

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: P157866

Luminaire Tested: **VST-F12-LED-E-U-5XQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157866  
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-F12-LED-E-U-5XQ-7050  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (84) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32147.3 lumens  
Efficiency: N/A  
Efficacy: 104.9 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): 306.6  
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

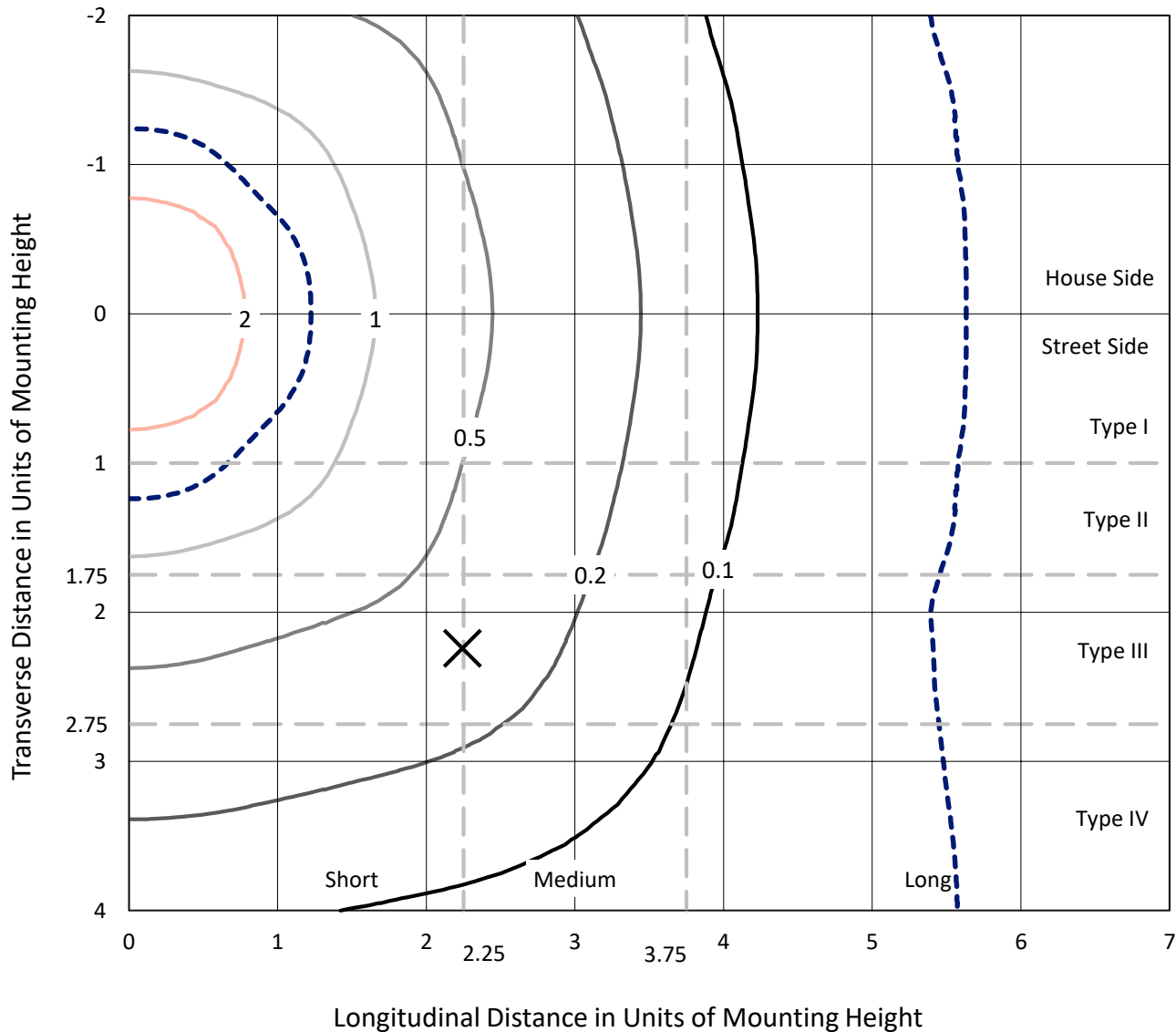


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

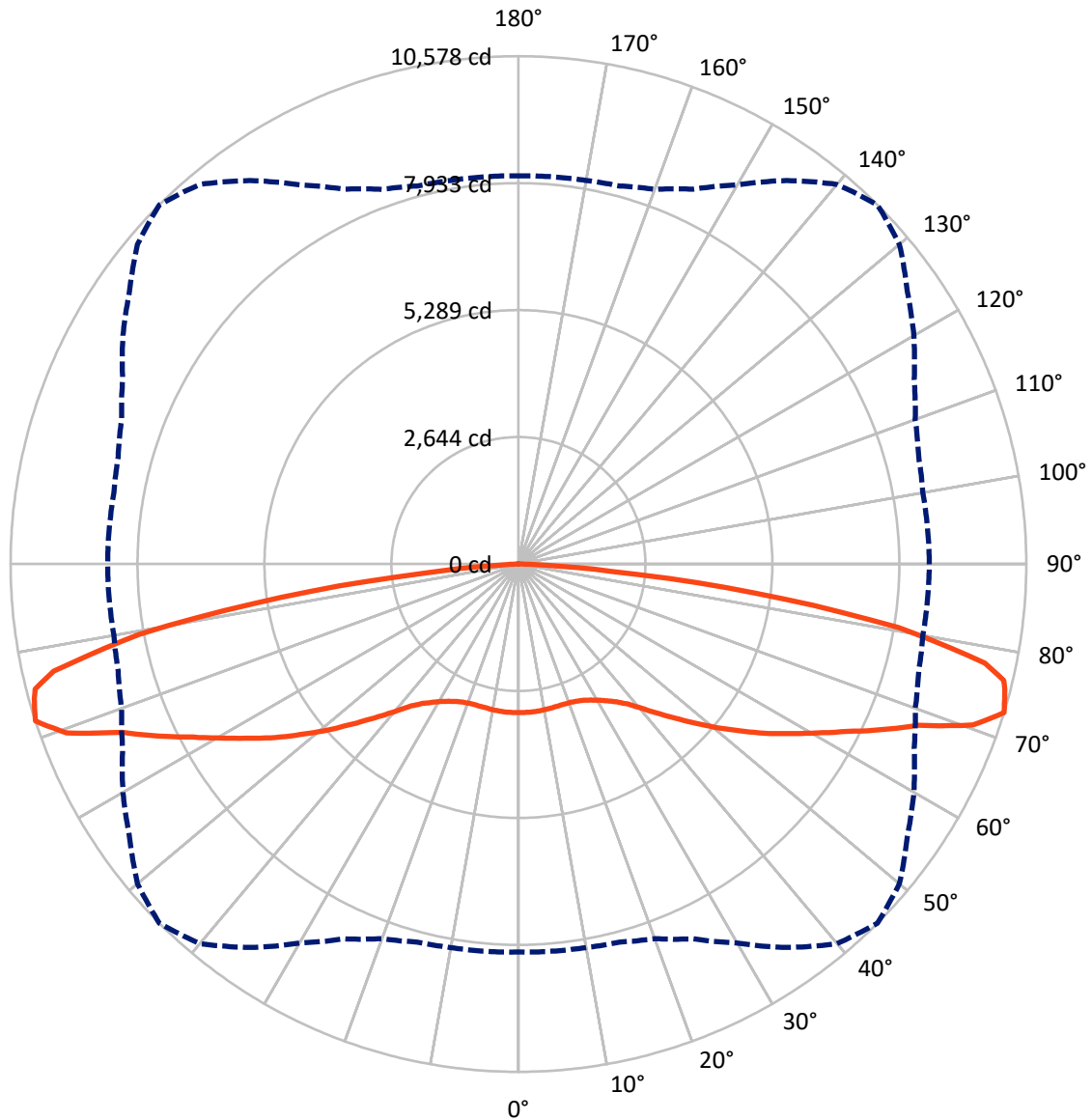


Based on 30 foot mounting height. Maximum calculated value = 3.4 fc  
 Type V - Short - Non-Cutoff

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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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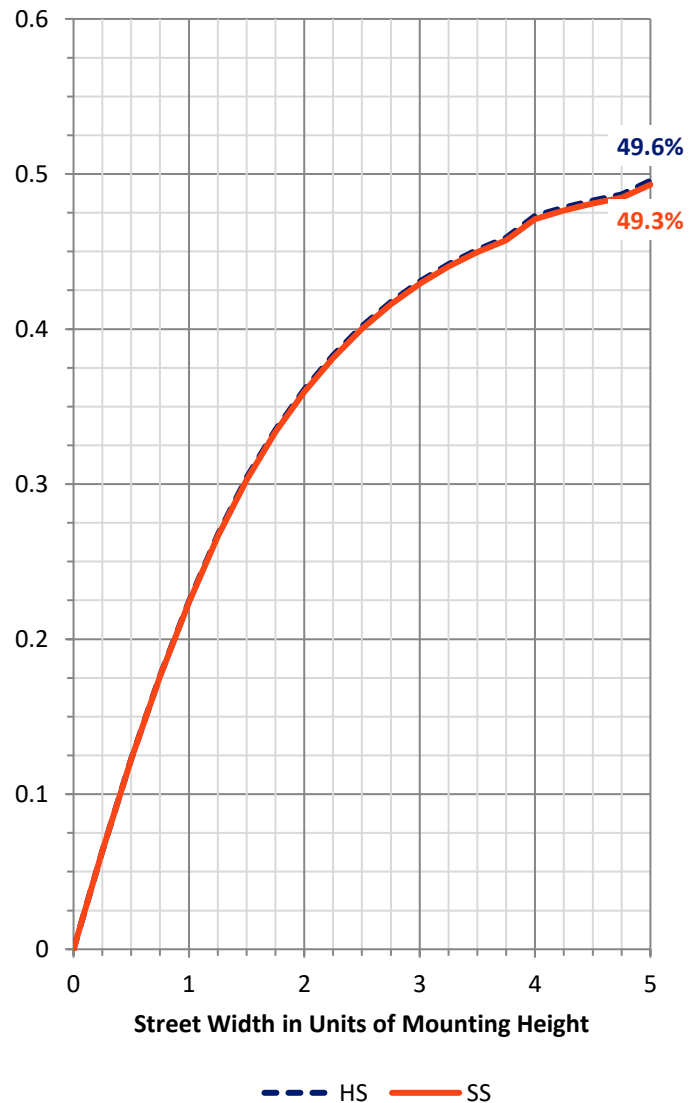
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16065.8	7.8	16073.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	16065.8	7.8	16073.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	32131.7	15.6	32147.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	295.2	0.9
10°-20°	871.9	2.7
20°-30°	1458.0	4.5
30°-40°	2216.1	6.9
40°-50°	3510.0	10.9
50°-60°	5369.0	16.7
60°-70°	7684.0	23.9
70°-80°	8792.2	27.3
80°-90°	1935.1	6.0
90°-100°	1.6	0.0
100°-110°	3.3	0.0
110°-120°	2.3	0.0
120°-130°	2.5	0.0
130°-140°	2.3	0.0
140°-150°	1.8	0.0
150°-160°	1.2	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	32131.7	100.0
0°-180°	32147.3	100.0



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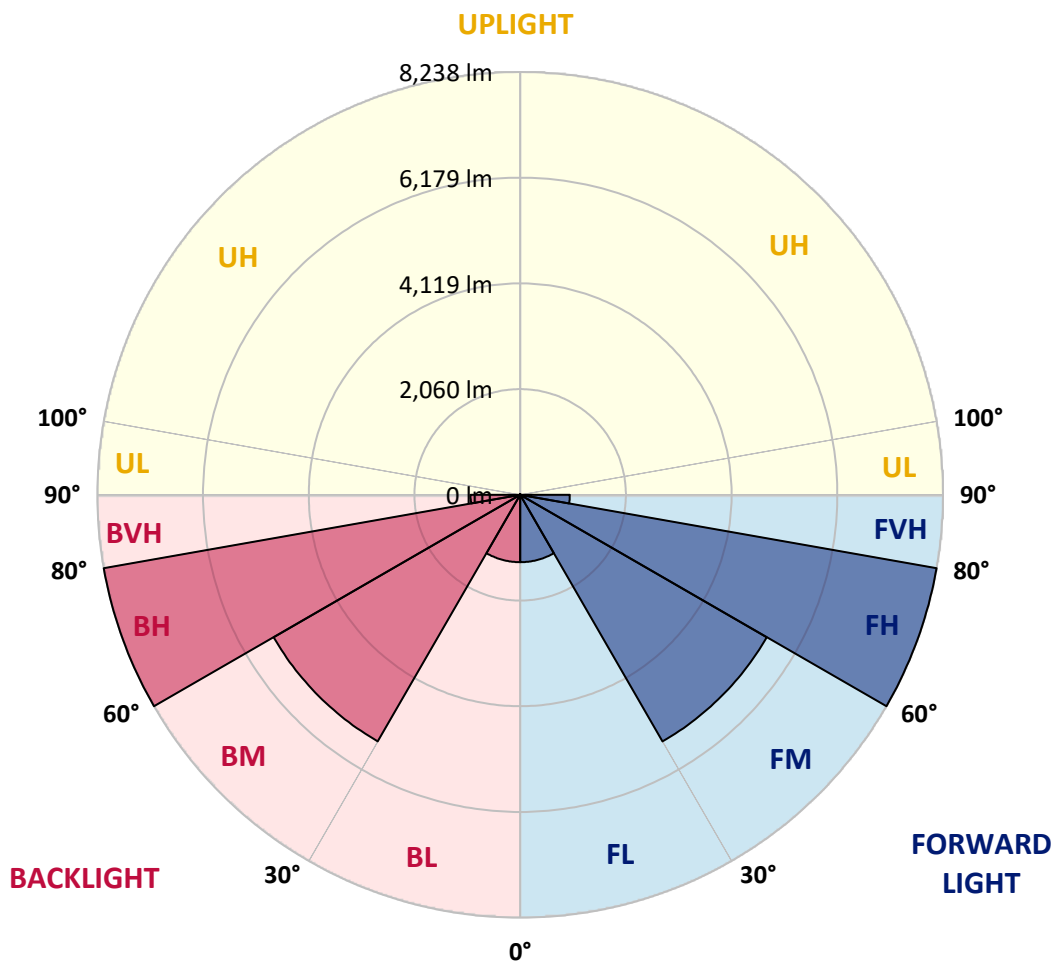
CATALOG NUMBER: VST-F12-LED-E-U-5XQ-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1312.6	4.1			
FM	(30°-60°)	5547.6	17.3			
FH	(60°-80°)	8238.1	25.6			G4/12000
FVH	(80°-90°)	967.5	3.0			G5
BL	(0°-30°)	1312.6	4.1	B3/2500		
BM	(30°-60°)	5547.6	17.3	B4/8500		
BH	(60°-80°)	8238.1	25.6	B5		G4/12000
BVH	(80°-90°)	967.5	3.0			G5
UL	(90°-100°)	1.6	0.0		U1/10	
UH	(100°-180°)	7.8	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°	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2
2.5°	3096.2	3092.2	3094.2	3098.3	3096.2	3096.2	3094.2	3094.2	3098.3	3094.2	3096.2
5°	3098.3	3094.2	3096.2	3098.3	3096.2	3098.3	3096.2	3096.2	3096.2	3094.2	3098.3
7.5°	3090.1	3090.1	3092.2	3092.2	3090.1	3092.2	3092.2	3092.2	3090.1	3090.1	3094.2
10°	3086.1	3084.0	3084.0	3086.1	3084.0	3084.0	3086.1	3086.1	3082.0	3082.0	3086.1
12.5°	3080.0	3077.9	3077.9	3077.9	3075.9	3075.9	3077.9	3077.9	3075.9	3073.9	3080.0
15°	3075.9	3073.9	3073.9	3073.9	3069.8	3071.8	3071.8	3071.8	3069.8	3067.8	3073.9
17.5°	3073.9	3071.8	3071.8	3071.8	3069.8	3069.8	3069.8	3069.8	3067.8	3067.8	3071.8
20°	3077.9	3077.9	3077.9	3077.9	3075.9	3075.9	3075.9	3077.9	3077.9	3077.9	3082.0
22.5°	3088.1	3088.1	3090.1	3092.2	3092.2	3096.2	3098.3	3100.3	3100.3	3102.3	3106.4
25°	3114.5	3114.5	3116.6	3118.6	3124.7	3128.8	3136.9	3141.0	3143.0	3143.0	3145.0
27.5°	3163.3	3165.4	3169.4	3173.5	3181.6	3187.7	3195.8	3204.0	3206.0	3208.0	3210.1
30°	3224.3	3226.3	3234.5	3238.5	3248.7	3260.9	3271.1	3279.2	3285.3	3289.4	3287.3
32.5°	3311.7	3315.8	3326.0	3332.1	3346.3	3358.5	3372.7	3384.9	3391.0	3397.1	3395.1
35°	3433.7	3443.9	3454.0	3460.1	3474.4	3484.5	3502.8	3515.0	3527.2	3523.2	3525.2
37.5°	3614.6	3622.8	3624.8	3628.9	3643.1	3651.2	3671.6	3687.8	3693.9	3698.0	3700.0
40°	3858.6	3858.6	3868.8	3860.6	3878.9	3881.0	3905.4	3927.7	3933.8	3950.1	3937.9
42.5°	4143.2	4141.2	4147.3	4141.2	4141.2	4161.5	4181.8	4222.5	4226.6	4246.9	4234.7
45°	4452.2	4452.2	4446.1	4448.2	4452.2	4474.6	4499.0	4543.7	4564.0	4576.2	4568.1
47.5°	4787.7	4779.5	4777.5	4775.5	4787.7	4812.1	4848.7	4891.4	4942.2	4946.2	4942.2
50°	5127.2	5125.1	5110.9	5123.1	5131.2	5143.4	5212.6	5269.5	5322.3	5354.9	5344.7
52.5°	5485.0	5466.7	5466.7	5466.7	5487.0	5525.6	5586.6	5663.9	5735.0	5769.6	5763.5
55°	5846.9	5840.8	5822.5	5814.3	5840.8	5895.6	5983.1	6076.6	6170.1	6223.0	6202.6
57.5°	6178.2	6168.1	6170.1	6172.1	6202.6	6275.8	6377.5	6501.5	6603.1	6660.0	6645.8
60°	6438.5	6426.3	6448.6	6454.7	6509.6	6631.6	6794.2	6950.8	7084.9	7141.9	7119.5
62.5°	6733.2	6725.1	6739.3	6737.3	6796.3	6932.5	7150.0	7400.1	7603.4	7676.5	7644.0
65°	7209.0	7184.6	7178.5	7156.1	7194.7	7300.4	7518.0	7808.7	8134.0	8321.0	8276.3
67.5°	7778.2	7772.1	7751.8	7739.6	7753.8	7885.9	8095.3	8375.9	8707.3	8965.4	9022.4
70°	8154.3	8162.4	8182.8	8213.2	8331.2	8587.3	8969.5	9394.4	9849.8	10042.9	10008.4
72.5°	8083.1	8095.3	8111.6	8150.2	8304.7	8611.7	9115.9	9750.2	10321.4	10577.6	10358.0
75°	7735.5	7745.7	7782.3	7841.2	8030.3	8402.3	8945.1	9618.0	10207.6	10463.8	10234.0
76°	7414.3	7446.8	7513.9	7583.0	7810.7	8215.3	8794.7	9512.3	10136.4	10396.7	10175.1
77.5°	6686.5	6714.9	6769.8	6889.8	7148.0	7666.4	8343.4	9048.8	9699.4	9933.1	9746.1
80°	5031.6	5056.0	5106.8	5251.2	5474.8	5796.0	6320.5	7009.7	7723.3	8030.3	7908.3
82.5°	2124.5	2152.9	2354.2	2563.6	2809.6	3157.2	3498.8	4108.7	4633.2	4982.8	4795.8
85°	233.8	288.7	355.8	483.8	593.6	790.8	984.0	1354.0	1711.8	1929.3	1705.7
87.5°	40.7	46.8	67.1	85.4	95.6	109.8	132.1	185.0	252.1	217.5	221.6
90°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	4.1	4.1	4.1	4.1
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
97.5°	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
100°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.1	4.1	4.1
102.5°	2.0	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1	4.1
105°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
107.5°	2.0	2.0	2.0	2.0	4.1	4.1	2.0	2.0	2.0	4.1	2.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
112.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
115°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
117.5°	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
120°	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
122.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
125°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
127.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
130°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0
132.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
135°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0
137.5°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0
140°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0
142.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
145°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	2.0
147.5°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	2.0
150°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	0.0	0.0	0.0
152.5°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	0.0
155°	4.1	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	2.0
157.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	0.0	0.0
160°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	0.0	0.0
162.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	0.0	0.0	0.0
165°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0	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°	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2	3094.2
2.5°	3094.2	3094.2	3098.3	3096.2	3096.2	3098.3	3102.3	3100.3
5°	3096.2	3098.3	3094.2	3096.2	3098.3	3098.3	3100.3	3098.3
7.5°	3092.2	3092.2	3092.2	3094.2	3096.2	3094.2	3096.2	3096.2
10°	3084.0	3086.1	3084.0	3088.1	3090.1	3090.1	3092.2	3092.2
12.5°	3077.9	3077.9	3077.9	3082.0	3084.0	3084.0	3086.1	3084.0
15°	3071.8	3071.8	3069.8	3073.9	3077.9	3077.9	3080.0	3080.0
17.5°	3069.8	3069.8	3067.8	3071.8	3075.9	3075.9	3077.9	3077.9
20°	3075.9	3077.9	3073.9	3077.9	3082.0	3084.0	3084.0	3084.0
22.5°	3100.3	3098.3	3092.2	3094.2	3096.2	3096.2	3096.2	3096.2
25°	3136.9	3132.8	3126.7	3124.7	3122.7	3120.6	3120.6	3120.6
27.5°	3199.9	3193.8	3183.6	3181.6	3179.6	3175.5	3175.5	3175.5
30°	3275.1	3267.0	3254.8	3250.7	3244.6	3240.6	3238.5	3236.5
32.5°	3382.9	3366.6	3352.4	3342.2	3336.1	3323.9	3321.9	3317.8
35°	3506.9	3494.7	3474.4	3468.3	3458.1	3452.0	3450.0	3439.8
37.5°	3677.7	3663.4	3645.1	3641.1	3639.0	3632.9	3632.9	3630.9
40°	3915.5	3901.3	3885.0	3868.8	3872.8	3874.9	3874.9	3866.7
42.5°	4206.2	4183.9	4151.3	4161.5	4155.4	4147.3	4163.5	4153.4
45°	4537.6	4507.1	4482.7	4472.6	4472.6	4462.4	4478.7	4478.7
47.5°	4905.6	4856.8	4812.1	4814.1	4797.8	4801.9	4812.1	4826.3
50°	5293.9	5228.8	5186.1	5165.8	5149.5	5155.6	5173.9	5178.0
52.5°	5696.4	5617.1	5560.2	5529.7	5509.4	5517.5	5531.7	5543.9
55°	6115.2	6027.8	5942.4	5909.9	5885.5	5901.7	5903.8	5920.0
57.5°	6552.3	6432.4	6332.7	6283.9	6259.5	6275.8	6288.0	6304.3
60°	6993.5	6855.2	6737.3	6680.4	6645.8	6668.2	6696.6	6704.8
62.5°	7505.8	7314.7	7182.5	7101.2	7084.9	7107.3	7115.4	7139.8
65°	8111.6	7881.9	7698.9	7599.3	7595.2	7607.4	7625.7	7631.8
67.5°	8802.8	8546.7	8300.7	8201.0	8162.4	8199.0	8217.3	8241.7
70°	9778.6	9426.9	9071.2	8849.6	8756.1	8727.6	8735.7	8762.2
72.5°	9888.4	9510.3	9095.6	8794.7	8630.0	8554.8	8552.8	8556.8
75°	9648.5	9044.7	8752.0	8406.4	8172.6	8050.6	8034.3	8032.3
76°	9528.6	8815.0	8392.1	8117.7	7837.1	7713.1	7694.8	7684.7
77.5°	9022.4	8255.9	7619.6	7452.9	7184.6	7028.0	7060.5	7034.1
80°	7233.3	6473.0	5873.3	5403.7	5417.9	5304.0	5257.3	5243.1
82.5°	4263.2	3639.0	2976.3	2588.0	2218.0	2120.4	1825.6	1758.5
85°	1362.1	965.7	585.5	424.9	288.7	241.9	189.1	172.8
87.5°	180.9	142.3	115.9	111.8	101.6	87.4	56.9	40.7
90°	2.0	2.0	2.0	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°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0
97.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
100°	4.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
102.5°	4.1	4.1	4.1	4.1	2.0	2.0	2.0	2.0
105°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
107.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1



REPORT NUMBER: P157866

CATALOG NUMBER: VST-F12-LED-E-U-5XQ-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.0	2.0	2.0	2.0	2.0	4.1	4.1	4.1
112.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.1
115°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.1
117.5°	2.0	2.0	2.0	2.0	2.0	4.1	4.1	4.1
120°	2.0	2.0	2.0	2.0	2.0	4.1	4.1	4.1
122.5°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
125°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
127.5°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
130°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
132.5°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
135°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
137.5°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
140°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
142.5°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
145°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
147.5°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
150°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
152.5°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
155°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
157.5°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
160°	2.0	2.0	2.0	2.0	4.1	4.1	4.1	4.1
162.5°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
165°	2.0	2.0	2.0	4.1	4.1	4.1	4.1	4.1
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)