

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: P157820

Luminaire Tested: **VST-E08-LED-E-U-5XQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157820  
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-E08-LED-E-U-5XQ  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(8) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (168) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25300.7 lumens  
Efficiency: N/A  
Efficacy: 130.1 lumens/watt  
Luminous Opening: Rectangular (W 1.33' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B5 - U2 - G5

Input Watts (W): 194.5  
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

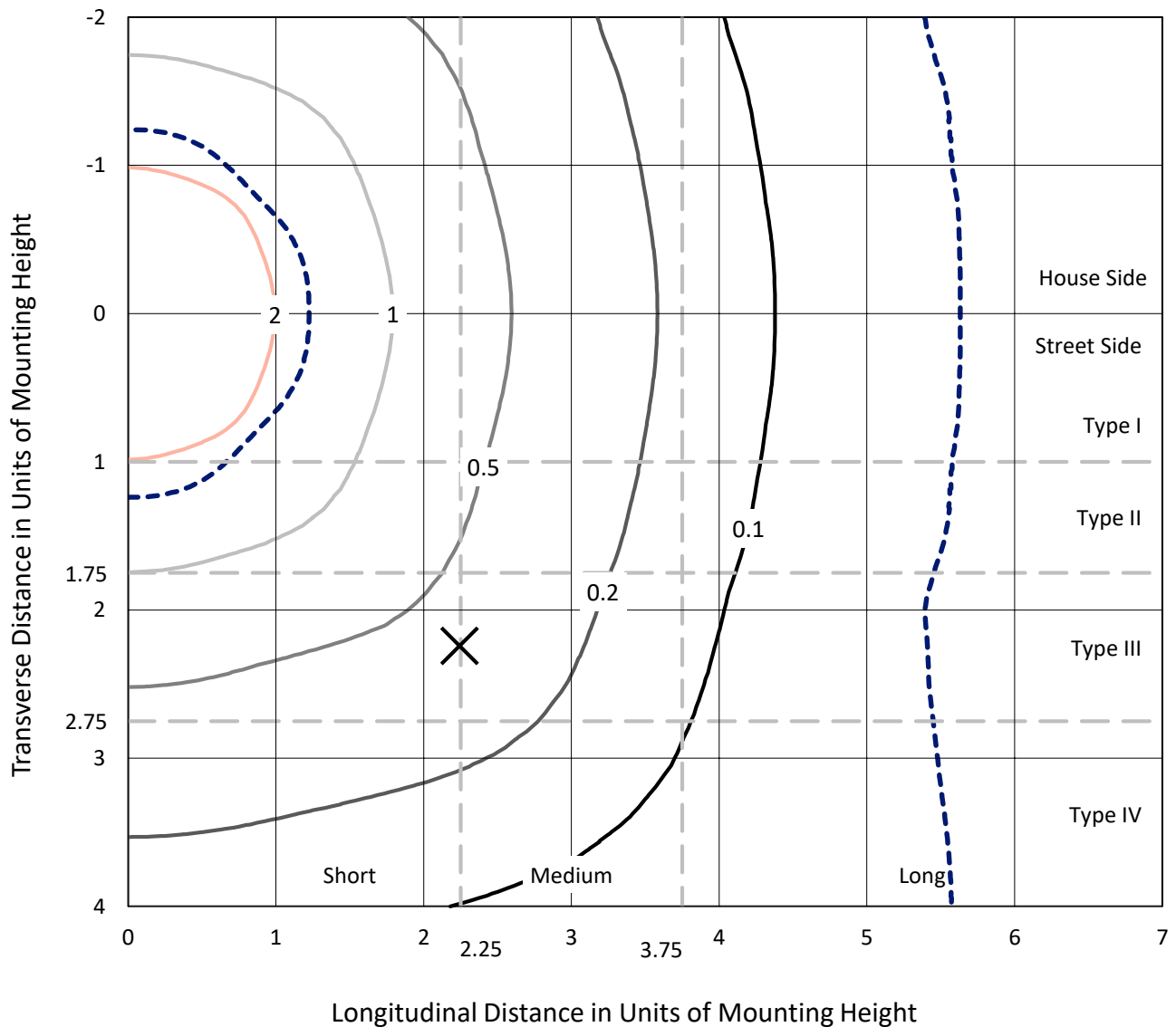


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

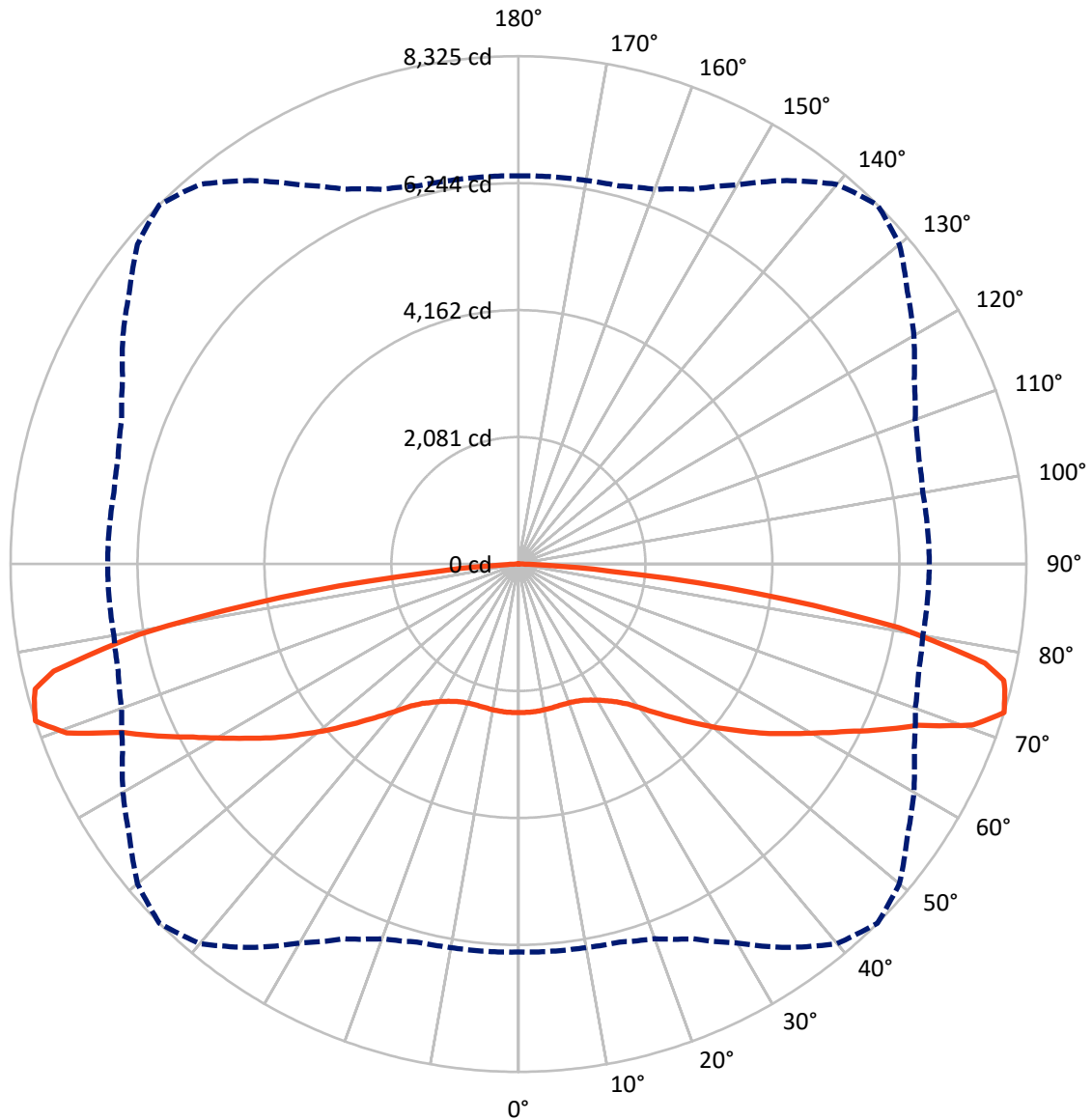


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc  
 Type V - Short - Non-Cutoff

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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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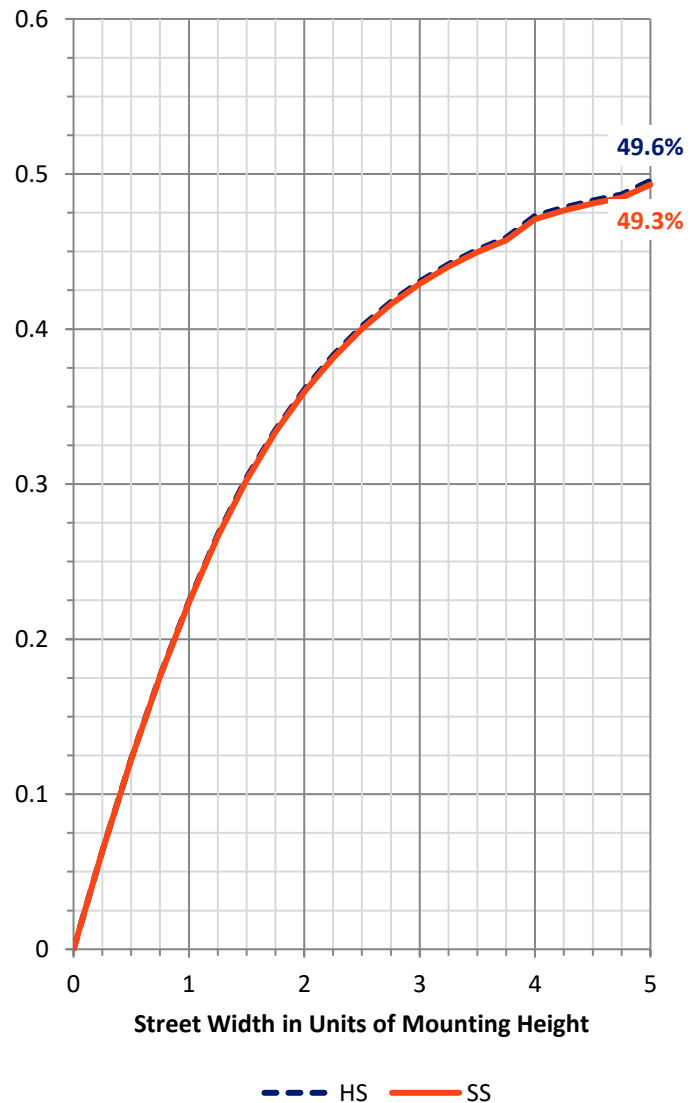
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12644.2	6.2	12650.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12644.2	6.2	12650.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25288.3	12.3	25300.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.3	0.9
10°-20°	686.2	2.7
20°-30°	1147.5	4.5
30°-40°	1744.2	6.9
40°-50°	2762.4	10.9
50°-60°	4225.6	16.7
60°-70°	6047.5	23.9
70°-80°	6919.7	27.3
80°-90°	1522.9	6.0
90°-100°	1.3	0.0
100°-110°	2.6	0.0
110°-120°	1.8	0.0
120°-130°	2.0	0.0
130°-140°	1.8	0.0
140°-150°	1.4	0.0
150°-160°	1.0	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-90°	25288.3	100.0
0°-180°	25300.7	100.0



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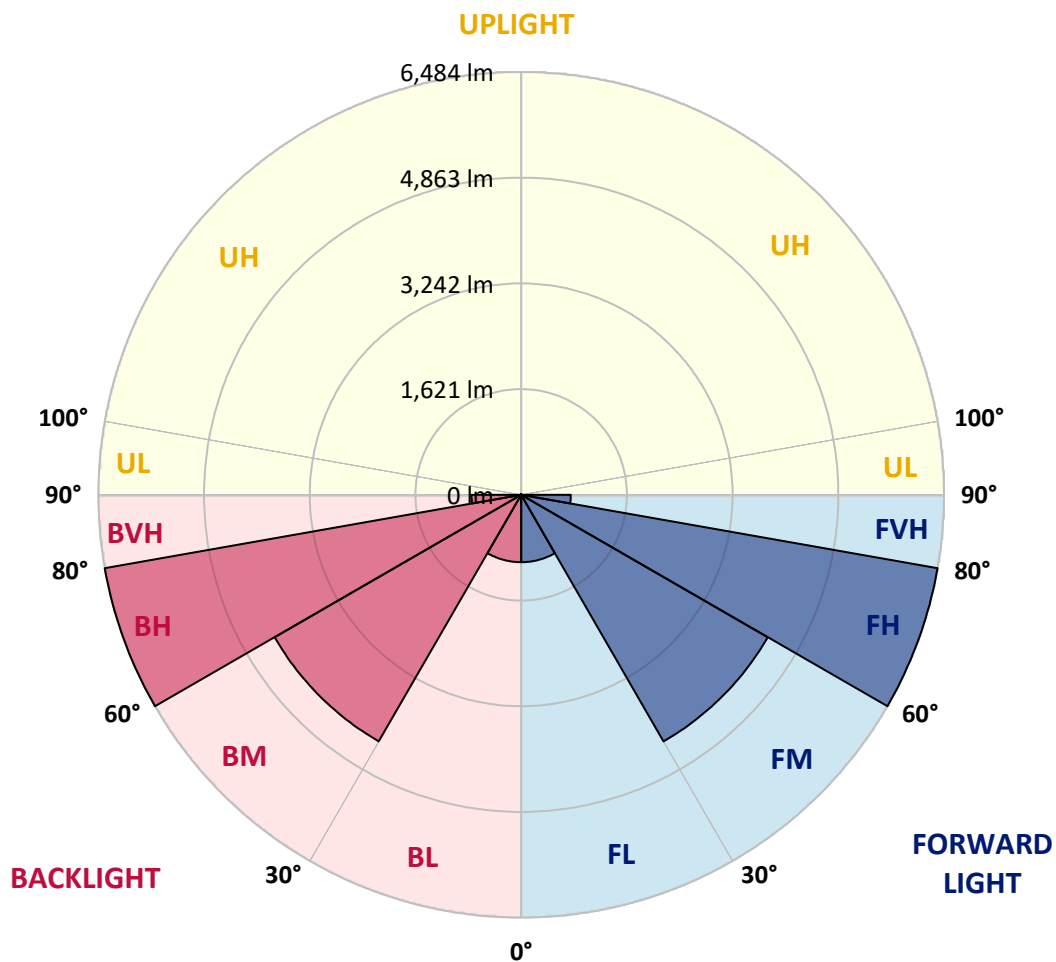
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1033.0	4.1			
FM	(30°-60°)	4366.1	17.3			
FH	(60°-80°)	6483.6	25.6			G3/7500
FVH	(80°-90°)	761.5	3.0			G5
BL	(0°-30°)	1033.0	4.1	B3/2500		
BM	(30°-60°)	4366.1	17.3	B3/5000		
BH	(60°-80°)	6483.6	25.6	B5		G3/7500
BVH	(80°-90°)	761.5	3.0			G5
UL	(90°-100°)	1.3	0.0		U1/10	
UH	(100°-180°)	6.2	0.0		U1/10	

**BUG Rating: B5-U2-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2
2.5°	2436.8	2433.6	2435.2	2438.4	2436.8	2436.8	2435.2	2435.2	2438.4	2435.2	2436.8
5°	2438.4	2435.2	2436.8	2438.4	2436.8	2438.4	2436.8	2436.8	2436.8	2435.2	2438.4
7.5°	2432.0	2432.0	2433.6	2433.6	2432.0	2433.6	2433.6	2433.6	2432.0	2432.0	2435.2
10°	2428.8	2427.2	2427.2	2428.8	2427.2	2427.2	2428.8	2428.8	2425.6	2425.6	2428.8
12.5°	2424.0	2422.4	2422.4	2422.4	2420.8	2420.8	2422.4	2422.4	2420.8	2419.2	2424.0
15°	2420.8	2419.2	2419.2	2419.2	2416.0	2417.6	2417.6	2417.6	2416.0	2414.4	2419.2
17.5°	2419.2	2417.6	2417.6	2417.6	2416.0	2416.0	2416.0	2416.0	2414.4	2414.4	2417.6
20°	2422.4	2422.4	2422.4	2422.4	2420.8	2420.8	2420.8	2422.4	2422.4	2422.4	2425.6
22.5°	2430.4	2430.4	2432.0	2433.6	2433.6	2436.8	2438.4	2440.0	2440.0	2441.6	2444.8
25°	2451.2	2451.2	2452.8	2454.4	2459.2	2462.4	2468.8	2472.0	2473.6	2473.6	2475.2
27.5°	2489.6	2491.2	2494.4	2497.6	2504.0	2508.8	2515.2	2521.6	2523.2	2524.8	2526.4
30°	2537.6	2539.2	2545.6	2548.8	2556.8	2566.4	2574.4	2580.8	2585.6	2588.8	2587.2
32.5°	2606.4	2609.6	2617.6	2622.4	2633.6	2643.2	2654.4	2664.0	2668.8	2673.6	2672.0
35°	2702.4	2710.4	2718.4	2723.2	2734.4	2742.4	2756.8	2766.4	2776.0	2772.8	2774.4
37.5°	2844.8	2851.2	2852.8	2856.0	2867.2	2873.6	2889.6	2902.4	2907.2	2910.4	2912.0
40°	3036.8	3036.8	3044.8	3038.4	3052.8	3054.4	3073.6	3091.2	3096.0	3108.8	3099.2
42.5°	3260.8	3259.2	3264.0	3259.2	3259.2	3275.2	3291.2	3323.2	3326.4	3342.4	3332.8
45°	3504.0	3504.0	3499.2	3500.8	3504.0	3521.6	3540.8	3576.0	3592.0	3601.6	3595.2
47.5°	3768.0	3761.6	3760.0	3758.4	3768.0	3787.2	3816.0	3849.6	3889.6	3892.8	3889.6
50°	4035.2	4033.6	4022.4	4032.0	4038.4	4048.0	4102.4	4147.2	4188.8	4214.4	4206.4
52.5°	4316.8	4302.4	4302.4	4302.4	4318.4	4348.8	4396.8	4457.6	4513.6	4540.8	4536.0
55°	4601.6	4596.8	4582.4	4576.0	4596.8	4640.0	4708.8	4782.4	4856.0	4897.6	4881.6
57.5°	4862.4	4854.4	4856.0	4857.6	4881.6	4939.2	5019.2	5116.8	5196.8	5241.6	5230.4
60°	5067.2	5057.6	5075.2	5080.0	5123.2	5219.2	5347.2	5470.4	5576.0	5620.8	5603.2
62.5°	5299.2	5292.8	5304.0	5302.4	5348.8	5456.0	5627.2	5824.0	5984.0	6041.6	6016.0
65°	5673.6	5654.4	5649.6	5632.0	5662.4	5745.6	5916.8	6145.6	6401.6	6548.8	6513.6
67.5°	6121.6	6116.8	6100.8	6091.2	6102.4	6206.4	6371.2	6592.0	6852.8	7056.0	7100.8
70°	6417.6	6424.0	6440.0	6464.0	6556.8	6758.4	7059.2	7393.6	7752.0	7904.0	7876.8
72.5°	6361.6	6371.2	6384.0	6414.4	6536.0	6777.6	7174.4	7673.6	8123.2	8324.8	8152.0
75°	6088.0	6096.0	6124.8	6171.2	6320.0	6612.8	7040.0	7569.6	8033.6	8235.2	8054.4
76°	5835.2	5860.8	5913.6	5968.0	6147.2	6465.6	6921.6	7486.4	7977.6	8182.4	8008.0
77.5°	5262.4	5284.8	5328.0	5422.4	5625.6	6033.6	6566.4	7121.6	7633.6	7817.6	7670.4
80°	3960.0	3979.2	4019.2	4132.8	4308.8	4561.6	4974.4	5516.8	6078.4	6320.0	6224.0
82.5°	1672.0	1694.4	1852.8	2017.6	2211.2	2484.8	2753.6	3233.6	3646.4	3921.6	3774.4
85°	184.0	227.2	280.0	380.8	467.2	622.4	774.4	1065.6	1347.2	1518.4	1342.4
87.5°	32.0	36.8	52.8	67.2	75.2	86.4	104.0	145.6	198.4	171.2	174.4
90°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.2	3.2	3.2	3.2
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
97.5°	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
100°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2
102.5°	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
105°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
107.5°	1.6	1.6	1.6	1.6	3.2	3.2	1.6	1.6	1.6	3.2	1.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
112.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
115°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
117.5°	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
120°	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
122.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
125°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
127.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
130°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
132.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
135°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
137.5°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
140°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
142.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
145°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	0.0	1.6
147.5°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6
150°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	0.0	0.0	0.0
152.5°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	0.0	0.0
155°	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	0.0	1.6
157.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	0.0	0.0	0.0
160°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	0.0	0.0	0.0
162.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	0.0	0.0	0.0
165°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	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°	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2	2435.2
2.5°	2435.2	2435.2	2438.4	2436.8	2436.8	2438.4	2441.6	2440.0
5°	2436.8	2438.4	2435.2	2436.8	2438.4	2438.4	2440.0	2438.4
7.5°	2433.6	2433.6	2433.6	2435.2	2436.8	2435.2	2436.8	2436.8
10°	2427.2	2428.8	2427.2	2430.4	2432.0	2432.0	2433.6	2433.6
12.5°	2422.4	2422.4	2422.4	2425.6	2427.2	2427.2	2428.8	2427.2
15°	2417.6	2417.6	2416.0	2419.2	2422.4	2422.4	2424.0	2424.0
17.5°	2416.0	2416.0	2414.4	2417.6	2420.8	2420.8	2422.4	2422.4
20°	2420.8	2422.4	2419.2	2422.4	2425.6	2427.2	2427.2	2427.2
22.5°	2440.0	2438.4	2433.6	2435.2	2436.8	2436.8	2436.8	2436.8
25°	2468.8	2465.6	2460.8	2459.2	2457.6	2456.0	2456.0	2456.0
27.5°	2518.4	2513.6	2505.6	2504.0	2502.4	2499.2	2499.2	2499.2
30°	2577.6	2571.2	2561.6	2558.4	2553.6	2550.4	2548.8	2547.2
32.5°	2662.4	2649.6	2638.4	2630.4	2625.6	2616.0	2614.4	2611.2
35°	2760.0	2750.4	2734.4	2729.6	2721.6	2716.8	2715.2	2707.2
37.5°	2894.4	2883.2	2868.8	2865.6	2864.0	2859.2	2859.2	2857.6
40°	3081.6	3070.4	3057.6	3044.8	3048.0	3049.6	3049.6	3043.2
42.5°	3310.4	3292.8	3267.2	3275.2	3270.4	3264.0	3276.8	3268.8
45°	3571.2	3547.2	3528.0	3520.0	3520.0	3512.0	3524.8	3524.8
47.5°	3860.8	3822.4	3787.2	3788.8	3776.0	3779.2	3787.2	3798.4
50°	4166.4	4115.2	4081.6	4065.6	4052.8	4057.6	4072.0	4075.2
52.5°	4483.2	4420.8	4376.0	4352.0	4336.0	4342.4	4353.6	4363.2
55°	4812.8	4744.0	4676.8	4651.2	4632.0	4644.8	4646.4	4659.2
57.5°	5156.8	5062.4	4984.0	4945.6	4926.4	4939.2	4948.8	4961.6
60°	5504.0	5395.2	5302.4	5257.6	5230.4	5248.0	5270.4	5276.8
62.5°	5907.2	5756.8	5652.8	5588.8	5576.0	5593.6	5600.0	5619.2
65°	6384.0	6203.2	6059.2	5980.8	5977.6	5987.2	6001.6	6006.4
67.5°	6928.0	6726.4	6532.8	6454.4	6424.0	6452.8	6467.2	6486.4
70°	7696.0	7419.2	7139.2	6964.8	6891.2	6868.8	6875.2	6896.0
72.5°	7782.4	7484.8	7158.4	6921.6	6792.0	6732.8	6731.2	6734.4
75°	7593.6	7118.4	6888.0	6616.0	6432.0	6336.0	6323.2	6321.6
76°	7499.2	6937.6	6604.8	6388.8	6168.0	6070.4	6056.0	6048.0
77.5°	7100.8	6497.6	5996.8	5865.6	5654.4	5531.2	5556.8	5536.0
80°	5692.8	5094.4	4622.4	4252.8	4264.0	4174.4	4137.6	4126.4
82.5°	3355.2	2864.0	2342.4	2036.8	1745.6	1668.8	1436.8	1384.0
85°	1072.0	760.0	460.8	334.4	227.2	190.4	148.8	136.0
87.5°	142.4	112.0	91.2	88.0	80.0	68.8	44.8	32.0
90°	1.6	1.6	1.6	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°	1.6	1.6	1.6	1.6	0.0	0.0	0.0	0.0
97.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
100°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
102.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6
105°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
107.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2



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CATALOG NUMBER: VST-E08-LED-E-U-5XQ

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2
112.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2
115°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2
117.5°	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2
120°	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2
122.5°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
125°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
127.5°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
130°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
132.5°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
135°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
137.5°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
140°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
142.5°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
145°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
150°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
152.5°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
155°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
157.5°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
160°	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2
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)