

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: P157859

Luminaire Tested: **VST-E12-LED-E-U-5XQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157859  
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-E12-LED-E-U-5XQ-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (252) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 34662.6 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B5 - U2 - G5

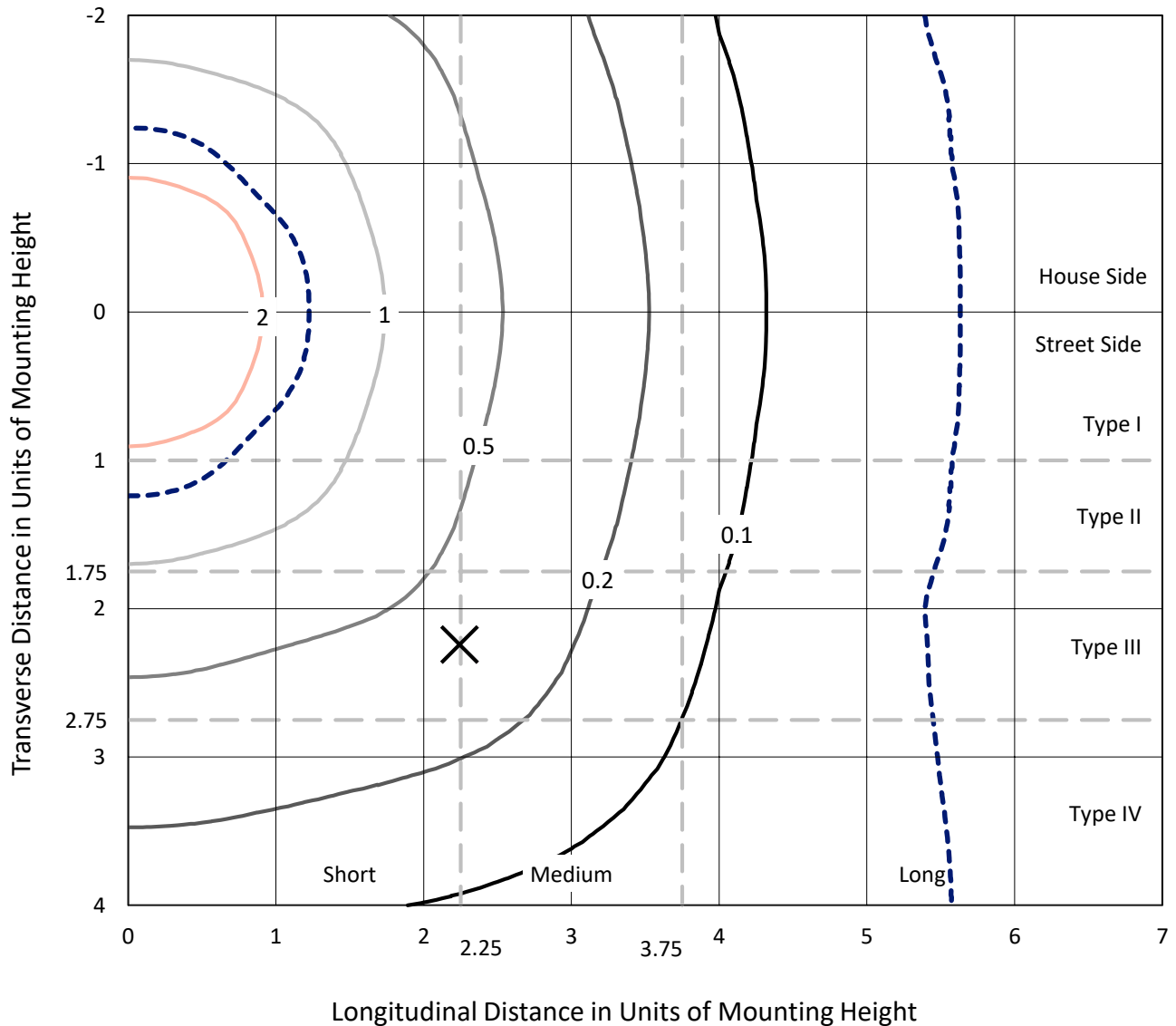
Input Watts (W): 291.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

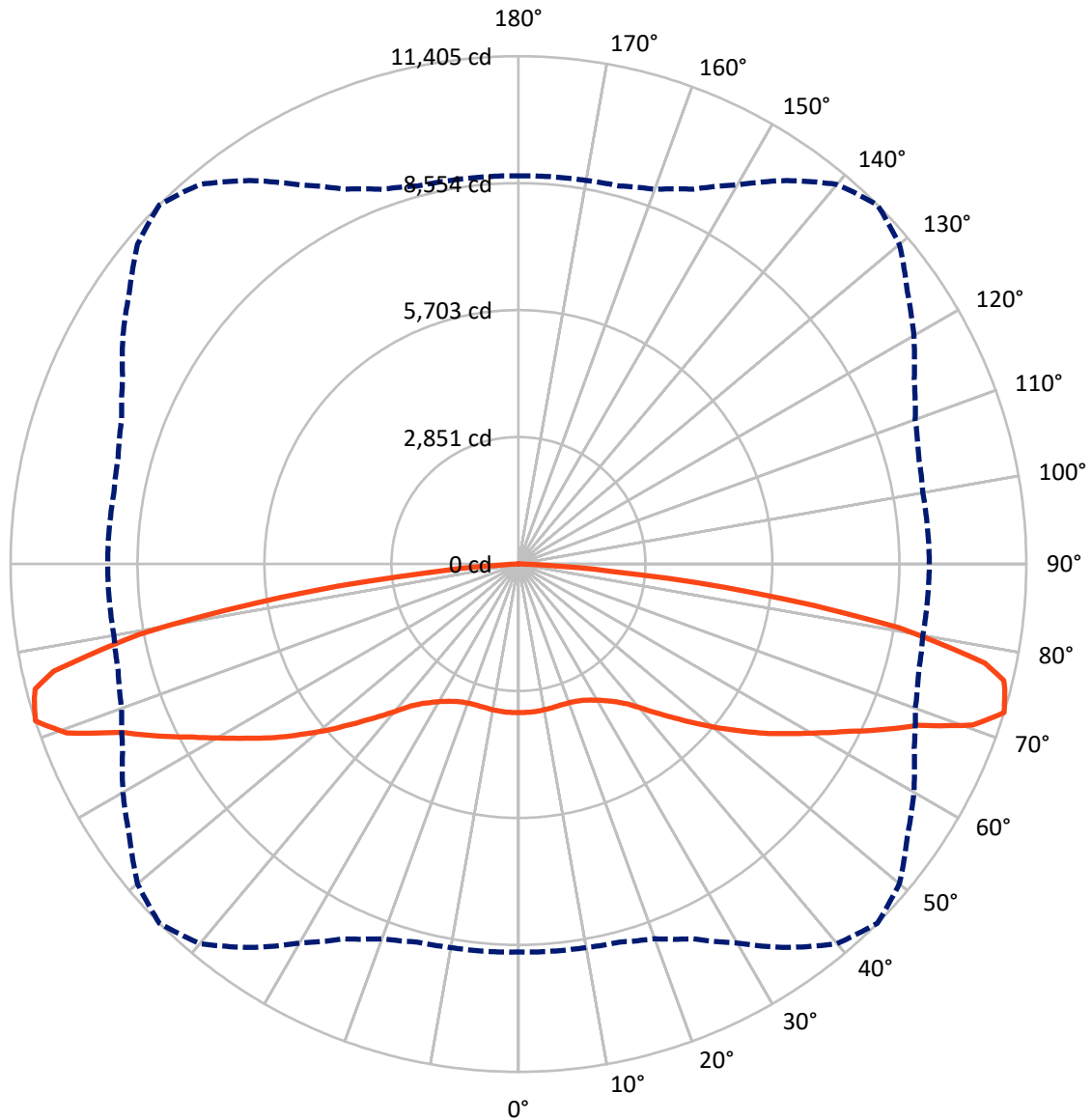


Based on 30 foot mounting height. Maximum calculated value = 3.7 fc  
 Type V - Short - Non-Cutoff

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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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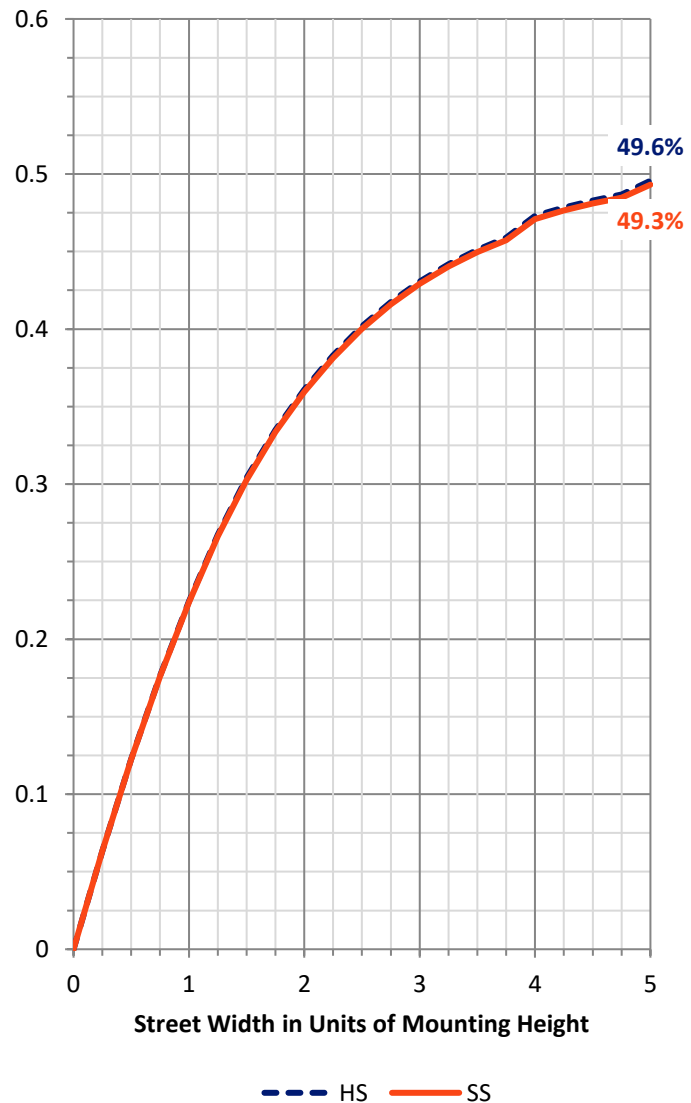
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17322.8	8.5	17331.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	17322.8	8.5	17331.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	34645.6	17.0	34662.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	318.3	0.9
10°-20°	940.2	2.7
20°-30°	1572.1	4.5
30°-40°	2389.5	6.9
40°-50°	3784.6	10.9
50°-60°	5789.1	16.7
60°-70°	8285.2	23.9
70°-80°	9480.1	27.3
80°-90°	2086.5	6.0
90°-100°	1.8	0.0
100°-110°	3.6	0.0
110°-120°	2.5	0.0
120°-130°	2.7	0.0
130°-140°	2.5	0.0
140°-150°	2.0	0.0
150°-160°	1.3	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	34645.6	100.0
0°-180°	34662.6	100.0



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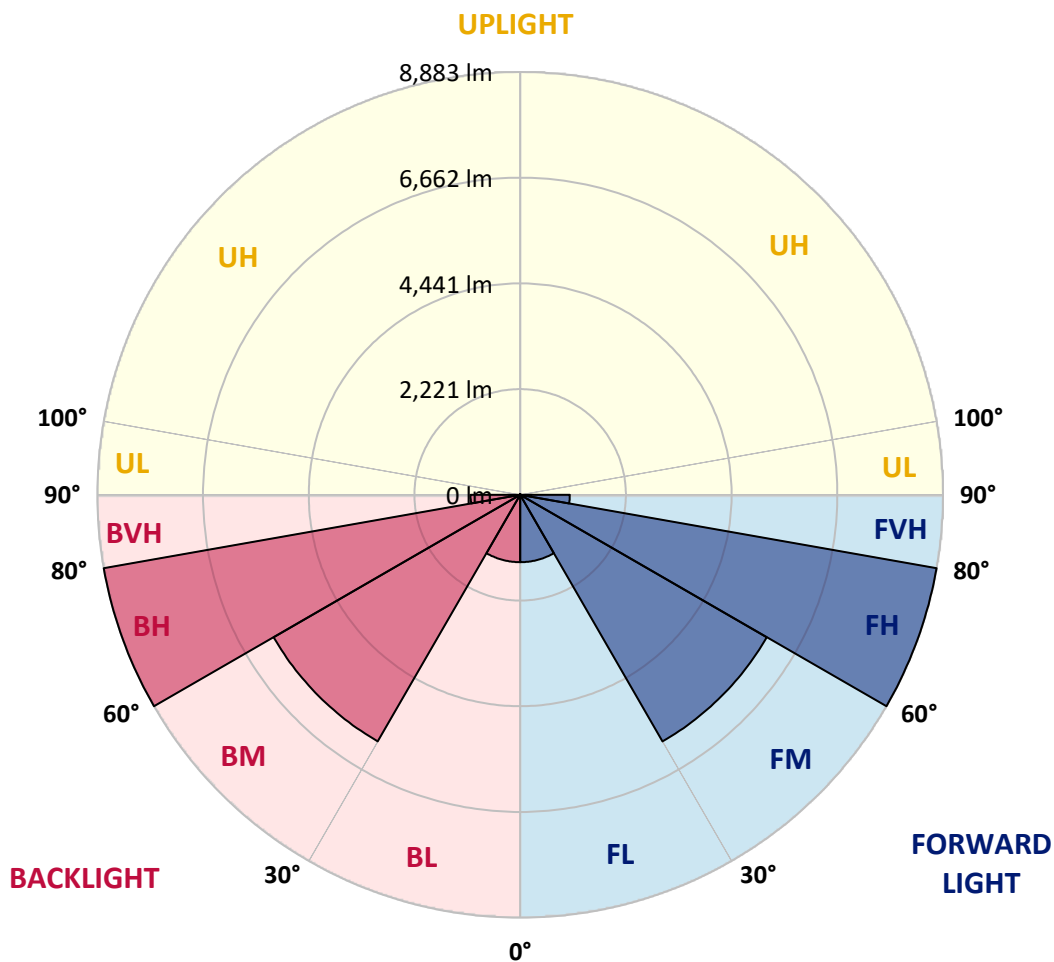
CATALOG NUMBER: VST-E12-LED-E-U-5XQ-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1415.3	4.1			
FM	(30°-60°)	5981.6	17.3			
FH	(60°-80°)	8882.7	25.6			G4/12000
FVH	(80°-90°)	1043.2	3.0			G5
BL	(0°-30°)	1415.3	4.1	B3/2500		
BM	(30°-60°)	5981.6	17.3	B4/8500		
BH	(60°-80°)	8882.7	25.6	B5		G4/12000
BVH	(80°-90°)	1043.2	3.0			G5
UL	(90°-100°)	1.8	0.0		U1/10	
UH	(100°-180°)	8.5	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°	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3
2.5°	3338.5	3334.1	3336.3	3340.7	3338.5	3338.5	3336.3	3336.3	3340.7	3336.3	3338.5
5°	3340.7	3336.3	3338.5	3340.7	3338.5	3340.7	3338.5	3338.5	3338.5	3336.3	3340.7
7.5°	3331.9	3331.9	3334.1	3334.1	3331.9	3334.1	3334.1	3334.1	3331.9	3331.9	3336.3
10°	3327.5	3325.3	3325.3	3327.5	3325.3	3325.3	3327.5	3327.5	3323.1	3323.1	3327.5
12.5°	3320.9	3318.7	3318.7	3318.7	3316.6	3316.6	3318.7	3318.7	3316.6	3314.4	3320.9
15°	3316.6	3314.4	3314.4	3314.4	3310.0	3312.2	3312.2	3312.2	3310.0	3307.8	3314.4
17.5°	3314.4	3312.2	3312.2	3312.2	3310.0	3310.0	3310.0	3310.0	3307.8	3307.8	3312.2
20°	3318.7	3318.7	3318.7	3318.7	3316.6	3316.6	3316.6	3318.7	3318.7	3318.7	3323.1
22.5°	3329.7	3329.7	3331.9	3334.1	3334.1	3338.5	3340.7	3342.9	3342.9	3345.1	3349.4
25°	3358.2	3358.2	3360.4	3362.6	3369.2	3373.6	3382.3	3386.7	3388.9	3388.9	3391.1
27.5°	3410.8	3413.0	3417.4	3421.8	3430.5	3437.1	3445.9	3454.7	3456.8	3459.0	3461.2
30°	3476.6	3478.8	3487.5	3491.9	3502.9	3516.0	3527.0	3535.8	3542.3	3546.7	3544.5
32.5°	3570.8	3575.2	3586.2	3592.8	3608.1	3621.3	3636.6	3649.7	3656.3	3662.9	3660.7
35°	3702.4	3713.3	3724.3	3730.9	3746.2	3757.2	3776.9	3790.0	3803.2	3798.8	3801.0
37.5°	3897.4	3906.2	3908.4	3912.8	3928.1	3936.9	3958.8	3976.4	3982.9	3987.3	3989.5
40°	4160.5	4160.5	4171.5	4162.7	4182.4	4184.6	4210.9	4235.0	4241.6	4259.1	4246.0
42.5°	4467.4	4465.2	4471.8	4465.2	4465.2	4487.1	4509.0	4552.9	4557.3	4579.2	4566.0
45°	4800.6	4800.6	4794.0	4796.2	4800.6	4824.7	4851.0	4899.2	4921.1	4934.3	4925.5
47.5°	5162.3	5153.5	5151.3	5149.1	5162.3	5188.6	5228.0	5274.1	5328.9	5333.2	5328.9
50°	5528.3	5526.1	5510.8	5523.9	5532.7	5545.9	5620.4	5681.8	5738.8	5773.8	5762.9
52.5°	5914.1	5894.4	5894.4	5894.4	5916.3	5958.0	6023.7	6107.0	6183.7	6221.0	6214.4
55°	6304.3	6297.7	6278.0	6269.2	6297.7	6356.9	6451.2	6552.0	6652.8	6709.8	6687.9
57.5°	6661.6	6650.7	6652.8	6655.0	6687.9	6766.8	6876.4	7010.1	7119.7	7181.1	7165.8
60°	6942.2	6929.0	6953.2	6959.7	7018.9	7150.4	7325.8	7494.6	7639.3	7700.6	7676.5
62.5°	7260.0	7251.3	7266.6	7264.4	7328.0	7474.9	7709.4	7979.0	8198.2	8277.1	8242.1
65°	7773.0	7746.7	7740.1	7716.0	7757.6	7871.6	8106.2	8419.6	8770.4	8972.0	8923.8
67.5°	8386.7	8380.2	8358.3	8345.1	8360.4	8502.9	8728.7	9031.2	9388.5	9666.9	9728.3
70°	8792.3	8801.0	8823.0	8855.8	8983.0	9259.2	9671.3	10129.4	10620.4	10828.7	10791.4
72.5°	8715.6	8728.7	8746.2	8787.9	8954.5	9285.5	9829.1	10513.0	11129.0	11405.2	11168.4
75°	8340.7	8351.7	8391.1	8454.7	8658.6	9059.7	9645.0	10370.5	11006.2	11282.4	11034.7
76°	7994.4	8029.4	8101.8	8176.3	8421.8	8858.0	9482.8	10256.6	10929.5	11210.1	10971.2
77.5°	7209.6	7240.3	7299.5	7428.8	7707.2	8266.2	8996.1	9756.8	10458.2	10710.3	10508.6
80°	5425.3	5451.6	5506.4	5662.0	5903.2	6249.5	6815.1	7558.2	8327.6	8658.6	8527.0
82.5°	2290.7	2321.4	2538.4	2764.2	3029.4	3404.2	3772.5	4430.1	4995.7	5372.7	5171.0
85°	252.1	311.3	383.6	521.7	640.1	852.7	1060.9	1459.9	1845.7	2080.2	1839.1
87.5°	43.8	50.4	72.3	92.1	103.0	118.4	142.5	199.5	271.8	234.5	238.9
90°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	4.4	4.4	4.4	4.4
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
97.5°	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
100°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
102.5°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4	4.4
105°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
107.5°	2.2	2.2	2.2	2.2	4.4	4.4	2.2	2.2	2.2	4.4	2.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
112.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
115°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
117.5°	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
120°	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
122.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
125°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
127.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
130°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
132.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
135°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
137.5°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
140°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
142.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
145°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	2.2
147.5°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
150°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	0.0	0.0	0.0
152.5°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0
155°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	2.2
157.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0	0.0
160°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0	0.0
162.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0	0.0
165°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	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°	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3
2.5°	3336.3	3336.3	3340.7	3338.5	3338.5	3340.7	3345.1	3342.9
5°	3338.5	3340.7	3336.3	3338.5	3340.7	3340.7	3342.9	3340.7
7.5°	3334.1	3334.1	3334.1	3336.3	3338.5	3336.3	3338.5	3338.5
10°	3325.3	3327.5	3325.3	3329.7	3331.9	3331.9	3334.1	3334.1
12.5°	3318.7	3318.7	3318.7	3323.1	3325.3	3325.3	3327.5	3325.3
15°	3312.2	3312.2	3310.0	3314.4	3318.7	3318.7	3320.9	3320.9
17.5°	3310.0	3310.0	3307.8	3312.2	3316.6	3316.6	3318.7	3318.7
20°	3316.6	3318.7	3314.4	3318.7	3323.1	3325.3	3325.3	3325.3
22.5°	3342.9	3340.7	3334.1	3336.3	3338.5	3338.5	3338.5	3338.5
25°	3382.3	3377.9	3371.4	3369.2	3367.0	3364.8	3364.8	3364.8
27.5°	3450.3	3443.7	3432.7	3430.5	3428.4	3424.0	3424.0	3424.0
30°	3531.4	3522.6	3509.5	3505.1	3498.5	3494.1	3491.9	3489.7
32.5°	3647.6	3630.0	3614.7	3603.7	3597.1	3584.0	3581.8	3577.4
35°	3781.3	3768.1	3746.2	3739.6	3728.7	3722.1	3719.9	3708.9
37.5°	3965.4	3950.1	3930.3	3925.9	3923.8	3917.2	3917.2	3915.0
40°	4221.9	4206.5	4189.0	4171.5	4175.8	4178.0	4178.0	4169.3
42.5°	4535.3	4511.2	4476.1	4487.1	4480.5	4471.8	4489.3	4478.3
45°	4892.6	4859.8	4833.4	4822.5	4822.5	4811.5	4829.1	4829.1
47.5°	5289.4	5236.8	5188.6	5190.8	5173.2	5177.6	5188.6	5203.9
50°	5708.1	5637.9	5591.9	5570.0	5552.4	5559.0	5578.7	5583.1
52.5°	6142.1	6056.6	5995.2	5962.4	5940.4	5949.2	5964.5	5977.7
55°	6593.7	6499.4	6407.3	6372.3	6346.0	6363.5	6365.7	6383.2
57.5°	7064.9	6935.6	6828.2	6775.6	6749.3	6766.8	6780.0	6797.5
60°	7540.6	7391.6	7264.4	7203.0	7165.8	7189.9	7220.6	7229.4
62.5°	8093.0	7887.0	7744.5	7656.8	7639.3	7663.4	7672.1	7698.4
65°	8746.2	8498.5	8301.3	8193.8	8189.5	8202.6	8222.3	8228.9
67.5°	9491.5	9215.3	8950.1	8842.7	8801.0	8840.5	8860.2	8886.5
70°	10543.7	10164.5	9780.9	9542.0	9441.1	9410.4	9419.2	9447.7
72.5°	10662.1	10254.4	9807.2	9482.8	9305.2	9224.1	9221.9	9226.3
75°	10403.4	9752.4	9436.7	9064.1	8812.0	8680.5	8662.9	8660.8
76°	10274.1	9504.7	9048.7	8752.8	8450.3	8316.6	8296.9	8285.9
77.5°	9728.3	8901.9	8215.8	8036.0	7746.7	7577.9	7613.0	7584.5
80°	7799.3	6979.5	6332.8	5826.4	5841.8	5719.0	5668.6	5653.3
82.5°	4596.7	3923.8	3209.1	2790.5	2391.5	2286.3	1968.5	1896.1
85°	1468.7	1041.2	631.3	458.1	311.3	260.9	203.9	186.3
87.5°	195.1	153.4	124.9	120.6	109.6	94.3	61.4	43.8
90°	2.2	2.2	2.2	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°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0
97.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
100°	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
102.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2
105°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
107.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4



REPORT NUMBER: P157859

CATALOG NUMBER: VST-E12-LED-E-U-5XQ-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
112.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4
115°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4
117.5°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
120°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
122.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
125°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
127.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
130°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
132.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
135°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
137.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
140°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
142.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
145°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
147.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
150°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
152.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
155°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
157.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
160°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
162.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
165°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
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)