

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: METALUX

Report Number: P236302

Luminaire Tested: **4SWLED-78HL-LC-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236302
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26870)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-78HL-LC-UNV-L840-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 2 ROW LED, CLEAR LENS
Light Source: (224) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

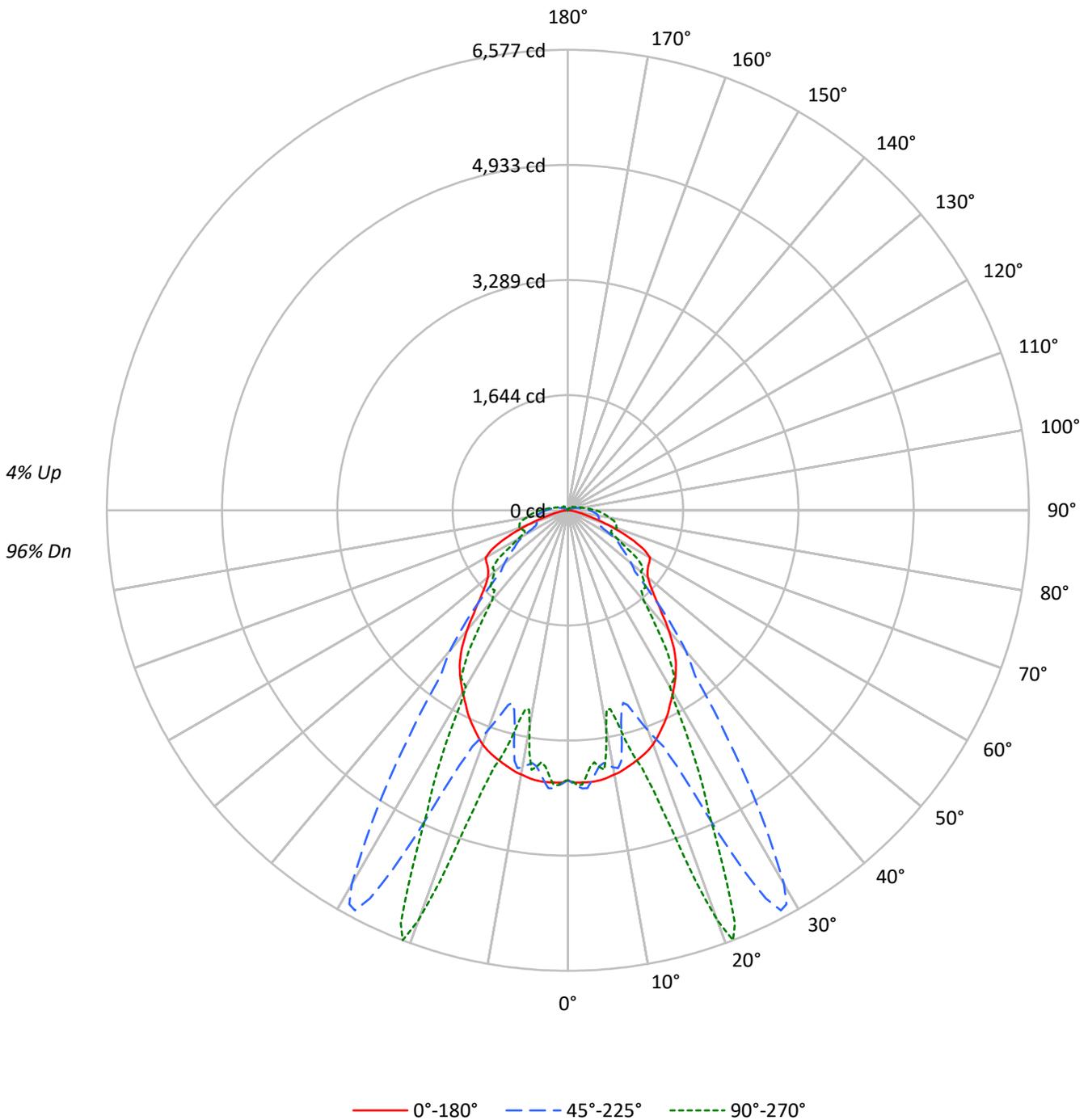
Lumens per Lamp: N/A
Luminaire Lumens: 10505.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.15 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 79.4
Input Voltage (V): 120
Input Current (A_{in}): 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: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96				
1	108	103	99	96	105	101	97	94	96	93	90	91	89	86	87	85	83	81				
2	99	91	85	80	96	89	83	78	85	80	76	81	77	74	78	74	71	69				
3	91	81	74	68	88	79	72	67	76	70	65	73	68	63	70	65	62	59				
4	84	73	65	58	81	71	64	58	68	62	56	65	60	55	63	58	54	52				
5	78	66	57	51	75	64	56	50	62	55	49	59	53	49	57	52	48	46				
6	72	59	51	45	70	58	50	45	56	49	44	54	48	43	52	47	42	40				
7	67	54	46	40	65	53	45	40	51	44	39	49	43	39	48	42	38	36				
8	62	50	41	36	61	49	41	36	47	40	35	46	39	35	44	38	34	32				
9	58	46	38	32	57	45	37	32	43	37	32	42	36	31	41	35	31	29				
10	55	42	35	29	53	41	34	29	40	34	29	39	33	29	38	32	28	27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27658	27658	27658
5°	27947	27253	25587
10°	27735	25794	21389
15°	27339	20300	24395
20°	26806	23080	41669
25°	25700	35407	31840
30°	24375	43507	19689
35°	22982	28665	17033
40°	20328	19548	11878
45°	17208	12897	11440
50°	15914	9725	10381
55°	16602	8153	9802
60°	18265	6920	6993
65°	16356	5131	6354
70°	11570	5396	7504
75°	6655	6017	8028
80°	4198	6656	7704
85°	2272	7117	7576



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.8	3.4
10°-20°	1014.8	9.7
20°-30°	1999.6	19.0
30°-40°	2063.1	19.6
40°-50°	1733.7	16.5
50°-60°	1278.7	12.2
60°-70°	725.0	6.9
70°-80°	520.5	5.0
80°-90°	352.9	3.4
90°-100°	210.8	2.0
100°-110°	110.1	1.0
110°-120°	61.6	0.6
120°-130°	36.1	0.3
130°-140°	25.0	0.2
140°-150°	9.1	0.1
150°-160°	2.6	0.0
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	3375.2	32.1
0°-40°	5438.3	51.8
0°-60°	8450.7	80.4
0°-90°	10049.1	95.7
90°-120°	382.5	3.6
90°-150°	452.7	4.3
90°-180°	456.0	4.3
0°-180°	10505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3854	3854	3854	3854	3854	
5°	3892	3950	3883	3700	3673	370
15°	3716	3556	2953	3324	3626	1047
25°	3301	2946	5099	5725	4751	1515
35°	2690	3314	3961	2685	2474	1664
45°	1758	4426	1653	1493	1566	1384
55°	1396	2483	932	1176	1219	1261
65°	1039	997	497	609	686	1006
75°	273	402	461	662	710	325
85°	39	168	384	470	501	50
90°	3	123	305	377	389	3
95°	1	98	239	277	290	1
105°	1	51	125	149	159	1
115°	3	24	69	98	110	2
125°	3	10	40	64	78	2
135°	3	5	30	61	76	2
145°	3	3	12	22	29	2
155°	4	4	5	6	9	2
165°	4	4	4	1	3	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3
1°	3886.9	3884.3	3868.6	3860.8	3859.5	3856.9	3858.2	3860.8	3867.3	3867.3	3897.3
2°	3890.8	3889.5	3879.1	3873.8	3873.8	3873.8	3876.4	3884.3	3889.5	3890.8	3936.5
3°	3892.1	3893.4	3886.9	3883.0	3892.1	3892.1	3896.0	3906.5	3924.7	3931.2	3978.2
4°	3894.7	3899.9	3896.0	3894.7	3913.0	3926.0	3933.9	3948.2	3959.9	3961.3	3979.5
5°	3892.1	3898.6	3898.6	3914.3	3939.1	3949.5	3956.0	3965.2	3946.9	3897.3	3883.0
6°	3889.5	3899.9	3906.5	3935.2	3957.3	3966.5	3967.8	3927.3	3879.1	3821.6	3774.7
7°	3883.0	3893.4	3914.3	3952.1	3966.5	3965.2	3943.0	3859.5	3774.7	3701.6	3680.7
8°	3867.3	3883.0	3924.7	3956.0	3945.6	3905.1	3863.4	3772.1	3692.5	3640.3	3644.2
9°	3849.0	3866.0	3924.7	3946.9	3896.0	3838.6	3786.4	3672.9	3622.0	3614.2	3684.6
10°	3830.8	3858.2	3926.0	3927.3	3816.4	3757.7	3685.9	3609.0	3607.7	3650.7	3727.7
11°	3815.1	3847.7	3918.2	3888.2	3748.6	3683.3	3610.3	3588.1	3639.0	3687.3	3752.5
12°	3792.9	3837.3	3901.2	3836.0	3661.2	3598.5	3560.7	3602.4	3663.8	3708.1	3658.5
13°	3766.8	3816.4	3868.6	3757.7	3589.4	3546.3	3560.7	3629.8	3669.0	3642.9	3422.4
14°	3739.4	3803.4	3829.5	3688.6	3524.2	3534.6	3580.3	3635.1	3641.6	3415.9	3139.3
15°	3716.0	3786.4	3787.7	3611.6	3502.0	3555.5	3590.7	3616.8	3513.7	3196.7	2952.7
16°	3688.6	3768.1	3742.1	3556.8	3522.9	3572.4	3592.0	3569.8	3271.0	2961.8	2861.3
17°	3661.2	3742.1	3684.6	3508.5	3547.6	3575.0	3573.7	3434.1	3091.0	2857.4	2905.7
18°	3629.8	3709.4	3632.5	3474.6	3558.1	3559.4	3529.4	3274.9	2910.9	2836.5	3041.4
19°	3594.6	3671.6	3576.3	3453.7	3545.0	3516.3	3438.0	3097.5	2841.8	2916.1	3195.4
20°	3556.8	3628.5	3525.5	3456.3	3512.4	3448.5	3329.7	2959.2	2837.9	3044.0	3353.2
21°	3509.8	3577.7	3477.2	3469.4	3452.4	3340.2	3191.4	2878.3	2900.5	3162.7	3496.8
22°	3458.9	3524.2	3439.3	3469.4	3361.1	3235.8	3067.5	2845.7	3007.5	3286.7	3639.0
23°	3404.1	3474.6	3404.1	3452.4	3248.9	3119.7	2967.0	2874.4	3084.5	3408.0	3958.6
24°	3354.5	3418.5	3380.6	3411.9	3148.4	3021.8	2904.4	2937.0	3156.2	3545.0	4404.9
25°	3301.0	3365.0	3359.8	3346.7	3057.1	2946.1	2891.3	2987.9	3251.5	3880.4	5099.0
26°	3242.3	3307.6	3340.2	3251.5	2987.9	2907.0	2909.6	3025.7	3379.3	4301.8	5724.0
27°	3179.7	3254.1	3302.3	3147.1	2939.6	2903.1	2947.5	3053.1	3675.5	4962.0	6222.4
28°	3117.1	3192.7	3248.9	3042.7	2910.9	2929.2	2963.1	3111.9	4053.9	5529.6	6471.6
29°	3057.1	3135.3	3188.8	2961.8	2907.0	2961.8	2960.5	3285.4	4642.3	6018.9	6432.5
30°	3003.6	3077.9	3119.7	2908.3	2927.9	2965.7	2959.2	3572.4	5144.7	6269.4	6162.4
32.5°	2852.2	2910.9	2912.2	2860.0	2961.8	2955.3	3188.8	4721.9	5984.9	6021.5	5082.0
35°	2690.4	2708.7	2734.8	2894.0	2984.0	3314.1	4093.0	5470.9	5932.7	5006.4	3961.3
37.5°	2489.5	2486.9	2663.0	2918.7	3426.3	4189.6	4812.0	5589.6	5080.7	3876.4	2982.7
40°	2236.4	2265.1	2650.0	3016.6	4142.6	4565.4	4875.9	5238.6	3939.1	2987.9	2613.4
42.5°	1978.0	2108.5	2650.0	3417.2	4282.2	4515.8	4831.5	4374.9	3119.7	2548.2	2137.2
45°	1757.5	2026.3	2669.5	3748.6	4145.2	4425.7	4475.3	3492.8	2586.0	1972.8	1653.1
47.5°	1594.4	1949.3	2839.2	3619.4	4001.7	4069.5	3883.0	2914.8	1929.7	1449.6	1295.6
50°	1487.4	1858.0	2912.2	3365.0	3704.2	3619.4	3344.1	2150.2	1332.2	1173.0	1183.4
52.5°	1431.3	1838.4	2712.6	3127.5	3328.4	3145.8	2636.9	1454.8	1073.8	1050.3	1056.9
55°	1396.1	1779.7	2420.3	2802.6	2857.4	2483.0	1946.7	1094.7	918.6	905.5	931.6
57.5°	1379.1	1612.7	2132.0	2376.0	2244.2	1911.5	1478.3	835.0	747.6	773.7	852.0
60°	1353.0	1437.8	1711.8	1868.4	1787.5	1513.5	1120.8	664.1	649.8	698.0	733.3
62.5°	1230.4	1234.3	1197.8	1475.7	1462.6	1227.8	885.9	568.9	544.1	558.4	566.3
65°	1038.6	957.7	828.5	1213.4	1206.9	996.8	705.9	451.4	439.7	472.3	497.1



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
67.5°	824.6	690.2	621.1	970.7	959.0	789.4	565.0	388.8	411.0	444.9	481.5
70°	606.7	507.6	489.3	764.6	755.5	632.8	473.6	360.1	396.6	431.9	469.7
72.5°	413.6	375.8	384.9	576.7	591.1	506.2	401.9	341.8	374.5	414.9	472.3
75°	272.7	275.3	296.2	424.0	452.8	401.9	339.2	318.4	353.6	401.9	460.6
77.5°	186.6	195.7	220.5	304.0	337.9	313.1	288.4	293.6	331.4	387.5	448.8
80°	122.6	131.8	157.9	215.3	250.5	249.2	247.9	272.7	315.8	375.8	435.8
82.5°	74.4	83.5	108.3	152.7	189.2	200.9	216.6	253.1	305.3	371.9	420.1
85°	39.1	48.3	71.8	109.6	147.4	168.3	190.5	237.5	300.1	357.5	383.6
87.5°	15.7	24.8	47.0	79.6	120.0	143.5	169.6	225.7	291.0	328.8	343.2
90°	2.6	11.7	30.0	60.0	99.2	122.6	151.4	216.6	270.1	287.0	305.3
92.5°	1.3	6.5	20.9	45.7	83.5	108.3	138.3	200.9	236.2	253.1	270.1
95°	1.3	3.9	15.7	36.5	71.8	97.9	126.6	176.1	202.2	219.2	238.8
97.5°	1.3	3.9	11.7	30.0	65.2	88.7	113.5	148.7	170.9	190.5	207.5
100°	1.3	2.6	10.4	26.1	57.4	75.7	93.9	121.3	140.9	161.8	177.4
102.5°	1.3	2.6	9.1	23.5	49.6	63.9	77.0	97.9	118.7	135.7	151.4
105°	1.3	2.6	7.8	20.9	40.4	50.9	61.3	80.9	99.2	114.8	125.3
107.5°	1.3	2.6	6.5	17.0	32.6	41.8	50.9	67.8	83.5	95.2	105.7
110°	1.3	1.3	5.2	14.4	27.4	35.2	41.8	56.1	69.2	80.9	90.0
112.5°	2.6	2.6	5.2	11.7	22.2	28.7	35.2	47.0	58.7	69.2	78.3
115°	2.6	2.6	3.9	9.1	18.3	23.5	28.7	39.1	49.6	60.0	69.2
117.5°	2.6	2.6	3.9	7.8	14.4	19.6	23.5	32.6	41.8	52.2	61.3
120°	2.6	2.6	2.6	6.5	13.0	15.7	19.6	27.4	36.5	45.7	53.5
122.5°	2.6	2.6	2.6	5.2	10.4	13.0	15.7	23.5	31.3	39.1	47.0
125°	2.6	2.6	2.6	3.9	7.8	10.4	13.0	19.6	26.1	33.9	40.4
127.5°	2.6	2.6	2.6	3.9	6.5	9.1	10.4	15.7	22.2	27.4	35.2
130°	2.6	2.6	2.6	2.6	5.2	6.5	9.1	13.0	18.3	24.8	31.3
132.5°	2.6	2.6	2.6	2.6	5.2	6.5	7.8	11.7	18.3	23.5	30.0
135°	2.6	2.6	2.6	2.6	3.9	5.2	7.8	11.7	17.0	23.5	30.0
137.5°	2.6	2.6	2.6	2.6	3.9	5.2	6.5	10.4	15.7	22.2	27.4
140°	2.6	2.6	2.6	2.6	2.6	3.9	5.2	9.1	13.0	17.0	22.2
142.5°	2.6	2.6	2.6	2.6	2.6	2.6	3.9	6.5	9.1	13.0	17.0
145°	2.6	2.6	2.6	2.6	2.6	2.6	3.9	5.2	6.5	9.1	11.7
147.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	5.2	6.5	9.1
150°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	3.9	5.2	6.5
152.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.2	5.2
155°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.2
157.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
160°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
162.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
165°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3	3854.3
1°	3907.8	3902.5	3898.6	3893.4	3888.2	3886.9	3884.3	3883.0	3872.5	3873.8
2°	3945.6	3949.5	3946.9	3941.7	3945.6	3940.4	3937.8	3932.5	3928.6	3929.9
3°	3991.3	3990.0	3978.2	3963.9	3954.7	3954.7	3935.2	3927.3	3903.8	3924.7
4°	3950.8	3923.4	3879.1	3858.2	3838.6	3836.0	3812.5	3790.3	3778.6	3799.5
5°	3841.2	3800.8	3744.7	3722.5	3700.3	3702.9	3683.3	3669.0	3659.9	3672.9
6°	3731.6	3695.1	3655.9	3632.5	3623.3	3616.8	3614.2	3618.1	3620.7	3619.4
7°	3654.6	3646.8	3642.9	3653.3	3662.5	3662.5	3678.1	3691.2	3695.1	3692.5
8°	3669.0	3695.1	3712.0	3718.6	3719.9	3722.5	3747.3	3747.3	3739.4	3742.1
9°	3727.7	3746.0	3764.2	3740.7	3695.1	3685.9	3599.8	3548.9	3477.2	3498.1
10°	3773.4	3739.4	3598.5	3482.4	3404.1	3378.0	3247.5	3190.1	3115.8	3136.6
11°	3695.1	3512.4	3299.7	3154.9	3080.5	3037.5	2952.7	2917.4	2903.1	2899.2
12°	3404.1	3191.4	3000.9	2917.4	2883.5	2870.5	2861.3	2871.8	2895.3	2901.8
13°	3139.3	2963.1	2875.7	2882.2	2899.2	2920.1	2993.1	3036.2	3077.9	3079.2
14°	2925.3	2871.8	2942.2	3031.0	3081.8	3114.5	3216.2	3286.7	3363.7	3378.0
15°	2869.2	2957.9	3124.9	3260.6	3324.5	3393.7	3528.1	3585.5	3628.5	3625.9
16°	2965.7	3118.4	3350.6	3509.8	3575.0	3620.7	3706.8	3759.0	3809.9	3817.7
17°	3127.5	3361.1	3575.0	3697.7	3744.7	3796.9	3956.0	4065.6	4158.3	4188.3
18°	3297.1	3542.4	3712.0	3910.4	4034.3	4136.1	4357.9	4560.1	4754.5	4791.1
19°	3486.3	3700.3	3983.4	4324.0	4476.6	4705.0	5100.3	5346.9	5543.9	5607.9
20°	3610.3	3948.2	4387.9	5028.5	5243.8	5497.0	5875.3	6063.2	6198.9	6228.9
21°	3828.2	4382.7	5138.1	5771.0	5988.9	6129.8	6380.3	6499.0	6532.9	6577.3
22°	4189.6	5071.6	5847.9	6308.5	6454.6	6535.5	6562.9	6474.2	6394.6	6363.3
23°	4852.4	5750.1	6317.6	6573.4	6559.0	6459.9	6236.8	6026.7	5889.7	5832.3
24°	5572.6	6272.0	6552.5	6335.9	6212.0	6000.6	5716.2	5504.8	5358.7	5288.2
25°	6081.5	6530.3	6292.9	5883.2	5725.3	5506.1	5161.6	4959.4	4815.9	4750.6
26°	6462.5	6405.1	5854.5	5384.7	5199.5	4988.1	4685.4	4571.9	4466.2	4403.6
27°	6497.7	6031.9	5388.7	4870.7	4705.0	4554.9	4327.9	4164.8	4053.9	3995.2
28°	6214.6	5596.1	4892.9	4477.9	4343.5	4160.9	3903.8	3743.4	3665.1	3576.3
29°	5853.2	5096.4	4480.5	4048.7	3902.5	3718.6	3462.8	3251.5	3200.6	3145.8
30°	5367.8	4641.0	4070.9	3589.4	3449.8	3251.5	3055.7	2986.6	2952.7	2909.6
32.5°	4226.1	3496.8	3021.8	2839.2	2797.4	2779.1	2850.9	2862.6	2860.0	2836.5
35°	3162.7	2764.8	2747.8	2720.4	2685.2	2651.3	2584.7	2546.9	2514.3	2473.8
37.5°	2700.9	2589.9	2434.7	2300.3	2240.3	2194.6	2125.5	2087.6	2056.3	2032.8
40°	2366.8	2138.5	1983.2	1889.3	1856.7	1803.2	1760.1	1736.6	1713.2	1681.8
42.5°	1910.2	1706.6	1584.0	1517.4	1497.9	1477.0	1494.0	1521.4	1534.4	1548.8
45°	1470.5	1377.8	1406.5	1467.9	1492.6	1518.7	1556.6	1564.4	1567.0	1565.7
47.5°	1281.3	1347.8	1381.7	1401.3	1397.4	1407.8	1439.2	1460.0	1473.1	1461.3
50°	1217.3	1226.5	1273.4	1321.7	1329.6	1316.5	1323.0	1340.0	1358.3	1360.9
52.5°	1101.2	1140.4	1176.9	1209.5	1238.2	1266.9	1313.9	1337.4	1351.7	1351.7
55°	989.0	1060.8	1111.7	1157.3	1175.6	1183.4	1206.9	1216.0	1225.2	1218.6
57.5°	918.6	952.5	986.4	979.9	965.5	944.6	957.7	973.4	979.9	976.0
60°	742.4	743.7	747.6	758.1	775.0	790.7	806.3	810.3	816.8	815.5
62.5°	587.1	600.2	621.1	655.0	664.1	664.1	679.8	691.5	695.4	690.2
65°	527.1	553.2	589.8	609.3	609.3	613.2	641.9	675.9	688.9	686.3



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
67.5°	515.4	561.0	579.3	606.7	627.6	648.5	677.2	696.7	708.5	712.4
70°	523.2	557.1	593.7	631.5	648.5	666.7	700.7	728.1	738.5	739.8
72.5°	521.9	566.3	602.8	648.5	668.0	685.0	709.8	720.2	724.1	724.1
75°	518.0	562.4	613.2	645.9	661.5	678.5	692.8	700.7	707.2	709.8
77.5°	501.0	549.3	574.1	604.1	614.5	622.4	640.6	653.7	662.8	664.1
80°	480.2	502.3	520.6	545.4	553.2	565.0	583.2	591.1	597.6	597.6
82.5°	439.7	455.4	474.9	501.0	515.4	527.1	541.5	546.7	550.6	551.9
85°	396.6	412.3	437.1	459.3	469.7	480.2	493.2	501.0	503.6	501.0
87.5°	357.5	379.7	403.2	420.1	424.0	429.3	439.7	446.2	448.8	451.4
90°	322.3	344.5	362.7	377.1	377.1	382.3	387.5	388.8	386.2	388.8
92.5°	291.0	305.3	315.8	322.3	322.3	326.2	332.7	335.3	334.0	335.3
95°	253.1	263.6	268.8	272.7	276.6	281.8	287.0	288.4	288.4	289.7
97.5°	219.2	227.0	232.2	236.2	237.5	241.4	241.4	242.7	242.7	244.0
100°	189.2	197.0	198.3	197.0	198.3	199.6	200.9	203.5	204.8	206.2
102.5°	160.5	167.0	169.6	170.9	172.2	174.8	177.4	178.8	181.4	181.4
105°	133.1	140.9	146.1	148.7	148.7	151.4	154.0	156.6	157.9	159.2
107.5°	113.5	121.3	127.9	130.5	133.1	134.4	137.0	139.6	140.9	142.2
110°	97.9	105.7	113.5	118.7	120.0	122.6	125.3	127.9	129.2	130.5
112.5°	87.4	93.9	100.5	105.7	108.3	110.9	113.5	116.1	118.7	118.7
115°	77.0	84.8	90.0	95.2	97.9	99.2	103.1	107.0	108.3	109.6
117.5°	69.2	75.7	80.9	86.1	88.7	91.3	93.9	96.6	99.2	99.2
120°	61.3	67.8	73.1	77.0	79.6	80.9	84.8	87.4	88.7	90.0
122.5°	53.5	60.0	63.9	69.2	70.5	73.1	77.0	79.6	80.9	82.2
125°	47.0	52.2	57.4	62.6	63.9	66.5	71.8	74.4	77.0	78.3
127.5°	41.8	47.0	53.5	58.7	61.3	65.2	70.5	74.4	77.0	78.3
130°	37.8	45.7	52.2	58.7	62.6	65.2	71.8	77.0	79.6	79.6
132.5°	37.8	45.7	53.5	60.0	63.9	66.5	73.1	78.3	80.9	82.2
135°	36.5	43.1	50.9	57.4	61.3	63.9	69.2	73.1	75.7	75.7
137.5°	32.6	37.8	43.1	48.3	52.2	54.8	58.7	61.3	63.9	63.9
140°	26.1	30.0	33.9	37.8	40.4	43.1	47.0	48.3	50.9	50.9
142.5°	19.6	22.2	26.1	28.7	30.0	32.6	35.2	37.8	39.1	39.1
145°	14.4	17.0	18.3	20.9	22.2	23.5	26.1	27.4	28.7	28.7
147.5°	10.4	11.7	13.0	15.7	15.7	17.0	19.6	20.9	20.9	20.9
150°	7.8	9.1	10.4	10.4	11.7	11.7	14.4	15.7	15.7	15.7
152.5°	6.5	6.5	7.8	7.8	9.1	9.1	10.4	11.7	11.7	11.7
155°	5.2	5.2	5.2	5.2	6.5	6.5	7.8	7.8	9.1	9.1
157.5°	3.9	3.9	3.9	3.9	3.9	3.9	5.2	5.2	6.5	6.5
160°	3.9	3.9	2.6	2.6	2.6	2.6	3.9	3.9	3.9	3.9
162.5°	3.9	2.6	2.6	2.6	1.3	2.6	2.6	2.6	2.6	2.6
165°	2.6	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P236302

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)