

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: STREETWORKS

Report Number: P158000

Luminaire Tested: **VST-E04-LED-E-U-RW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158000
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E04-LED-E-U-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12461.7 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

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: 28.75 FT

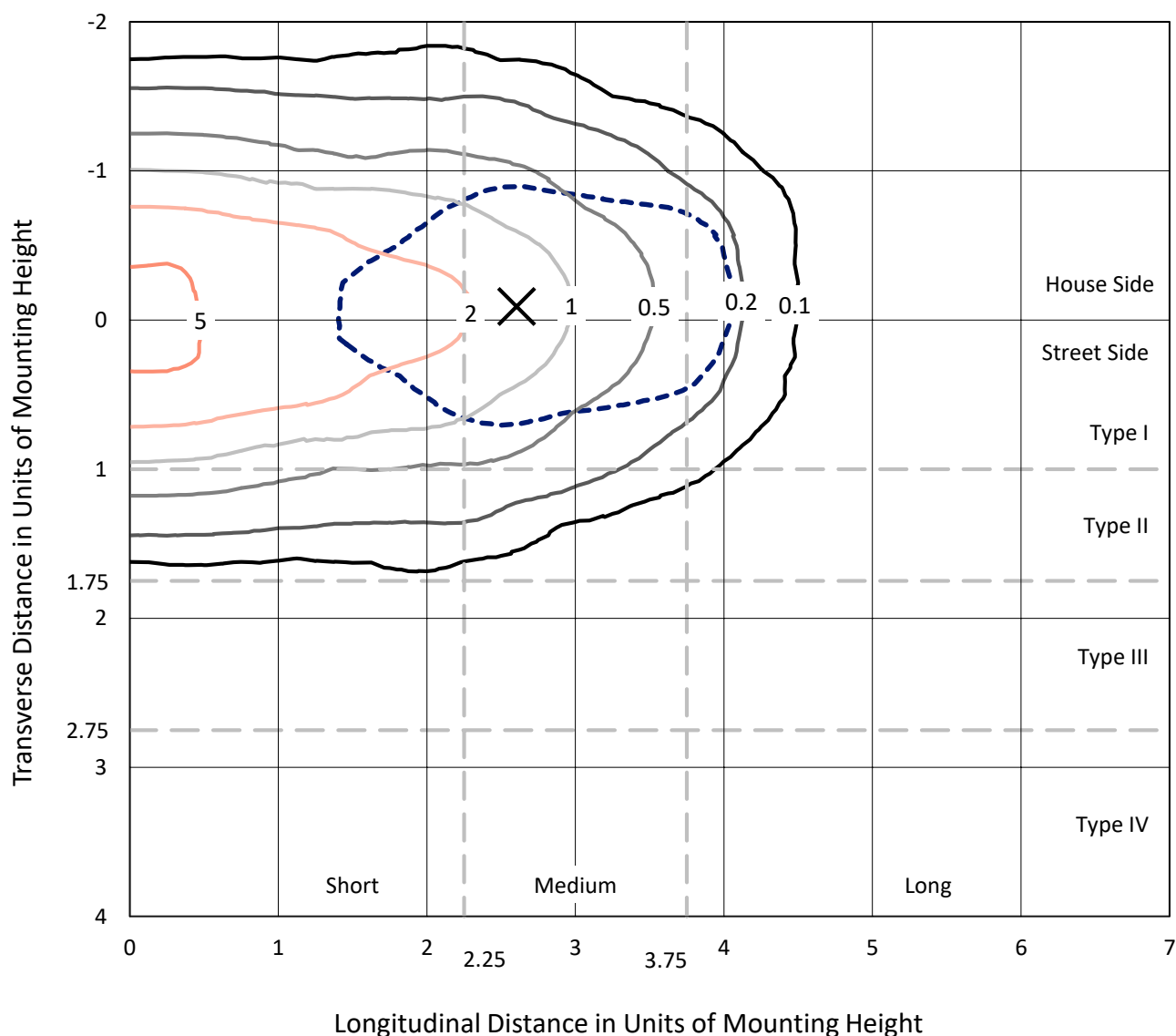


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

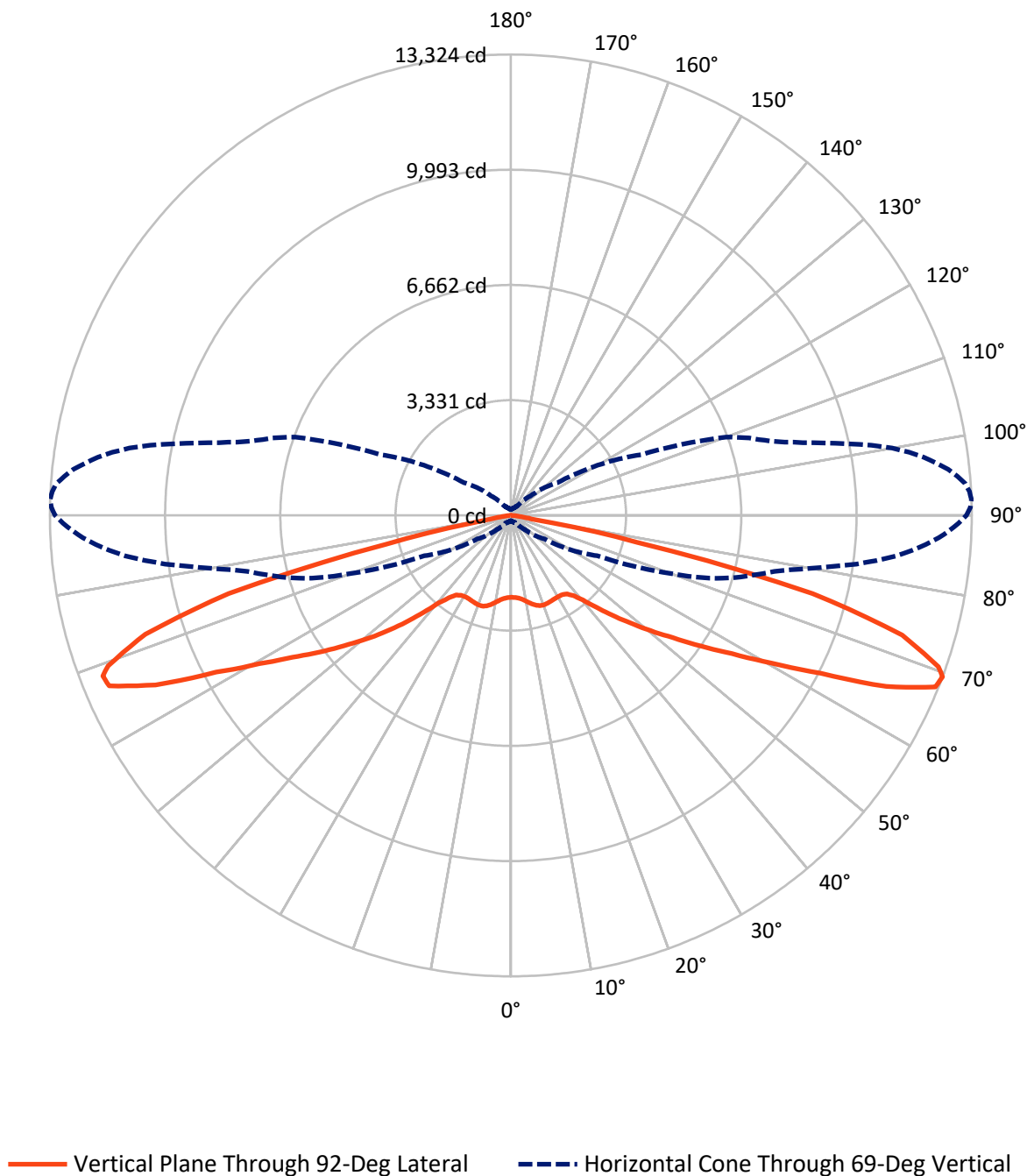


Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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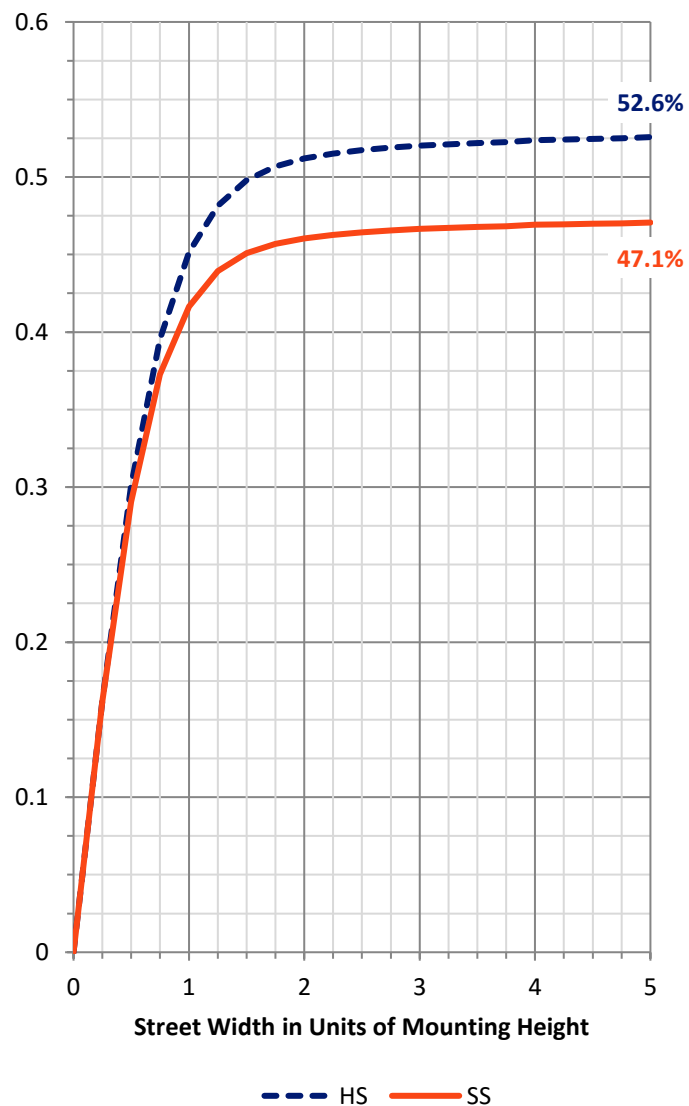
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6609.1	0.0	6609.1
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	5852.6	0.0	5852.6
	% Fixture	47.0	0.0	47.0
Total	Lumens	12461.7	0.0	12461.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.6	1.9
10°-20°	731.7	5.9
20°-30°	1187.2	9.5
30°-40°	1479.5	11.9
40°-50°	1842.2	14.8
50°-60°	2271.8	18.2
60°-70°	2821.5	22.6
70°-80°	1733.6	13.9
80°-90°	162.5	1.3
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°	12461.7	100.0
0°-180°	12461.7	100.0

Coefficient of Utilization



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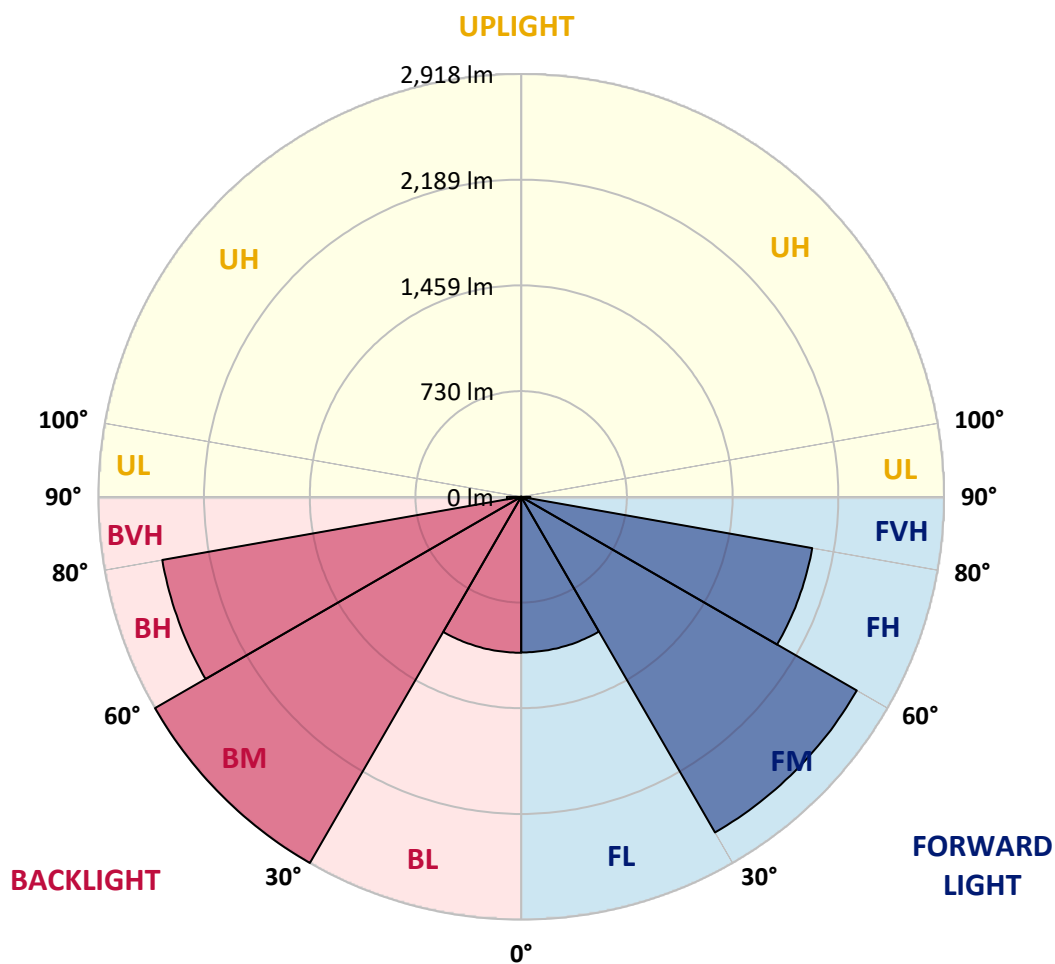
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1074.1	8.6			
FM	(30°-60°)	2675.0	21.5			
FH	(60°-80°)	2039.8	16.4			G2/5000
FVH	(80°-90°)	63.6	0.5			G1/100
BL	(0°-30°)	1076.4	8.6	B3/2500		
BM	(30°-60°)	2918.5	23.4	B3/5000		
BH	(60°-80°)	2515.3	20.2	B4/5000		G4/5000
BVH	(80°-90°)	98.9	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2
2.5°	2404.8	2398.4	2404.0	2404.8	2404.0	2404.0	2396.8	2395.2	2385.6	2388.0	2387.2
5°	2437.6	2435.2	2439.2	2440.8	2442.4	2439.2	2433.6	2431.2	2424.8	2422.4	2421.6
7.5°	2468.0	2464.0	2470.4	2476.0	2480.0	2480.8	2481.6	2477.6	2477.6	2474.4	2474.4
10°	2493.6	2490.4	2500.8	2508.0	2520.8	2528.0	2536.0	2541.6	2544.8	2545.6	2544.8
12.5°	2504.8	2502.4	2519.2	2540.8	2564.8	2581.6	2601.6	2616.0	2620.0	2619.2	2623.2
15°	2485.6	2487.2	2512.8	2555.2	2606.4	2648.8	2676.8	2688.8	2692.0	2693.6	2694.4
17.5°	2433.6	2436.8	2473.6	2542.4	2632.0	2708.8	2750.4	2750.4	2744.0	2744.0	2743.2
20°	2350.4	2353.6	2401.6	2500.8	2632.8	2750.4	2809.6	2797.6	2773.6	2768.8	2764.0
22.5°	2235.2	2248.0	2300.8	2416.0	2598.4	2762.4	2846.4	2828.8	2791.2	2780.8	2773.6
25°	2104.8	2103.2	2166.4	2296.0	2515.2	2733.6	2856.8	2853.6	2813.6	2802.4	2789.6
27.5°	1956.0	1960.8	2019.2	2150.4	2388.0	2650.4	2839.2	2881.6	2848.8	2837.6	2825.6
30°	1803.2	1808.0	1863.2	2016.0	2243.2	2531.2	2803.2	2908.8	2896.0	2887.2	2879.2
32.5°	1649.6	1651.2	1716.8	1880.8	2120.8	2388.8	2748.8	2933.6	2951.2	2947.2	2944.0
35°	1505.6	1507.2	1578.4	1744.8	2000.0	2267.2	2683.2	2969.6	3026.4	3031.2	3034.4
37.5°	1365.6	1368.0	1440.8	1615.2	1880.8	2175.2	2610.4	3024.8	3132.0	3149.6	3152.8
40°	1226.4	1228.8	1298.4	1483.2	1760.0	2094.4	2554.4	3102.4	3274.4	3298.4	3323.2
42.5°	1093.6	1102.4	1161.6	1338.4	1625.6	1994.4	2530.4	3196.8	3443.2	3480.8	3508.8
45°	969.6	970.4	1037.6	1203.2	1466.4	1859.2	2514.4	3304.0	3632.0	3688.8	3727.2
47.5°	836.8	846.4	916.8	1077.6	1317.6	1692.0	2463.2	3429.6	3837.6	3904.0	3981.6
50°	708.0	721.6	789.6	948.8	1181.6	1519.2	2325.6	3576.8	4068.8	4155.2	4244.8
52.5°	584.0	583.2	655.2	820.8	1044.8	1372.8	2102.4	3731.2	4336.0	4428.8	4525.6
55°	441.6	441.6	512.8	664.0	896.8	1242.4	1863.2	3827.2	4584.0	4696.0	4801.6
57.5°	303.2	311.2	378.4	508.8	742.4	1123.2	1680.0	3772.0	4773.6	4912.8	5038.4
60°	224.8	232.8	282.4	365.6	580.8	982.4	1542.4	3512.0	4888.0	5072.8	5236.0
62.5°	194.4	200.0	247.2	292.8	418.4	832.8	1420.8	3181.6	5052.8	5305.6	5532.8
65°	173.6	179.2	226.4	252.8	327.2	669.6	1352.8	2992.8	5249.6	5636.0	5965.6
67.5°	160.8	167.2	207.2	226.4	285.6	605.6	1300.0	2948.8	5248.0	5716.8	6137.6
69°	154.4	159.2	192.0	212.8	276.0	586.4	1185.6	2757.6	4901.6	5404.8	5827.2
70°	150.4	155.2	183.2	204.0	272.8	552.0	1080.0	2504.8	4507.2	5013.6	5442.4
72.5°	137.6	142.4	163.2	182.4	227.2	368.8	752.8	1603.2	3220.8	3582.4	4072.8
75°	121.6	127.2	143.2	159.2	172.0	213.6	434.4	832.0	1841.6	2116.0	2552.8
77.5°	99.2	104.8	121.6	147.2	145.6	162.4	282.4	511.2	862.4	1069.6	1231.2
80°	81.6	85.6	100.0	148.8	119.2	136.0	228.8	419.2	607.2	671.2	709.6
82.5°	54.4	60.0	77.6	116.8	91.2	96.8	171.2	392.0	513.6	563.2	609.6
85°	25.6	28.0	47.2	62.4	55.2	52.0	97.6	276.8	382.4	405.6	423.2
87.5°	0.0	0.0	2.4	4.8	7.2	7.2	17.6	58.4	107.2	129.6	128.0
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):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2
2.5°	2384.0	2384.8	2384.0	2384.0	2383.2	2381.6	2381.6	2380.0	2380.8	2380.0	2381.6
5°	2420.8	2420.8	2418.4	2416.8	2419.2	2416.8	2417.6	2413.6	2413.6	2411.2	2408.0
7.5°	2473.6	2473.6	2474.4	2469.6	2472.8	2473.6	2471.2	2469.6	2468.0	2464.0	2464.8
10°	2544.0	2544.0	2546.4	2540.0	2543.2	2544.8	2545.6	2545.6	2544.0	2536.8	2537.6
12.5°	2622.4	2620.8	2621.6	2618.4	2621.6	2623.2	2624.8	2623.2	2623.2	2621.6	2620.8
15°	2693.6	2692.8	2694.4	2692.0	2692.8	2694.4	2699.2	2698.4	2697.6	2692.8	2692.8
17.5°	2742.4	2740.0	2738.4	2737.6	2737.6	2736.8	2737.6	2737.6	2735.2	2734.4	2734.4
20°	2760.8	2754.4	2750.4	2748.0	2744.8	2743.2	2741.6	2742.4	2740.8	2738.4	2739.2
22.5°	2764.0	2755.2	2747.2	2740.0	2733.6	2729.6	2725.6	2724.0	2720.0	2717.6	2717.6
25°	2779.2	2765.6	2752.8	2740.8	2731.2	2722.4	2713.6	2707.2	2702.4	2696.8	2695.2
27.5°	2812.8	2798.4	2783.2	2768.0	2755.2	2737.6	2725.6	2712.8	2701.6	2692.8	2686.4
30°	2864.8	2850.4	2835.2	2817.6	2800.8	2782.4	2762.4	2747.2	2731.2	2713.6	2704.0
32.5°	2933.6	2924.0	2908.8	2892.0	2876.8	2857.6	2833.6	2810.4	2795.2	2774.4	2759.2
35°	3032.0	3020.8	3016.0	3008.8	2993.6	2981.6	2955.2	2933.6	2919.2	2890.4	2879.2
37.5°	3166.4	3165.6	3169.6	3167.2	3169.6	3154.4	3142.4	3141.6	3120.8	3092.8	3065.6
40°	3349.6	3359.2	3380.8	3396.0	3410.4	3412.0	3428.8	3411.2	3413.6	3409.6	3381.6
42.5°	3558.4	3591.2	3616.8	3661.6	3696.0	3728.0	3749.6	3779.2	3801.6	3821.6	3826.4
45°	3791.2	3840.0	3899.2	3939.2	4006.4	4060.0	4133.6	4190.4	4249.6	4308.0	4328.8
47.5°	4044.0	4104.8	4170.4	4244.8	4329.6	4413.6	4527.2	4614.4	4709.6	4788.8	4859.2
50°	4323.2	4386.4	4474.4	4560.0	4676.8	4773.6	4922.4	5036.8	5190.4	5296.0	5387.2
52.5°	4614.4	4693.6	4792.0	4886.4	5005.6	5129.6	5295.2	5464.0	5648.8	5808.8	5941.6
55°	4899.2	4996.8	5091.2	5201.6	5333.6	5477.6	5664.8	5887.2	6117.6	6300.8	6476.8
57.5°	5152.8	5265.6	5376.8	5488.8	5624.0	5791.2	6001.6	6241.6	6505.6	6749.6	6991.2
60°	5388.0	5523.2	5659.2	5799.2	5954.4	6160.8	6413.6	6708.8	7050.4	7384.0	7700.0
62.5°	5760.0	5937.6	6106.4	6287.2	6474.4	6716.8	7015.2	7402.4	7794.4	8211.2	8535.2
65°	6264.0	6513.6	6734.4	6968.8	7211.2	7535.2	7892.0	8355.2	8916.8	9344.0	9864.0
67.5°	6514.4	6843.2	7127.2	7388.0	7688.0	8015.2	8439.2	8987.2	9586.4	10205.6	10785.6
69°	6220.0	6559.2	6873.6	7165.6	7468.8	7786.4	8229.6	8792.0	9425.6	10095.2	10661.6
70°	5838.4	6177.6	6512.8	6845.6	7122.4	7432.0	7876.8	8456.8	9089.6	9785.6	10347.2
72.5°	4472.8	4880.8	5184.0	5496.0	5816.8	6079.2	6592.8	7081.6	7740.8	8447.2	9065.6
75°	2861.6	3236.8	3568.0	3833.6	4147.2	4461.6	4840.8	5384.0	5796.8	6376.8	6878.4
77.5°	1470.4	1581.6	1900.8	1996.0	2213.6	2384.8	2593.6	2729.6	3065.6	3136.8	3432.8
80°	696.8	628.0	591.2	557.6	567.2	563.2	546.4	524.0	552.0	540.0	535.2
82.5°	607.2	541.6	432.0	367.2	317.6	269.6	232.0	212.8	215.2	221.6	224.0
85°	425.6	400.0	312.0	236.8	184.8	143.2	115.2	110.4	113.6	122.4	119.2
87.5°	123.2	128.8	113.6	79.2	55.2	40.0	31.2	35.2	33.6	32.8	34.4
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):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2
2.5°	2381.6	2380.8	2378.4	2376.0	2376.0	2374.4	2376.0	2376.8	2376.0	2376.0	2374.4
5°	2408.8	2409.6	2412.0	2407.2	2406.4	2407.2	2404.0	2403.2	2400.8	2403.2	2400.0
7.5°	2460.8	2463.2	2463.2	2460.0	2459.2	2461.6	2456.8	2455.2	2452.8	2452.0	2451.2
10°	2538.4	2540.8	2536.8	2534.4	2532.0	2535.2	2531.2	2531.2	2528.8	2526.4	2525.6
12.5°	2624.8	2623.2	2621.6	2623.2	2620.8	2620.8	2618.4	2616.8	2616.0	2615.2	2613.6
15°	2692.0	2697.6	2697.6	2699.2	2697.6	2697.6	2694.4	2695.2	2693.6	2692.8	2693.6
17.5°	2735.2	2736.8	2740.8	2743.2	2743.2	2744.0	2742.4	2744.0	2742.4	2742.4	2745.6
20°	2740.8	2742.4	2746.4	2750.4	2752.8	2754.4	2754.4	2756.8	2758.4	2760.0	2764.0
22.5°	2718.4	2720.8	2725.6	2732.8	2736.8	2738.4	2741.6	2745.6	2749.6	2752.8	2758.4
25°	2695.2	2696.0	2700.8	2708.0	2712.8	2716.8	2722.4	2727.2	2732.8	2739.2	2745.6
27.5°	2682.4	2681.6	2685.6	2692.8	2696.8	2702.4	2707.2	2714.4	2720.8	2728.8	2734.4
30°	2693.6	2687.2	2688.0	2691.2	2694.4	2698.4	2704.0	2710.4	2717.6	2724.8	2731.2
32.5°	2743.2	2728.8	2719.2	2716.8	2717.6	2718.4	2721.6	2725.6	2731.2	2736.8	2739.2
35°	2850.4	2825.6	2812.8	2802.4	2793.6	2786.4	2788.0	2787.2	2787.2	2792.0	2786.4
37.5°	3054.4	3023.2	3009.6	2991.2	2980.8	2954.4	2947.2	2945.6	2935.2	2935.2	2923.2
40°	3374.4	3356.0	3345.6	3328.8	3278.4	3284.8	3248.8	3249.6	3220.0	3223.2	3202.4
42.5°	3829.6	3832.0	3819.2	3808.0	3768.8	3751.2	3717.6	3669.6	3632.0	3631.2	3589.6
45°	4356.0	4384.8	4344.0	4358.4	4324.0	4276.8	4237.6	4176.0	4117.6	4099.2	4056.8
47.5°	4906.4	4953.6	4922.4	4928.0	4911.2	4844.0	4791.2	4715.2	4639.2	4588.0	4562.4
50°	5494.4	5525.6	5524.8	5509.6	5501.6	5436.0	5351.2	5293.6	5237.6	5168.8	5146.4
52.5°	6027.2	6100.0	6148.8	6137.6	6114.4	6075.2	6000.0	5950.4	5868.0	5858.4	5868.0
55°	6597.6	6692.0	6741.6	6801.6	6802.4	6795.2	6764.0	6745.6	6668.8	6677.6	6666.4
57.5°	7137.6	7276.0	7352.0	7480.0	7524.0	7582.4	7560.8	7584.8	7538.4	7568.8	7560.0
60°	7869.6	8061.6	8188.0	8363.2	8444.8	8591.2	8620.0	8637.6	8663.2	8725.6	8690.4
62.5°	8790.4	9072.0	9334.4	9572.8	9651.2	9871.2	9907.2	10044.8	10052.0	10094.4	10016.8
65°	10297.6	10640.8	10929.6	11215.2	11380.0	11637.6	11741.6	12008.8	11927.2	11961.6	11796.0
67.5°	11284.8	11684.0	12071.2	12341.6	12615.2	12878.4	13068.0	13240.8	13239.2	13205.6	13058.4
69°	11197.6	11642.4	12024.0	12386.4	12674.4	12944.8	13172.8	13284.8	13324.0	13275.2	13170.4
70°	10896.0	11352.8	11820.0	12118.4	12432.0	12728.8	12964.0	13086.4	13113.6	13079.2	12988.8
72.5°	9502.4	9940.8	10456.0	10727.2	11106.4	11320.8	11644.8	11803.2	11831.2	11787.2	11728.0
75°	7416.0	7495.2	8020.0	8192.8	8468.0	8715.2	8916.8	8865.6	9008.8	8980.8	8958.4
77.5°	3493.6	3282.4	3622.4	3780.8	3697.6	3476.0	3798.4	3565.6	3720.0	3920.8	3869.6
80°	576.0	574.4	589.6	623.2	583.2	619.2	618.4	600.8	602.4	645.6	623.2
82.5°	221.6	226.4	228.8	235.2	235.2	236.0	240.0	244.8	240.8	248.8	247.2
85°	120.0	128.0	120.8	115.2	119.2	121.6	124.8	128.8	124.8	136.8	130.4
87.5°	31.2	32.8	28.8	28.8	28.0	25.6	25.6	27.2	29.6	35.2	38.4
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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CATALOG NUMBER: VST-E04-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2
2.5°	2371.2	2372.0	2372.8	2370.4	2368.8	2368.8	2368.0	2366.4	2365.6	2365.6	2365.6
5°	2398.4	2400.0	2396.0	2395.2	2393.6	2392.0	2392.0	2390.4	2391.2	2391.2	2387.2
7.5°	2452.8	2450.4	2445.6	2442.4	2445.6	2440.0	2437.6	2439.2	2437.6	2438.4	2436.8
10°	2525.6	2525.6	2520.0	2523.2	2519.2	2512.8	2515.2	2512.8	2511.2	2505.6	2508.8
12.5°	2616.0	2613.6	2610.4	2603.2	2600.8	2600.0	2592.8	2593.6	2591.2	2589.6	2587.2
15°	2695.2	2694.4	2687.2	2683.2	2682.4	2679.2	2676.0	2674.4	2670.4	2669.6	2668.0
17.5°	2748.0	2745.6	2742.4	2738.4	2738.4	2733.6	2732.0	2728.0	2727.2	2724.8	2722.4
20°	2765.6	2766.4	2763.2	2760.0	2758.4	2755.2	2752.8	2749.6	2748.0	2744.8	2742.4
22.5°	2761.6	2761.6	2758.4	2757.6	2754.4	2749.6	2746.4	2742.4	2738.4	2734.4	2729.6
25°	2748.8	2748.0	2745.6	2741.6	2737.6	2730.4	2724.0	2717.6	2712.0	2707.2	2700.0
27.5°	2737.6	2736.0	2731.2	2725.6	2717.6	2709.6	2697.6	2688.8	2681.6	2675.2	2667.2
30°	2733.6	2728.0	2720.8	2712.0	2702.4	2690.4	2677.6	2666.4	2658.4	2652.0	2648.8
32.5°	2738.4	2731.2	2720.0	2708.8	2696.8	2682.4	2669.6	2660.0	2652.8	2651.2	2651.2
35°	2782.4	2770.4	2755.2	2739.2	2724.0	2712.0	2703.2	2702.4	2697.6	2703.2	2712.0
37.5°	2911.2	2900.8	2877.6	2856.8	2846.4	2840.8	2832.8	2834.4	2823.2	2840.8	2855.2
40°	3184.8	3172.0	3144.8	3128.0	3107.2	3087.2	3103.2	3098.4	3106.4	3103.2	3118.4
42.5°	3584.0	3571.2	3528.0	3521.6	3512.8	3504.8	3504.8	3498.4	3495.2	3506.4	3493.6
45°	4069.6	4044.0	4028.0	4047.2	4020.8	4028.8	4056.8	4019.2	4028.0	3976.0	3928.0
47.5°	4573.6	4571.2	4567.2	4590.4	4594.4	4606.4	4621.6	4583.2	4513.6	4474.4	4376.8
50°	5153.6	5178.4	5188.0	5210.4	5220.0	5228.8	5204.8	5148.0	5030.4	4926.4	4811.2
52.5°	5858.4	5815.2	5874.4	5896.0	5886.4	5851.2	5764.8	5695.2	5532.8	5383.2	5204.8
55°	6679.2	6689.6	6648.0	6631.2	6598.4	6500.8	6381.6	6224.8	6019.2	5824.0	5598.4
57.5°	7515.2	7511.2	7446.4	7355.2	7244.0	7126.4	6948.8	6724.0	6484.0	6221.6	5948.8
60°	8532.0	8528.0	8396.8	8240.8	8082.4	7892.8	7614.4	7344.0	7022.4	6677.6	6352.8
62.5°	9868.0	9696.0	9567.2	9334.4	9089.6	8841.6	8464.8	8105.6	7676.0	7240.8	6861.6
65°	11580.0	11296.8	11150.4	10812.8	10433.6	10046.4	9663.2	9191.2	8612.8	8086.4	7623.2
67.5°	12846.4	12587.2	12319.2	11982.4	11566.4	11134.4	10609.6	10015.2	9358.4	8768.0	8263.2
69°	12957.6	12715.2	12393.6	12056.0	11662.4	11192.8	10620.0	9954.4	9288.8	8691.2	8194.4
70°	12788.8	12531.2	12192.8	11841.6	11401.6	10958.4	10358.4	9664.8	8998.4	8399.2	7914.4
72.5°	11529.6	11278.4	10918.4	10498.4	10047.2	9668.0	9098.4	8375.2	7650.4	7096.8	6719.2
75°	8767.2	8712.0	8456.8	8212.0	7856.8	7433.6	6912.8	6426.4	5832.0	5246.4	4894.4
77.5°	3740.8	3868.0	4000.8	4020.0	4032.8	3902.4	3821.6	3699.2	3301.6	3120.8	2934.4
80°	691.2	617.6	659.2	664.0	691.2	705.6	758.4	899.2	915.2	949.6	992.0
82.5°	245.6	249.6	256.0	258.4	260.8	270.4	306.4	367.2	422.4	494.4	590.4
85°	139.2	141.6	147.2	152.0	155.2	164.8	184.8	220.8	275.2	357.6	484.8
87.5°	42.4	48.0	51.2	57.6	60.0	61.6	70.4	94.4	121.6	180.0	262.4
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: P158000

CATALOG NUMBER: VST-E04-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2	2367.2
2.5°	2365.6	2364.8	2363.2	2361.6	2362.4	2360.8	2356.0	2354.4	2348.8	2344.8	2341.6
5°	2387.2	2386.4	2383.2	2384.0	2383.2	2375.2	2369.6	2360.0	2354.4	2345.6	2342.4
7.5°	2432.0	2431.2	2425.6	2428.0	2426.4	2414.4	2404.8	2389.6	2381.6	2370.4	2361.6
10°	2499.2	2499.2	2492.8	2493.6	2493.6	2477.6	2460.8	2435.2	2416.8	2399.2	2384.0
12.5°	2580.8	2577.6	2576.8	2572.8	2569.6	2552.0	2526.4	2492.0	2457.6	2428.8	2408.0
15°	2663.2	2658.4	2656.0	2651.2	2647.2	2631.2	2596.8	2554.4	2508.0	2461.6	2427.2
17.5°	2716.8	2713.6	2708.8	2707.2	2701.6	2685.6	2661.6	2619.2	2561.6	2496.8	2444.8
20°	2736.8	2731.2	2728.0	2724.8	2721.6	2710.4	2710.4	2683.2	2619.2	2528.0	2448.8
22.5°	2724.0	2720.8	2716.0	2713.6	2710.4	2712.0	2743.2	2739.2	2665.6	2535.2	2420.0
25°	2694.4	2690.4	2686.4	2686.4	2685.6	2702.4	2777.6	2788.0	2679.2	2500.0	2356.8
27.5°	2664.0	2658.4	2660.0	2660.8	2664.8	2700.8	2815.2	2800.8	2642.4	2415.2	2248.0
30°	2645.6	2645.6	2649.6	2656.0	2664.0	2727.2	2844.8	2772.0	2547.2	2287.2	2104.0
32.5°	2653.6	2661.6	2670.4	2686.4	2698.4	2785.6	2855.2	2697.6	2408.8	2128.8	1953.6
35°	2724.8	2734.4	2751.2	2776.0	2790.4	2869.6	2855.2	2588.8	2248.0	1992.8	1798.4
37.5°	2880.0	2889.6	2909.6	2928.8	2943.2	2975.2	2843.2	2450.4	2113.6	1852.0	1659.2
40°	3129.6	3143.2	3157.6	3154.4	3144.8	3113.6	2819.2	2321.6	1989.6	1728.8	1522.4
42.5°	3480.8	3468.0	3466.4	3435.2	3403.2	3269.6	2801.6	2237.6	1883.2	1599.2	1386.4
45°	3886.4	3834.4	3780.8	3739.2	3690.4	3440.8	2796.8	2169.6	1765.6	1455.2	1238.4
47.5°	4294.4	4211.2	4107.2	4042.4	3963.2	3623.2	2811.2	2078.4	1614.4	1298.4	1100.0
50°	4694.4	4558.4	4429.6	4352.0	4262.4	3832.8	2834.4	1924.8	1433.6	1156.0	973.6
52.5°	5064.8	4889.6	4757.6	4666.4	4556.8	4076.8	2813.6	1723.2	1276.8	1019.2	853.6
55°	5416.8	5223.2	5086.4	4990.4	4861.6	4321.6	2663.2	1540.0	1127.2	885.6	718.4
57.5°	5724.8	5539.2	5396.8	5266.4	5157.6	4534.4	2366.4	1388.8	983.2	732.8	572.0
60°	6084.8	5876.0	5707.2	5568.0	5440.0	4644.0	2033.6	1254.4	829.6	567.2	413.6
62.5°	6570.4	6330.4	6135.2	5976.0	5808.8	4668.0	1806.4	1120.0	658.4	410.4	300.8
65°	7290.4	6994.4	6750.4	6531.2	6304.8	4568.8	1694.4	973.6	489.6	304.8	252.0
67.5°	7862.4	7555.2	7272.8	6991.2	6701.6	4384.8	1669.6	838.4	376.0	259.2	226.4
69°	7792.8	7500.0	7240.8	6936.0	6615.2	4153.6	1644.8	786.4	343.2	240.8	214.4
70°	7524.8	7247.2	6984.0	6736.0	6343.2	3896.0	1579.2	757.6	330.4	232.0	205.6
72.5°	6358.4	6036.8	5781.6	5472.8	5059.2	2895.2	1197.6	612.8	303.2	212.0	185.6
75°	4637.6	4371.2	4116.8	3775.2	3372.8	1675.2	745.6	350.4	222.4	192.0	168.0
77.5°	2708.0	2648.0	2402.4	2177.6	1779.2	852.8	428.0	209.6	172.8	174.4	148.0
80°	1019.2	1085.6	1110.4	1032.8	954.4	588.8	311.2	170.4	150.4	172.0	125.6
82.5°	743.2	862.4	876.8	840.0	781.6	548.8	248.8	136.8	122.4	184.8	108.0
85°	620.0	686.4	696.8	658.4	639.2	464.8	173.6	96.0	89.6	132.8	80.8
87.5°	313.6	330.4	339.2	307.2	308.8	216.8	69.6	40.8	48.8	56.8	44.8
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: P158000

CATALOG NUMBER: VST-E04-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	2367.2	2367.2
2.5°	2334.4	2339.2
5°	2337.6	2337.6
7.5°	2356.0	2356.0
10°	2376.0	2376.8
12.5°	2394.4	2393.6
15°	2408.8	2406.4
17.5°	2417.6	2415.2
20°	2408.8	2404.8
22.5°	2364.0	2352.8
25°	2282.4	2268.0
27.5°	2174.4	2164.8
30°	2033.6	2019.2
32.5°	1868.8	1861.6
35°	1711.2	1702.4
37.5°	1567.2	1564.8
40°	1445.6	1432.8
42.5°	1303.2	1297.6
45°	1158.4	1155.2
47.5°	1022.4	1019.2
50°	896.8	890.4
52.5°	773.6	763.2
55°	636.8	629.6
57.5°	488.8	482.4
60°	344.0	336.8
62.5°	244.8	236.8
65°	204.0	197.6
67.5°	184.8	177.6
69°	176.0	169.6
70°	170.4	165.6
72.5°	158.4	155.2
75°	144.8	142.4
77.5°	127.2	123.2
80°	106.4	102.4
82.5°	89.6	85.6
85°	60.0	54.4
87.5°	27.2	24.0
90°	0.0	0.0

(END OF REPORT)