	3342.9	3061.2	2807.4	2563.7	2387.6	2356.1
45°	3751.5	3697.7	3695.9	3644.9	3459.6	3193.7	2909.3	2654.5	2409.0	2226.4	2209.8
47.5°	3572.7	3524.5	3524.5	3477.2	3299.3	3029.7	2752.7	2495.1	2253.3	2092.1	2062.4
50°	3378.1	3332.7	3318.8	3295.6	3122.4	2850.9	2587.8	2339.5	2099.5	1945.7	1917.0
52.5°	3170.6	3131.6	3140.9	3098.3	2930.6	2664.7	2421.0	2164.4	1944.8	1804.9	1776.1
55°	2951.9	2896.3	2904.6	2888.9	2730.5	2472.9	2233.8	2019.8	1792.8	1661.3	1634.4
57.5°	2724.9	2652.6	2682.3	2673.0	2517.4	2276.5	2062.4	1855.8	1641.8	1520.4	1494.5
60°	2492.3	2422.9	2453.4	2445.1	2298.7	2080.0	1885.5	1693.7	1491.7	1381.4	1355.5
62.5°	2253.3	2189.4	2217.2	2210.7	2076.3	1879.0	1709.4	1533.4	1340.7	1241.5	1217.4
65°	2012.4	1951.3	1976.3	1971.6	1847.5	1697.4	1528.8	1367.5	1188.7	1102.6	1078.5
67.5°	1765.9	1709.4	1732.6	1732.6	1618.6	1475.0	1347.2	1199.8	1039.6	965.4	943.2
70°	1521.3	1468.5	1488.9	1487.1	1390.7	1274.0	1163.7	1032.1	888.5	827.4	808.9
72.5°	1274.9	1228.6	1247.1	1245.2	1164.6	1089.6	980.3	866.3	741.2	692.1	675.4
75°	1035.9	992.3	1009.9	1008.1	942.3	871.9	798.7	704.2	596.7	562.4	545.7
77.5°	807.9	763.5	778.3	778.3	730.1	679.1	620.8	547.6	471.6	434.5	422.5
80°	589.3	568.0	560.5	561.5	529.0	495.7	466.0	395.6	340.0	315.0	306.7
82.5°	387.3	369.7	362.3	364.1	345.6	325.2	306.7	257.6	220.5	205.7	201.1
85°	205.7	192.7	186.2	190.9	187.2	176.0	166.8	133.4	110.3	104.7	101.9
87.5°	64.9	56.5	51.9	68.6	58.4	51.9	50.0	39.8	30.6	30.6	29.6
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: P837874

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0
2.5°	3966.4	3966.4	3930.3	3922.0	3918.3	3922.9	3886.8	3880.3	3932.2	3914.6	3874.7
5°	3934.9	3933.1	3882.1	3872.9	3872.9	3867.3	3826.5	3817.3	3869.2	3854.3	3810.8
7.5°	3896.0	3890.5	3830.2	3823.8	3814.5	3810.8	3765.4	3758.9	3803.4	3794.1	3753.3
10°	3848.8	3843.2	3771.9	3767.2	3757.0	3749.6	3707.0	3702.4	3747.8	3733.0	3700.5
12.5°	3786.7	3776.5	3703.3	3698.7	3690.3	3687.6	3645.9	3644.0	3694.0	3679.2	3644.9
15°	3705.2	3696.8	3615.3	3617.1	3618.1	3618.1	3584.7	3582.9	3632.0	3625.5	3588.4
17.5°	3615.3	3604.2	3526.3	3531.9	3538.4	3545.8	3519.9	3524.5	3576.4	3568.0	3534.7
20°	3513.4	3502.3	3426.3	3442.0	3455.9	3470.7	3454.1	3467.0	3515.2	3511.5	3486.5
22.5°	3399.4	3388.3	3317.9	3342.0	3365.1	3392.9	3385.5	3400.3	3451.3	3450.4	3428.1
25°	3260.4	3263.2	3201.1	3230.8	3269.7	3308.6	3311.4	3335.5	3392.0	3386.4	3366.1
27.5°	3130.7	3134.4	3068.6	3118.7	3170.6	3220.6	3232.6	3266.0	3323.4	3318.8	3301.2
30°	2994.5	2999.1	2935.2	3003.8	3066.8	3127.9	3153.9	3199.3	3257.6	3257.6	3239.1
32.5°	2852.8	2861.1	2794.4	2886.1	2959.3	3030.7	3076.1	3123.3	3190.0	3188.2	3172.4
35°	2707.3	2716.6	2655.4	2772.2	2845.3	2932.4	2989.0	3052.0	3111.3	3112.2	3100.1
37.5°	2559.1	2570.2	2514.6	2642.4	2725.8	2828.7	2900.9	2963.9	3029.7	3033.4	3022.3
40°	2411.7	2423.8	2375.6	2498.8	2604.5	2719.3	2802.7	2876.8	2949.1	2951.0	2943.6
42.5°	2264.4	2277.4	2241.3	2361.7	2481.2	2604.5	2702.7	2787.0	2861.1	2865.7	2857.4
45°	2120.8	2131.9	2106.0	2237.5	2352.4	2486.8	2599.8	2695.3	2770.3	2776.8	2774.0
47.5°	1978.1	1988.3	1965.2	2085.6	2218.1	2360.8	2491.4	2597.0	2676.7	2684.1	2682.3
50°	1838.2	1846.6	1821.5	1947.5	2079.1	2231.1	2367.3	2489.6	2578.5	2585.9	2585.0
52.5°	1699.2	1707.6	1686.3	1818.8	1938.3	2098.6	2246.8	2379.3	2467.3	2478.4	2480.3
55°	1564.9	1568.6	1551.9	1678.9	1794.7	1962.4	2132.9	2261.6	2349.7	2358.9	2364.5
57.5°	1430.5	1431.5	1417.6	1539.0	1650.1	1821.5	2000.4	2135.6	2219.0	2228.3	2236.6
60°	1297.1	1296.2	1280.5	1398.1	1504.7	1674.2	1860.5	1994.8	2075.4	2083.7	2094.9
62.5°	1164.6	1161.9	1148.0	1256.4	1356.4	1524.1	1711.3	1841.0	1917.9	1923.5	1938.3
65°	1033.1	1030.3	1017.3	1117.4	1208.2	1368.5	1551.9	1675.2	1744.6	1752.1	1749.3
67.5°	903.4	897.8	887.6	977.5	1059.9	1208.2	1384.2	1501.9	1559.3	1565.8	1583.4
70°	773.6	767.2	744.0	839.4	911.7	1044.2	1208.2	1312.9	1361.1	1367.5	1364.8
72.5°	645.8	639.3	614.3	702.3	763.5	879.3	1025.7	1112.8	1154.4	1160.0	1160.0
75°	521.6	517.9	502.2	568.9	619.8	714.3	838.5	910.8	943.2	949.7	947.8
77.5°	402.1	399.3	383.6	441.0	480.9	551.3	651.3	707.9	732.0	739.4	755.1
80°	288.1	287.2	262.2	318.7	336.3	395.6	468.8	512.4	525.3	535.5	546.6
82.5°	184.4	185.3	160.3	208.5	215.9	253.9	299.3	326.1	335.4	343.7	352.1
85°	89.9	93.6	79.7	110.3	111.2	130.6	150.1	160.3	164.0	170.5	177.9
87.5°	23.2	26.9	14.8	31.5	27.8	36.1	41.7	44.5	43.5	48.2	51.0
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: P837874

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0
2.5°	3887.7	3917.3	3902.5	3950.7	3969.2	3939.6	3991.5	3992.4	3955.3	3998.9	4023.0
5°	3827.5	3858.0	3848.8	3898.8	3922.0	3896.0	3959.0	3971.1	3934.9	3984.0	4023.0
7.5°	3766.3	3802.4	3790.4	3841.4	3869.2	3848.8	3916.4	3935.9	3908.1	3961.8	4013.7
10°	3713.5	3744.1	3731.1	3784.8	3808.9	3792.3	3859.0	3895.1	3869.2	3934.9	3997.0
12.5°	3661.6	3686.6	3671.8	3716.3	3739.4	3718.1	3799.7	3833.0	3814.5	3883.1	3962.7
15°	3594.9	3622.7	3602.3	3642.2	3659.8	3641.2	3707.9	3765.4	3742.2	3817.3	3905.3
17.5°	3543.9	3559.7	3531.9	3563.4	3573.6	3548.6	3616.2	3672.7	3656.1	3737.6	3839.5
20°	3487.4	3500.4	3461.5	3479.1	3478.2	3446.7	3508.7	3564.3	3553.2	3643.1	3758.9
22.5°	3424.4	3430.9	3385.5	3389.2	3387.4	3335.5	3391.1	3447.6	3443.0	3533.8	3663.5
25°	3357.7	3358.6	3300.3	3298.4	3278.0	3216.9	3266.0	3329.9	3316.0	3414.2	3550.4
27.5°	3291.9	3282.7	3212.2	3195.6	3163.1	3089.9	3133.5	3190.9	3182.6	3279.0	3430.0
30°	3221.5	3209.5	3123.3	3092.7	3045.5	2961.2	2997.3	3051.0	3055.7	3140.0	3298.4
32.5°	3154.8	3124.2	3028.8	2984.3	2925.0	2826.8	2846.3	2900.9	2908.4	2993.6	3156.7
35°	3068.6	3048.3	2930.6	2854.6	2796.2	2688.8	2709.1	2747.1	2758.3	2841.6	3007.5
37.5°	2987.1	2954.7	2829.6	2736.9	2661.9	2548.9	2554.4	2593.3	2604.5	2688.8	2852.8
40°	2902.8	2856.5	2722.1	2613.7	2527.6	2409.0	2402.5	2443.2	2451.6	2534.0	2682.3
42.5°	2812.9	2757.3	2606.3	2487.7	2388.6	2268.1	2255.2	2290.4	2299.6	2380.2	2525.7
45°	2722.1	2655.4	2487.7	2358.0	2249.6	2126.4	2113.4	2140.3	2154.2	2230.1	2370.0
47.5°	2625.8	2547.9	2365.4	2220.9	2108.8	1985.5	1969.8	1996.7	2007.8	2082.8	2215.3
50°	2524.8	2430.3	2239.4	2080.0	1968.9	1847.5	1824.3	1855.8	1866.0	1936.4	2066.1
52.5°	2413.6	2308.9	2105.1	1938.3	1827.1	1711.3	1683.5	1714.1	1726.1	1794.7	1914.2
55°	2295.9	2182.9	1969.8	1807.6	1687.2	1574.2	1551.0	1563.0	1589.0	1653.8	1765.0
57.5°	2163.4	2051.3	1827.1	1662.2	1546.4	1438.0	1418.5	1429.6	1453.7	1516.7	1616.8
60°	2022.6	1904.0	1681.6	1516.7	1404.6	1301.8	1284.2	1294.4	1320.3	1377.7	1470.4
62.5°	1883.6	1750.2	1531.5	1367.5	1265.6	1170.2	1165.6	1161.9	1185.9	1241.5	1323.1
65°	1715.0	1587.1	1375.0	1219.3	1126.7	1040.5	1022.0	1030.3	1053.5	1104.4	1189.7
67.5°	1534.3	1418.5	1214.7	1071.1	988.6	911.7	895.9	899.7	923.7	968.2	1042.3
70°	1342.5	1240.6	1050.7	921.9	852.4	780.1	769.9	770.9	794.0	832.9	897.8
72.5°	1141.5	1049.7	884.8	774.6	717.1	665.2	656.0	644.9	666.2	699.5	755.1
75°	936.7	856.1	719.9	630.0	584.6	541.1	532.7	521.6	542.9	571.7	615.2
77.5°	730.1	665.2	559.6	490.1	454.9	422.5	415.1	403.0	424.3	445.7	479.9
80°	528.1	480.9	417.9	344.7	332.6	311.3	303.9	290.9	311.3	325.2	351.2
82.5°	341.0	309.5	273.3	222.4	220.5	204.8	201.1	186.2	204.8	213.1	232.6
85°	172.3	157.5	148.2	113.0	116.7	106.5	105.6	89.9	104.7	108.4	119.5
87.5°	49.1	51.9	46.3	27.8	35.2	33.4	33.4	24.1	33.4	33.4	38.0
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: P837874

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-6HI-30-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0	3972.0
2.5°	3975.7	3991.5	3995.2	3994.2	4004.4	4060.0	4041.5	4060.0
5°	3985.0	4020.2	4029.4	4042.4	4059.1	4122.1	4101.7	4123.9
7.5°	3990.5	4043.3	4063.7	4088.7	4115.6	4186.0	4169.3	4191.6
10°	3990.5	4059.1	4088.7	4130.4	4166.6	4248.1	4232.4	4258.3
12.5°	3973.9	4061.9	4103.6	4161.9	4208.3	4296.3	4289.8	4308.3
15°	3939.6	4048.0	4105.4	4180.5	4237.9	4336.1	4333.3	4355.6
17.5°	3893.2	4023.9	4093.4	4187.9	4260.1	4370.4	4376.9	4388.9
20°	3834.9	3978.5	4069.3	4185.1	4275.9	4397.3	4405.6	4422.3
22.5°	3758.0	3923.8	4033.1	4173.1	4277.7	4408.4	4423.2	4439.0
25°	3667.2	3858.0	3985.9	4149.9	4268.5	4407.5	4427.8	4441.7
27.5°	3563.4	3772.8	3925.7	4112.8	4242.5	4392.6	4417.7	4434.3
30°	3443.0	3682.0	3857.1	4064.6	4207.3	4364.8	4391.7	4408.4
32.5°	3318.8	3581.9	3775.6	4002.6	4156.4	4320.4	4343.5	4356.5
35°	3183.5	3460.6	3677.4	3922.9	4090.6	4249.0	4266.6	4280.5
37.5°	3036.2	3329.0	3565.3	3833.0	3997.9	4149.9	4165.6	4181.4
40°	2884.3	3190.9	3439.2	3722.8	3887.7	4028.5	4045.2	4056.3
42.5°	2731.4	3038.1	3304.9	3593.1	3757.0	3892.3	3902.5	3913.6
45°	2576.7	2879.6	3153.9	3449.4	3611.6	3738.5	3742.2	3751.5
47.5°	2419.1	2715.6	2988.0	3285.4	3445.7	3561.5	3565.3	3572.7
50°	2260.7	2551.6	2811.1	3108.5	3265.1	3387.4	3370.7	3378.1
52.5°	2105.1	2379.3	2644.3	2917.6	3072.3	3180.7	3185.4	3170.6
55°	1952.2	2210.7	2454.4	2717.5	2864.8	2949.1	2946.3	2951.9
57.5°	1797.5	2040.2	2263.5	2504.4	2648.0	2727.7	2744.4	2724.9
60°	1639.9	1867.9	2068.0	2285.7	2424.7	2491.4	2510.9	2492.3
62.5°	1483.4	1692.8	1874.4	2064.3	2193.1	2275.5	2273.7	2253.3
65°	1326.8	1516.7	1678.9	1840.1	1952.2	2034.6	2030.9	2012.4
67.5°	1182.2	1338.8	1484.3	1614.9	1712.2	1768.7	1788.2	1765.9
70°	1022.9	1158.2	1286.0	1390.7	1471.3	1522.3	1540.8	1521.3
72.5°	863.5	978.4	1068.3	1169.3	1231.3	1274.0	1293.4	1274.9
75°	706.0	800.5	873.7	952.5	996.0	1032.1	1054.4	1035.9
77.5°	553.1	626.3	684.7	742.1	792.2	800.5	820.0	807.9
80°	407.7	460.5	503.1	541.1	577.2	580.9	596.7	589.3
82.5°	271.5	306.7	317.8	357.6	380.8	377.1	392.8	387.3
85°	143.6	164.9	184.4	196.4	209.4	197.3	211.2	205.7
87.5°	48.2	51.0	44.5	63.0	69.5	59.3	67.6	64.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)