

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: P157828

Luminaire Tested: **VST-E09-LED-E-U-5XQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157828  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33710)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E09-LED-E-U-5XQ-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (189) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24022.6 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B5 - U2 - G4

Input Watts (W): 225.7  
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

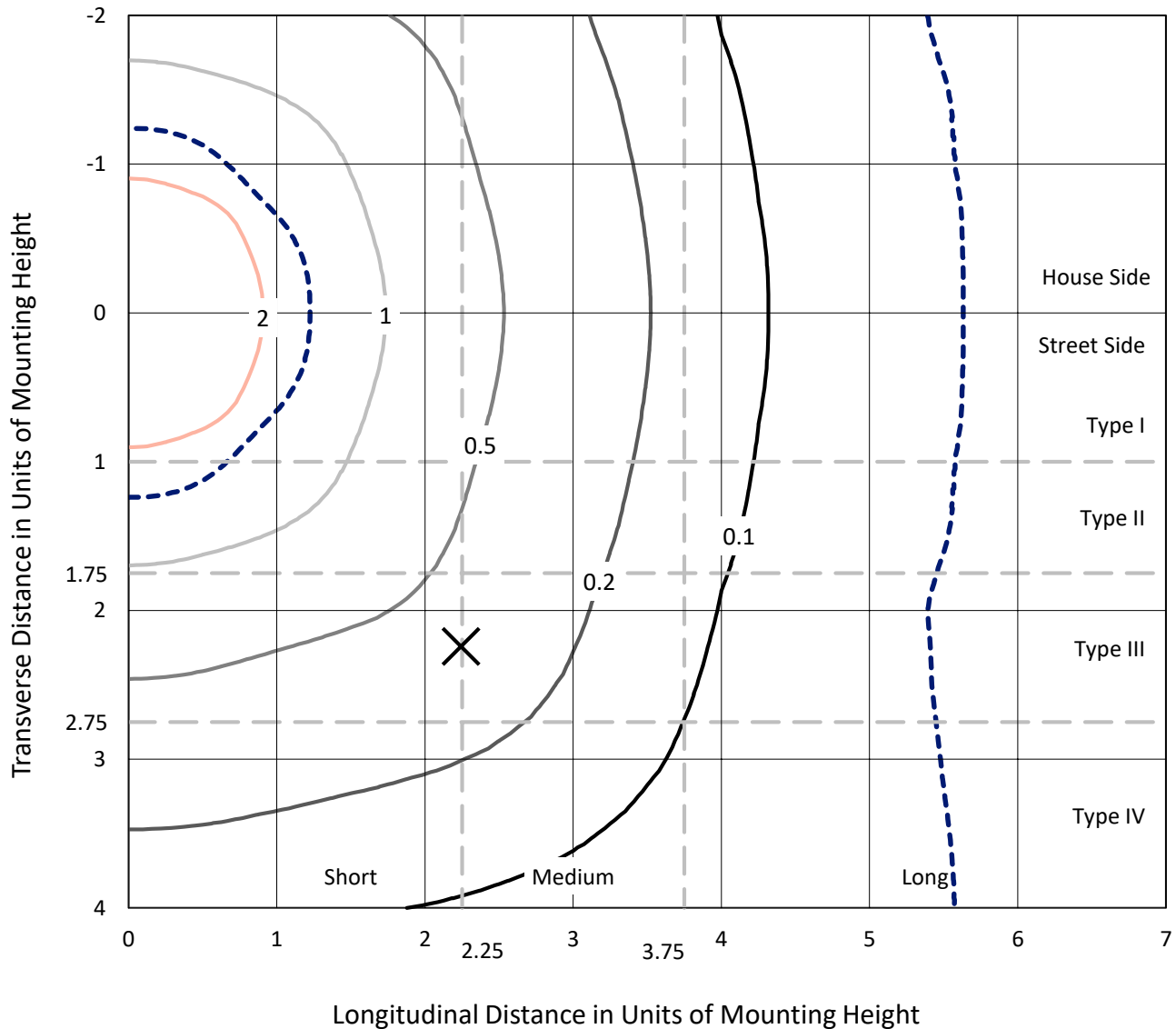


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

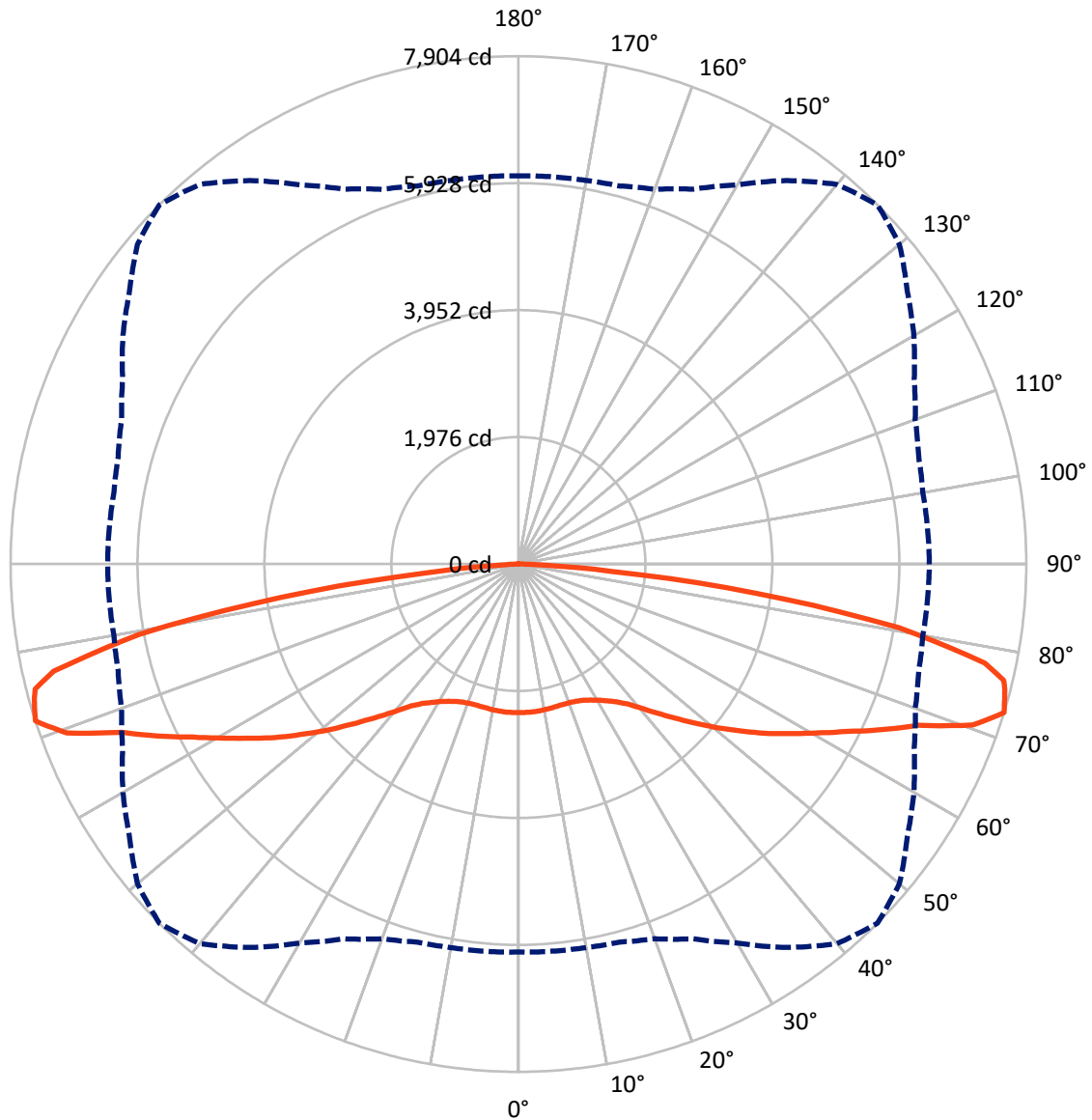


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical



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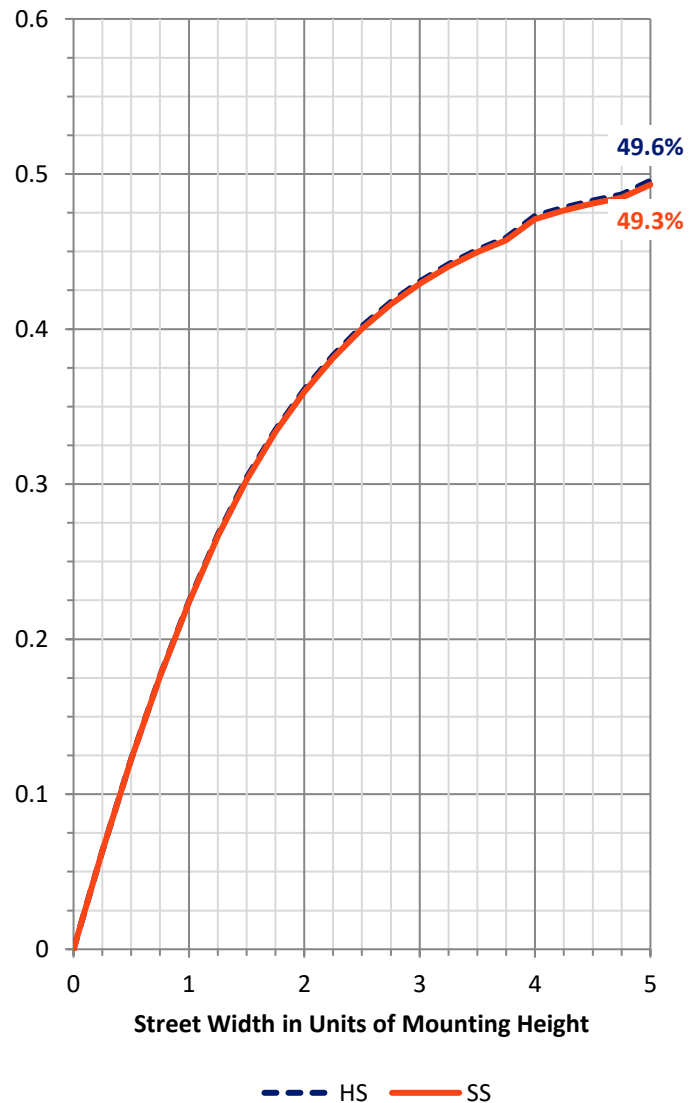
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12005.5	5.8	12011.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12005.5	5.8	12011.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	24011.0	11.6	24022.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.6	0.9
10°-20°	651.6	2.7
20°-30°	1089.5	4.5
30°-40°	1656.1	6.9
40°-50°	2622.9	10.9
50°-60°	4012.1	16.7
60°-70°	5742.0	23.9
70°-80°	6570.2	27.3
80°-90°	1446.0	6.0
90°-100°	1.2	0.0
100°-110°	2.5	0.0
110°-120°	1.7	0.0
120°-130°	1.9	0.0
130°-140°	1.7	0.0
140°-150°	1.3	0.0
150°-160°	0.9	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-90°	24011.0	100.0
0°-180°	24022.6	100.0



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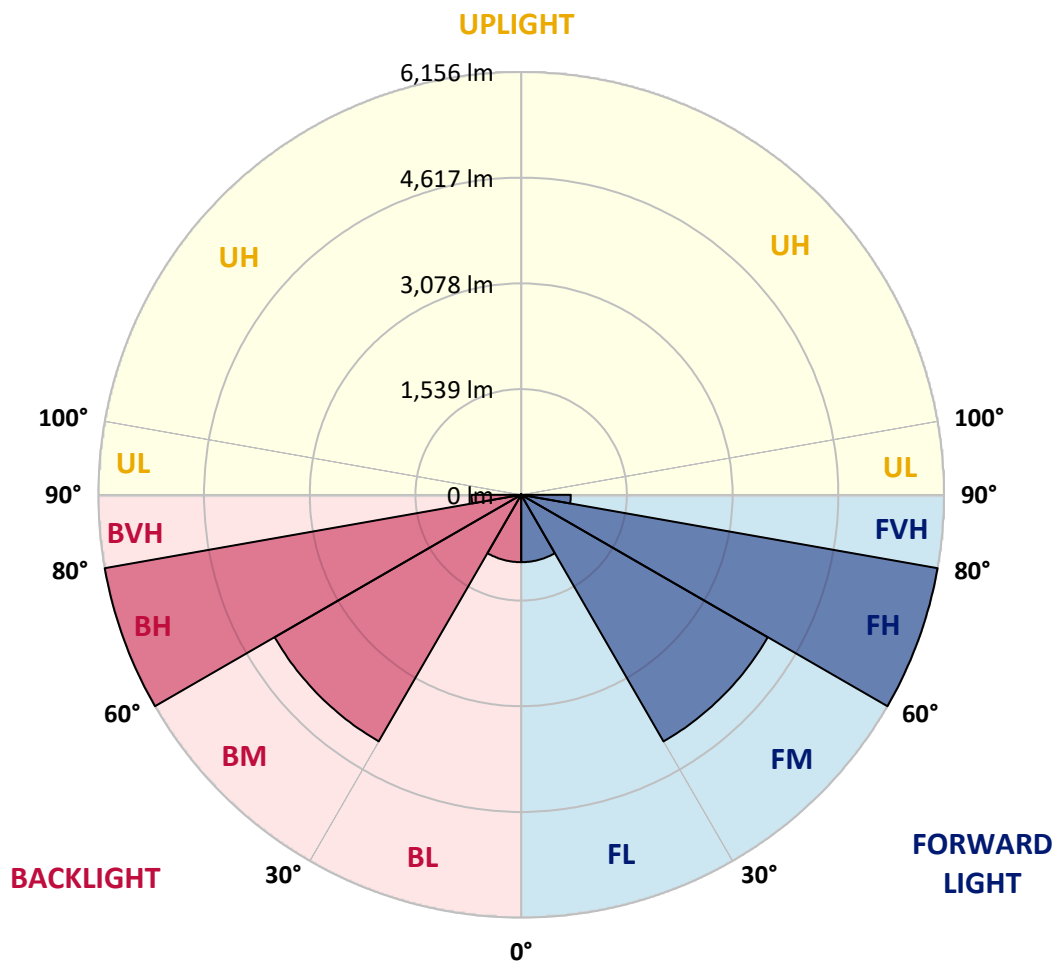
CATALOG NUMBER: VST-E09-LED-E-U-5XQ-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	980.9	4.1			
FM	(30°-60°)	4145.5	17.3			
FH	(60°-80°)	6156.1	25.6			G3/7500
FVH	(80°-90°)	723.0	3.0			G4/750
BL	(0°-30°)	980.9	4.1	B2/1000		
BM	(30°-60°)	4145.5	17.3	B3/5000		
BH	(60°-80°)	6156.1	25.6	B5		G3/7500
BVH	(80°-90°)	723.0	3.0			G4/750
UL	(90°-100°)	1.2	0.0		U1/10	
UH	(100°-180°)	5.8	0.0		U1/10	

**BUG Rating: B5-U2-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2
2.5°	2313.7	2310.7	2312.2	2315.2	2313.7	2313.7	2312.2	2312.2	2315.2	2312.2	2313.7
5°	2315.2	2312.2	2313.7	2315.2	2313.7	2315.2	2313.7	2313.7	2313.7	2312.2	2315.2
7.5°	2309.2	2309.2	2310.7	2310.7	2309.2	2310.7	2310.7	2310.7	2309.2	2309.2	2312.2
10°	2306.1	2304.6	2304.6	2306.1	2304.6	2304.6	2306.1	2306.1	2303.1	2303.1	2306.1
12.5°	2301.6	2300.0	2300.0	2300.0	2298.5	2298.5	2300.0	2300.0	2298.5	2297.0	2301.6
15°	2298.5	2297.0	2297.0	2297.0	2294.0	2295.5	2295.5	2295.5	2294.0	2292.4	2297.0
17.5°	2297.0	2295.5	2295.5	2295.5	2294.0	2294.0	2294.0	2294.0	2292.4	2292.4	2295.5
20°	2300.0	2300.0	2300.0	2300.0	2298.5	2298.5	2298.5	2300.0	2300.0	2300.0	2303.1
22.5°	2307.6	2307.6	2309.2	2310.7	2310.7	2313.7	2315.2	2316.8	2316.8	2318.3	2321.3
25°	2327.4	2327.4	2328.9	2330.4	2335.0	2338.0	2344.1	2347.1	2348.7	2348.7	2350.2
27.5°	2363.8	2365.4	2368.4	2371.4	2377.5	2382.1	2388.2	2394.2	2395.8	2397.3	2398.8
30°	2409.4	2410.9	2417.0	2420.1	2427.7	2436.8	2444.4	2450.4	2455.0	2458.0	2456.5
32.5°	2474.8	2477.8	2485.4	2489.9	2500.6	2509.7	2520.3	2529.4	2534.0	2538.6	2537.0
35°	2565.9	2573.5	2581.1	2585.7	2596.3	2603.9	2617.6	2626.7	2635.8	2632.7	2634.3
37.5°	2701.1	2707.2	2708.7	2711.7	2722.4	2728.5	2743.6	2755.8	2760.4	2763.4	2764.9
40°	2883.4	2883.4	2891.0	2884.9	2898.6	2900.1	2918.4	2935.1	2939.6	2951.8	2942.7
42.5°	3096.1	3094.6	3099.1	3094.6	3094.6	3109.8	3125.0	3155.3	3158.4	3173.6	3164.5
45°	3327.0	3327.0	3322.5	3324.0	3327.0	3343.7	3362.0	3395.4	3410.6	3419.7	3413.6
47.5°	3577.7	3571.6	3570.1	3568.6	3577.7	3595.9	3623.3	3655.2	3693.1	3696.2	3693.1
50°	3831.4	3829.9	3819.2	3828.3	3834.4	3843.5	3895.2	3937.7	3977.2	4001.5	3993.9
52.5°	4098.8	4085.1	4085.1	4085.1	4100.3	4129.1	4174.7	4232.4	4285.6	4311.4	4306.9
55°	4369.2	4364.6	4350.9	4344.9	4364.6	4405.6	4471.0	4540.8	4610.7	4650.2	4635.0
57.5°	4616.8	4609.2	4610.7	4612.2	4635.0	4689.7	4765.7	4858.3	4934.3	4976.8	4966.2
60°	4811.3	4802.1	4818.9	4823.4	4864.4	4955.6	5077.1	5194.1	5294.4	5336.9	5320.2
62.5°	5031.5	5025.5	5036.1	5034.6	5078.6	5180.4	5343.0	5529.8	5681.7	5736.4	5712.1
65°	5387.0	5368.8	5364.2	5347.5	5376.4	5455.4	5617.9	5835.2	6078.3	6218.0	6184.6
67.5°	5812.4	5807.8	5792.6	5783.5	5794.2	5892.9	6049.4	6259.0	6506.7	6699.6	6742.1
70°	6093.4	6099.5	6114.7	6137.5	6225.6	6417.0	6702.6	7020.1	7360.4	7504.8	7478.9
72.5°	6040.3	6049.4	6061.5	6090.4	6205.9	6435.3	6812.0	7286.0	7712.9	7904.3	7740.2
75°	5780.5	5788.1	5815.4	5859.5	6000.8	6278.8	6684.4	7187.3	7627.8	7819.2	7647.6
76°	5540.5	5564.8	5614.9	5666.6	5836.7	6139.0	6572.0	7108.3	7574.6	7769.1	7603.5
77.5°	4996.6	5017.9	5058.9	5148.5	5341.4	5728.8	6234.7	6761.9	7248.0	7422.7	7283.0
80°	3760.0	3778.2	3816.2	3924.1	4091.2	4331.2	4723.1	5238.1	5771.4	6000.8	5909.6
82.5°	1587.5	1608.8	1759.2	1915.7	2099.5	2359.3	2614.5	3070.3	3462.2	3723.5	3583.8
85°	174.7	215.7	265.9	361.6	443.6	591.0	735.3	1011.8	1279.2	1441.7	1274.6
87.5°	30.4	34.9	50.1	63.8	71.4	82.0	98.7	138.2	188.4	162.6	165.6
90°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.0	3.0	3.0	3.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
97.5°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
102.5°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
105°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
107.5°	1.5	1.5	1.5	1.5	3.0	3.0	1.5	1.5	1.5	3.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
117.5°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
120°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
122.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
125°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
127.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
130°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
132.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
135°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
137.5°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
140°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
142.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
145°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
147.5°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
150°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	0.0	0.0	0.0
152.5°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0
155°	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	1.5
157.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
160°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
162.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
165°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	0.0	0.0	0.0
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
180°	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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2	2312.2
2.5°	2312.2	2312.2	2315.2	2313.7	2313.7	2315.2	2318.3	2316.8
5°	2313.7	2315.2	2312.2	2313.7	2315.2	2315.2	2316.8	2315.2
7.5°	2310.7	2310.7	2310.7	2312.2	2313.7	2312.2	2313.7	2313.7
10°	2304.6	2306.1	2304.6	2307.6	2309.2	2309.2	2310.7	2310.7
12.5°	2300.0	2300.0	2300.0	2303.1	2304.6	2304.6	2306.1	2304.6
15°	2295.5	2295.5	2294.0	2297.0	2300.0	2300.0	2301.6	2301.6
17.5°	2294.0	2294.0	2292.4	2295.5	2298.5	2298.5	2300.0	2300.0
20°	2298.5	2300.0	2297.0	2300.0	2303.1	2304.6	2304.6	2304.6
22.5°	2316.8	2315.2	2310.7	2312.2	2313.7	2313.7	2313.7	2313.7
25°	2344.1	2341.1	2336.5	2335.0	2333.5	2331.9	2331.9	2331.9
27.5°	2391.2	2386.6	2379.0	2377.5	2376.0	2373.0	2373.0	2373.0
30°	2447.4	2441.3	2432.2	2429.2	2424.6	2421.6	2420.1	2418.5
32.5°	2527.9	2515.8	2505.1	2497.5	2493.0	2483.9	2482.3	2479.3
35°	2620.6	2611.5	2596.3	2591.7	2584.1	2579.6	2578.1	2570.5
37.5°	2748.2	2737.6	2723.9	2720.9	2719.3	2714.8	2714.8	2713.3
40°	2925.9	2915.3	2903.2	2891.0	2894.0	2895.6	2895.6	2889.5
42.5°	3143.2	3126.5	3102.2	3109.8	3105.2	3099.1	3111.3	3103.7
45°	3390.8	3368.0	3349.8	3342.2	3342.2	3334.6	3346.8	3346.8
47.5°	3665.8	3629.3	3595.9	3597.4	3585.3	3588.3	3595.9	3606.5
50°	3956.0	3907.3	3875.4	3860.2	3848.1	3852.6	3866.3	3869.4
52.5°	4256.8	4197.5	4155.0	4132.2	4117.0	4123.1	4133.7	4142.8
55°	4569.7	4504.4	4440.6	4416.3	4398.0	4410.2	4411.7	4423.9
57.5°	4896.3	4806.7	4732.3	4695.8	4677.6	4689.7	4698.8	4711.0
60°	5226.0	5122.7	5034.6	4992.0	4966.2	4982.9	5004.2	5010.3
62.5°	5608.8	5466.0	5367.3	5306.5	5294.4	5311.1	5317.1	5335.4
65°	6061.5	5889.9	5753.1	5678.7	5675.7	5684.8	5698.5	5703.0
67.5°	6578.1	6386.6	6202.8	6128.4	6099.5	6126.9	6140.5	6158.8
70°	7307.3	7044.5	6778.6	6613.0	6543.1	6521.9	6527.9	6547.7
72.5°	7389.3	7106.7	6796.8	6572.0	6448.9	6392.7	6391.2	6394.2
75°	7210.0	6758.8	6540.1	6281.8	6107.1	6016.0	6003.8	6002.3
76°	7120.4	6587.2	6271.2	6066.1	5856.5	5763.8	5750.1	5742.5
77.5°	6742.1	6169.4	5693.9	5569.3	5368.8	5251.8	5276.1	5256.4
80°	5405.3	4837.1	4388.9	4038.0	4048.6	3963.6	3928.6	3918.0
82.5°	3185.7	2719.3	2224.1	1933.9	1657.4	1584.5	1364.2	1314.1
85°	1017.9	721.6	437.5	317.5	215.7	180.8	141.3	129.1
87.5°	135.2	106.3	86.6	83.6	76.0	65.3	42.5	30.4
90°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
102.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5
105°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
107.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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CATALOG NUMBER: VST-E09-LED-E-U-5XQ-8030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
117.5°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
120°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0
122.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
125°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
127.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
130°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
132.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
135°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
137.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
140°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
142.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
145°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
150°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
152.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
155°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
157.5°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
160°	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0
167.5°	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
172.5°	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
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)