

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: P838171

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90**

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-08
Report Number: P838171
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-LD4-3HI-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

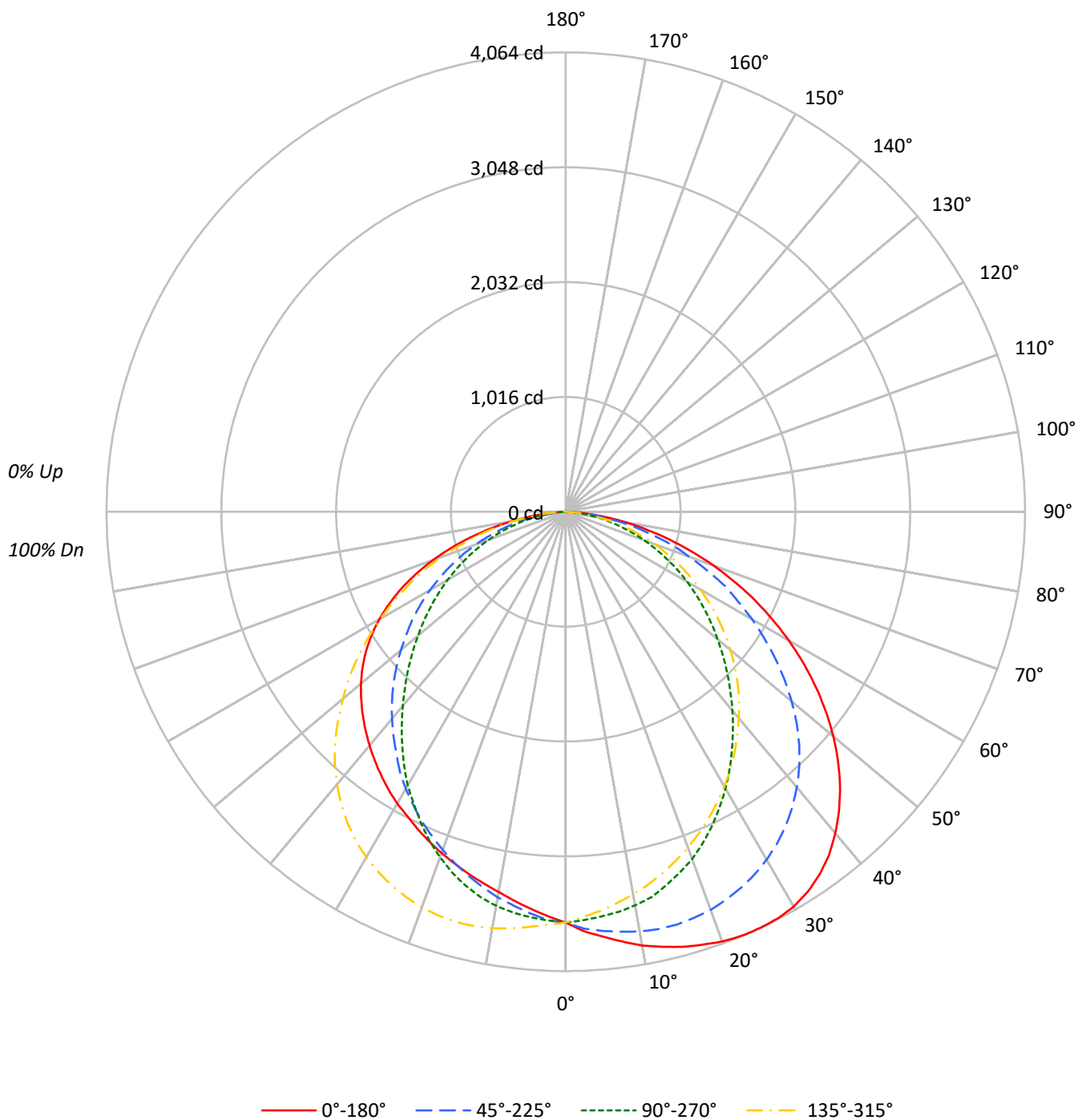
Lumens per Lamp: N/A
Luminaire Lumens: 10662.8 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

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°	4890	4890	4890	4890
5°	5096	4855	4763	4863
10°	5323	4830	4667	4837
15°	5551	4768	4621	4770
20°	5794	4682	4601	4655
25°	6034	4551	4600	4505
30°	6267	4393	4631	4344
35°	6433	4212	4677	4145
40°	6519	4031	4743	3940
45°	6532	3847	4835	3751
50°	6470	3671	4953	3574
55°	6336	3508	5063	3411
60°	6137	3338	5131	3251
65°	5862	3142	5104	3069
70°	5476	2912	4923	2858
75°	4927	2596	4518	2583
80°	4178	2174	3797	2208
85°	2905	1440	2408	1479

TEST NUMBER: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.1	3.2
10°-20°	999.2	9.4
20°-30°	1531.3	14.4
30°-40°	1862.0	17.5
40°-50°	1935.7	18.2
50°-60°	1748.5	16.4
60°-70°	1329.3	12.5
70°-80°	741.1	7.0
80°-90°	170.6	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°	2875.6	27.0
0°-40°	4737.6	44.4
0°-60°	8421.8	79.0
0°-90°	10662.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10662.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3634	3634	3634	3634	3634	
5°	3773	3594	3527	3600	3773	364
15°	3985	3423	3317	3424	3985	1130
25°	4064	3066	3099	3034	4064	1877
35°	3917	2564	2848	2524	3917	2446
45°	3433	2022	2541	1971	3433	2643
55°	2701	1496	2158	1454	2701	2411
65°	1841	987	1603	964	1841	1820
75°	948	499	869	497	948	1007
85°	188	93	156	96	188	237
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4
2.5°	3714.9	3660.7	3661.5	3709.0	3672.5	3690.3	3639.5	3659.0	3653.0	3657.3	3615.7
5°	3773.4	3714.9	3714.1	3754.8	3714.1	3721.7	3657.3	3670.0	3651.4	3639.5	3594.5
7.5°	3835.3	3776.8	3770.9	3806.5	3753.1	3747.1	3675.9	3675.9	3642.0	3612.4	3570.0
10°	3896.4	3836.2	3828.5	3855.7	3789.5	3770.0	3683.6	3670.0	3625.1	3581.0	3535.2
12.5°	3942.1	3881.1	3875.2	3892.1	3817.5	3781.9	3683.6	3657.3	3591.2	3529.3	3493.7
15°	3985.4	3922.6	3906.5	3915.0	3829.4	3781.9	3671.7	3631.0	3546.2	3464.8	3423.3
17.5°	4015.9	3955.7	3939.6	3938.7	3835.3	3767.5	3646.3	3590.3	3488.6	3390.2	3348.7
20°	4046.4	3986.2	3965.9	3950.6	3833.6	3748.0	3609.0	3533.5	3414.8	3304.6	3269.9
22.5°	4061.7	3999.8	3977.7	3954.9	3822.6	3712.4	3563.2	3467.4	3331.7	3200.3	3171.5
25°	4064.2	4000.6	3976.9	3943.8	3800.6	3670.0	3503.8	3387.7	3235.9	3090.1	3065.5
27.5°	4057.4	3987.9	3964.2	3924.3	3767.5	3618.3	3433.5	3297.0	3134.2	2973.1	2946.9
30°	4033.7	3963.3	3940.4	3888.7	3720.9	3554.7	3356.3	3196.1	3021.5	2850.2	2827.3
32.5°	3986.2	3917.6	3898.9	3847.2	3670.0	3480.9	3266.5	3087.6	2896.8	2733.2	2699.3
35°	3916.7	3848.0	3836.2	3781.9	3598.8	3392.8	3168.1	2968.9	2764.6	2597.6	2564.5
37.5°	3826.0	3768.3	3750.5	3697.1	3514.9	3292.7	3055.4	2840.0	2629.8	2450.1	2429.7
40°	3711.5	3657.3	3643.7	3596.2	3417.4	3181.7	2933.3	2706.9	2490.8	2323.7	2294.9
42.5°	3581.0	3530.1	3522.5	3473.3	3297.0	3058.8	2801.0	2568.7	2345.8	2184.7	2155.9
45°	3432.6	3383.5	3381.8	3335.1	3165.6	2922.3	2662.0	2428.9	2204.2	2037.2	2021.9
47.5°	3269.0	3224.9	3224.9	3181.7	3018.9	2772.2	2518.7	2283.0	2061.8	1914.3	1887.1
50°	3091.0	3049.4	3036.7	3015.5	2857.0	2608.6	2367.8	2140.6	1921.0	1780.3	1754.0
52.5°	2901.1	2865.5	2873.9	2834.9	2681.5	2438.2	2215.2	1980.4	1779.5	1651.5	1625.2
55°	2701.0	2650.1	2657.8	2643.4	2498.4	2262.7	2044.0	1848.1	1640.4	1520.1	1495.5
57.5°	2493.3	2427.2	2454.3	2445.8	2303.4	2083.0	1887.1	1698.1	1502.3	1391.2	1367.5
60°	2280.5	2216.9	2244.9	2237.3	2103.3	1903.2	1725.2	1549.7	1364.9	1264.0	1240.3
62.5°	2061.8	2003.3	2028.7	2022.8	1899.9	1719.3	1564.1	1403.1	1226.7	1136.0	1114.0
65°	1841.4	1785.4	1808.3	1804.1	1690.5	1553.1	1398.8	1251.3	1087.7	1008.8	986.8
67.5°	1615.9	1564.1	1585.3	1585.3	1481.1	1349.7	1232.7	1097.9	951.2	883.4	863.0
70°	1392.0	1343.7	1362.4	1360.7	1272.5	1165.7	1064.8	944.4	813.0	757.1	740.1
72.5°	1166.5	1124.1	1141.1	1139.4	1065.6	997.0	896.9	792.7	678.2	633.3	618.0
75°	947.8	908.0	924.1	922.4	862.2	797.8	730.8	644.3	546.0	514.6	499.3
77.5°	739.3	698.6	712.1	712.1	668.0	621.4	568.0	501.0	431.5	397.6	386.6
80°	539.2	519.7	512.9	513.7	484.1	453.6	426.4	362.0	311.1	288.2	280.6
82.5°	354.4	338.3	331.5	333.2	316.2	297.6	280.6	235.7	201.8	188.2	184.0
85°	188.2	176.3	170.4	174.6	171.2	161.1	152.6	122.1	100.9	95.8	93.3
87.5°	59.3	51.7	47.5	62.7	53.4	47.5	45.8	36.5	28.0	28.0	27.1
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: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4
2.5°	3629.3	3629.3	3596.2	3588.6	3585.2	3589.5	3556.4	3550.5	3597.9	3581.8	3545.4
5°	3600.5	3598.8	3552.2	3543.7	3543.7	3538.6	3501.3	3492.8	3540.3	3526.7	3486.9
7.5°	3564.9	3559.8	3504.7	3498.8	3490.3	3486.9	3445.3	3439.4	3480.1	3471.6	3434.3
10°	3521.6	3516.6	3451.3	3447.0	3437.7	3430.9	3391.9	3387.7	3429.2	3415.7	3386.0
12.5°	3464.8	3455.5	3388.5	3384.3	3376.7	3374.1	3336.0	3334.3	3380.1	3366.5	3335.1
15°	3390.2	3382.6	3308.0	3309.7	3310.5	3310.5	3280.0	3278.3	3323.3	3317.3	3283.4
17.5°	3308.0	3297.8	3226.6	3231.7	3237.6	3244.4	3220.7	3224.9	3272.4	3264.8	3234.2
20°	3214.7	3204.6	3135.1	3149.5	3162.2	3175.8	3160.5	3172.4	3216.4	3213.1	3190.2
22.5°	3110.5	3100.3	3035.9	3057.9	3079.1	3104.5	3097.8	3111.3	3157.9	3157.1	3136.8
25°	2983.3	2985.8	2929.0	2956.2	2991.8	3027.4	3029.9	3052.0	3103.7	3098.6	3080.0
27.5°	2864.6	2868.0	2807.8	2853.6	2901.1	2946.9	2957.9	2988.4	3041.0	3036.7	3020.6
30°	2740.0	2744.2	2685.7	2748.5	2806.1	2862.1	2885.8	2927.4	2980.8	2980.8	2963.8
32.5°	2610.3	2617.9	2556.9	2640.8	2707.8	2773.1	2814.6	2857.8	2918.9	2917.2	2902.8
35°	2477.2	2485.7	2429.7	2536.5	2603.5	2683.2	2734.9	2792.6	2846.8	2847.7	2836.6
37.5°	2341.5	2351.7	2300.9	2417.8	2494.1	2588.2	2654.4	2712.0	2772.2	2775.6	2765.4
40°	2206.7	2217.8	2173.7	2286.4	2383.1	2488.2	2564.5	2632.3	2698.5	2700.2	2693.4
42.5°	2072.0	2083.8	2050.8	2161.0	2270.3	2383.1	2472.9	2550.1	2617.9	2622.2	2614.5
45°	1940.5	1950.7	1927.0	2047.4	2152.5	2275.4	2378.8	2466.2	2534.8	2540.8	2538.2
47.5°	1810.0	1819.3	1798.1	1908.3	2029.6	2160.1	2279.7	2376.3	2449.2	2456.0	2454.3
50°	1682.0	1689.6	1666.7	1782.0	1902.4	2041.4	2166.1	2278.0	2359.3	2366.1	2365.3
52.5°	1554.8	1562.4	1542.9	1664.2	1773.5	1920.2	2055.8	2177.1	2257.6	2267.8	2269.5
55°	1431.9	1435.3	1420.0	1536.2	1642.1	1795.6	1951.6	2069.4	2149.9	2158.4	2163.5
57.5°	1309.0	1309.8	1297.1	1408.1	1509.9	1666.7	1830.3	1954.1	2030.4	2038.9	2046.5
60°	1186.9	1186.0	1171.6	1279.3	1376.8	1531.9	1702.3	1825.3	1899.0	1906.6	1916.8
62.5°	1065.6	1063.1	1050.4	1149.6	1241.1	1394.6	1565.8	1684.5	1754.9	1760.0	1773.5
65°	945.3	942.7	930.9	1022.4	1105.5	1252.2	1420.0	1532.8	1596.4	1603.1	1600.6
67.5°	826.6	821.5	812.2	894.4	969.9	1105.5	1266.6	1374.2	1426.8	1432.7	1448.8
70°	707.9	702.0	680.8	768.1	834.2	955.4	1105.5	1201.3	1245.4	1251.3	1248.8
72.5°	590.9	585.0	562.1	642.6	698.6	804.5	938.5	1018.2	1056.3	1061.4	1061.4
75°	477.3	473.9	459.5	520.5	567.2	653.6	767.2	833.4	863.0	869.0	867.3
77.5°	367.9	365.4	351.0	403.5	440.0	504.4	596.0	647.7	669.7	676.5	690.9
80°	263.7	262.8	239.9	291.6	307.7	362.0	429.0	468.8	480.7	490.0	500.2
82.5°	168.7	169.6	146.7	190.7	197.5	232.3	273.8	298.4	306.9	314.5	322.2
85°	82.2	85.6	72.9	100.9	101.7	119.5	137.3	146.7	150.1	156.0	162.8
87.5°	21.2	24.6	13.6	28.8	25.4	33.1	38.1	40.7	39.8	44.1	46.6
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: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4
2.5°	3557.2	3584.4	3570.8	3614.9	3631.9	3604.7	3652.2	3653.0	3619.1	3659.0	3681.0
5°	3502.1	3530.1	3521.6	3567.4	3588.6	3564.9	3622.5	3633.5	3600.5	3645.4	3681.0
7.5°	3446.2	3479.3	3468.2	3514.9	3540.3	3521.6	3583.5	3601.3	3575.9	3625.1	3672.5
10°	3397.9	3425.8	3414.0	3463.1	3485.2	3469.9	3531.0	3564.0	3540.3	3600.5	3657.3
12.5°	3350.4	3373.3	3359.7	3400.4	3421.6	3402.1	3476.7	3507.2	3490.3	3553.0	3625.9
15°	3289.4	3314.8	3296.1	3332.6	3348.7	3331.7	3392.8	3445.3	3424.1	3492.8	3573.4
17.5°	3242.7	3257.1	3231.7	3260.5	3269.9	3247.0	3308.9	3360.6	3345.3	3419.9	3513.2
20°	3191.0	3202.9	3167.3	3183.4	3182.5	3153.7	3210.5	3261.4	3251.2	3333.4	3439.4
22.5°	3133.4	3139.3	3097.8	3101.1	3099.5	3052.0	3102.8	3154.6	3150.3	3233.4	3352.1
25°	3072.3	3073.2	3019.8	3018.1	2999.4	2943.5	2988.4	3046.9	3034.2	3124.0	3248.7
27.5°	3012.1	3003.7	2939.2	2924.0	2894.3	2827.3	2867.2	2919.7	2912.1	3000.3	3138.4
30°	2947.7	2936.7	2857.8	2829.9	2786.6	2709.5	2742.5	2791.7	2795.9	2873.1	3018.1
32.5°	2886.7	2858.7	2771.4	2730.7	2676.4	2586.5	2604.4	2654.4	2661.2	2739.1	2888.4
35°	2807.8	2789.2	2681.5	2612.0	2558.6	2460.2	2478.9	2513.6	2523.8	2600.1	2751.9
37.5°	2733.2	2703.5	2589.1	2504.3	2435.6	2332.2	2337.3	2372.9	2383.1	2460.2	2610.3
40°	2656.1	2613.7	2490.8	2391.6	2312.7	2204.2	2198.3	2235.6	2243.2	2318.7	2454.3
42.5°	2573.8	2523.0	2384.8	2276.3	2185.6	2075.3	2063.5	2095.7	2104.2	2177.9	2311.0
45°	2490.8	2429.7	2276.3	2157.6	2058.4	1945.6	1933.8	1958.4	1971.1	2040.6	2168.6
47.5°	2402.6	2331.4	2164.4	2032.1	1929.5	1816.8	1802.4	1826.9	1837.1	1905.8	2027.0
50°	2310.2	2223.7	2049.1	1903.2	1801.5	1690.5	1669.3	1698.1	1707.4	1771.8	1890.5
52.5°	2208.4	2112.6	1926.1	1773.5	1671.8	1565.8	1540.4	1568.4	1579.4	1642.1	1751.5
55°	2100.8	1997.3	1802.4	1654.0	1543.8	1440.4	1419.2	1430.2	1453.9	1513.3	1615.0
57.5°	1979.5	1877.0	1671.8	1520.9	1414.9	1315.7	1297.9	1308.1	1330.2	1387.8	1479.4
60°	1850.7	1742.2	1538.7	1387.8	1285.2	1191.1	1175.0	1184.3	1208.1	1260.6	1345.4
62.5°	1723.5	1601.4	1401.4	1251.3	1158.1	1070.7	1066.5	1063.1	1085.1	1136.0	1210.6
65°	1569.2	1452.2	1258.1	1115.7	1030.9	952.0	935.1	942.7	963.9	1010.5	1088.5
67.5°	1403.9	1297.9	1111.4	980.0	904.6	834.2	819.8	823.2	845.2	885.9	953.7
70°	1228.4	1135.2	961.4	843.5	779.9	713.8	704.5	705.3	726.5	762.1	821.5
72.5°	1044.5	960.5	809.6	708.7	656.2	608.7	600.2	590.0	609.5	640.1	690.9
75°	857.1	783.3	658.7	576.5	534.9	495.1	487.5	477.3	496.8	523.1	562.9
77.5°	668.0	608.7	512.1	448.5	416.3	386.6	379.8	368.8	388.3	407.8	439.1
80°	483.2	440.0	382.3	315.4	304.3	284.9	278.1	266.2	284.9	297.6	321.3
82.5°	312.0	283.2	250.1	203.5	201.8	187.4	184.0	170.4	187.4	195.0	212.8
85°	157.7	144.1	135.6	103.4	106.8	97.5	96.6	82.2	95.8	99.2	109.4
87.5°	44.9	47.5	42.4	25.4	32.2	30.5	30.5	22.0	30.5	30.5	34.8
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: P838171

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4	3634.4
2.5°	3637.8	3652.2	3655.6	3654.7	3664.1	3714.9	3698.0	3714.9
5°	3646.3	3678.5	3687.0	3698.8	3714.1	3771.7	3753.1	3773.4
7.5°	3651.4	3699.7	3718.3	3741.2	3765.8	3830.2	3815.0	3835.3
10°	3651.4	3714.1	3741.2	3779.4	3812.4	3887.0	3872.6	3896.4
12.5°	3636.1	3716.6	3754.8	3808.2	3850.6	3931.1	3925.2	3942.1
15°	3604.7	3703.9	3756.5	3825.1	3877.7	3967.6	3965.0	3985.4
17.5°	3562.3	3681.9	3745.5	3831.9	3898.1	3998.9	4004.9	4015.9
20°	3508.9	3640.3	3723.4	3829.4	3912.5	4023.5	4031.2	4046.4
22.5°	3438.6	3590.3	3690.3	3818.4	3914.2	4033.7	4047.3	4061.7
25°	3355.5	3530.1	3647.1	3797.2	3905.7	4032.8	4051.5	4064.2
27.5°	3260.5	3452.1	3592.0	3763.3	3881.9	4019.3	4042.2	4057.4
30°	3150.3	3369.0	3529.3	3719.2	3849.7	3993.8	4018.4	4033.7
32.5°	3036.7	3277.5	3454.7	3662.4	3803.1	3953.2	3974.4	3986.2
35°	2912.9	3166.4	3364.8	3589.5	3742.9	3887.9	3904.0	3916.7
37.5°	2778.1	3046.0	3262.2	3507.2	3658.1	3797.2	3811.6	3826.0
40°	2639.1	2919.7	3146.9	3406.3	3557.2	3686.1	3701.4	3711.5
42.5°	2499.2	2779.8	3024.0	3287.7	3437.7	3561.5	3570.8	3581.0
45°	2357.7	2634.9	2885.8	3156.3	3304.6	3420.8	3424.1	3432.6
47.5°	2213.5	2484.8	2734.1	3006.2	3152.9	3258.8	3262.2	3269.0
50°	2068.6	2334.8	2572.1	2844.3	2987.5	3099.5	3084.2	3091.0
52.5°	1926.1	2177.1	2419.5	2669.6	2811.2	2910.4	2914.6	2901.1
55°	1786.3	2022.8	2245.7	2486.5	2621.3	2698.5	2695.9	2701.0
57.5°	1644.7	1866.8	2071.1	2291.5	2422.9	2495.8	2511.1	2493.3
60°	1500.6	1709.1	1892.2	2091.5	2218.6	2279.7	2297.5	2280.5
62.5°	1357.3	1548.9	1715.0	1888.8	2006.7	2082.1	2080.4	2061.8
65°	1214.0	1387.8	1536.2	1683.7	1786.3	1861.7	1858.3	1841.4
67.5°	1081.8	1225.0	1358.1	1477.7	1566.7	1618.4	1636.2	1615.9
70°	935.9	1059.7	1176.7	1272.5	1346.3	1392.9	1409.8	1392.0
72.5°	790.1	895.2	977.5	1069.9	1126.7	1165.7	1183.5	1166.5
75°	646.0	732.5	799.4	871.5	911.4	944.4	964.8	947.8
77.5°	506.1	573.1	626.5	679.1	724.8	732.5	750.3	739.3
80°	373.0	421.3	460.3	495.1	528.2	531.6	546.0	539.2
82.5°	248.4	280.6	290.8	327.2	348.4	345.0	359.5	354.4
85°	131.4	150.9	168.7	179.7	191.6	180.6	193.3	188.2
87.5°	44.1	46.6	40.7	57.6	63.6	54.3	61.9	59.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)