

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: P159570

Luminaire Tested: **VST-E07-LED-E-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159570
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E07-LED-E-U-T3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (147) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21408.5 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 172.5
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



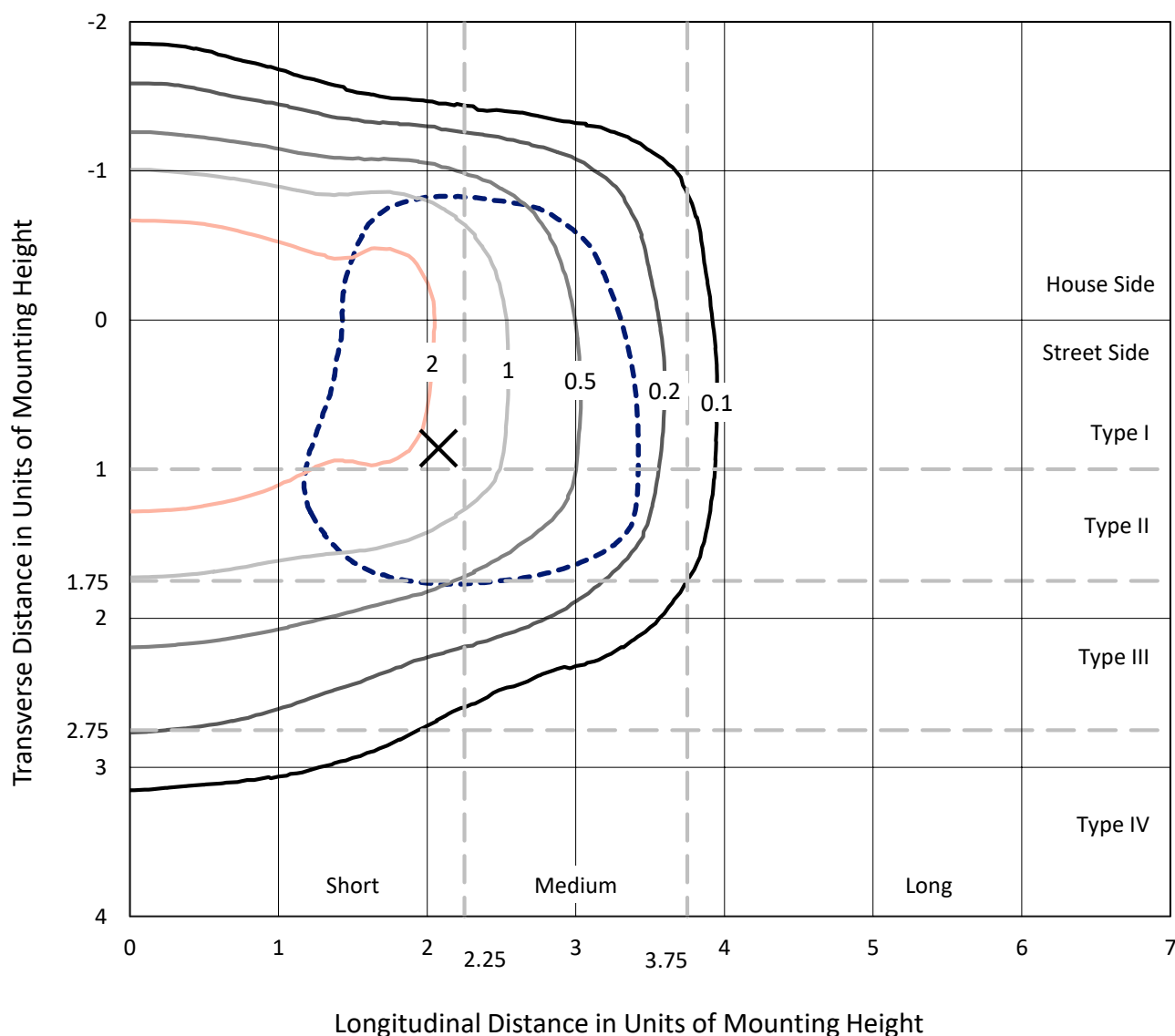
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

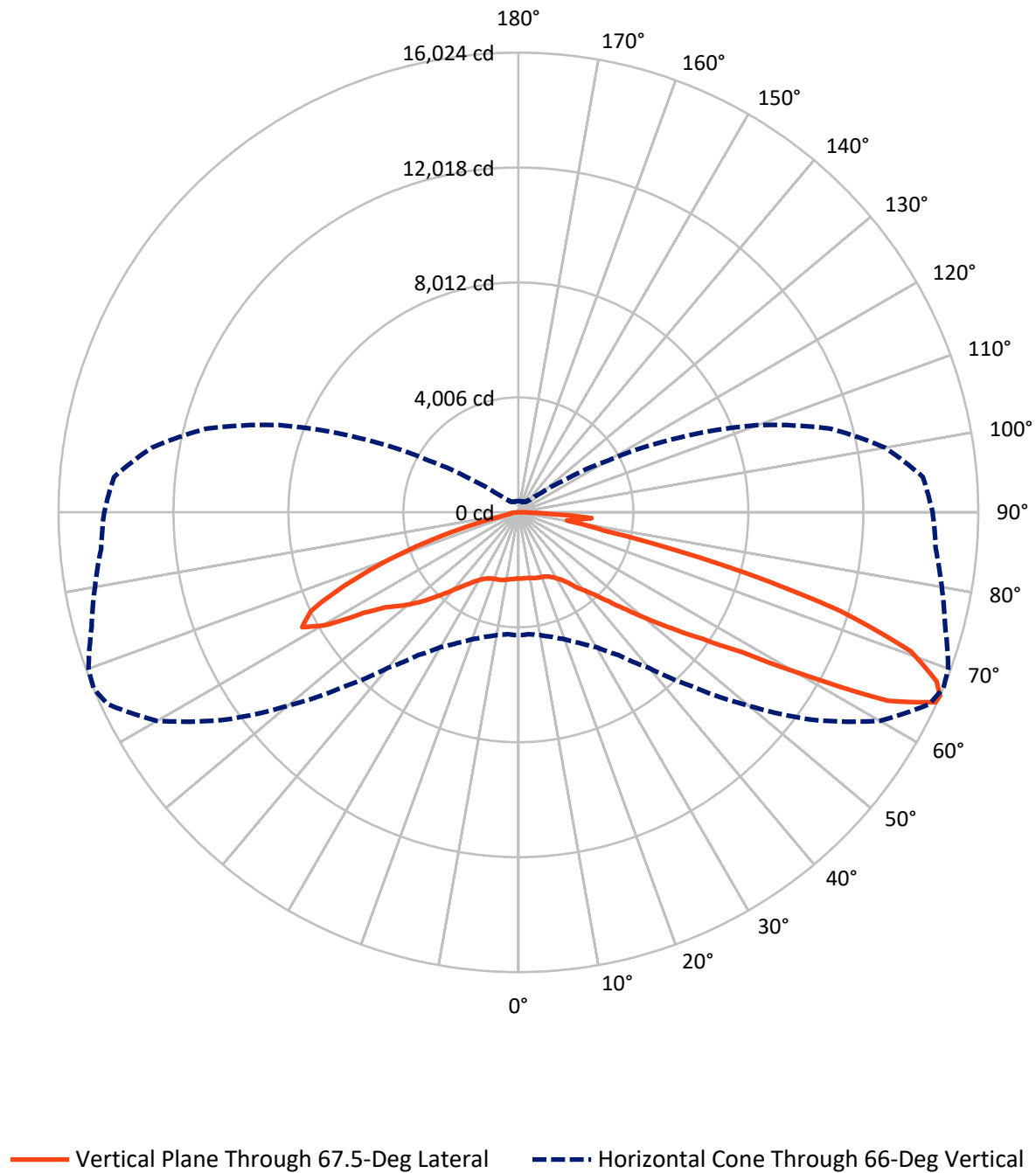


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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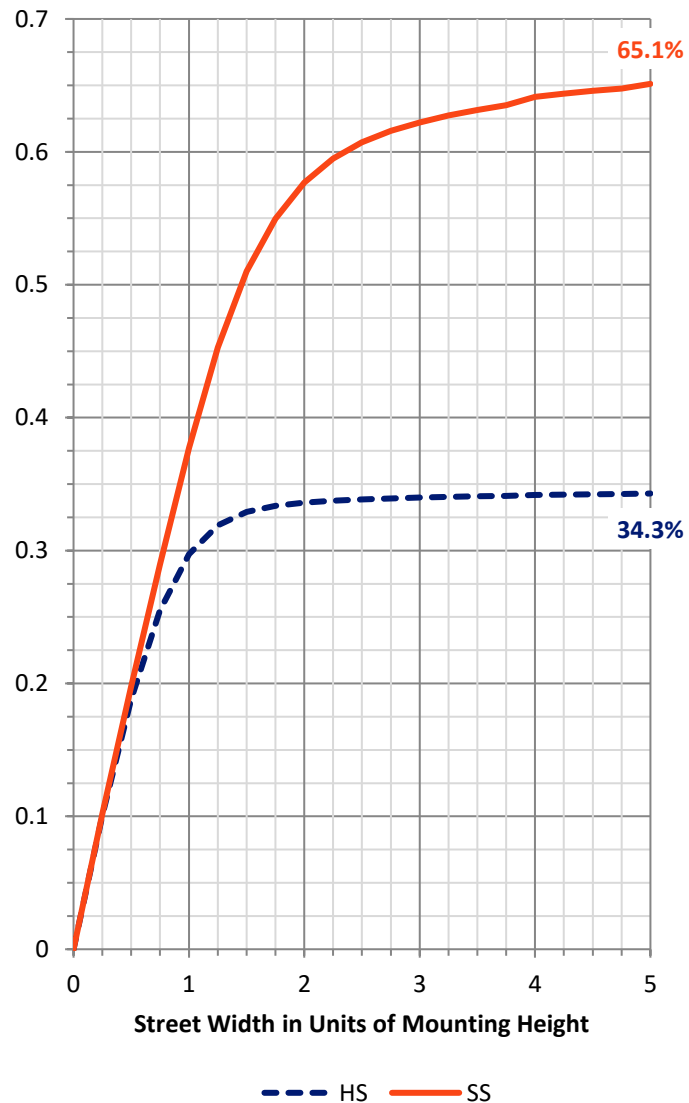
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7408.3	0.0	7408.3
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	14000.2	0.0	14000.2
	% Fixture	65.4	0.0	65.4
Total	Lumens	21408.5	0.0	21408.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	1.0
10°-20°	656.4	3.1
20°-30°	1128.3	5.3
30°-40°	1823.6	8.5
40°-50°	3022.1	14.1
50°-60°	4742.9	22.2
60°-70°	6484.5	30.3
70°-80°	2851.6	13.3
80°-90°	477.3	2.2
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°	21408.5	100.0
0°-180°	21408.5	100.0

Coefficient of Utilization



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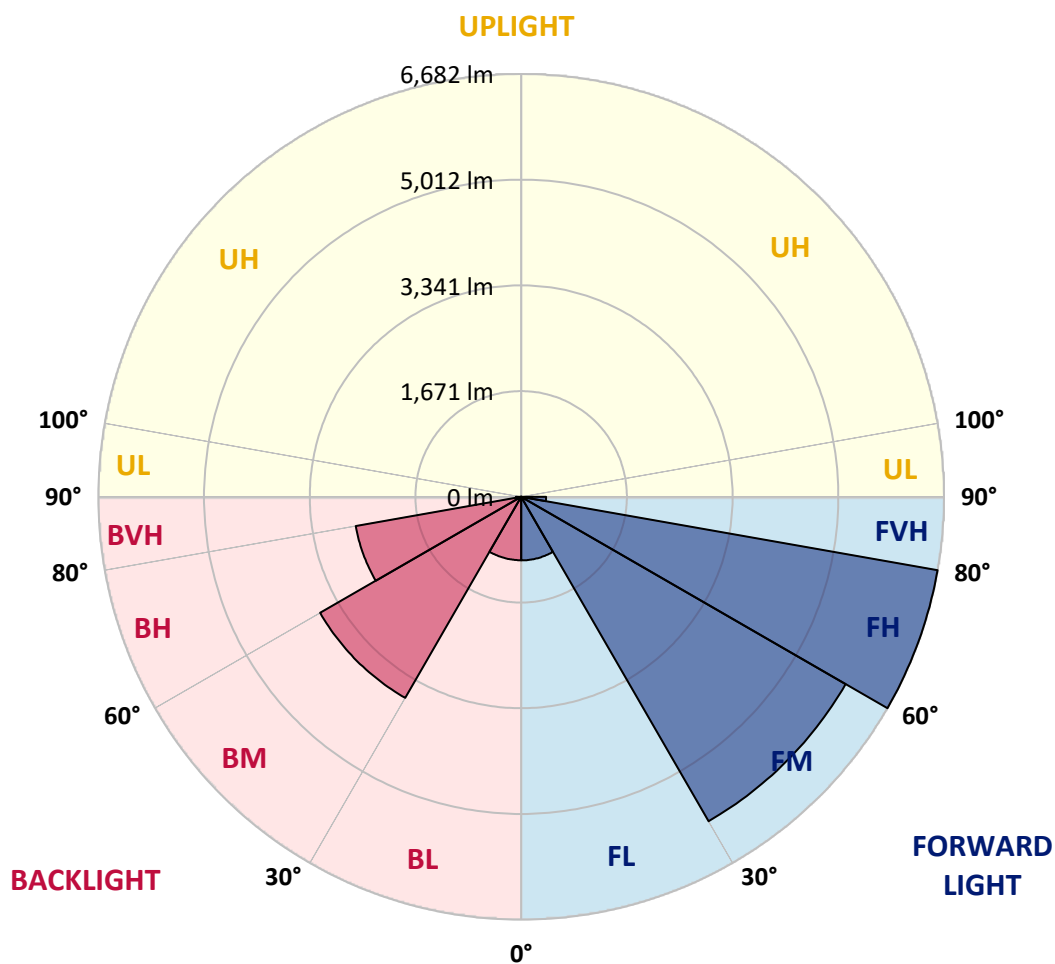
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1004.2	4.7			
FM	(30°-60°)	5920.1	27.7			
FH	(60°-80°)	6682.1	31.2			G3/7500
FVH	(80°-90°)	393.8	1.8			G3/500
BL	(0°-30°)	1002.2	4.7	B3/2500		
BM	(30°-60°)	3668.6	17.1	B3/5000		
BH	(60°-80°)	2654.1	12.4	B4/5000		G4/5000
BVH	(80°-90°)	83.5	0.4			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0
2.5°	2305.8	2305.8	2307.2	2305.8	2305.8	2304.4	2310.0	2310.0	2310.0	2308.6	2312.8
5°	2300.2	2300.2	2301.6	2301.6	2303.0	2301.6	2305.8	2307.2	2307.2	2307.2	2311.4
7.5°	2286.2	2290.4	2287.6	2289.0	2290.4	2294.6	2300.2	2303.0	2305.8	2310.0	2311.4
10°	2256.8	2263.8	2262.4	2266.6	2268.0	2280.6	2284.8	2290.4	2300.2	2305.8	2310.0
12.5°	2216.2	2220.4	2221.8	2227.4	2233.0	2248.4	2259.6	2269.4	2283.4	2297.4	2311.4
15°	2184.0	2186.8	2186.8	2192.4	2200.8	2214.8	2228.8	2245.6	2266.6	2290.4	2312.8
17.5°	2193.8	2200.8	2195.2	2193.8	2196.6	2205.0	2217.6	2231.6	2256.8	2283.4	2310.0
20°	2258.2	2259.6	2256.8	2249.8	2244.2	2245.6	2245.6	2248.4	2263.8	2284.8	2305.8
22.5°	2311.4	2317.0	2315.6	2317.0	2315.6	2321.2	2318.4	2312.8	2307.2	2308.6	2318.4
25°	2357.6	2363.2	2363.2	2367.4	2374.4	2385.6	2394.0	2392.6	2384.2	2373.0	2368.8
27.5°	2433.2	2433.2	2433.2	2437.4	2447.2	2461.2	2475.2	2483.6	2490.6	2479.4	2455.6
30°	2552.2	2553.6	2549.4	2550.8	2557.8	2576.0	2592.8	2605.4	2619.4	2618.0	2587.2
32.5°	2682.4	2688.0	2686.6	2692.2	2702.0	2718.8	2737.0	2756.6	2774.8	2786.0	2766.4
35°	2850.4	2856.0	2857.4	2865.8	2877.0	2902.2	2927.4	2952.6	2972.2	2980.6	2976.4
37.5°	3126.2	3127.6	3122.0	3109.4	3113.6	3133.2	3162.6	3203.2	3215.8	3224.2	3243.8
40°	3539.2	3535.0	3512.6	3501.4	3494.4	3502.8	3497.2	3529.4	3558.8	3560.2	3558.8
42.5°	4040.4	4027.8	4006.8	4004.0	4001.2	3998.4	3983.0	3984.4	4011.0	4018.0	4009.6
45°	4538.8	4523.4	4508.0	4522.0	4505.2	4548.6	4561.2	4594.8	4599.0	4613.0	4592.0
47.5°	4947.6	4949.0	4949.0	4968.6	5002.2	5084.8	5159.0	5223.4	5247.2	5280.8	5285.0
50°	5257.0	5265.4	5292.0	5355.0	5426.4	5565.0	5689.6	5805.8	5910.8	5950.0	6053.6
52.5°	5437.6	5460.0	5516.0	5621.0	5748.4	5927.6	6123.6	6321.0	6503.0	6657.0	6780.2
55°	5405.4	5422.2	5520.2	5684.0	5882.8	6123.6	6398.0	6683.6	6967.8	7228.2	7429.8
57.5°	5198.2	5209.4	5307.4	5492.2	5740.0	6063.4	6451.2	6875.4	7274.4	7694.4	8038.8
60°	4926.6	4943.4	5034.4	5180.0	5439.0	5783.4	6232.8	6808.2	7445.2	8106.0	8750.0
62.5°	4753.0	4748.8	4828.6	4958.8	5153.4	5465.6	5898.2	6580.0	7462.0	8579.2	9851.8
65°	4464.6	4452.0	4534.6	4683.0	4894.4	5196.8	5607.0	6262.2	7285.6	8758.4	10563.0
66°	4285.4	4260.2	4342.8	4492.6	4704.0	5026.0	5419.4	6066.2	7071.4	8583.4	10487.4
67.5°	3971.8	3959.2	3998.4	4116.0	4272.8	4575.2	4985.4	5636.4	6564.6	8057.0	9933.0
70°	3228.4	3200.4	3231.2	3284.4	3344.6	3418.8	3670.8	4187.4	4972.8	6419.0	8002.4
72.5°	2199.4	2185.4	2242.8	2324.0	2485.0	2560.6	2660.0	2744.0	3021.2	4046.0	5581.8
75°	1673.0	1681.4	1754.2	1888.6	2095.8	2319.8	2538.2	2618.0	2525.6	2445.8	3168.2
77.5°	938.0	987.0	1075.2	1246.0	1465.8	1782.2	2163.0	2583.0	2793.0	2741.2	2563.4
80°	386.4	379.4	422.8	516.6	592.2	851.2	1302.0	1828.4	2419.2	2793.0	2734.2
82.5°	107.8	110.6	142.8	183.4	236.6	301.0	470.4	756.0	1232.0	1916.6	2508.8
85°	33.6	33.6	46.2	68.6	81.2	93.8	119.0	196.0	334.6	667.8	1353.8
87.5°	7.0	7.0	9.8	19.6	21.0	21.0	26.6	36.4	32.2	29.4	131.6
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-E07-LED-E-U-T3

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0
2.5°	2308.6	2305.8	2307.2	2308.6	2307.2	2307.2	2305.8	2304.4	2305.8	2305.8	2310.0
5°	2307.2	2305.8	2307.2	2307.2	2307.2	2308.6	2308.6	2308.6	2312.8	2312.8	2319.8
7.5°	2310.0	2310.0	2312.8	2312.8	2312.8	2312.8	2314.2	2317.0	2324.0	2322.6	2335.2
10°	2315.6	2318.4	2325.4	2326.8	2326.8	2331.0	2333.8	2339.4	2346.4	2349.2	2360.4
12.5°	2322.6	2336.6	2349.2	2352.0	2356.2	2363.2	2367.4	2370.2	2382.8	2387.0	2401.0
15°	2331.0	2350.6	2366.0	2371.6	2377.2	2385.6	2391.2	2395.4	2406.6	2412.2	2429.0
17.5°	2332.4	2354.8	2373.0	2381.4	2388.4	2398.2	2406.6	2415.0	2427.6	2436.0	2452.8
20°	2331.0	2360.4	2388.4	2399.6	2406.6	2424.8	2437.4	2448.6	2464.0	2472.4	2489.2
22.5°	2346.4	2380.0	2417.8	2431.8	2443.0	2468.2	2485.0	2503.2	2522.8	2528.4	2541.0
25°	2382.8	2417.8	2465.4	2485.0	2504.6	2538.2	2562.0	2588.6	2608.2	2611.0	2615.2
27.5°	2444.4	2476.6	2534.0	2563.4	2595.6	2643.2	2678.2	2704.8	2732.8	2732.8	2730.0
30°	2569.0	2576.0	2636.2	2674.0	2721.6	2791.6	2843.4	2872.8	2893.8	2893.8	2870.0
32.5°	2730.0	2721.6	2776.2	2816.8	2882.6	2980.6	3050.6	3073.0	3095.4	3088.4	3047.8
35°	2962.4	2938.6	2969.4	3031.0	3105.2	3239.6	3312.4	3362.8	3376.8	3357.2	3292.8
37.5°	3255.0	3252.2	3267.6	3336.2	3418.8	3592.4	3666.6	3698.8	3687.6	3652.6	3539.2
40°	3564.4	3556.0	3546.2	3592.4	3684.8	3893.4	4025.0	4041.8	4026.4	3974.6	3831.8
42.5°	3977.4	3977.4	3931.2	3943.8	4020.8	4254.6	4410.0	4463.2	4464.6	4389.0	4198.6
45°	4545.8	4540.2	4459.0	4439.4	4498.2	4727.8	4928.0	4957.4	4957.4	4858.0	4649.4
47.5°	5229.0	5222.0	5142.2	5073.6	5084.8	5332.6	5499.2	5544.0	5504.8	5430.6	5182.8
50°	5999.0	5986.4	5905.2	5840.8	5812.8	6063.4	6204.8	6225.8	6168.4	6080.2	5811.4
52.5°	6780.2	6818.0	6770.4	6735.4	6745.2	6907.6	7053.2	6953.8	6924.4	6829.2	6559.0
55°	7593.6	7709.8	7814.8	7784.0	7820.4	7978.6	8006.6	7875.0	7821.8	7753.2	7452.2
57.5°	8412.6	8751.4	9095.8	9192.4	9282.0	9508.8	9476.6	9261.0	9301.6	9403.8	9065.0
60°	9556.4	10535.0	11408.6	11569.6	11848.2	12041.4	12084.8	12042.8	12231.8	12178.6	11879.0
62.5°	11313.4	12944.4	14159.6	14462.0	14742.0	14732.2	14585.2	14434.0	14620.2	14620.2	13837.6
65°	12567.8	14418.6	15719.2	15969.8	15958.6	15621.2	15274.0	14971.6	14945.0	14737.8	13594.0
66°	12626.6	14532.0	15806.0	16024.4	15940.4	15397.2	14981.4	14597.8	14434.0	14145.6	12973.8
67.5°	12097.4	14211.4	15523.2	15713.6	15492.4	14714.0	14141.4	13627.6	13389.6	12903.8	11800.6
70°	9923.2	12213.6	14121.8	14511.0	14260.4	13274.8	12490.8	11796.4	11341.4	10640.0	9844.8
72.5°	7243.6	9017.4	11083.8	11716.6	11677.4	10770.2	10138.8	9503.2	8905.4	8267.0	7686.0
75°	4708.2	5866.0	7018.2	7387.8	7210.0	6685.0	6232.8	5861.8	5294.8	4851.0	4743.2
77.5°	2688.0	3284.4	3106.6	3060.4	2837.8	2290.4	1523.2	1068.2	964.6	1204.0	1320.2
80°	2557.8	2318.4	1898.4	1712.2	1573.6	1072.4	562.8	396.2	347.2	355.6	382.2
82.5°	2884.0	3005.8	2458.4	2053.8	1787.8	1304.8	712.6	331.8	242.2	287.0	322.0
85°	2161.6	3043.6	3017.0	2556.4	2097.2	1503.6	842.8	253.4	145.6	201.6	263.2
87.5°	438.2	721.0	694.4	610.4	519.4	362.6	141.4	79.8	72.8	99.4	151.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0	2310.0
2.5°	2312.8	2312.8	2315.6	2319.8	2321.2	2321.2	2324.0	2321.2	2326.8	2328.2	2329.6
5°	2325.4	2329.6	2332.4	2339.4	2343.6	2346.4	2350.6	2347.8	2353.4	2354.8	2357.6
7.5°	2339.4	2346.4	2352.0	2354.8	2360.4	2360.4	2361.8	2359.0	2357.6	2353.4	2352.0
10°	2364.6	2368.8	2375.8	2373.0	2370.2	2360.4	2352.0	2339.4	2332.4	2319.8	2312.8
12.5°	2405.2	2408.0	2408.0	2395.4	2377.2	2354.8	2333.8	2312.8	2296.0	2282.0	2273.6
15°	2433.2	2438.8	2431.8	2413.6	2387.0	2356.2	2328.2	2300.2	2277.8	2259.6	2248.4
17.5°	2454.2	2452.8	2440.2	2415.0	2389.8	2363.2	2338.0	2308.6	2280.6	2254.0	2237.2
20°	2486.4	2472.4	2450.0	2423.4	2396.8	2374.4	2354.8	2326.8	2297.4	2261.0	2235.8
22.5°	2529.8	2504.6	2472.4	2444.4	2419.2	2398.2	2375.8	2352.0	2321.2	2280.6	2245.6
25°	2591.4	2548.0	2511.6	2483.6	2461.2	2437.4	2412.2	2381.4	2350.6	2308.6	2266.6
27.5°	2685.2	2620.8	2574.6	2549.4	2528.4	2496.2	2464.0	2427.6	2388.4	2345.0	2297.4
30°	2798.6	2721.6	2668.4	2646.0	2620.8	2584.4	2549.4	2499.0	2444.4	2392.6	2333.8
32.5°	2931.6	2853.2	2800.0	2783.2	2742.6	2700.6	2651.6	2584.4	2513.0	2436.0	2366.0
35°	3133.2	3033.8	2984.8	2945.6	2889.6	2839.2	2756.6	2668.4	2566.2	2464.0	2377.2
37.5°	3340.4	3239.6	3189.2	3134.6	3061.8	2969.4	2858.8	2732.8	2597.0	2471.0	2364.6
40°	3617.6	3508.4	3444.0	3360.0	3242.4	3098.2	2934.4	2762.2	2597.0	2440.2	2311.4
42.5°	3941.0	3840.2	3740.8	3602.2	3413.2	3203.2	2973.6	2752.4	2552.2	2371.6	2235.8
45°	4389.0	4216.8	4058.6	3836.0	3560.2	3264.8	2977.8	2706.2	2475.2	2275.0	2123.8
47.5°	4893.0	4670.4	4390.4	4041.8	3665.2	3288.6	2937.2	2619.4	2353.4	2136.4	1971.2
50°	5474.0	5132.4	4702.6	4205.6	3718.4	3256.4	2840.6	2473.8	2185.4	1936.2	1759.8
52.5°	6139.0	5618.2	4985.4	4321.8	3710.0	3158.4	2681.0	2282.0	1960.0	1695.4	1521.8
55°	6876.8	6147.4	5255.6	4396.0	3634.4	2968.0	2430.4	2011.8	1680.0	1419.6	1267.0
57.5°	8177.4	7075.6	5770.8	4495.4	3476.2	2679.6	2112.6	1670.2	1370.6	1149.4	1003.8
60°	10593.8	8698.2	6746.6	4729.2	3238.2	2318.4	1712.2	1310.4	1059.8	898.8	791.0
62.5°	12089.0	9840.6	7222.6	4695.6	2851.8	1824.2	1271.2	971.6	774.2	667.8	600.6
65°	11734.8	9392.6	6641.6	4033.4	2219.0	1293.6	841.4	635.6	532.0	477.4	445.2
66°	11253.2	8891.4	6150.2	3612.0	1933.4	1080.8	694.4	533.4	457.8	417.2	400.4
67.5°	10243.8	7975.8	5304.6	2892.4	1449.0	805.0	512.4	418.6	372.4	351.4	340.2
70°	8573.6	6426.0	3752.0	1708.0	785.4	436.8	327.6	291.2	280.0	273.0	268.8
72.5°	6629.0	4652.2	2192.4	840.0	396.2	282.8	249.2	233.8	229.6	229.6	231.0
75°	4176.2	2674.0	981.4	404.6	268.8	228.2	212.8	205.8	207.2	208.6	207.2
77.5°	1387.4	922.6	408.8	287.0	233.8	207.2	194.6	191.8	194.6	196.0	196.0
80°	399.0	348.6	295.4	253.4	214.2	193.2	182.0	180.6	187.6	189.0	186.2
82.5°	306.6	287.0	267.4	245.0	205.8	182.0	177.8	179.2	183.4	180.6	168.0
85°	281.4	278.6	200.2	198.8	179.2	173.6	169.4	170.8	166.6	151.2	137.2
87.5°	158.2	147.0	113.4	114.8	133.0	137.2	113.4	120.4	112.0	98.0	89.6
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):

	160°	165°	170°	175°	180°
0°	2310.0	2310.0	2310.0	2310.0	2310.0
2.5°	2332.4	2331.0	2331.0	2335.2	2329.6
5°	2359.0	2357.6	2357.6	2361.8	2357.6
7.5°	2346.4	2342.2	2339.4	2338.0	2338.0
10°	2304.4	2300.2	2291.8	2289.0	2286.2
12.5°	2261.0	2256.8	2247.0	2247.0	2244.2
15°	2234.4	2228.8	2221.8	2217.6	2214.8
17.5°	2220.4	2212.0	2203.6	2199.4	2196.6
20°	2214.8	2203.6	2193.8	2186.8	2186.8
22.5°	2216.2	2202.2	2191.0	2182.6	2179.8
25°	2230.2	2209.2	2195.2	2186.8	2184.0
27.5°	2249.8	2224.6	2206.4	2195.2	2191.0
30°	2276.4	2241.4	2216.2	2202.2	2196.6
32.5°	2294.6	2245.6	2213.4	2193.8	2186.8
35°	2293.2	2230.2	2191.0	2165.8	2157.4
37.5°	2268.0	2193.8	2142.0	2111.2	2097.2
40°	2212.0	2126.6	2072.0	2042.6	2025.8
42.5°	2130.8	2038.4	1989.4	1957.2	1939.0
45°	2003.4	1912.4	1852.2	1827.0	1803.2
47.5°	1827.0	1734.6	1682.8	1646.4	1631.0
50°	1619.8	1527.4	1472.8	1443.4	1429.4
52.5°	1393.0	1304.8	1265.6	1237.6	1218.0
55°	1157.8	1076.6	1059.8	1029.0	1010.8
57.5°	936.6	889.0	873.6	842.8	827.4
60°	732.2	716.8	700.0	680.4	672.0
62.5°	567.0	553.0	548.8	536.2	534.8
65°	432.6	434.0	431.2	428.4	425.6
66°	393.4	392.0	393.4	390.6	389.2
67.5°	334.6	340.2	344.4	343.0	343.0
70°	271.6	275.8	281.4	280.0	280.0
72.5°	232.4	239.4	242.2	240.8	240.8
75°	210.0	217.0	217.0	214.2	212.8
77.5°	196.0	198.8	196.0	193.2	190.4
80°	182.0	179.2	175.0	170.8	168.0
82.5°	158.2	151.2	147.0	140.0	140.0
85°	127.4	121.8	112.0	105.0	98.0
87.5°	82.6	79.8	72.8	54.6	43.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)