

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: P158525

Luminaire Tested: **VST-F12-LED-E-U-SL3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158525  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)  
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-SL3  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (84) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29886 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

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

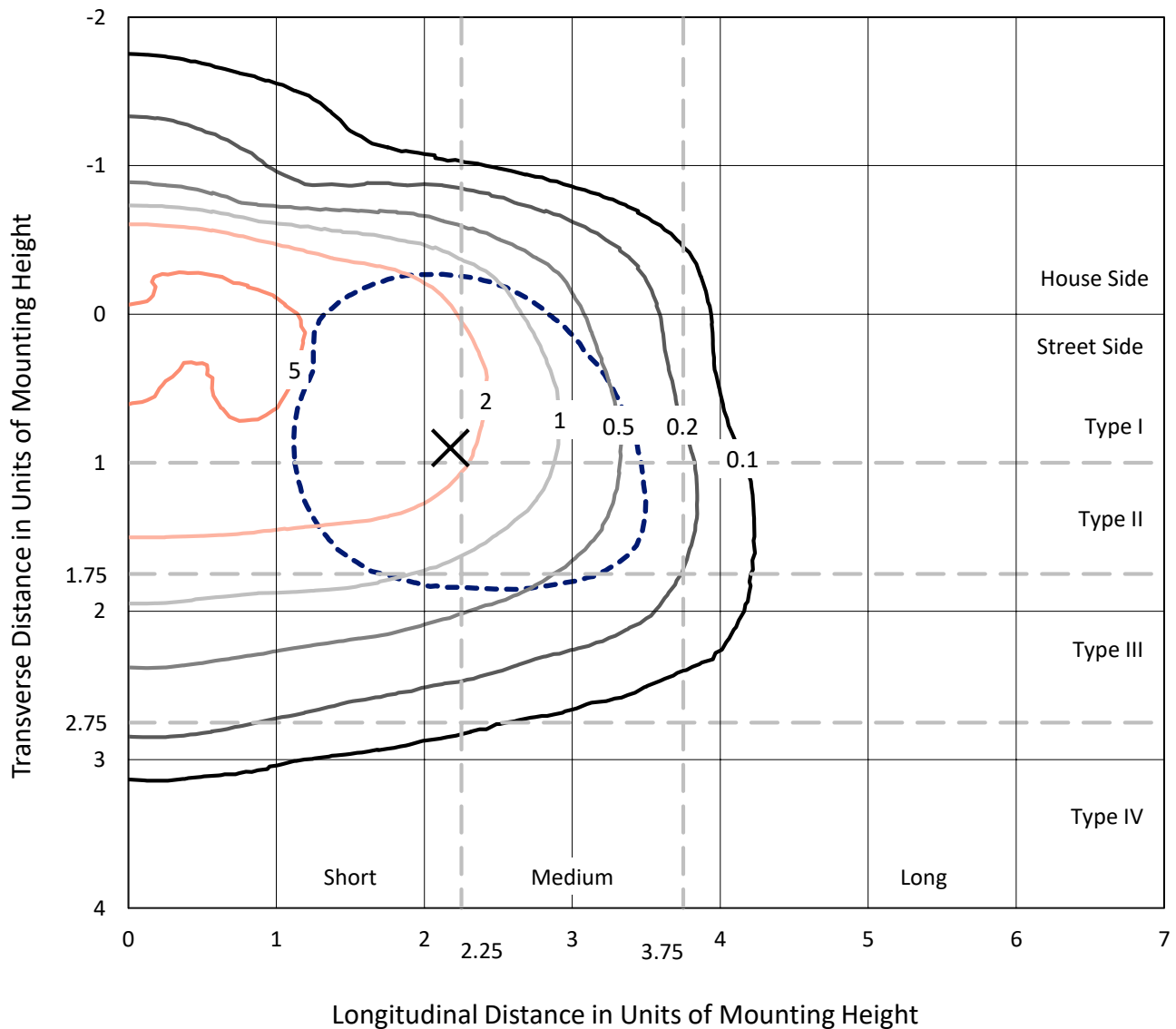


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 --- 1/2 Max cd

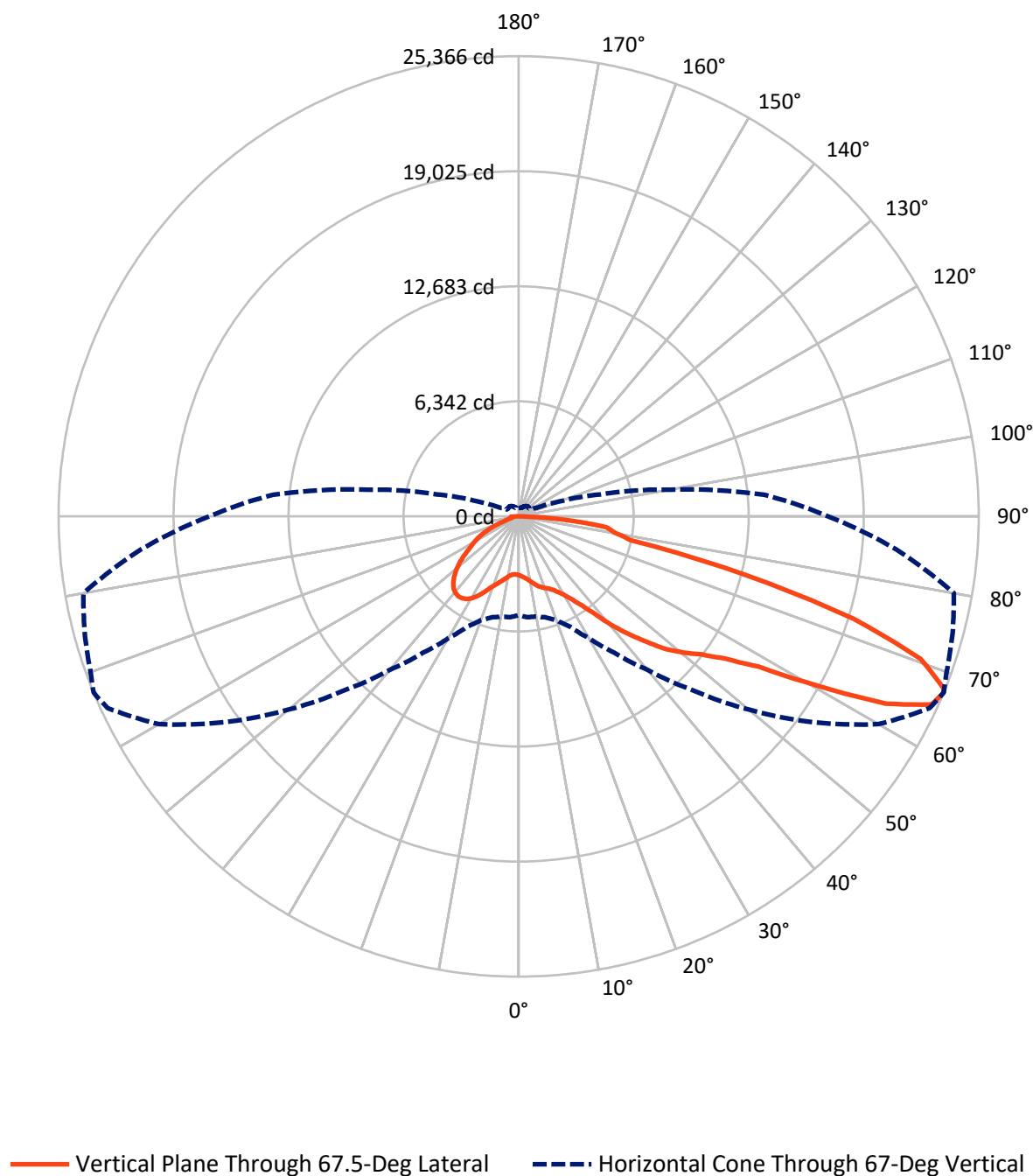


Based on 25 foot mounting height. Maximum calculated value = 6.5 fc  
 Type III - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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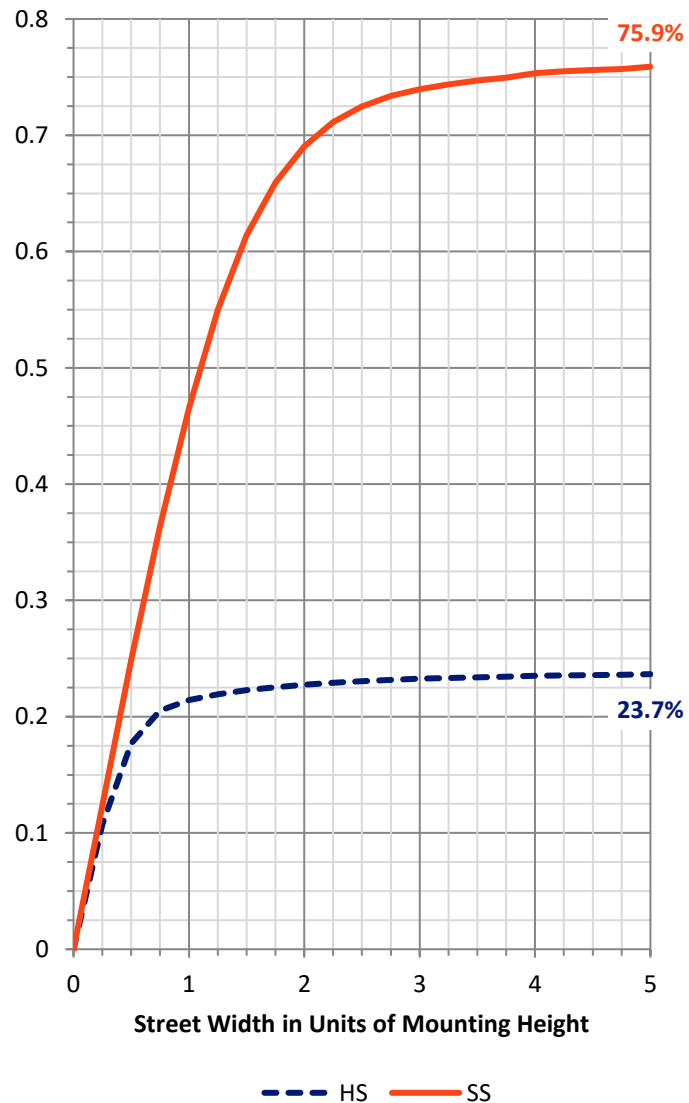
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7169.7   | 0.0    | 7169.7  |
|                    | % Fixture | 24.0     | 0.0    | 24.0    |
| <b>Street Side</b> | Lumens    | 22716.3  | 0.0    | 22716.3 |
|                    | % Fixture | 76.0     | 0.0    | 76.0    |
| <b>Total</b>       | Lumens    | 29886.0  | 0.0    | 29886.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 321.9   | 1.1       |
| 10°-20°   | 1096.9  | 3.7       |
| 20°-30°   | 1958.3  | 6.6       |
| 30°-40°   | 2870.0  | 9.6       |
| 40°-50°   | 4434.6  | 14.8      |
| 50°-60°   | 6457.5  | 21.6      |
| 60°-70°   | 8412.0  | 28.1      |
| 70°-80°   | 3765.5  | 12.6      |
| 80°-90°   | 569.3   | 1.9       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 29886.0 | 100.0     |
| 0°-180°   | 29886.0 | 100.0     |

**Coefficient of Utilization**



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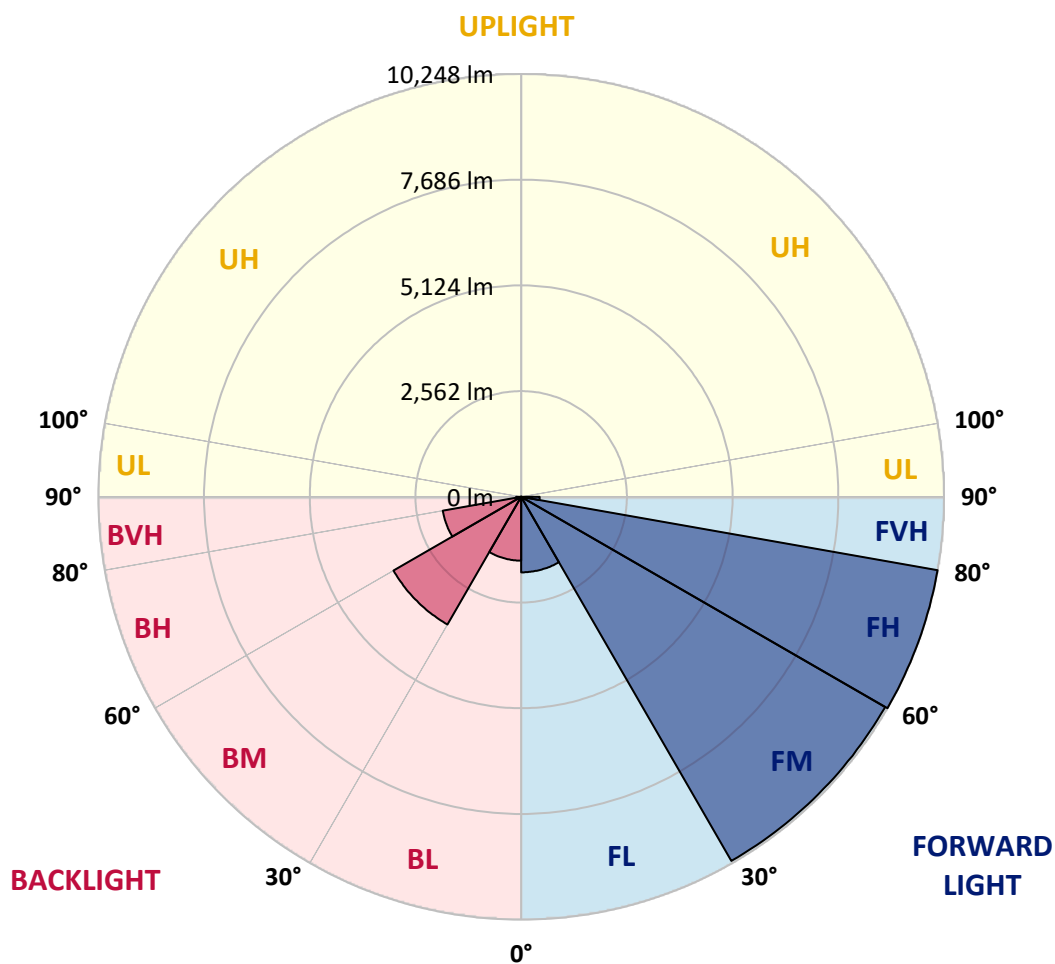
CATALOG NUMBER: VST-F12-LED-E-U-SL3

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1831.1  | 6.1       |                         |      |          |
| FM   | (30°-60°)   | 10189.6 | 34.1      |                         |      |          |
| FH   | (60°-80°)   | 10248.5 | 34.3      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 447.1   | 1.5       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1546.0  | 5.2       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 3572.5  | 12.0      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 1928.9  | 6.5       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 122.2   | 0.4       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°     | 40°     | 45°     | 50°     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0°    | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4  | 3239.4  | 3239.4  | 3239.4  |
| 2.5°  | 3366.2 | 3374.1 | 3376.1 | 3374.1 | 3376.1 | 3368.1 | 3366.2 | 3354.3  | 3360.2  | 3344.4  | 3340.4  |
| 5°    | 3548.4 | 3554.4 | 3558.3 | 3542.5 | 3546.5 | 3538.5 | 3528.6 | 3516.7  | 3500.9  | 3479.1  | 3465.2  |
| 7.5°  | 3726.7 | 3736.7 | 3734.7 | 3728.7 | 3714.9 | 3706.9 | 3687.1 | 3669.3  | 3641.6  | 3615.8  | 3598.0  |
| 10°   | 3966.5 | 3964.5 | 3964.5 | 3930.8 | 3911.0 | 3893.2 | 3857.5 | 3829.8  | 3802.0  | 3764.4  | 3744.6  |
| 12.5° | 4243.9 | 4230.0 | 4224.0 | 4200.3 | 4158.7 | 4127.0 | 4075.5 | 4022.0  | 3972.4  | 3932.8  | 3901.1  |
| 15°   | 4511.3 | 4511.3 | 4495.5 | 4457.8 | 4418.2 | 4376.6 | 4303.3 | 4226.0  | 4144.8  | 4081.4  | 4049.7  |
| 17.5° | 4755.0 | 4733.2 | 4719.4 | 4669.8 | 4628.2 | 4560.9 | 4479.6 | 4396.4  | 4295.4  | 4206.2  | 4144.8  |
| 20°   | 4933.3 | 4915.5 | 4885.8 | 4824.4 | 4753.0 | 4673.8 | 4578.7 | 4481.6  | 4372.6  | 4275.6  | 4206.2  |
| 22.5° | 5036.4 | 5014.6 | 4969.0 | 4887.8 | 4790.7 | 4679.7 | 4568.8 | 4477.6  | 4378.6  | 4305.3  | 4247.8  |
| 25°   | 5089.9 | 5068.1 | 5006.6 | 4899.7 | 4768.9 | 4622.3 | 4495.5 | 4406.3  | 4348.9  | 4331.0  | 4323.1  |
| 27.5° | 5087.9 | 5070.0 | 5004.7 | 4881.8 | 4713.4 | 4545.0 | 4408.3 | 4333.0  | 4327.1  | 4396.4  | 4447.9  |
| 30°   | 5036.4 | 5024.5 | 4965.0 | 4842.2 | 4665.9 | 4489.5 | 4362.7 | 4323.1  | 4384.5  | 4531.1  | 4657.9  |
| 32.5° | 4984.8 | 4978.9 | 4937.3 | 4826.3 | 4675.8 | 4527.2 | 4440.0 | 4444.0  | 4570.8  | 4796.6  | 5000.7  |
| 35°   | 4990.8 | 4998.7 | 4992.8 | 4933.3 | 4838.2 | 4761.0 | 4719.4 | 4806.5  | 5004.7  | 5278.1  | 5551.5  |
| 37.5° | 5042.3 | 5072.0 | 5109.7 | 5115.6 | 5117.6 | 5105.7 | 5192.9 | 5377.1  | 5666.4  | 6023.0  | 6451.0  |
| 40°   | 5155.2 | 5188.9 | 5297.9 | 5393.0 | 5515.8 | 5662.4 | 5838.8 | 6094.4  | 6453.0  | 6892.8  | 7417.8  |
| 42.5° | 5505.9 | 5553.5 | 5688.2 | 5864.5 | 6090.4 | 6320.2 | 6583.7 | 6932.4  | 7372.3  | 7835.9  | 8386.7  |
| 45°   | 5963.6 | 6062.7 | 6211.2 | 6407.4 | 6746.2 | 7069.1 | 7409.9 | 7800.2  | 8267.8  | 8848.3  | 9403.1  |
| 47.5° | 6534.2 | 6633.3 | 6849.2 | 7059.2 | 7459.4 | 7861.6 | 8234.1 | 8642.3  | 9149.5  | 9743.8  | 10358.0 |
| 50°   | 7033.5 | 7146.4 | 7338.6 | 7621.9 | 8085.5 | 8578.9 | 8991.0 | 9432.8  | 9858.7  | 10484.8 | 11105.0 |
| 52.5° | 7425.8 | 7507.0 | 7691.3 | 7950.8 | 8467.9 | 9008.8 | 9529.9 | 10021.2 | 10526.4 | 11152.5 | 11727.1 |
| 55°   | 7475.3 | 7550.6 | 7730.9 | 8028.1 | 8553.1 | 9153.4 | 9753.7 | 10336.2 | 11051.5 | 11735.0 | 12495.8 |
| 57.5° | 7261.3 | 7322.7 | 7505.0 | 7770.5 | 8281.7 | 8965.2 | 9724.0 | 10471.0 | 11386.3 | 12309.6 | 13238.8 |
| 60°   | 6958.2 | 7019.6 | 7162.3 | 7374.2 | 7835.9 | 8572.9 | 9458.5 | 10480.9 | 11697.4 | 13030.7 | 14397.8 |
| 62.5° | 6625.3 | 6678.8 | 6793.7 | 6944.3 | 7350.5 | 8030.0 | 9044.5 | 10415.5 | 11951.0 | 13748.0 | 15856.0 |
| 65°   | 6064.6 | 6193.4 | 6242.9 | 6397.5 | 6803.6 | 7445.6 | 8477.8 | 9973.7  | 11847.9 | 14066.9 | 16771.4 |
| 67°   | 5444.5 | 5575.3 | 5601.0 | 5757.5 | 6082.5 | 6698.6 | 7748.7 | 9155.4  | 11031.7 | 13516.2 | 16569.3 |
| 67.5° | 5246.4 | 5357.3 | 5397.0 | 5553.5 | 5860.6 | 6441.1 | 7437.6 | 8860.2  | 10782.0 | 13215.0 | 16325.6 |
| 70°   | 3857.5 | 3980.4 | 4023.9 | 4089.3 | 4309.2 | 4792.7 | 5452.4 | 6686.8  | 8596.7  | 10784.0 | 13771.7 |
| 72.5° | 2064.5 | 2163.5 | 2205.1 | 2302.2 | 2415.2 | 2678.7 | 3183.9 | 4069.5  | 5276.1  | 7215.7  | 9797.3  |
| 75°   | 1396.8 | 1436.4 | 1466.1 | 1533.5 | 1650.4 | 1860.4 | 2082.3 | 2393.4  | 3122.5  | 4071.5  | 5575.3  |
| 77.5° | 796.5  | 814.3  | 818.3  | 830.1  | 923.3  | 1123.4 | 1487.9 | 2014.9  | 2583.6  | 2950.1  | 3566.3  |
| 80°   | 344.7  | 380.4  | 408.1  | 390.3  | 384.4  | 426.0  | 533.0  | 794.5   | 1557.3  | 2472.6  | 2934.2  |
| 82.5° | 186.2  | 202.1  | 225.9  | 227.8  | 239.7  | 253.6  | 275.4  | 326.9   | 459.7   | 927.2   | 2022.9  |
| 85°   | 97.1   | 101.0  | 134.7  | 154.5  | 164.4  | 172.4  | 176.3  | 196.1   | 225.9   | 287.3   | 503.2   |
| 87.5° | 13.9   | 19.8   | 23.8   | 31.7   | 35.7   | 37.6   | 43.6   | 55.5    | 65.4    | 79.3    | 134.7   |
| 90°   | 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°     | 67.5°   | 70°     | 75°     | 80°     | 85°     | 90°     | 95°     | 100°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  | 3239.4  |
| 2.5°  | 3322.6  | 3318.6  | 3306.7  | 3298.8  | 3290.9  | 3282.9  | 3273.0  | 3265.1  | 3251.2  | 3241.3  | 3229.5  |
| 5°    | 3445.4  | 3421.6  | 3405.8  | 3384.0  | 3380.0  | 3354.3  | 3328.5  | 3316.6  | 3292.9  | 3273.0  | 3249.3  |
| 7.5°  | 3570.2  | 3542.5  | 3516.7  | 3498.9  | 3489.0  | 3453.3  | 3427.6  | 3397.9  | 3370.1  | 3344.4  | 3316.6  |
| 10°   | 3716.8  | 3689.1  | 3661.4  | 3649.5  | 3631.6  | 3598.0  | 3576.2  | 3538.5  | 3510.8  | 3479.1  | 3441.4  |
| 12.5° | 3869.4  | 3849.6  | 3829.8  | 3813.9  | 3806.0  | 3790.2  | 3758.4  | 3726.7  | 3689.1  | 3657.4  | 3613.8  |
| 15°   | 4004.1  | 3990.3  | 3982.3  | 3978.4  | 3978.4  | 3968.5  | 3938.7  | 3909.0  | 3869.4  | 3833.7  | 3786.2  |
| 17.5° | 4099.2  | 4093.3  | 4099.2  | 4105.2  | 4113.1  | 4105.2  | 4099.2  | 4065.5  | 4039.8  | 3996.2  | 3948.7  |
| 20°   | 4154.7  | 4166.6  | 4196.3  | 4216.1  | 4234.0  | 4247.8  | 4253.8  | 4226.0  | 4192.3  | 4160.6  | 4128.9  |
| 22.5° | 4214.1  | 4247.8  | 4299.3  | 4329.1  | 4358.8  | 4408.3  | 4420.2  | 4400.4  | 4374.6  | 4354.8  | 4321.1  |
| 25°   | 4313.2  | 4362.7  | 4451.9  | 4499.4  | 4541.0  | 4614.4  | 4624.3  | 4628.2  | 4622.3  | 4606.4  | 4564.8  |
| 27.5° | 4467.7  | 4564.8  | 4683.7  | 4745.1  | 4790.7  | 4885.8  | 4923.4  | 4923.4  | 4907.6  | 4925.4  | 4925.4  |
| 30°   | 4737.2  | 4866.0  | 5020.5  | 5056.2  | 5127.5  | 5210.7  | 5272.1  | 5280.1  | 5282.0  | 5319.7  | 5375.2  |
| 32.5° | 5151.3  | 5274.1  | 5446.5  | 5486.1  | 5547.5  | 5626.8  | 5696.1  | 5688.2  | 5706.0  | 5787.3  | 5860.6  |
| 35°   | 5753.6  | 5878.4  | 5991.3  | 6044.8  | 6072.6  | 6143.9  | 6169.6  | 6213.2  | 6266.7  | 6367.8  | 6357.9  |
| 37.5° | 6645.1  | 6756.1  | 6771.9  | 6805.6  | 6771.9  | 6785.8  | 6805.6  | 6857.1  | 6999.8  | 7090.9  | 6944.3  |
| 40°   | 7719.0  | 7903.2  | 7885.4  | 7845.8  | 7770.5  | 7669.5  | 7705.1  | 7784.4  | 7938.9  | 7859.7  | 7465.4  |
| 42.5° | 8731.4  | 8921.6  | 8886.0  | 8840.4  | 8674.0  | 8636.3  | 8632.3  | 8697.7  | 8780.9  | 8555.1  | 7873.5  |
| 45°   | 9728.0  | 9922.1  | 9860.7  | 9835.0  | 9724.0  | 9642.8  | 9710.2  | 9714.1  | 9692.3  | 9208.9  | 8230.2  |
| 47.5° | 10756.3 | 10934.6 | 10894.9 | 10916.7 | 10801.8 | 10748.3 | 10754.3 | 10726.5 | 10522.5 | 9763.6  | 8507.5  |
| 50°   | 11586.4 | 11826.1 | 11849.9 | 11800.4 | 11739.0 | 11657.7 | 11865.8 | 11790.5 | 11336.8 | 10302.6 | 8775.0  |
| 52.5° | 12232.3 | 12555.2 | 12678.1 | 12646.4 | 12596.8 | 12606.8 | 12997.1 | 13082.3 | 12331.4 | 10982.1 | 9070.2  |
| 55°   | 12997.1 | 13506.2 | 13706.4 | 13825.2 | 13773.7 | 13971.8 | 14865.4 | 14909.0 | 13714.3 | 11869.7 | 9454.6  |
| 57.5° | 14100.6 | 14829.7 | 15461.8 | 15630.2 | 15792.6 | 16436.5 | 17886.8 | 17445.0 | 15509.3 | 13213.0 | 9942.0  |
| 60°   | 15778.8 | 17375.6 | 18401.9 | 18940.8 | 19321.2 | 20220.7 | 21599.7 | 20480.3 | 17746.1 | 14811.9 | 10554.2 |
| 62.5° | 18128.5 | 20462.5 | 22178.2 | 22719.1 | 22875.6 | 23392.7 | 24391.3 | 22249.5 | 18964.6 | 15529.1 | 10607.7 |
| 65°   | 19878.0 | 22677.5 | 24732.1 | 25009.4 | 24823.2 | 24833.1 | 25094.6 | 22156.4 | 18510.9 | 14903.0 | 9688.4  |
| 67°   | 19763.1 | 22897.4 | 25001.5 | 25366.1 | 25108.5 | 24769.7 | 24361.6 | 20894.4 | 17052.7 | 13591.4 | 8483.8  |
| 67.5° | 19586.7 | 22685.4 | 24884.6 | 25269.0 | 25033.2 | 24646.9 | 24050.5 | 20405.0 | 16599.0 | 13183.3 | 8238.1  |
| 70°   | 16931.8 | 20008.7 | 22970.7 | 23511.6 | 23610.7 | 23258.0 | 21583.8 | 17205.3 | 13476.5 | 10724.6 | 6397.5  |
| 72.5° | 13179.3 | 15919.4 | 18849.7 | 19319.3 | 19699.7 | 18683.3 | 15709.4 | 11883.6 | 9823.1  | 7728.9  | 4632.2  |
| 75°   | 8701.7  | 11489.3 | 12967.3 | 13036.7 | 12551.3 | 10669.1 | 7675.4  | 5951.7  | 5478.2  | 4543.0  | 2866.9  |
| 77.5° | 4656.0  | 6756.1  | 6797.7  | 6294.5  | 6064.6  | 4521.2  | 1834.6  | 1012.4  | 1127.3  | 1279.9  | 1141.2  |
| 80°   | 3473.1  | 4303.3  | 4986.8  | 5361.3  | 5472.2  | 3877.3  | 949.0   | 536.9   | 469.6   | 428.0   | 422.0   |
| 82.5° | 3132.4  | 4156.7  | 4659.9  | 4864.0  | 4812.5  | 3189.8  | 533.0   | 360.6   | 299.2   | 324.9   | 370.5   |
| 85°   | 1228.4  | 2219.0  | 2918.4  | 2825.3  | 2373.5  | 1188.8  | 291.2   | 194.2   | 194.2   | 281.3   | 364.6   |
| 87.5° | 251.6   | 455.7   | 618.2   | 590.4   | 531.0   | 229.8   | 142.7   | 116.9   | 118.9   | 227.8   | 344.7   |
| 90°   | 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):**

|       | 105°   | 110°   | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   | 150°   | 155°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 |
| 2.5°  | 3217.6 | 3205.7 | 3197.8 | 3189.8 | 3181.9 | 3177.9 | 3172.0 | 3172.0 | 3160.1 | 3156.1 | 3152.2 |
| 5°    | 3231.4 | 3211.6 | 3197.8 | 3179.9 | 3166.1 | 3154.2 | 3138.3 | 3134.4 | 3120.5 | 3110.6 | 3106.6 |
| 7.5°  | 3290.9 | 3261.2 | 3231.4 | 3209.6 | 3189.8 | 3164.1 | 3146.2 | 3130.4 | 3116.5 | 3106.6 | 3094.7 |
| 10°   | 3403.8 | 3372.1 | 3330.5 | 3290.9 | 3265.1 | 3225.5 | 3197.8 | 3170.0 | 3154.2 | 3142.3 | 3126.4 |
| 12.5° | 3570.2 | 3524.7 | 3475.1 | 3427.6 | 3384.0 | 3332.5 | 3304.7 | 3271.1 | 3251.2 | 3241.3 | 3229.5 |
| 15°   | 3740.6 | 3691.1 | 3629.7 | 3584.1 | 3534.6 | 3494.9 | 3469.2 | 3439.5 | 3423.6 | 3411.7 | 3403.8 |
| 17.5° | 3915.0 | 3857.5 | 3813.9 | 3768.4 | 3744.6 | 3714.9 | 3681.2 | 3643.5 | 3598.0 | 3570.2 | 3532.6 |
| 20°   | 4093.3 | 4049.7 | 4023.9 | 3998.2 | 3970.4 | 3928.8 | 3861.5 | 3784.2 | 3699.0 | 3617.8 | 3540.5 |
| 22.5° | 4301.3 | 4275.6 | 4271.6 | 4247.8 | 4190.4 | 4091.3 | 3966.5 | 3821.9 | 3677.2 | 3542.5 | 3437.5 |
| 25°   | 4594.5 | 4594.5 | 4574.7 | 4477.6 | 4342.9 | 4164.6 | 3954.6 | 3746.6 | 3554.4 | 3370.1 | 3231.4 |
| 27.5° | 4963.1 | 4949.2 | 4852.1 | 4652.0 | 4410.3 | 4132.9 | 3851.6 | 3588.1 | 3342.4 | 3140.3 | 2962.0 |
| 30°   | 5369.2 | 5272.1 | 5064.1 | 4749.1 | 4386.5 | 4029.9 | 3685.1 | 3380.0 | 3090.8 | 2843.1 | 2633.1 |
| 32.5° | 5791.2 | 5555.5 | 5181.0 | 4749.1 | 4303.3 | 3875.3 | 3477.1 | 3102.7 | 2771.8 | 2494.4 | 2244.8 |
| 35°   | 6173.6 | 5743.7 | 5208.7 | 4671.8 | 4140.8 | 3647.5 | 3185.9 | 2761.9 | 2365.6 | 2066.5 | 1793.0 |
| 37.5° | 6520.3 | 5868.5 | 5179.0 | 4521.2 | 3905.1 | 3326.5 | 2785.7 | 2318.1 | 1870.3 | 1581.0 | 1347.3 |
| 40°   | 6746.2 | 5894.2 | 5056.2 | 4285.5 | 3568.2 | 2892.6 | 2294.3 | 1771.2 | 1416.6 | 1153.1 | 996.6  |
| 42.5° | 6886.9 | 5844.7 | 4858.0 | 3962.5 | 3114.5 | 2347.8 | 1721.7 | 1270.0 | 1006.5 | 859.9  | 800.4  |
| 45°   | 6966.1 | 5715.9 | 4564.8 | 3520.7 | 2565.7 | 1785.1 | 1222.4 | 917.3  | 774.7  | 723.2  | 703.3  |
| 47.5° | 6962.1 | 5507.9 | 4198.3 | 3009.5 | 1959.5 | 1244.2 | 865.8  | 715.2  | 675.6  | 659.8  | 655.8  |
| 50°   | 6920.5 | 5252.3 | 3768.4 | 2454.8 | 1414.6 | 867.8  | 685.5  | 641.9  | 632.0  | 622.1  | 618.2  |
| 52.5° | 6863.1 | 4935.3 | 3292.9 | 1913.9 | 1004.5 | 693.4  | 622.1  | 610.2  | 602.3  | 592.4  | 588.4  |
| 55°   | 6756.1 | 4545.0 | 2777.7 | 1440.4 | 786.6  | 626.1  | 600.3  | 596.4  | 586.5  | 572.6  | 564.7  |
| 57.5° | 6625.3 | 4148.8 | 2284.4 | 1125.4 | 695.4  | 610.2  | 596.4  | 590.4  | 576.5  | 560.7  | 544.8  |
| 60°   | 6577.8 | 3821.9 | 1898.0 | 949.0  | 673.6  | 616.2  | 606.3  | 598.3  | 578.5  | 554.8  | 536.9  |
| 62.5° | 6280.6 | 3453.3 | 1620.7 | 879.7  | 685.5  | 641.9  | 638.0  | 626.1  | 596.4  | 568.6  | 540.9  |
| 65°   | 5511.9 | 2920.4 | 1373.0 | 832.1  | 709.3  | 685.5  | 689.5  | 671.6  | 641.9  | 604.3  | 554.8  |
| 67°   | 4661.9 | 2381.5 | 1143.2 | 786.6  | 727.1  | 731.1  | 745.0  | 731.1  | 693.4  | 639.9  | 572.6  |
| 67.5° | 4436.0 | 2244.8 | 1085.7 | 772.7  | 731.1  | 743.0  | 758.8  | 748.9  | 711.3  | 649.9  | 580.5  |
| 70°   | 3296.8 | 1581.0 | 810.3  | 699.4  | 731.1  | 778.6  | 814.3  | 824.2  | 782.6  | 697.4  | 596.4  |
| 72.5° | 2322.0 | 1020.3 | 622.1  | 606.3  | 663.7  | 727.1  | 794.5  | 828.2  | 780.6  | 687.5  | 574.6  |
| 75°   | 1394.8 | 638.0  | 505.2  | 515.1  | 558.7  | 624.1  | 677.6  | 691.5  | 632.0  | 572.6  | 497.3  |
| 77.5° | 645.9  | 424.0  | 396.3  | 410.1  | 451.7  | 481.4  | 481.4  | 453.7  | 408.1  | 372.5  | 356.6  |
| 80°   | 380.4  | 346.7  | 344.7  | 370.5  | 398.2  | 376.4  | 342.8  | 305.1  | 281.3  | 269.5  | 263.5  |
| 82.5° | 356.6  | 370.5  | 394.3  | 400.2  | 378.4  | 324.9  | 283.3  | 245.7  | 233.8  | 227.8  | 221.9  |
| 85°   | 420.0  | 449.7  | 410.1  | 378.4  | 334.8  | 273.4  | 221.9  | 190.2  | 184.3  | 178.3  | 170.4  |
| 87.5° | 388.3  | 370.5  | 322.9  | 277.4  | 229.8  | 166.4  | 120.9  | 109.0  | 116.9  | 114.9  | 111.0  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P158525

CATALOG NUMBER: VST-F12-LED-E-U-SL3

**CANDELA DISTRIBUTION (continued):**

|       | 160°   | 165°   | 170°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3239.4 | 3239.4 | 3239.4 | 3239.4 | 3239.4 |
| 2.5°  | 3154.2 | 3154.2 | 3146.2 | 3142.3 | 3152.2 |
| 5°    | 3098.7 | 3100.7 | 3094.7 | 3092.7 | 3094.7 |
| 7.5°  | 3086.8 | 3084.8 | 3080.9 | 3076.9 | 3080.9 |
| 10°   | 3122.5 | 3120.5 | 3114.5 | 3118.5 | 3112.6 |
| 12.5° | 3229.5 | 3241.3 | 3239.4 | 3243.3 | 3251.2 |
| 15°   | 3403.8 | 3401.8 | 3395.9 | 3399.8 | 3405.8 |
| 17.5° | 3502.9 | 3487.0 | 3473.1 | 3467.2 | 3467.2 |
| 20°   | 3479.1 | 3433.5 | 3409.7 | 3395.9 | 3391.9 |
| 22.5° | 3338.4 | 3273.0 | 3223.5 | 3211.6 | 3201.7 |
| 25°   | 3108.6 | 3027.4 | 2964.0 | 2950.1 | 2924.3 |
| 27.5° | 2841.1 | 2732.2 | 2656.9 | 2641.0 | 2627.2 |
| 30°   | 2490.4 | 2365.6 | 2278.4 | 2223.0 | 2240.8 |
| 32.5° | 2062.5 | 1943.6 | 1842.6 | 1753.4 | 1739.5 |
| 35°   | 1592.9 | 1462.2 | 1373.0 | 1333.4 | 1307.6 |
| 37.5° | 1188.8 | 1079.8 | 1020.3 | 982.7  | 984.7  |
| 40°   | 909.4  | 851.9  | 820.2  | 794.5  | 796.5  |
| 42.5° | 758.8  | 733.1  | 725.1  | 713.3  | 707.3  |
| 45°   | 687.5  | 679.6  | 681.6  | 669.7  | 665.7  |
| 47.5° | 647.9  | 641.9  | 643.9  | 636.0  | 634.0  |
| 50°   | 616.2  | 612.2  | 614.2  | 608.2  | 606.3  |
| 52.5° | 584.5  | 586.5  | 584.5  | 580.5  | 580.5  |
| 55°   | 556.7  | 554.8  | 558.7  | 552.8  | 552.8  |
| 57.5° | 534.9  | 533.0  | 533.0  | 531.0  | 531.0  |
| 60°   | 523.1  | 515.1  | 513.1  | 513.1  | 515.1  |
| 62.5° | 517.1  | 503.2  | 501.3  | 501.3  | 503.2  |
| 65°   | 519.1  | 497.3  | 489.4  | 487.4  | 485.4  |
| 67°   | 521.1  | 489.4  | 473.5  | 465.6  | 463.6  |
| 67.5° | 523.1  | 485.4  | 467.6  | 459.7  | 455.7  |
| 70°   | 511.2  | 457.7  | 431.9  | 418.0  | 414.1  |
| 72.5° | 481.4  | 424.0  | 392.3  | 374.5  | 370.5  |
| 75°   | 428.0  | 384.4  | 356.6  | 336.8  | 328.9  |
| 77.5° | 330.9  | 311.1  | 301.2  | 289.3  | 285.3  |
| 80°   | 257.6  | 247.7  | 243.7  | 235.8  | 233.8  |
| 82.5° | 214.0  | 204.1  | 198.1  | 188.2  | 182.3  |
| 85°   | 166.4  | 154.5  | 150.6  | 142.7  | 138.7  |
| 87.5° | 109.0  | 103.0  | 101.0  | 91.1   | 87.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)