

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: P838191

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-4STD-30-120-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: P838191
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-LD4-4STD-30-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

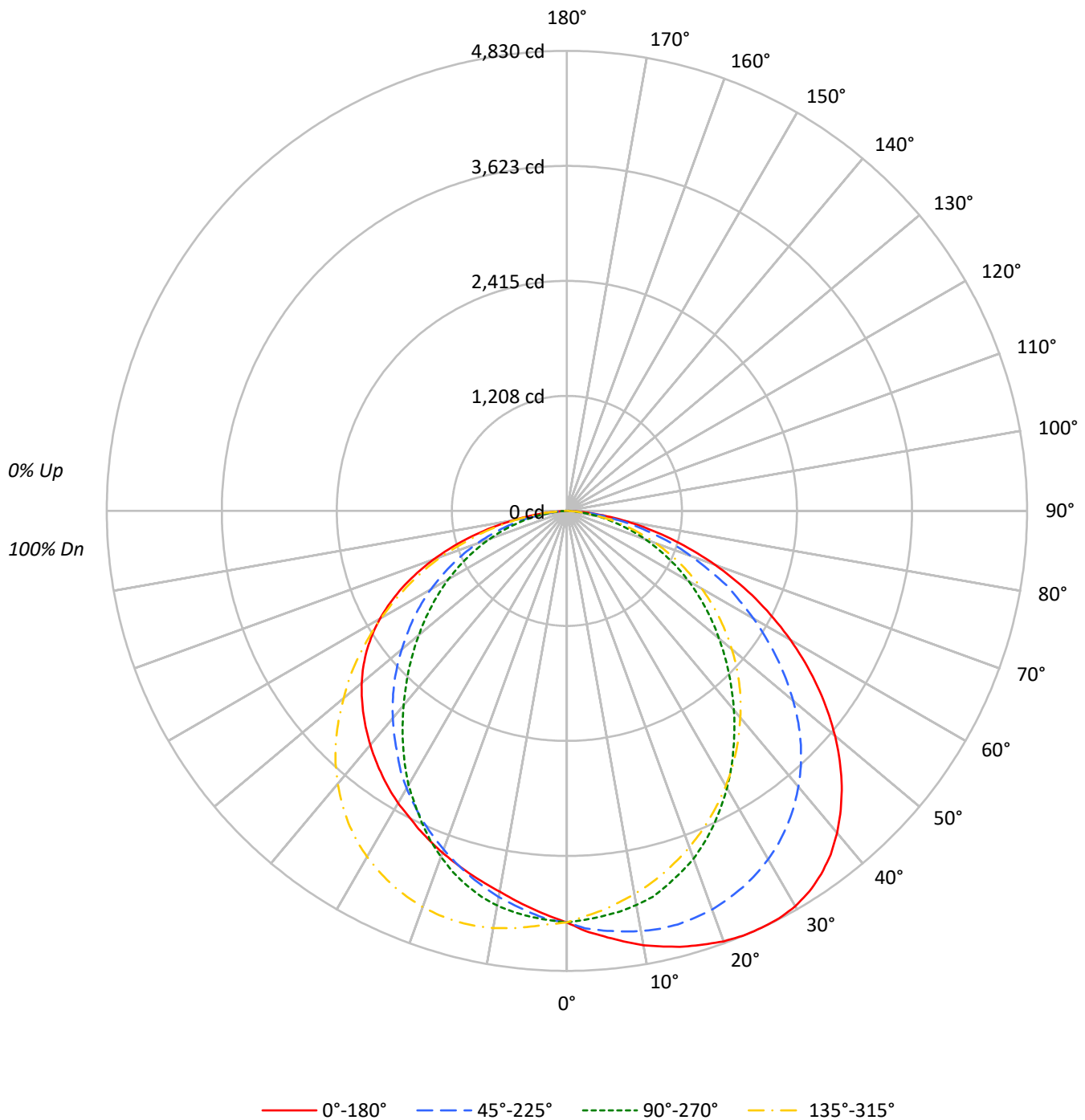
Lumens per Lamp: N/A
Luminaire Lumens: 12673.1 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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
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	89		90
2	99	91	84	78	96	89	82	77	85	80	75		82	77	73		79
3	90	79	71	65	88	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	74	62	53	47	59	52	46		57	51	46		56
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	47	38	32	59	46	38	32	45	37	32		43	37	32		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°	270°
0°	5812	5812	5812	5812
5°	6057	5770	5661	5780
10°	6327	5741	5546	5749
15°	6598	5668	5492	5669
20°	6886	5565	5468	5533
25°	7171	5409	5467	5354
30°	7448	5221	5504	5163
35°	7646	5006	5559	4927
40°	7748	4791	5637	4683
45°	7763	4573	5746	4458
50°	7690	4364	5887	4248
55°	7530	4169	6018	4054
60°	7294	3967	6098	3864
65°	6968	3734	6066	3647
70°	6509	3460	5851	3397
75°	5856	3085	5369	3070
80°	4965	2584	4513	2624
85°	3453	1711	2862	1758

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.1	3.2
10°-20°	1187.6	9.4
20°-30°	1820.0	14.4
30°-40°	2213.1	17.5
40°-50°	2300.6	18.2
50°-60°	2078.1	16.4
60°-70°	1579.9	12.5
70°-80°	880.8	7.0
80°-90°	202.8	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°	3417.8	27.0
0°-40°	5630.8	44.4
0°-60°	10009.6	79.0
0°-90°	12673.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12673.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4320	4320	4320	4320	4320	
5°	4485	4272	4192	4279	4485	432
15°	4737	4069	3943	4070	4737	1343
25°	4830	3644	3683	3606	4830	2231
35°	4655	3048	3384	3000	4655	2907
45°	4080	2403	3020	2343	4080	3141
55°	3210	1777	2565	1728	3210	2866
65°	2188	1173	1905	1146	2188	2163
75°	1126	594	1033	590	1126	1197
85°	224	111	185	114	224	282
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°	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6
2.5°	4415.3	4350.8	4351.8	4408.3	4364.9	4386.1	4325.6	4348.8	4341.8	4346.8	4297.4
5°	4484.8	4415.3	4414.3	4462.7	4414.3	4423.4	4346.8	4361.9	4339.7	4325.6	4272.2
7.5°	4558.4	4488.9	4481.8	4524.1	4460.6	4453.6	4369.0	4369.0	4328.7	4293.4	4243.0
10°	4630.9	4559.4	4550.3	4582.6	4504.0	4480.8	4378.0	4361.9	4308.5	4256.1	4201.7
12.5°	4685.3	4612.8	4605.7	4625.9	4537.2	4494.9	4378.0	4346.8	4268.2	4194.6	4152.3
15°	4736.7	4662.2	4643.0	4653.1	4551.3	4494.9	4363.9	4315.6	4214.8	4118.1	4068.7
17.5°	4773.0	4701.5	4682.3	4681.3	4558.4	4477.8	4333.7	4267.2	4146.3	4029.4	3980.0
20°	4809.3	4737.7	4713.6	4695.4	4556.4	4454.6	4289.4	4199.7	4058.6	3927.6	3886.3
22.5°	4827.4	4753.9	4727.7	4700.5	4543.3	4412.3	4234.9	4121.1	3959.9	3803.7	3769.4
25°	4830.4	4754.9	4726.7	4687.4	4517.1	4361.9	4164.4	4026.4	3846.0	3672.7	3643.5
27.5°	4822.4	4739.8	4711.5	4664.2	4477.8	4300.4	4080.8	3918.6	3725.1	3533.7	3502.4
30°	4794.2	4710.5	4683.3	4621.9	4422.4	4224.9	3989.1	3798.7	3591.1	3387.6	3360.3
32.5°	4737.7	4656.1	4634.0	4572.5	4361.9	4137.2	3882.3	3669.7	3443.0	3248.5	3208.2
35°	4655.1	4573.5	4559.4	4494.9	4277.3	4032.4	3765.4	3528.6	3285.8	3087.3	3048.0
37.5°	4547.3	4478.8	4457.6	4394.1	4177.5	3913.5	3631.4	3375.5	3125.6	2912.0	2887.8
40°	4411.3	4346.8	4330.7	4274.2	4061.6	3781.5	3486.3	3217.3	2960.3	2761.8	2727.6
42.5°	4256.1	4195.6	4186.6	4128.1	3918.6	3635.4	3329.1	3053.0	2788.0	2596.6	2562.3
45°	4079.8	4021.3	4019.3	3963.9	3762.4	3473.2	3163.9	2886.8	2619.8	2421.3	2403.1
47.5°	3885.3	3832.9	3832.9	3781.5	3588.1	3294.9	2993.6	2713.5	2450.5	2275.2	2242.9
50°	3673.7	3624.3	3609.2	3584.0	3395.6	3100.4	2814.2	2544.2	2283.2	2116.0	2084.7
52.5°	3448.0	3405.7	3415.8	3369.4	3187.0	2897.9	2632.9	2353.8	2115.0	1962.8	1931.6
55°	3210.2	3149.8	3158.8	3141.7	2969.4	2689.3	2429.3	2196.6	1949.7	1806.6	1777.4
57.5°	2963.4	2884.8	2917.0	2906.9	2737.7	2475.7	2242.9	2018.2	1785.5	1653.5	1625.3
60°	2710.4	2634.9	2668.1	2659.1	2499.9	2262.1	2050.5	1841.9	1622.2	1502.3	1474.1
62.5°	2450.5	2381.0	2411.2	2404.1	2258.0	2043.4	1859.0	1667.6	1458.0	1350.2	1324.0
65°	2188.5	2122.0	2149.2	2144.2	2009.2	1845.9	1662.5	1487.2	1292.8	1199.0	1172.8
67.5°	1920.5	1859.0	1884.2	1884.2	1760.3	1604.1	1465.1	1304.8	1130.5	1049.9	1025.7
70°	1654.5	1597.0	1619.2	1617.2	1512.4	1385.5	1265.5	1122.5	966.3	899.8	879.6
72.5°	1386.5	1336.1	1356.2	1354.2	1266.6	1184.9	1066.0	942.1	806.1	752.7	734.5
75°	1126.5	1079.1	1098.3	1096.3	1024.7	948.2	868.6	765.8	648.9	611.6	593.5
77.5°	878.6	830.3	846.4	846.4	794.0	738.6	675.1	595.5	512.9	472.6	459.5
80°	640.8	617.7	609.6	610.6	575.3	539.1	506.8	430.2	369.8	342.6	333.5
82.5°	421.2	402.0	394.0	396.0	375.8	353.7	333.5	280.1	239.8	223.7	218.6
85°	223.7	209.6	202.5	207.6	203.5	191.4	181.4	145.1	119.9	113.9	110.8
87.5°	70.5	61.5	56.4	74.6	63.5	56.4	54.4	43.3	33.3	33.3	32.2
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°	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6
2.5°	4313.5	4313.5	4274.2	4265.2	4261.1	4266.2	4226.9	4219.8	4276.3	4257.1	4213.8
5°	4279.3	4277.3	4221.8	4211.8	4211.8	4205.7	4161.4	4151.3	4207.7	4191.6	4144.3
7.5°	4237.0	4230.9	4165.4	4158.4	4148.3	4144.3	4094.9	4087.8	4136.2	4126.1	4081.8
10°	4185.6	4179.5	4101.9	4096.9	4085.8	4077.8	4031.4	4026.4	4075.7	4059.6	4024.4
12.5°	4118.1	4107.0	4027.4	4022.3	4013.3	4010.3	3964.9	3962.9	4017.3	4001.2	3963.9
15°	4029.4	4020.3	3931.7	3933.7	3934.7	3934.7	3898.4	3896.4	3949.8	3942.7	3902.4
17.5°	3931.7	3919.6	3834.9	3841.0	3848.0	3856.1	3827.9	3832.9	3889.3	3880.3	3844.0
20°	3820.8	3808.7	3726.1	3743.2	3758.3	3774.5	3756.3	3770.4	3822.8	3818.8	3791.6
22.5°	3696.9	3684.8	3608.2	3634.4	3659.6	3689.8	3681.8	3697.9	3753.3	3752.3	3728.1
25°	3545.7	3548.8	3481.3	3513.5	3555.8	3598.1	3601.2	3627.4	3688.8	3682.8	3660.6
27.5°	3404.7	3408.7	3337.2	3391.6	3448.0	3502.4	3515.5	3551.8	3614.3	3609.2	3590.1
30°	3256.6	3261.6	3192.1	3266.6	3335.2	3401.7	3429.9	3479.2	3542.7	3542.7	3522.6
32.5°	3102.4	3111.5	3038.9	3138.7	3218.3	3295.9	3345.2	3396.6	3469.2	3467.2	3450.0
35°	2944.2	2954.3	2887.8	3014.7	3094.3	3189.1	3250.5	3319.0	3383.5	3384.5	3371.4
37.5°	2783.0	2795.1	2734.6	2873.7	2964.4	3076.2	3154.8	3223.3	3294.9	3298.9	3286.8
40°	2622.8	2635.9	2583.5	2717.5	2832.4	2957.3	3048.0	3128.6	3207.2	3209.2	3201.1
42.5°	2462.6	2476.7	2437.4	2568.4	2698.4	2832.4	2939.2	3030.9	3111.5	3116.5	3107.4
45°	2306.4	2318.5	2290.3	2433.4	2558.3	2704.4	2827.3	2931.1	3012.7	3019.8	3016.8
47.5°	2151.2	2162.3	2137.1	2268.1	2412.2	2567.4	2709.4	2824.3	2911.0	2919.0	2917.0
50°	1999.1	2008.1	1980.9	2118.0	2261.1	2426.3	2574.4	2707.4	2804.2	2812.2	2811.2
52.5°	1847.9	1857.0	1833.8	1977.9	2107.9	2282.2	2443.4	2587.5	2683.2	2695.3	2697.3
55°	1701.8	1705.9	1687.7	1825.8	1951.7	2134.1	2319.5	2459.6	2555.3	2565.4	2571.4
57.5°	1555.7	1556.7	1541.6	1673.6	1794.5	1980.9	2175.4	2322.5	2413.2	2423.3	2432.3
60°	1410.6	1409.6	1392.5	1520.5	1636.3	1820.7	2023.3	2169.4	2257.0	2266.1	2278.2
62.5°	1266.6	1263.5	1248.4	1366.3	1475.1	1657.5	1861.0	2002.1	2085.7	2091.8	2107.9
65°	1123.5	1120.5	1106.3	1215.2	1313.9	1488.2	1687.7	1821.7	1897.3	1905.4	1902.3
67.5°	982.4	976.4	965.3	1063.0	1152.7	1313.9	1505.4	1633.3	1695.8	1702.8	1722.0
70°	841.3	834.3	809.1	912.9	991.5	1135.6	1313.9	1427.8	1480.2	1487.2	1484.2
72.5°	702.3	695.2	668.0	763.8	830.3	956.2	1115.4	1210.1	1255.5	1261.5	1261.5
75°	567.3	563.2	546.1	618.7	674.1	776.9	911.9	990.5	1025.7	1032.8	1030.8
77.5°	437.3	434.3	417.1	479.6	522.9	599.5	708.3	769.8	796.0	804.1	821.2
80°	313.4	312.4	285.2	346.6	365.8	430.2	509.8	557.2	571.3	582.4	594.5
82.5°	200.5	201.5	174.3	226.7	234.8	276.1	325.5	354.7	364.8	373.8	382.9
85°	97.7	101.8	86.7	119.9	120.9	142.1	163.2	174.3	178.3	185.4	193.5
87.5°	25.2	29.2	16.1	34.3	30.2	39.3	45.3	48.4	47.4	52.4	55.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6
2.5°	4227.9	4260.1	4244.0	4296.4	4316.6	4284.3	4340.7	4341.8	4301.4	4348.8	4375.0
5°	4162.4	4195.6	4185.6	4240.0	4265.2	4237.0	4305.5	4318.6	4279.3	4332.7	4375.0
7.5°	4095.9	4135.2	4122.1	4177.5	4207.7	4185.6	4259.1	4280.3	4250.1	4308.5	4364.9
10°	4038.5	4071.7	4057.6	4116.0	4142.2	4124.1	4196.7	4236.0	4207.7	4279.3	4346.8
12.5°	3982.0	4009.2	3993.1	4041.5	4066.7	4043.5	4132.2	4168.4	4148.3	4222.9	4309.5
15°	3909.5	3939.7	3917.6	3960.9	3980.0	3959.9	4032.4	4094.9	4069.7	4151.3	4247.0
17.5°	3854.1	3871.2	3841.0	3875.2	3886.3	3859.1	3932.7	3994.1	3976.0	4064.7	4175.5
20°	3792.6	3806.7	3764.4	3783.5	3782.5	3748.3	3815.8	3876.2	3864.1	3961.9	4087.8
22.5°	3724.1	3731.1	3681.8	3685.8	3683.8	3627.4	3687.8	3749.3	3744.2	3843.0	3984.1
25°	3651.5	3652.6	3589.1	3587.1	3564.9	3498.4	3551.8	3621.3	3606.2	3713.0	3861.1
27.5°	3580.0	3569.9	3493.4	3475.2	3439.9	3360.3	3407.7	3470.2	3461.1	3565.9	3730.1
30°	3503.4	3490.3	3396.6	3363.4	3312.0	3220.3	3259.6	3318.0	3323.1	3414.8	3587.1
32.5°	3430.9	3397.6	3293.8	3245.5	3181.0	3074.2	3095.3	3154.8	3162.9	3255.6	3432.9
35°	3337.2	3315.0	3187.0	3104.4	3040.9	2924.1	2946.2	2987.5	2999.6	3090.3	3270.7
37.5°	3248.5	3213.2	3077.2	2976.5	2894.8	2771.9	2778.0	2820.3	2832.4	2924.1	3102.4
40°	3156.8	3106.4	2960.3	2842.4	2748.7	2619.8	2612.7	2657.0	2666.1	2755.8	2917.0
42.5°	3059.1	2998.6	2834.4	2705.4	2597.6	2466.6	2452.5	2490.8	2500.9	2588.5	2746.7
45°	2960.3	2887.8	2705.4	2564.3	2446.5	2312.4	2298.3	2327.6	2342.7	2425.3	2577.4
47.5°	2855.5	2770.9	2572.4	2415.2	2293.3	2159.3	2142.2	2171.4	2183.5	2265.1	2409.2
50°	2745.7	2642.9	2435.4	2262.1	2141.2	2009.2	1984.0	2018.2	2029.3	2105.9	2246.9
52.5°	2624.8	2510.9	2289.3	2107.9	1987.0	1861.0	1830.8	1864.1	1877.2	1951.7	2081.7
55°	2496.8	2373.9	2142.2	1965.8	1834.8	1711.9	1686.7	1699.8	1728.0	1798.6	1919.5
57.5°	2352.7	2230.8	1987.0	1807.6	1681.7	1563.8	1542.6	1554.7	1580.9	1649.4	1758.3
60°	2199.6	2070.6	1828.8	1649.4	1527.5	1415.7	1396.5	1407.6	1435.8	1498.3	1599.1
62.5°	2048.5	1903.4	1665.6	1487.2	1376.4	1272.6	1267.6	1263.5	1289.7	1350.2	1438.9
65°	1865.1	1726.0	1495.3	1326.0	1225.2	1131.5	1111.4	1120.5	1145.6	1201.1	1293.8
67.5°	1668.6	1542.6	1321.0	1164.8	1075.1	991.5	974.3	978.4	1004.6	1052.9	1133.6
70°	1460.0	1349.2	1142.6	1002.6	927.0	848.4	837.3	838.3	863.5	905.8	976.4
72.5°	1241.4	1141.6	962.3	842.4	779.9	723.5	713.4	701.3	724.5	760.7	821.2
75°	1018.7	931.0	782.9	685.2	635.8	588.4	579.4	567.3	590.5	621.7	669.0
77.5°	794.0	723.5	608.6	533.0	494.7	459.5	451.4	438.3	461.5	484.7	521.9
80°	574.3	522.9	454.4	374.8	361.7	338.6	330.5	316.4	338.6	353.7	381.9
82.5°	370.8	336.5	297.2	241.8	239.8	222.7	218.6	202.5	222.7	231.7	252.9
85°	187.4	171.3	161.2	122.9	127.0	115.9	114.9	97.7	113.9	117.9	130.0
87.5°	53.4	56.4	50.4	30.2	38.3	36.3	36.3	26.2	36.3	36.3	41.3
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: P838191

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-4STD-30-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6	4319.6
2.5°	4323.6	4340.7	4344.8	4343.8	4354.8	4415.3	4395.2	4415.3
5°	4333.7	4372.0	4382.1	4396.2	4414.3	4482.8	4460.6	4484.8
7.5°	4339.7	4397.2	4419.3	4446.5	4475.8	4552.3	4534.2	4558.4
10°	4339.7	4414.3	4446.5	4491.9	4531.2	4619.8	4602.7	4630.9
12.5°	4321.6	4417.3	4462.7	4526.1	4576.5	4672.2	4665.2	4685.3
15°	4284.3	4402.2	4464.7	4546.3	4608.8	4715.6	4712.5	4736.7
17.5°	4233.9	4376.0	4451.6	4554.4	4632.9	4752.9	4759.9	4773.0
20°	4170.5	4326.6	4425.4	4551.3	4650.1	4782.1	4791.1	4809.3
22.5°	4086.8	4267.2	4386.1	4538.2	4652.1	4794.2	4810.3	4827.4
25°	3988.1	4195.6	4334.7	4513.0	4642.0	4793.2	4815.3	4830.4
27.5°	3875.2	4102.9	4269.2	4472.7	4613.8	4777.0	4804.2	4822.4
30°	3744.2	4004.2	4194.6	4420.3	4575.5	4746.8	4776.0	4794.2
32.5°	3609.2	3895.4	4106.0	4352.8	4520.1	4698.4	4723.6	4737.7
35°	3462.1	3763.4	3999.2	4266.2	4448.6	4620.9	4640.0	4655.1
37.5°	3301.9	3620.3	3877.2	4168.4	4347.8	4513.0	4530.2	4547.3
40°	3136.7	3470.2	3740.2	4048.5	4227.9	4381.0	4399.2	4411.3
42.5°	2970.4	3303.9	3594.1	3907.5	4085.8	4232.9	4244.0	4256.1
45°	2802.1	3131.6	3429.9	3751.3	3927.6	4065.7	4069.7	4079.8
47.5°	2630.8	2953.3	3249.5	3573.0	3747.3	3873.2	3877.2	3885.3
50°	2458.5	2774.9	3057.1	3380.5	3550.8	3683.8	3665.7	3673.7
52.5°	2289.3	2587.5	2875.7	3172.9	3341.2	3459.1	3464.1	3448.0
55°	2123.0	2404.1	2669.1	2955.3	3115.5	3207.2	3204.2	3210.2
57.5°	1954.7	2218.7	2461.6	2723.5	2879.7	2966.4	2984.5	2963.4
60°	1783.5	2031.3	2249.0	2485.8	2636.9	2709.4	2730.6	2710.4
62.5°	1613.2	1840.9	2038.4	2244.9	2385.0	2474.7	2472.7	2450.5
65°	1442.9	1649.4	1825.8	2001.1	2123.0	2212.7	2208.7	2188.5
67.5°	1285.7	1456.0	1614.2	1756.2	1862.0	1923.5	1944.7	1920.5
70°	1112.4	1259.5	1398.5	1512.4	1600.1	1655.5	1675.6	1654.5
72.5°	939.1	1064.0	1161.8	1271.6	1339.1	1385.5	1406.6	1386.5
75°	767.8	870.6	950.2	1035.8	1083.2	1122.5	1146.6	1126.5
77.5°	601.5	681.1	744.6	807.1	861.5	870.6	891.7	878.6
80°	443.3	500.8	547.1	588.4	627.7	631.8	648.9	640.8
82.5°	295.2	333.5	345.6	388.9	414.1	410.1	427.2	421.2
85°	156.2	179.4	200.5	213.6	227.7	214.6	229.7	223.7
87.5°	52.4	55.4	48.4	68.5	75.6	64.5	73.6	70.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)