

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: P157829

Luminaire Tested: **VST-E09-LED-E-U-5XQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157829  
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-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (189) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25996.8 lumens  
Efficiency: N/A  
Efficacy: 115.2 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 - G5

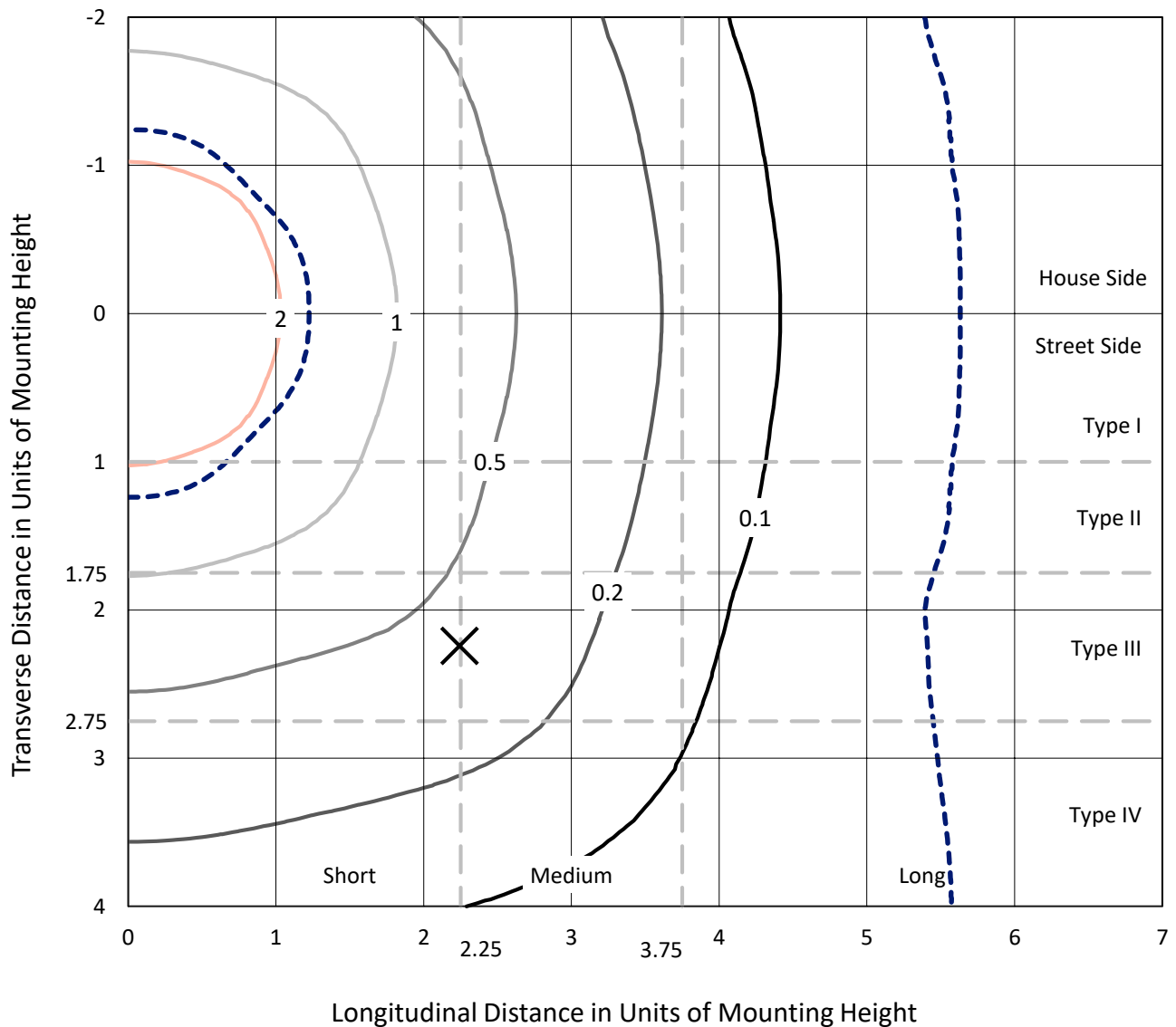
Input Watts (W): 225.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P157829  
 CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

### Iso-Footcandle Lines of Horizontal Illumination

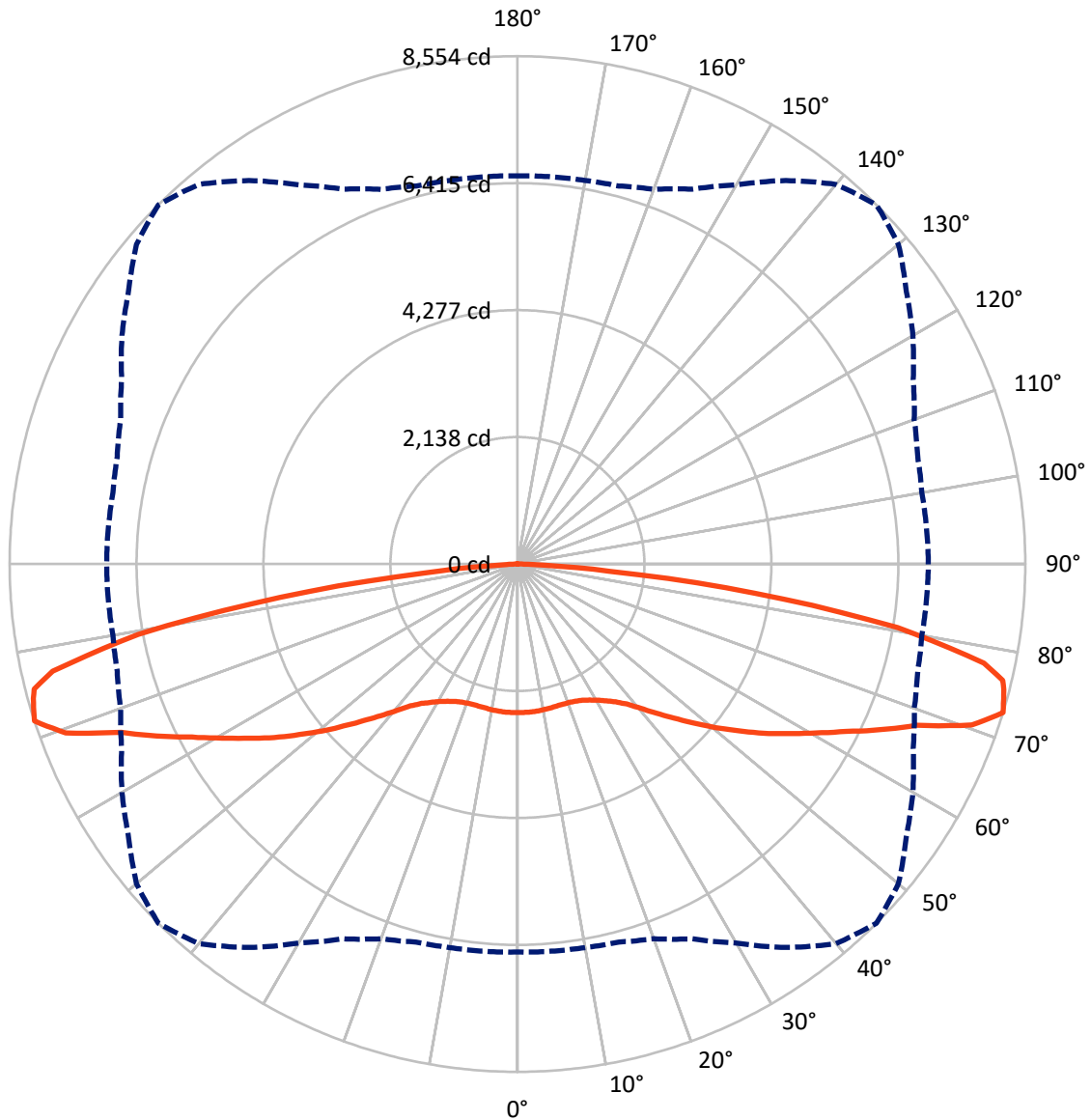
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type V - Short - Non-Cutoff

REPORT NUMBER: P157829  
CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P157829

CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

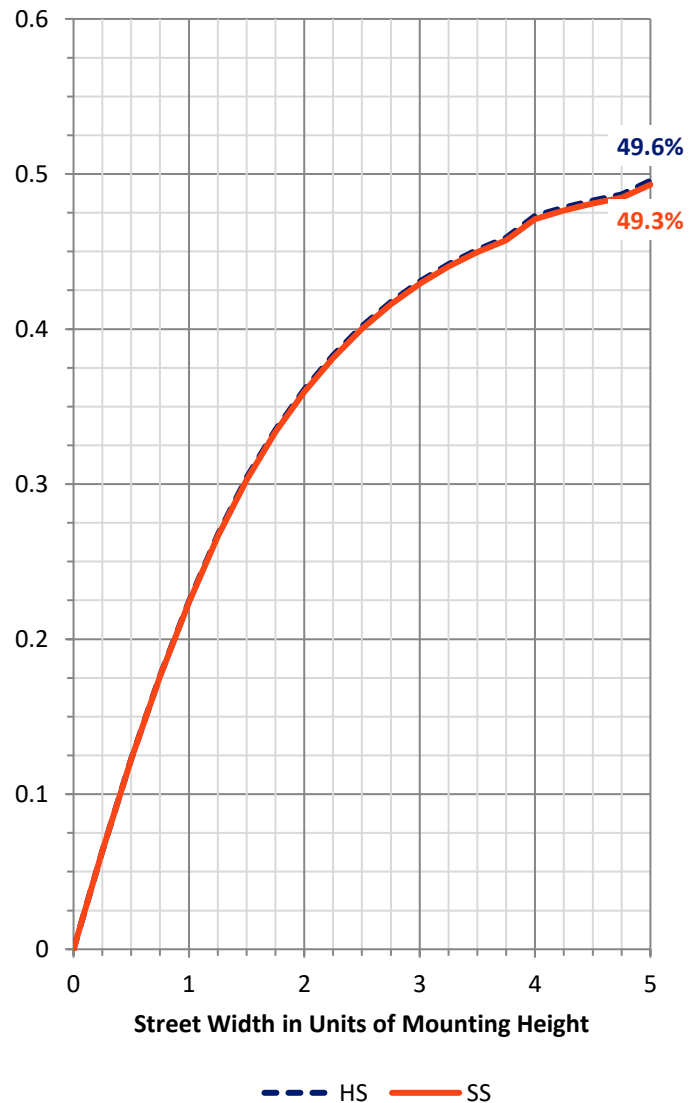
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12992.1	6.3	12998.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12992.1	6.3	12998.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25984.2	12.6	25996.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	238.7	0.9
10°-20°	705.1	2.7
20°-30°	1179.1	4.5
30°-40°	1792.2	6.9
40°-50°	2838.4	10.9
50°-60°	4341.8	16.7
60°-70°	6213.9	23.9
70°-80°	7110.1	27.3
80°-90°	1564.9	6.0
90°-100°	1.3	0.0
100°-110°	2.7	0.0
110°-120°	1.8	0.0
120°-130°	2.0	0.0
130°-140°	1.9	0.0
140°-150°	1.5	0.0
150°-160°	1.0	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-90°	25984.2	100.0
0°-180°	25996.8	100.0



REPORT NUMBER: P157829

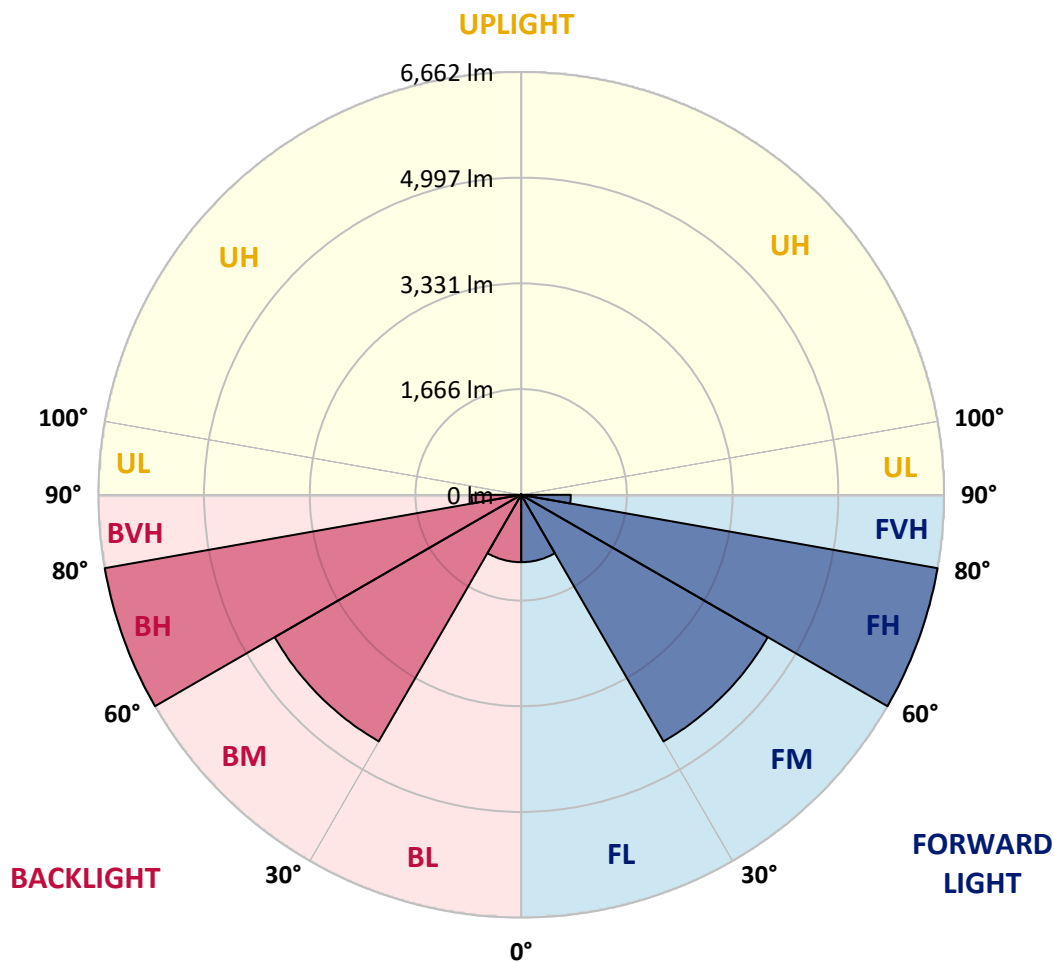
CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1061.5	4.1			
FM	(30°-60°)	4486.2	17.3			
FH	(60°-80°)	6662.0	25.6			G3/7500
FVH	(80°-90°)	782.4	3.0			G5
BL	(0°-30°)	1061.5	4.1	B3/2500		
BM	(30°-60°)	4486.2	17.3	B3/5000		
BH	(60°-80°)	6662.0	25.6	B5		G3/7500
BVH	(80°-90°)	782.4	3.0			G5
UL	(90°-100°)	1.3	0.0		U1/10	
UH	(100°-180°)	6.3	0.0		U1/10	

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

Type V Short





REPORT NUMBER: P157829

CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2
2.5°	2503.9	2500.6	2502.2	2505.5	2503.9	2503.9	2502.2	2502.2	2505.5	2502.2	2503.9
5°	2505.5	2502.2	2503.9	2505.5	2503.9	2505.5	2503.9	2503.9	2503.9	2502.2	2505.5
7.5°	2498.9	2498.9	2500.6	2500.6	2498.9	2500.6	2500.6	2500.6	2498.9	2498.9	2502.2
10°	2495.6	2494.0	2494.0	2495.6	2494.0	2494.0	2495.6	2495.6	2492.4	2492.4	2495.6
12.5°	2490.7	2489.1	2489.1	2489.1	2487.4	2487.4	2489.1	2489.1	2487.4	2485.8	2490.7
15°	2487.4	2485.8	2485.8	2485.8	2482.5	2484.1	2484.1	2484.1	2482.5	2480.8	2485.8
17.5°	2485.8	2484.1	2484.1	2484.1	2482.5	2482.5	2482.5	2482.5	2480.8	2480.8	2484.1
20°	2489.1	2489.1	2489.1	2489.1	2487.4	2487.4	2487.4	2489.1	2489.1	2489.1	2492.4
22.5°	2497.3	2497.3	2498.9	2500.6	2500.6	2503.9	2505.5	2507.1	2507.1	2508.8	2512.1
25°	2518.7	2518.7	2520.3	2521.9	2526.9	2530.2	2536.7	2540.0	2541.7	2541.7	2543.3
27.5°	2558.1	2559.8	2563.0	2566.3	2572.9	2577.8	2584.4	2591.0	2592.6	2594.3	2595.9
30°	2607.4	2609.1	2615.7	2618.9	2627.2	2637.0	2645.2	2651.8	2656.8	2660.0	2658.4
32.5°	2678.1	2681.4	2689.6	2694.6	2706.1	2715.9	2727.4	2737.3	2742.2	2747.2	2745.5
35°	2776.8	2785.0	2793.2	2798.1	2809.6	2817.9	2832.7	2842.5	2852.4	2849.1	2850.7
37.5°	2923.1	2929.7	2931.3	2934.6	2946.1	2952.7	2969.1	2982.3	2987.2	2990.5	2992.1
40°	3120.4	3120.4	3128.6	3122.0	3136.8	3138.5	3158.2	3176.3	3181.2	3194.4	3184.5
42.5°	3350.5	3348.9	3353.8	3348.9	3348.9	3365.3	3381.8	3414.7	3417.9	3434.4	3424.5
45°	3600.4	3600.4	3595.5	3597.1	3600.4	3618.5	3638.2	3674.4	3690.8	3700.7	3694.1
47.5°	3871.7	3865.1	3863.5	3861.8	3871.7	3891.4	3921.0	3955.5	3996.6	3999.9	3996.6
50°	4146.2	4144.6	4133.1	4143.0	4149.5	4159.4	4215.3	4261.3	4304.1	4330.4	4322.2
52.5°	4435.6	4420.8	4420.8	4420.8	4437.2	4468.5	4517.8	4580.3	4637.8	4665.8	4660.8
55°	4728.2	4723.3	4708.5	4701.9	4723.3	4767.7	4838.4	4914.0	4989.6	5032.4	5015.9
57.5°	4996.2	4988.0	4989.6	4991.3	5015.9	5075.1	5157.3	5257.6	5339.8	5385.8	5374.3
60°	5206.6	5196.8	5214.9	5219.8	5264.2	5362.8	5494.4	5620.9	5729.4	5775.5	5757.4
62.5°	5445.0	5438.5	5450.0	5448.3	5496.0	5606.1	5782.1	5984.3	6148.7	6207.9	6181.6
65°	5829.7	5810.0	5805.1	5787.0	5818.2	5903.7	6079.6	6314.7	6577.8	6729.0	6692.8
67.5°	6290.1	6285.1	6268.7	6258.8	6270.3	6377.2	6546.5	6773.4	7041.4	7250.2	7296.2
70°	6594.2	6600.8	6617.2	6641.9	6737.2	6944.4	7253.5	7597.1	7965.3	8121.5	8093.6
72.5°	6536.7	6546.5	6559.7	6590.9	6715.9	6964.1	7371.8	7884.8	8346.7	8553.9	8376.3
75°	6255.5	6263.8	6293.3	6341.0	6493.9	6794.8	7233.7	7777.9	8254.7	8461.8	8276.1
76°	5995.8	6022.1	6076.3	6132.2	6316.4	6643.5	7112.1	7692.4	8197.1	8407.6	8228.4
77.5°	5407.2	5430.2	5474.6	5571.6	5780.4	6199.6	6747.1	7317.6	7843.7	8032.7	7881.5
80°	4069.0	4088.7	4129.8	4246.5	4427.4	4687.1	5111.3	5668.6	6245.7	6493.9	6395.3
82.5°	1718.0	1741.0	1903.8	2073.1	2272.1	2553.2	2829.4	3322.6	3746.7	4029.5	3878.3
85°	189.1	233.5	287.7	391.3	480.1	639.5	795.7	1094.9	1384.3	1560.2	1379.3
87.5°	32.9	37.8	54.3	69.0	77.3	88.8	106.9	149.6	203.9	175.9	179.2
90°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	3.3	3.3	3.3	3.3
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	3.3	3.3	3.3
102.5°	1.6	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3	3.3
105°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
107.5°	1.6	1.6	1.6	1.6	3.3	3.3	1.6	1.6	1.6	3.3	1.6



REPORT NUMBER: P157829

CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

**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°	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
120°	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
122.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
125°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
127.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
130°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6
132.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
135°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6
137.5°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6
140°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6
142.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
145°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	0.0	1.6
147.5°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6
150°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	0.0	0.0	0.0
152.5°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	0.0	0.0
155°	3.3	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	0.0	1.6
157.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	0.0	0.0	0.0
160°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	0.0	0.0	0.0
162.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	0.0	0.0	0.0
165°	3.3	3.3	3.3	3.3	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





REPORT NUMBER: P157829

CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2	2502.2
2.5°	2502.2	2502.2	2505.5	2503.9	2503.9	2505.5	2508.8	2507.1
5°	2503.9	2505.5	2502.2	2503.9	2505.5	2505.5	2507.1	2505.5
7.5°	2500.6	2500.6	2500.6	2502.2	2503.9	2502.2	2503.9	2503.9
10°	2494.0	2495.6	2494.0	2497.3	2498.9	2498.9	2500.6	2500.6
12.5°	2489.1	2489.1	2489.1	2492.4	2494.0	2494.0	2495.6	2494.0
15°	2484.1	2484.1	2482.5	2485.8	2489.1	2489.1	2490.7	2490.7
17.5°	2482.5	2482.5	2480.8	2484.1	2487.4	2487.4	2489.1	2489.1
20°	2487.4	2489.1	2485.8	2489.1	2492.4	2494.0	2494.0	2494.0
22.5°	2507.1	2505.5	2500.6	2502.2	2503.9	2503.9	2503.9	2503.9
25°	2536.7	2533.5	2528.5	2526.9	2525.2	2523.6	2523.6	2523.6
27.5°	2587.7	2582.8	2574.6	2572.9	2571.3	2568.0	2568.0	2568.0
30°	2648.5	2642.0	2632.1	2628.8	2623.9	2620.6	2618.9	2617.3
32.5°	2735.7	2722.5	2711.0	2702.8	2697.9	2688.0	2686.3	2683.1
35°	2836.0	2826.1	2809.6	2804.7	2796.5	2791.6	2789.9	2781.7
37.5°	2974.1	2962.5	2947.7	2944.5	2942.8	2937.9	2937.9	2936.2
40°	3166.4	3154.9	3141.7	3128.6	3131.9	3133.5	3133.5	3126.9
42.5°	3401.5	3383.4	3357.1	3365.3	3360.4	3353.8	3367.0	3358.8
45°	3669.5	3644.8	3625.1	3616.9	3616.9	3608.6	3621.8	3621.8
47.5°	3967.0	3927.6	3891.4	3893.1	3879.9	3883.2	3891.4	3902.9
50°	4281.1	4228.4	4193.9	4177.5	4164.3	4169.3	4184.1	4187.3
52.5°	4606.6	4542.5	4496.4	4471.8	4455.3	4461.9	4473.4	4483.3
55°	4945.2	4874.6	4805.5	4779.2	4759.5	4772.6	4774.3	4787.4
57.5°	5298.7	5201.7	5121.2	5081.7	5062.0	5075.1	5085.0	5098.1
60°	5655.5	5543.7	5448.3	5402.3	5374.3	5392.4	5415.4	5422.0
62.5°	6069.8	5915.2	5808.4	5742.6	5729.4	5747.5	5754.1	5773.8
65°	6559.7	6373.9	6225.9	6145.4	6142.1	6152.0	6166.8	6171.7
67.5°	7118.7	6911.5	6712.6	6632.0	6600.8	6630.4	6645.2	6664.9
70°	7907.8	7623.4	7335.7	7156.5	7080.8	7057.8	7064.4	7085.8
72.5°	7996.6	7690.8	7355.4	7112.1	6978.9	6918.1	6916.4	6919.7
75°	7802.6	7314.3	7077.6	6798.1	6609.0	6510.4	6497.2	6495.6
76°	7705.6	7128.5	6786.6	6564.6	6337.7	6237.5	6222.7	6214.4
77.5°	7296.2	6676.4	6161.8	6027.0	5810.0	5683.4	5709.7	5688.3
80°	5849.5	5234.6	4749.6	4369.8	4381.3	4289.3	4251.5	4240.0
82.5°	3447.5	2942.8	2406.9	2092.9	1793.6	1714.7	1476.3	1422.1
85°	1101.5	780.9	473.5	343.6	233.5	195.6	152.9	139.7
87.5°	146.3	115.1	93.7	90.4	82.2	70.7	46.0	32.9
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°	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
102.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6
105°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
107.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3



REPORT NUMBER: P157829

CATALOG NUMBER: VST-E09-LED-E-U-5XQ-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.6	1.6	1.6	1.6	1.6	3.3	3.3	3.3
112.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3
115°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3
117.5°	1.6	1.6	1.6	1.6	1.6	3.3	3.3	3.3
120°	1.6	1.6	1.6	1.6	1.6	3.3	3.3	3.3
122.5°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
125°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
127.5°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
130°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
132.5°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
135°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
137.5°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
140°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
142.5°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
145°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
147.5°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
150°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
152.5°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
155°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
157.5°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
160°	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3
162.5°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
165°	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
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)