

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: INVUE

Report Number: P140771

Luminaire Tested: **ECM-E04-LED-E1-RW-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140771
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33689)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E04-LED-E1-RW-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12138.1 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

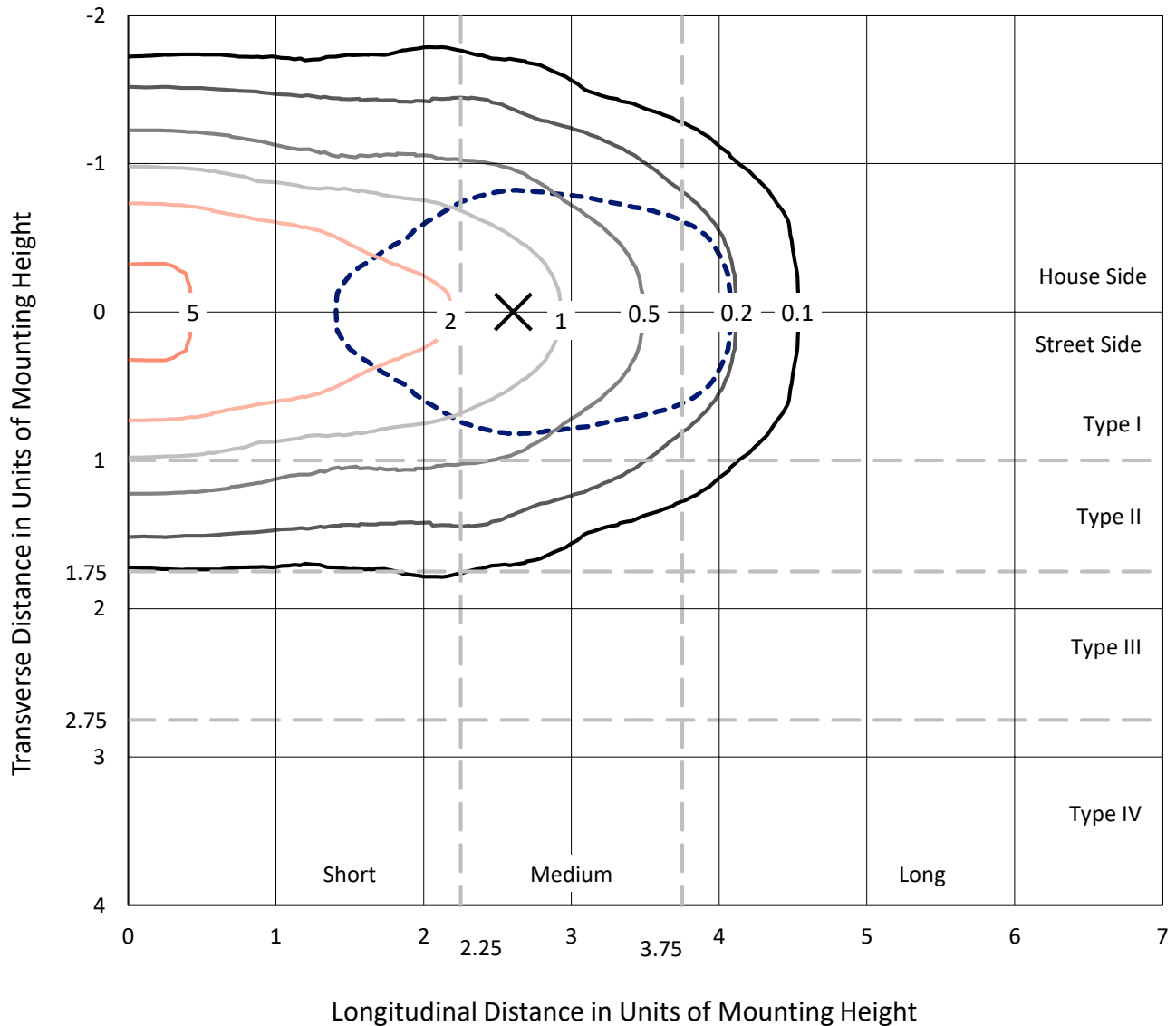
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P140771
 CATALOG NUMBER: ECM-E04-LED-E1-RW-7050

Iso-Footcandle Lines of Horizontal Illumination

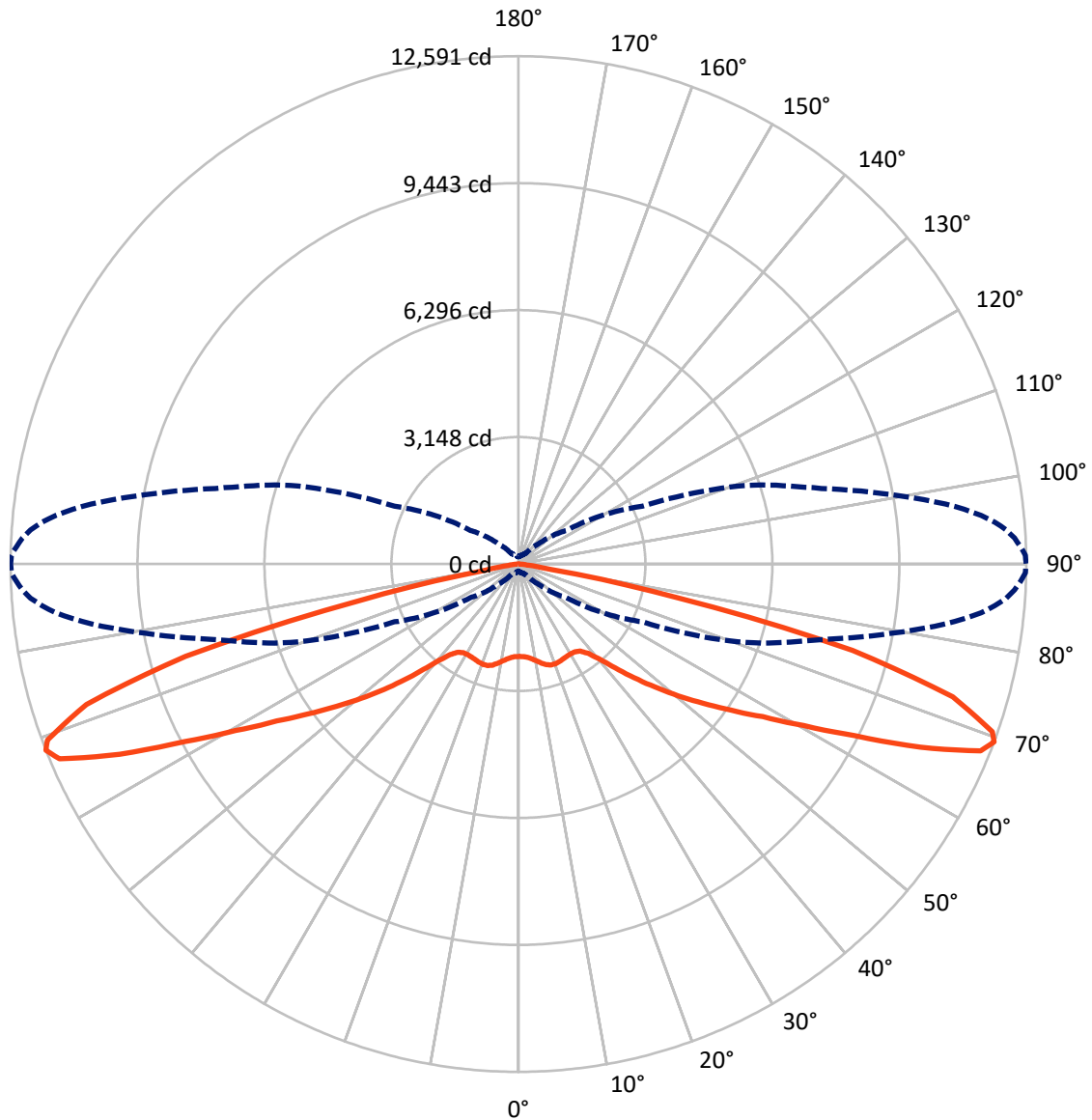
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.9 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P140771
CATALOG NUMBER: ECM-E04-LED-E1-RW-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6069.0	0.0	6069.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6069.0	0.0	6069.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	12138.1	0.0	12138.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.4	1.8
10°-20°	705.4	5.8
20°-30°	1140.7	9.4
30°-40°	1424.8	11.7
40°-50°	1782.2	14.7
50°-60°	2196.0	18.1
60°-70°	2718.7	22.4
70°-80°	1777.0	14.6
80°-90°	168.9	1.4
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°-90°	12138.1	100.0
0°-180°	12138.1	100.0



REPORT NUMBER: P140771

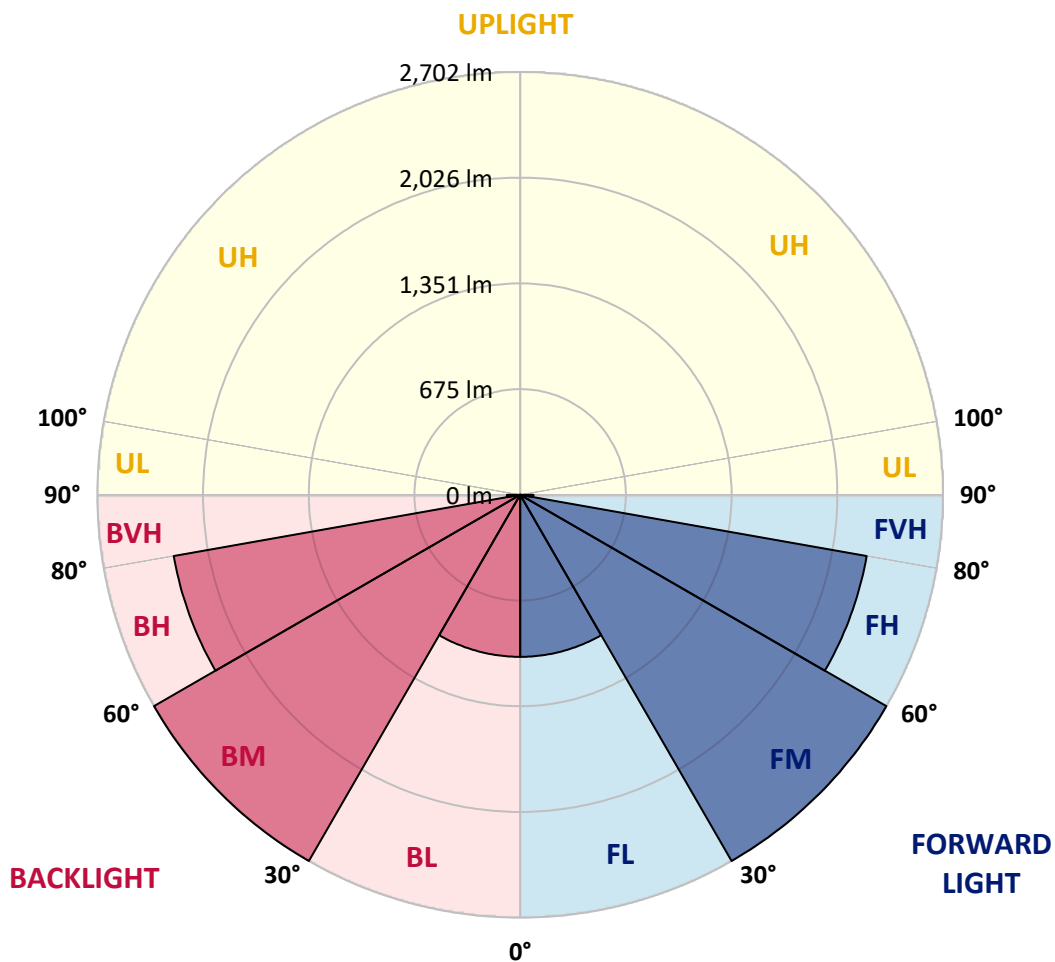
CATALOG NUMBER: ECM-E04-LED-E1-RW-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1035.2	8.5			
FM	(30°-60°)	2701.5	22.3			
FH	(60°-80°)	2247.9	18.5			G2/5000
FVH	(80°-90°)	84.4	0.7			G1/100
BL	(0°-30°)	1035.2	8.5	B3/2500		
BM	(30°-60°)	2701.5	22.3	B3/5000		
BH	(60°-80°)	2247.9	18.5	B3/2500		G3/2500
BVH	(80°-90°)	84.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Short





REPORT NUMBER: P140771

CATALOG NUMBER: ECM-E04-LED-E1-RW-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6
2.5°	2306.7	2308.0	2303.9	2305.3	2306.6	2305.3	2303.2	2303.2	2302.6	2301.9	2301.2
5°	2321.7	2322.4	2320.4	2323.8	2324.5	2326.5	2326.5	2327.2	2326.8	2326.4	2326.0
7.5°	2343.0	2345.7	2343.6	2348.4	2353.2	2360.0	2363.4	2371.6	2371.5	2371.4	2371.3
10°	2362.8	2365.5	2365.5	2376.4	2388.1	2401.1	2414.8	2427.8	2428.6	2429.4	2430.2
12.5°	2377.8	2379.8	2383.3	2403.2	2429.1	2451.0	2475.0	2495.5	2496.3	2497.1	2498.0
15°	2371.6	2376.4	2392.2	2423.6	2469.5	2505.8	2535.2	2559.8	2561.4	2563.1	2564.7
17.5°	2350.5	2358.0	2380.6	2434.0	2504.4	2562.6	2597.4	2604.2	2605.4	2606.4	2607.6
20°	2304.6	2315.6	2351.2	2427.0	2531.0	2609.8	2644.6	2632.3	2631.2	2630.1	2629.0
22.5°	2228.0	2242.4	2286.9	2395.0	2533.1	2643.9	2678.2	2644.0	2640.1	2636.3	2632.4
25°	2125.4	2137.0	2187.6	2315.6	2501.6	2650.1	2699.4	2651.4	2645.3	2639.1	2633.0
27.5°	2000.9	2010.5	2073.4	2209.6	2423.6	2618.6	2713.0	2664.4	2656.5	2648.6	2640.6
30°	1860.7	1868.9	1938.0	2083.0	2314.2	2549.5	2711.6	2693.8	2684.4	2675.0	2665.6
32.5°	1721.2	1724.6	1786.1	1945.5	2192.4	2447.6	2689.1	2739.0	2729.8	2720.7	2711.5
35°	1567.9	1578.8	1644.5	1818.2	2055.0	2335.4	2659.0	2802.0	2796.8	2791.6	2786.4
37.5°	1444.8	1448.2	1518.6	1699.2	1943.4	2233.4	2620.6	2882.7	2886.4	2890.1	2893.8
40°	1321.6	1321.6	1391.4	1578.8	1831.9	2141.8	2588.6	2981.9	3000.6	3019.4	3038.1
42.5°	1186.9	1196.4	1264.8	1451.6	1723.8	2063.9	2572.1	3100.9	3136.2	3171.5	3206.8
45°	1061.0	1067.2	1137.0	1319.6	1589.1	1974.9	2567.3	3233.6	3287.2	3340.9	3394.5
47.5°	937.2	946.0	1012.4	1180.0	1442.0	1856.6	2561.2	3384.8	3453.3	3521.8	3590.4
50°	822.2	827.8	901.6	1054.2	1297.0	1703.4	2520.8	3553.8	3637.5	3721.2	3804.9
52.5°	700.5	711.4	772.3	929.6	1150.6	1538.5	2414.8	3737.8	3839.0	3940.2	4041.5
55°	573.2	570.5	643.7	791.4	1022.7	1380.4	2219.1	3897.2	4019.3	4141.5	4263.7
57.5°	420.0	428.9	496.0	645.8	874.2	1247.8	1988.6	3980.0	4132.4	4284.8	4437.2
60°	301.0	313.3	371.4	489.8	726.4	1117.8	1753.2	3922.4	4124.4	4326.3	4528.3
62.5°	235.3	240.8	290.8	367.4	566.4	981.6	1595.2	3773.4	4051.8	4330.2	4608.6
65°	205.2	211.4	255.8	295.6	430.3	852.4	1500.2	3654.3	4021.8	4389.3	4756.8
67.5°	186.8	194.2	232.6	260.0	353.0	742.2	1477.6	3557.2	3988.3	4419.4	4850.5
69°	177.8	185.4	221.0	246.2	327.6	707.3	1451.6	3393.7	3831.2	4268.8	4706.3
70°	173.8	179.9	214.2	238.0	319.5	686.8	1392.8	3207.0	3629.8	4052.7	4475.6
72.5°	160.1	163.5	195.0	218.2	302.4	574.7	1103.4	2400.4	2753.8	3107.2	3460.6
75°	141.6	147.1	175.8	199.8	242.8	368.0	723.8	1450.9	1712.6	1974.4	2236.1
77.5°	121.8	126.6	151.1	190.8	186.8	223.0	415.9	810.6	952.1	1093.6	1235.0
80°	105.4	110.2	132.7	177.2	151.8	164.8	280.5	528.8	582.6	636.3	690.1
82.5°	82.8	86.2	111.5	144.3	117.6	122.4	210.0	461.8	494.2	526.6	559.0
85°	52.7	54.8	81.4	98.5	82.1	72.5	132.0	338.6	364.2	389.8	415.3
87.5°	18.5	26.0	36.2	34.2	34.2	26.0	46.5	125.2	135.2	145.2	155.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P140771

CATALOG NUMBER: ECM-E04-LED-E1-RW-7050

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6
2.5°	2300.5	2299.9	2300.6	2300.6	2299.9	2299.2	2299.2	2298.5	2297.1	2297.1	2296.4
5°	2325.6	2325.2	2326.5	2325.8	2326.6	2325.8	2325.8	2325.2	2325.9	2323.1	2322.4
7.5°	2371.1	2371.0	2371.0	2373.0	2371.7	2371.0	2372.4	2372.4	2372.4	2371.0	2371.0
10°	2431.1	2431.9	2433.2	2434.6	2434.6	2434.6	2437.4	2435.2	2439.4	2435.2	2437.4
12.5°	2498.8	2499.6	2503.0	2504.4	2505.8	2505.8	2505.8	2509.9	2512.6	2511.9	2512.6
15°	2566.4	2568.0	2568.7	2570.8	2570.8	2571.4	2574.1	2579.0	2577.6	2580.4	2580.3
17.5°	2608.6	2609.8	2609.0	2609.0	2610.4	2612.5	2615.2	2617.9	2617.2	2619.3	2620.6
20°	2627.9	2626.8	2624.8	2623.4	2622.8	2624.1	2624.1	2624.8	2626.2	2626.1	2626.1
22.5°	2628.6	2624.8	2620.0	2617.2	2613.9	2611.8	2613.1	2611.8	2611.8	2611.8	2610.4
25°	2626.8	2620.6	2613.1	2607.6	2602.2	2598.8	2595.4	2594.0	2591.2	2591.2	2591.2
27.5°	2632.7	2624.8	2617.2	2607.0	2599.4	2595.4	2590.6	2585.8	2583.0	2580.4	2580.3
30°	2656.1	2646.7	2637.1	2624.8	2614.5	2611.1	2602.2	2597.4	2590.6	2587.1	2585.8
32.5°	2702.4	2693.2	2680.1	2666.5	2658.3	2648.0	2640.5	2630.2	2622.8	2618.0	2611.8
35°	2781.2	2776.0	2765.0	2756.1	2743.8	2732.1	2717.2	2711.6	2696.0	2693.2	2685.6
37.5°	2897.5	2901.1	2899.1	2892.2	2884.0	2873.8	2867.6	2856.0	2849.9	2843.7	2836.8
40°	3056.9	3075.6	3081.8	3089.3	3091.4	3100.2	3090.0	3088.6	3080.4	3087.2	3083.1
42.5°	3242.1	3277.4	3296.6	3319.1	3343.8	3366.4	3384.1	3414.2	3410.8	3434.0	3450.4
45°	3448.1	3501.8	3551.0	3588.6	3635.8	3687.8	3733.6	3776.0	3824.0	3851.3	3891.6
47.5°	3659.0	3727.5	3798.0	3867.8	3934.8	4001.8	4083.9	4158.5	4231.0	4280.2	4342.5
50°	3888.7	3972.4	4057.2	4142.7	4237.8	4343.2	4434.8	4532.0	4631.8	4733.0	4804.2
52.5°	4142.8	4244.0	4336.4	4426.6	4544.3	4655.8	4774.8	4896.6	5047.8	5157.9	5255.7
55°	4385.9	4508.0	4609.2	4717.4	4840.5	4964.3	5110.0	5262.6	5422.6	5581.4	5725.0
57.5°	4589.6	4742.0	4862.4	4969.8	5101.8	5244.8	5401.4	5590.2	5772.9	5969.9	6155.3
60°	4730.2	4932.2	5077.2	5206.5	5359.6	5518.4	5723.0	5946.0	6186.0	6431.0	6669.0
62.5°	4887.0	5165.4	5363.8	5548.5	5729.8	5906.2	6136.8	6413.8	6739.4	7035.6	7351.0
65°	5124.3	5491.8	5784.5	6019.8	6277.0	6534.2	6803.0	7126.6	7496.8	7929.0	8296.4
67.5°	5281.6	5712.7	6084.8	6422.0	6722.4	7035.0	7374.3	7761.4	8208.2	8649.4	9106.4
69°	5143.8	5581.4	5974.7	6346.1	6675.2	7011.8	7356.4	7746.4	8202.6	8690.4	9172.7
70°	4898.5	5321.4	5727.7	6119.0	6440.5	6792.2	7131.4	7502.9	7965.3	8453.0	8977.8
72.5°	3814.0	4167.4	4584.6	4962.2	5346.0	5666.8	5973.3	6346.2	6812.6	7277.2	7788.2
75°	2497.8	2759.6	3141.2	3451.8	3783.6	4084.6	4306.9	4677.0	4960.2	5397.3	5872.1
77.5°	1376.5	1518.0	1716.4	1969.4	2112.4	2282.0	2504.4	2639.1	2840.2	3146.0	3288.4
80°	743.9	797.6	881.1	933.8	976.2	934.4	911.9	952.2	935.1	930.3	884.5
82.5°	591.4	623.8	667.0	697.8	677.9	588.3	493.2	424.2	379.7	319.4	273.6
85°	440.9	466.5	483.0	503.5	500.1	452.2	361.8	279.8	219.6	175.1	152.6
87.5°	165.1	175.1	179.9	218.9	201.2	190.9	148.4	108.1	82.8	60.2	48.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P140771

CATALOG NUMBER: ECM-E04-LED-E1-RW-7050

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6	2291.6
2.5°	2297.8	2297.1	2297.1	2297.1	2297.8	2296.4	2295.0	2296.4	2295.8	2295.7	2295.7
5°	2325.2	2324.4	2324.5	2325.1	2324.5	2325.2	2324.5	2321.8	2323.1	2323.8	2324.5
7.5°	2372.4	2371.7	2371.6	2375.1	2374.4	2373.8	2373.0	2374.4	2372.4	2372.4	2373.7
10°	2437.4	2440.0	2439.4	2441.4	2440.8	2439.4	2438.0	2439.4	2441.4	2442.2	2439.4
12.5°	2516.7	2517.4	2516.0	2519.4	2517.4	2522.1	2516.7	2519.4	2522.1	2518.0	2520.1
15°	2581.0	2581.0	2583.8	2584.4	2583.7	2585.1	2589.2	2587.1	2585.1	2588.6	2589.9
17.5°	2620.0	2622.0	2622.8	2623.4	2624.8	2626.2	2626.8	2626.1	2626.8	2628.2	2630.9
20°	2628.9	2628.2	2629.6	2630.2	2632.3	2632.3	2633.6	2633.0	2635.0	2635.8	2636.4
22.5°	2613.1	2613.8	2614.5	2616.6	2615.8	2617.2	2618.0	2620.0	2619.3	2620.7	2621.4
25°	2592.0	2593.3	2594.0	2593.3	2593.3	2594.0	2594.7	2594.0	2596.7	2598.1	2598.1
27.5°	2578.2	2578.2	2580.4	2579.6	2578.2	2579.6	2579.0	2579.0	2579.0	2579.6	2581.7
30°	2583.8	2581.6	2580.3	2580.3	2579.6	2578.3	2576.9	2574.8	2574.9	2575.5	2574.8
32.5°	2613.1	2609.0	2607.0	2605.0	2603.6	2600.2	2596.0	2594.7	2591.2	2591.2	2589.9
35°	2688.4	2683.6	2683.6	2676.1	2672.0	2669.9	2666.6	2656.2	2657.0	2652.8	2651.5
37.5°	2838.2	2830.0	2826.6	2833.4	2820.4	2825.9	2814.2	2809.5	2812.2	2804.7	2808.8
40°	3090.0	3103.0	3097.5	3105.0	3108.5	3109.8	3109.8	3098.2	3109.8	3091.3	3097.5
42.5°	3453.2	3487.4	3499.7	3503.8	3525.0	3519.6	3513.4	3512.7	3512.0	3520.9	3516.1
45°	3910.2	3915.0	3973.1	3984.0	3995.6	4008.6	4005.2	4020.3	4031.2	4016.2	4018.2
47.5°	4377.4	4426.0	4468.4	4491.6	4516.9	4504.0	4514.2	4520.4	4559.3	4555.2	4551.8
50°	4891.8	4973.2	4995.8	5021.0	5040.9	5080.5	5077.2	5101.2	5097.0	5129.2	5133.3
52.5°	5379.6	5469.2	5560.1	5599.8	5629.9	5675.7	5693.5	5719.5	5709.9	5707.2	5731.1
55°	5864.6	6014.4	6118.3	6220.2	6277.0	6337.9	6363.9	6400.8	6417.2	6424.8	6394.7
57.5°	6345.4	6525.3	6701.2	6827.0	6914.6	7006.2	7054.8	7095.2	7142.4	7158.1	7143.1
60°	6907.7	7171.1	7401.6	7570.0	7731.4	7831.2	7935.9	8012.5	8026.8	8091.9	8133.6
62.5°	7656.8	7977.6	8269.7	8514.6	8765.0	8951.7	9140.6	9215.8	9290.4	9341.0	9371.8
65°	8678.1	9100.8	9504.4	9852.6	10159.8	10470.4	10690.6	10806.3	10954.7	10984.1	10952.0
67.5°	9573.6	10072.2	10573.7	11016.9	11348.8	11670.9	11932.2	12123.8	12262.6	12331.0	12359.8
69°	9672.1	10179.0	10691.4	11133.2	11534.8	11856.3	12123.8	12314.0	12452.2	12570.4	12591.0
70°	9470.2	10039.4	10537.4	10983.4	11397.3	11724.9	11964.4	12181.9	12339.2	12430.2	12462.4
72.5°	8313.5	8825.2	9328.0	9841.7	10196.8	10590.1	10787.1	10961.6	11170.9	11289.9	11263.9
75°	6300.2	6742.8	7181.4	7565.8	7839.4	7984.5	8215.0	8384.0	8353.2	8553.6	8559.1
77.5°	3553.8	3611.2	3908.8	3869.1	4000.4	4003.9	4038.1	4097.6	3983.4	4218.0	4049.7
80°	861.9	850.3	911.9	839.4	833.2	827.0	806.5	846.8	852.4	810.6	818.1
82.5°	253.1	242.2	237.4	231.2	241.5	238.0	240.2	241.5	248.4	239.4	249.0
85°	138.8	130.6	130.0	126.6	125.8	118.4	117.6	117.7	112.9	114.2	113.6
87.5°	53.4	50.0	47.2	45.2	44.5	42.4	40.4	36.9	32.8	29.4	27.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)