

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: P158069

Luminaire Tested: **VST-E11-LED-E-U-RW-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158069  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E11-LED-E-U-RW-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(11) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (231) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31300.1 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')  
IES Classification: Type I - Medium - Full Cutoff  
BUG Rating: B5 - U0 - G5

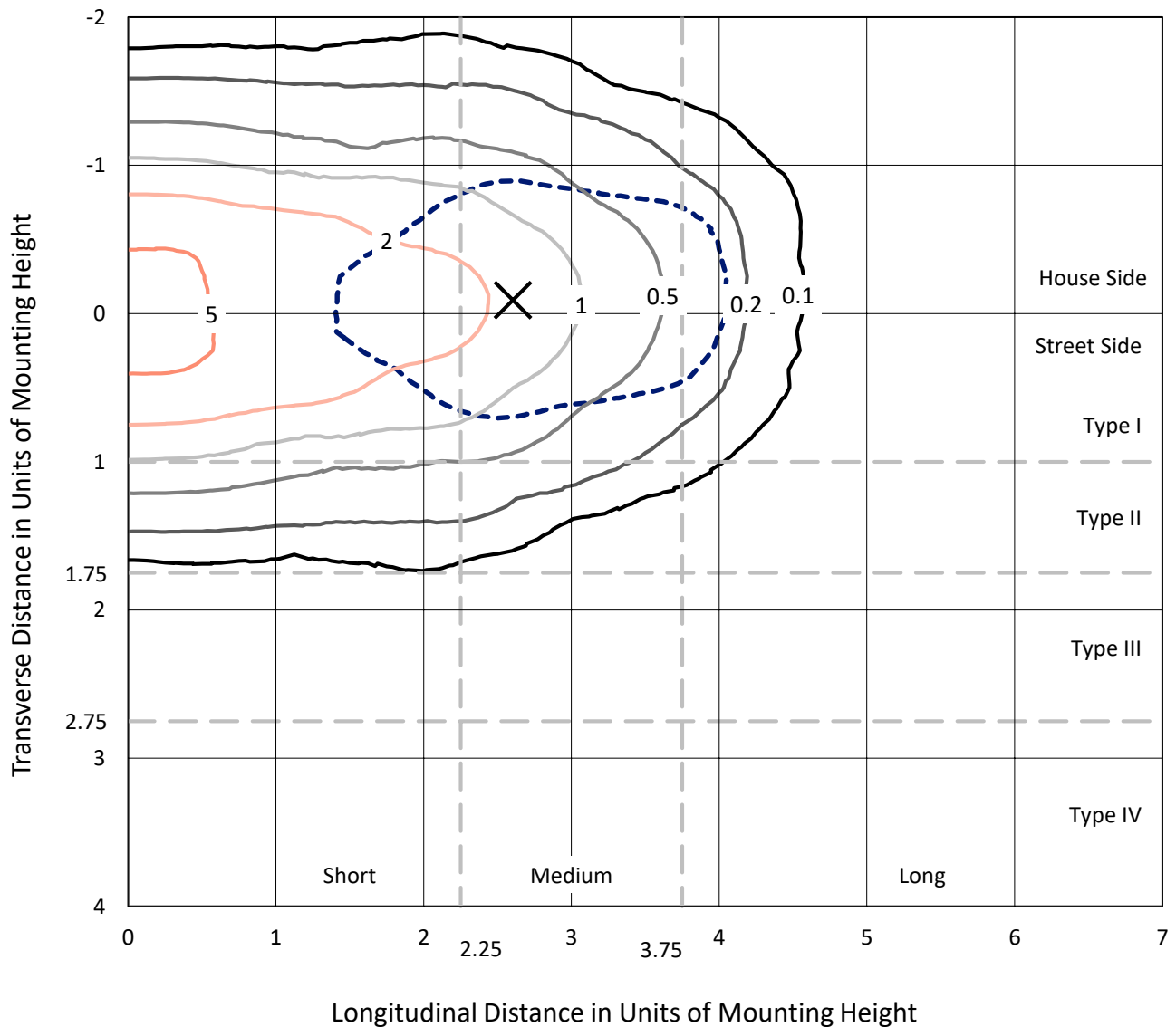
Input Watts (W): 269.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P158069  
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### Iso-Footcandle Lines of Horizontal Illumination

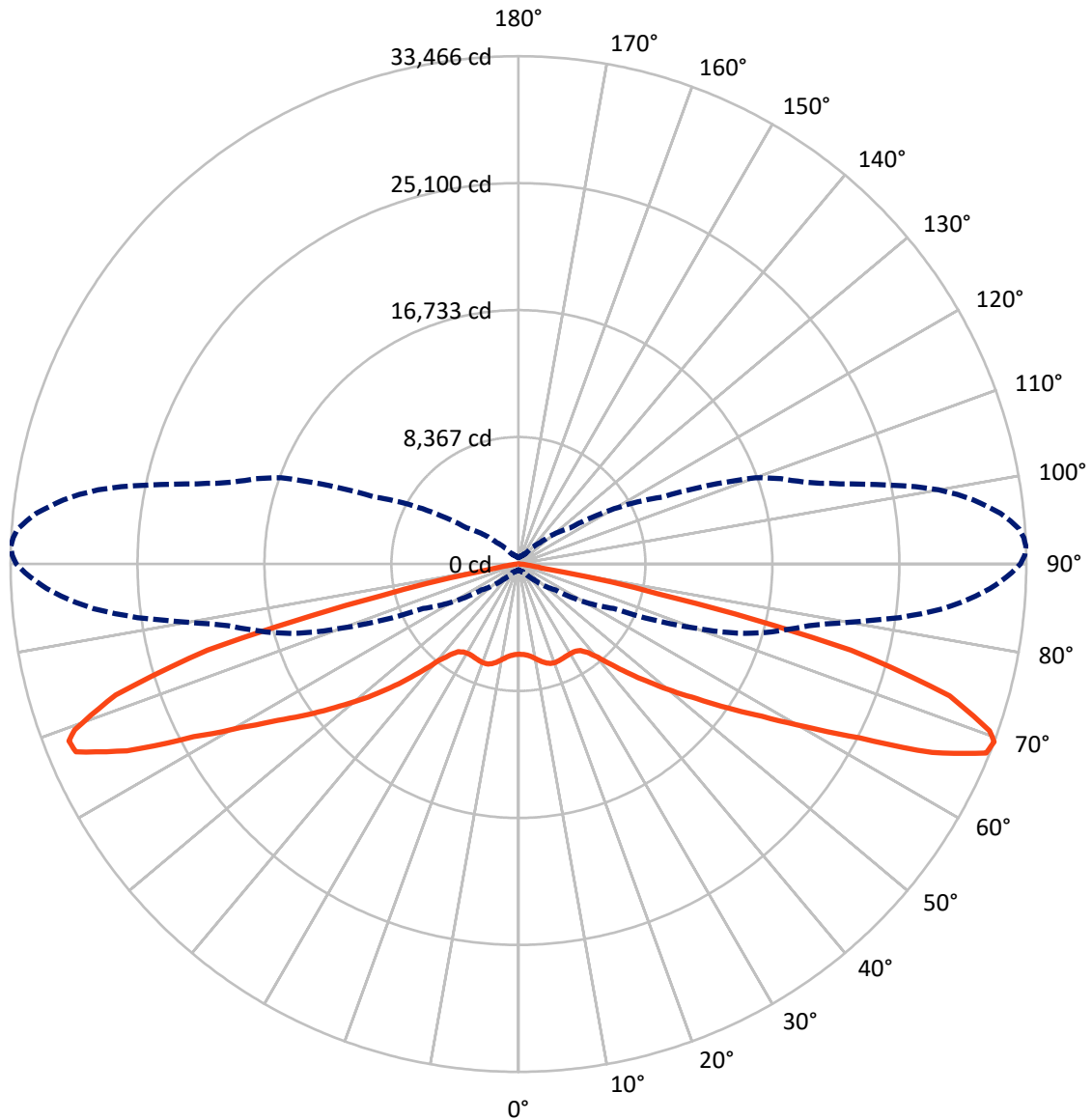
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 fc  
 Type I - Medium - Full Cutoff

REPORT NUMBER: P158069  
CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 92-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

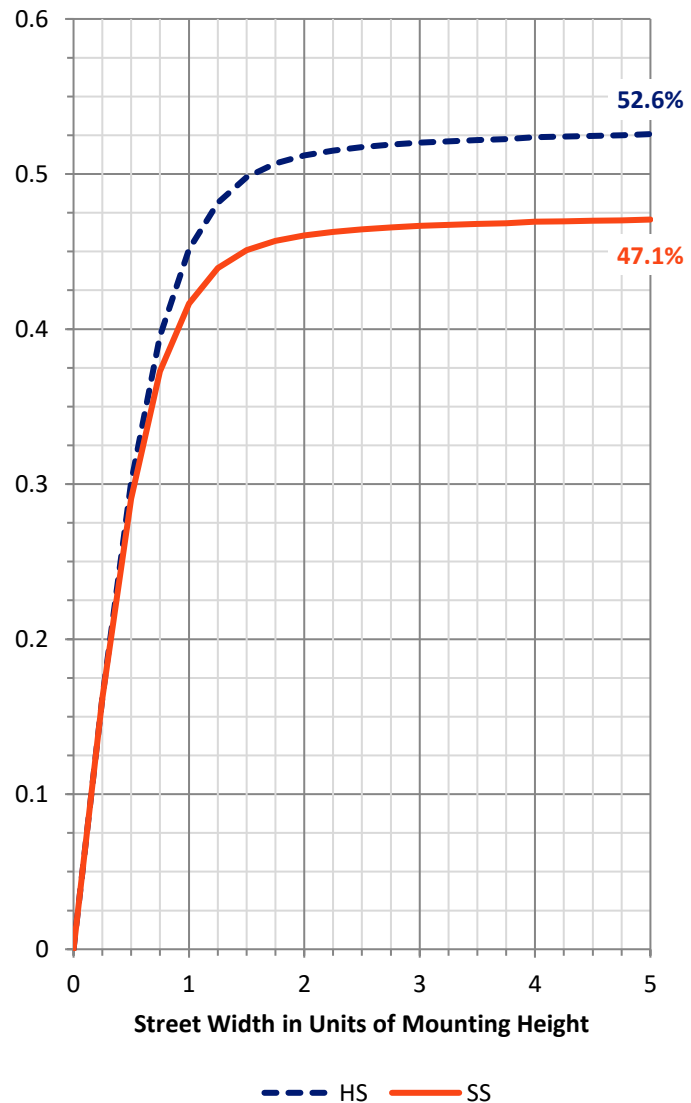
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 16600.1  | 0.0    | 16600.1 |
|                    | % Fixture | 53.0     | 0.0    | 53.0    |
| <b>Street Side</b> | Lumens    | 14700.0  | 0.0    | 14700.0 |
|                    | % Fixture | 47.0     | 0.0    | 47.0    |
| <b>Total</b>       | Lumens    | 31300.1  | 0.0    | 31300.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 581.8   | 1.9       |
| 10°-20°   | 1837.9  | 5.9       |
| 20°-30°   | 2981.8  | 9.5       |
| 30°-40°   | 3716.2  | 11.9      |
| 40°-50°   | 4627.0  | 14.8      |
| 50°-60°   | 5706.2  | 18.2      |
| 60°-70°   | 7086.8  | 22.6      |
| 70°-80°   | 4354.4  | 13.9      |
| 80°-90°   | 408.1   | 1.3       |
| 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°    | 31300.1 | 100.0     |
| 0°-180°   | 31300.1 | 100.0     |



REPORT NUMBER: P158069

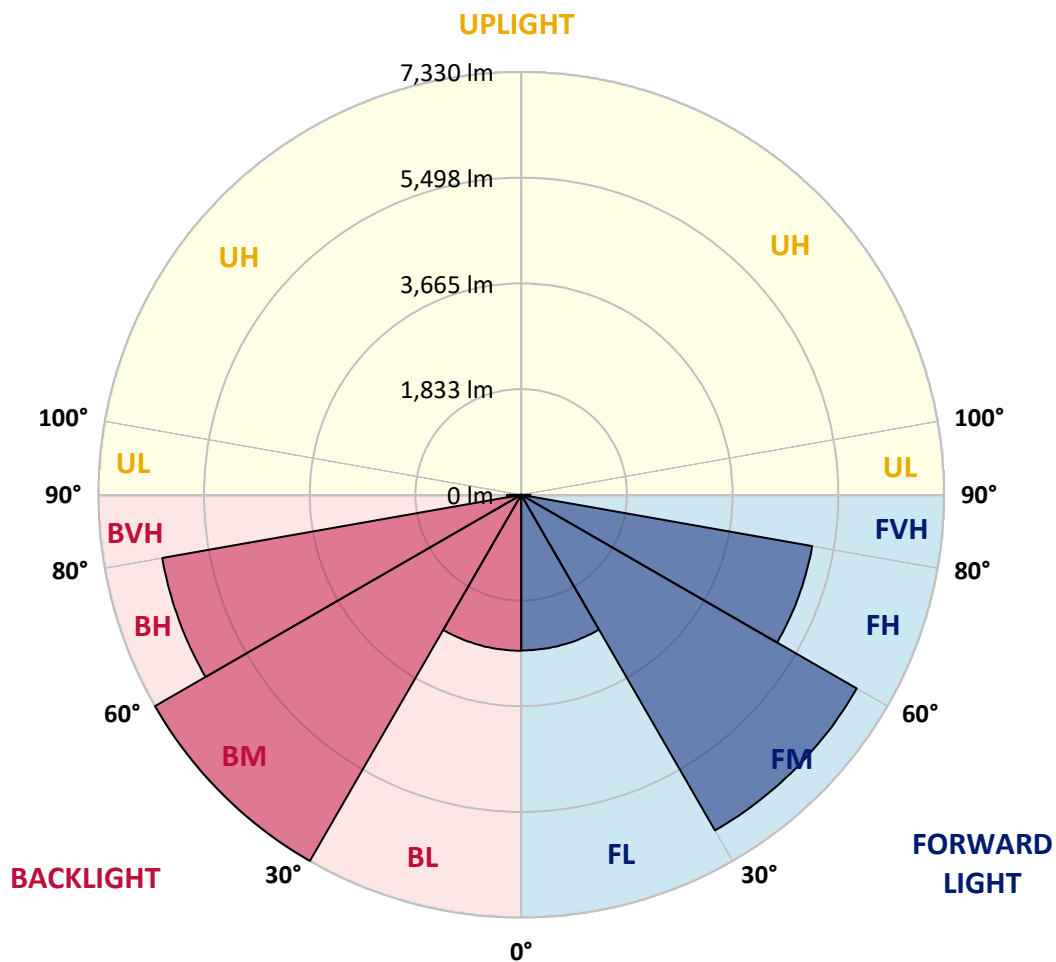
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2697.9 | 8.6       |                         |      |         |
| FM   | (30°-60°)   | 6718.9 | 21.5      |                         |      |         |
| FH   | (60°-80°)   | 5123.4 | 16.4      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 159.8  | 0.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 2703.6 | 8.6       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 7330.4 | 23.4      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 6317.7 | 20.2      | B5                      |      | G5      |
| BVH  | (80°-90°)   | 248.3  | 0.8       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G5**

Type I Medium





REPORT NUMBER: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 70°     | 71°     | 72°     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 5945.7 | 5945.7 | 5945.7 | 5945.7 | 5945.7 | 5945.7 | 5945.7 | 5945.7 | 5945.7  | 5945.7  | 5945.7  |
| 2.5°  | 6040.2 | 6024.1 | 6038.2 | 6040.2 | 6038.2 | 6038.2 | 6020.1 | 6016.1 | 5991.9  | 5998.0  | 5996.0  |
| 5°    | 6122.6 | 6116.5 | 6126.6 | 6130.6 | 6134.6 | 6126.6 | 6112.5 | 6106.5 | 6090.4  | 6084.4  | 6082.4  |
| 7.5°  | 6198.9 | 6188.9 | 6204.9 | 6219.0 | 6229.0 | 6231.1 | 6233.1 | 6223.0 | 6223.0  | 6215.0  | 6215.0  |
| 10°   | 6263.2 | 6255.2 | 6281.3 | 6299.4 | 6331.5 | 6349.6 | 6369.7 | 6383.8 | 6391.8  | 6393.8  | 6391.8  |
| 12.5° | 6291.3 | 6285.3 | 6327.5 | 6381.8 | 6442.0 | 6484.2 | 6534.5 | 6570.6 | 6580.7  | 6578.7  | 6588.7  |
| 15°   | 6243.1 | 6247.1 | 6311.4 | 6417.9 | 6546.5 | 6653.0 | 6723.4 | 6753.5 | 6761.5  | 6765.6  | 6767.6  |
| 17.5° | 6112.5 | 6120.5 | 6213.0 | 6385.8 | 6610.8 | 6803.7 | 6908.2 | 6908.2 | 6892.1  | 6892.1  | 6890.1  |
| 20°   | 5903.5 | 5911.6 | 6032.1 | 6281.3 | 6612.8 | 6908.2 | 7056.9 | 7026.8 | 6966.5  | 6954.4  | 6942.4  |
| 22.5° | 5614.2 | 5646.3 | 5779.0 | 6068.3 | 6526.4 | 6938.4 | 7149.3 | 7105.1 | 7010.7  | 6984.6  | 6966.5  |
| 25°   | 5286.7 | 5282.6 | 5441.4 | 5766.9 | 6317.5 | 6866.0 | 7175.5 | 7167.4 | 7067.0  | 7038.8  | 7006.7  |
| 27.5° | 4912.9 | 4925.0 | 5071.7 | 5401.2 | 5998.0 | 6657.0 | 7131.3 | 7237.8 | 7155.4  | 7127.2  | 7097.1  |
| 30°   | 4529.1 | 4541.2 | 4679.8 | 5063.6 | 5634.3 | 6357.6 | 7040.8 | 7306.1 | 7273.9  | 7251.8  | 7231.7  |
| 32.5° | 4143.3 | 4147.3 | 4312.1 | 4724.0 | 5326.8 | 6000.0 | 6904.2 | 7368.4 | 7412.6  | 7402.5  | 7394.5  |
| 35°   | 3781.6 | 3785.7 | 3964.5 | 4382.4 | 5023.4 | 5694.6 | 6739.4 | 7458.8 | 7601.4  | 7613.5  | 7621.5  |
| 37.5° | 3430.0 | 3436.0 | 3618.9 | 4056.9 | 4724.0 | 5463.5 | 6556.6 | 7597.4 | 7866.7  | 7910.9  | 7918.9  |
| 40°   | 3080.4 | 3086.4 | 3261.2 | 3725.4 | 4420.6 | 5260.5 | 6415.9 | 7792.3 | 8224.4  | 8284.6  | 8346.9  |
| 42.5° | 2746.8 | 2768.9 | 2917.6 | 3361.7 | 4083.0 | 5009.4 | 6355.6 | 8029.4 | 8648.3  | 8742.8  | 8813.1  |
| 45°   | 2435.4 | 2437.4 | 2606.2 | 3022.1 | 3683.2 | 4669.8 | 6315.5 | 8298.7 | 9122.5  | 9265.2  | 9361.7  |
| 47.5° | 2101.8 | 2125.9 | 2302.7 | 2706.6 | 3309.4 | 4249.8 | 6186.9 | 8614.2 | 9639.0  | 9805.7  | 10000.6 |
| 50°   | 1778.3 | 1812.5 | 1983.2 | 2383.1 | 2967.8 | 3815.8 | 5841.2 | 8983.9 | 10219.7 | 10436.7 | 10661.7 |
| 52.5° | 1466.8 | 1464.8 | 1645.7 | 2061.6 | 2624.2 | 3448.1 | 5280.6 | 9371.7 | 10890.8 | 11123.9 | 11367.0 |
| 55°   | 1109.2 | 1109.2 | 1288.0 | 1667.8 | 2252.5 | 3120.6 | 4679.8 | 9612.8 | 11513.7 | 11795.0 | 12060.2 |
| 57.5° | 761.6  | 781.6  | 950.4  | 1278.0 | 1864.7 | 2821.2 | 4219.7 | 9474.2 | 11989.9 | 12339.5 | 12655.0 |
| 60°   | 564.6  | 584.7  | 709.3  | 918.3  | 1458.8 | 2467.5 | 3874.1 | 8821.1 | 12277.3 | 12741.4 | 13151.3 |
| 62.5° | 488.3  | 502.3  | 620.9  | 735.4  | 1050.9 | 2091.8 | 3568.6 | 7991.3 | 12691.2 | 13326.1 | 13896.8 |
| 65°   | 436.0  | 450.1  | 568.7  | 635.0  | 821.8  | 1681.8 | 3397.8 | 7517.1 | 13185.5 | 14156.0 | 14983.9 |
| 67.5° | 403.9  | 420.0  | 520.4  | 568.7  | 717.3  | 1521.1 | 3265.2 | 7406.5 | 13181.5 | 14359.0 | 15415.9 |
| 69°   | 387.8  | 399.9  | 482.2  | 534.5  | 693.2  | 1472.9 | 2977.9 | 6926.3 | 12311.4 | 13575.3 | 14636.3 |
| 70°   | 377.8  | 389.8  | 460.1  | 512.4  | 685.2  | 1386.5 | 2712.7 | 6291.3 | 11320.8 | 12592.7 | 13669.7 |
| 72.5° | 345.6  | 357.7  | 409.9  | 458.1  | 570.7  | 926.3  | 1890.8 | 4026.8 | 8089.7  | 8998.0  | 10229.7 |
| 75°   | 305.4  | 319.5  | 359.7  | 399.9  | 432.0  | 536.5  | 1091.1 | 2089.7 | 4625.6  | 5314.8  | 6411.9  |
| 77.5° | 249.2  | 263.2  | 305.4  | 369.7  | 365.7  | 407.9  | 709.3  | 1284.0 | 2166.1  | 2686.5  | 3092.4  |
| 80°   | 205.0  | 215.0  | 251.2  | 373.7  | 299.4  | 341.6  | 574.7  | 1052.9 | 1525.1  | 1685.9  | 1782.3  |
| 82.5° | 136.6  | 150.7  | 194.9  | 293.4  | 229.1  | 243.1  | 430.0  | 984.6  | 1290.0  | 1414.6  | 1531.1  |
| 85°   | 64.3   | 70.3   | 118.6  | 156.7  | 138.6  | 130.6  | 245.1  | 695.2  | 960.5   | 1018.8  | 1063.0  |
| 87.5° | 0.0    | 0.0    | 6.0    | 12.1   | 18.1   | 18.1   | 44.2   | 146.7  | 269.3   | 325.5   | 321.5   |
| 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: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 73°     | 74°     | 75°     | 76°     | 77°     | 78°     | 79°     | 80°     | 81°     | 82°     | 83°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  |
| 2.5°  | 5987.9  | 5989.9  | 5987.9  | 5987.9  | 5985.9  | 5981.9  | 5981.9  | 5977.9  | 5979.9  | 5977.9  | 5981.9  |
| 5°    | 6080.4  | 6080.4  | 6074.3  | 6070.3  | 6076.3  | 6070.3  | 6072.3  | 6062.3  | 6062.3  | 6056.2  | 6048.2  |
| 7.5°  | 6213.0  | 6213.0  | 6215.0  | 6202.9  | 6211.0  | 6213.0  | 6206.9  | 6202.9  | 6198.9  | 6188.9  | 6190.9  |
| 10°   | 6389.8  | 6389.8  | 6395.8  | 6379.8  | 6387.8  | 6391.8  | 6393.8  | 6393.8  | 6389.8  | 6371.7  | 6373.7  |
| 12.5° | 6586.7  | 6582.7  | 6584.7  | 6576.7  | 6584.7  | 6588.7  | 6592.7  | 6588.7  | 6588.7  | 6584.7  | 6582.7  |
| 15°   | 6765.6  | 6763.5  | 6767.6  | 6761.5  | 6763.5  | 6767.6  | 6779.6  | 6777.6  | 6775.6  | 6763.5  | 6763.5  |
| 17.5° | 6888.1  | 6882.1  | 6878.1  | 6876.1  | 6876.1  | 6874.1  | 6876.1  | 6876.1  | 6870.0  | 6868.0  | 6868.0  |
| 20°   | 6934.3  | 6918.3  | 6908.2  | 6902.2  | 6894.2  | 6890.1  | 6886.1  | 6888.1  | 6884.1  | 6878.1  | 6880.1  |
| 22.5° | 6942.4  | 6920.3  | 6900.2  | 6882.1  | 6866.0  | 6856.0  | 6845.9  | 6841.9  | 6831.9  | 6825.8  | 6825.8  |
| 25°   | 6980.6  | 6946.4  | 6914.2  | 6884.1  | 6860.0  | 6837.9  | 6815.8  | 6799.7  | 6787.7  | 6773.6  | 6769.6  |
| 27.5° | 7064.9  | 7028.8  | 6990.6  | 6952.4  | 6920.3  | 6876.1  | 6845.9  | 6813.8  | 6785.6  | 6763.5  | 6747.5  |
| 30°   | 7195.6  | 7159.4  | 7121.2  | 7077.0  | 7034.8  | 6988.6  | 6938.4  | 6900.2  | 6860.0  | 6815.8  | 6791.7  |
| 32.5° | 7368.4  | 7344.3  | 7306.1  | 7263.9  | 7225.7  | 7177.5  | 7117.2  | 7058.9  | 7020.7  | 6968.5  | 6930.3  |
| 35°   | 7615.5  | 7587.4  | 7575.3  | 7557.2  | 7519.1  | 7488.9  | 7422.6  | 7368.4  | 7332.2  | 7259.9  | 7231.7  |
| 37.5° | 7953.1  | 7951.1  | 7961.1  | 7955.1  | 7961.1  | 7922.9  | 7892.8  | 7890.8  | 7838.6  | 7768.2  | 7699.9  |
| 40°   | 8413.2  | 8437.3  | 8491.6  | 8529.8  | 8565.9  | 8570.0  | 8612.2  | 8568.0  | 8574.0  | 8563.9  | 8493.6  |
| 42.5° | 8937.7  | 9020.1  | 9084.4  | 9196.9  | 9283.3  | 9363.7  | 9417.9  | 9492.3  | 9548.5  | 9598.8  | 9610.8  |
| 45°   | 9522.4  | 9645.0  | 9793.7  | 9894.1  | 10062.9 | 10197.6 | 10382.4 | 10525.1 | 10673.8 | 10820.5 | 10872.7 |
| 47.5° | 10157.4 | 10310.1 | 10474.8 | 10661.7 | 10874.7 | 11085.7 | 11371.0 | 11590.1 | 11829.2 | 12028.1 | 12204.9 |
| 50°   | 10858.6 | 11017.4 | 11238.4 | 11453.4 | 11746.8 | 11989.9 | 12363.7 | 12651.0 | 13036.8 | 13302.0 | 13531.1 |
| 52.5° | 11590.1 | 11789.0 | 12036.1 | 12273.2 | 12572.6 | 12884.1 | 13300.0 | 13724.0 | 14188.2 | 14590.0 | 14923.6 |
| 55°   | 12305.4 | 12550.5 | 12787.6 | 13064.9 | 13396.5 | 13758.2 | 14228.4 | 14787.0 | 15365.7 | 15825.8 | 16267.9 |
| 57.5° | 12942.4 | 13225.7 | 13505.0 | 13786.3 | 14125.9 | 14545.8 | 15074.3 | 15677.1 | 16340.2 | 16953.1 | 17559.9 |
| 60°   | 13533.1 | 13872.7 | 14214.3 | 14565.9 | 14955.7 | 15474.2 | 16109.1 | 16850.6 | 17708.6 | 18546.5 | 19340.2 |
| 62.5° | 14467.5 | 14913.5 | 15337.5 | 15791.6 | 16261.8 | 16870.7 | 17620.2 | 18592.7 | 19577.3 | 20624.2 | 21438.0 |
| 65°   | 15733.4 | 16360.3 | 16914.9 | 17503.6 | 18112.5 | 18926.3 | 19822.4 | 20985.9 | 22396.4 | 23469.5 | 24775.5 |
| 67.5° | 16362.3 | 17188.2 | 17901.5 | 18556.5 | 19310.1 | 20131.9 | 21196.9 | 22573.3 | 24078.3 | 25633.5 | 27090.3 |
| 69°   | 15622.9 | 16474.8 | 17264.5 | 17997.9 | 18759.5 | 19557.2 | 20670.4 | 22083.0 | 23674.4 | 25356.2 | 26778.9 |
| 70°   | 14664.4 | 15516.4 | 16358.3 | 17194.2 | 17889.4 | 18667.1 | 19784.3 | 21241.1 | 22830.5 | 24578.6 | 25989.2 |
| 72.5° | 11234.4 | 12259.2 | 13020.7 | 13804.4 | 14610.1 | 15269.2 | 16559.2 | 17786.9 | 19442.7 | 21216.9 | 22770.2 |
| 75°   | 7187.5  | 8129.9  | 8961.8  | 9628.9  | 10416.6 | 11206.3 | 12158.7 | 13523.1 | 14559.9 | 16016.7 | 17276.6 |
| 77.5° | 3693.2  | 3972.5  | 4774.3  | 5013.4  | 5559.9  | 5989.9  | 6514.4  | 6856.0  | 7699.9  | 7878.7  | 8622.2  |
| 80°   | 1750.2  | 1577.4  | 1484.9  | 1400.5  | 1424.6  | 1414.6  | 1372.4  | 1316.1  | 1386.5  | 1356.3  | 1344.3  |
| 82.5° | 1525.1  | 1360.3  | 1085.1  | 922.3   | 797.7   | 677.2   | 582.7   | 534.5   | 540.5   | 556.6   | 562.6   |
| 85°   | 1069.0  | 1004.7  | 783.7   | 594.8   | 464.2   | 359.7   | 289.3   | 277.3   | 285.3   | 307.4   | 299.4   |
| 87.5° | 309.4   | 323.5   | 285.3   | 198.9   | 138.6   | 100.5   | 78.4    | 88.4    | 84.4    | 82.4    | 86.4    |
| 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: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 84°     | 85°     | 86°     | 87°     | 88°     | 89°     | 90°     | 91°     | 92°     | 93°     | 94°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  |
| 2.5°  | 5981.9  | 5979.9  | 5973.9  | 5967.8  | 5967.8  | 5963.8  | 5967.8  | 5969.8  | 5967.8  | 5967.8  | 5963.8  |
| 5°    | 6050.2  | 6052.2  | 6058.3  | 6046.2  | 6044.2  | 6046.2  | 6038.2  | 6036.1  | 6030.1  | 6036.1  | 6028.1  |
| 7.5°  | 6180.8  | 6186.9  | 6186.9  | 6178.8  | 6176.8  | 6182.8  | 6170.8  | 6166.8  | 6160.7  | 6158.7  | 6156.7  |
| 10°   | 6375.7  | 6381.8  | 6371.7  | 6365.7  | 6359.7  | 6367.7  | 6357.6  | 6357.6  | 6351.6  | 6345.6  | 6343.6  |
| 12.5° | 6592.7  | 6588.7  | 6584.7  | 6588.7  | 6582.7  | 6582.7  | 6576.7  | 6572.7  | 6570.6  | 6568.6  | 6564.6  |
| 15°   | 6761.5  | 6775.6  | 6775.6  | 6779.6  | 6775.6  | 6775.6  | 6767.6  | 6769.6  | 6765.6  | 6763.5  | 6765.6  |
| 17.5° | 6870.0  | 6874.1  | 6884.1  | 6890.1  | 6890.1  | 6892.1  | 6888.1  | 6892.1  | 6888.1  | 6888.1  | 6896.2  |
| 20°   | 6884.1  | 6888.1  | 6898.2  | 6908.2  | 6914.2  | 6918.3  | 6918.3  | 6924.3  | 6928.3  | 6932.3  | 6942.4  |
| 22.5° | 6827.8  | 6833.9  | 6845.9  | 6864.0  | 6874.1  | 6878.1  | 6886.1  | 6896.2  | 6906.2  | 6914.2  | 6928.3  |
| 25°   | 6769.6  | 6771.6  | 6783.6  | 6801.7  | 6813.8  | 6823.8  | 6837.9  | 6849.9  | 6864.0  | 6880.1  | 6896.2  |
| 27.5° | 6737.4  | 6735.4  | 6745.5  | 6763.5  | 6773.6  | 6787.7  | 6799.7  | 6817.8  | 6833.9  | 6854.0  | 6868.0  |
| 30°   | 6765.6  | 6749.5  | 6751.5  | 6759.5  | 6767.6  | 6777.6  | 6791.7  | 6807.7  | 6825.8  | 6843.9  | 6860.0  |
| 32.5° | 6890.1  | 6854.0  | 6829.9  | 6823.8  | 6825.8  | 6827.8  | 6835.9  | 6845.9  | 6860.0  | 6874.1  | 6880.1  |
| 35°   | 7159.4  | 7097.1  | 7064.9  | 7038.8  | 7016.7  | 6998.6  | 7002.7  | 7000.6  | 7000.6  | 7012.7  | 6998.6  |
| 37.5° | 7671.8  | 7593.4  | 7559.3  | 7513.0  | 7486.9  | 7420.6  | 7402.5  | 7398.5  | 7372.4  | 7372.4  | 7342.2  |
| 40°   | 8475.5  | 8429.3  | 8403.2  | 8361.0  | 8234.4  | 8250.5  | 8160.1  | 8162.1  | 8087.7  | 8095.8  | 8043.5  |
| 42.5° | 9618.9  | 9624.9  | 9592.7  | 9564.6  | 9466.1  | 9421.9  | 9337.5  | 9217.0  | 9122.5  | 9120.5  | 9016.0  |
| 45°   | 10941.0 | 11013.4 | 10910.9 | 10947.1 | 10860.6 | 10742.1 | 10643.6 | 10488.9 | 10342.2 | 10296.0 | 10189.5 |
| 47.5° | 12323.5 | 12442.0 | 12363.7 | 12377.7 | 12335.5 | 12166.7 | 12034.1 | 11843.2 | 11652.3 | 11523.7 | 11459.4 |
| 50°   | 13800.4 | 13878.7 | 13876.7 | 13838.5 | 13818.4 | 13653.7 | 13440.7 | 13296.0 | 13155.4 | 12982.5 | 12926.3 |
| 52.5° | 15138.6 | 15321.5 | 15444.0 | 15415.9 | 15357.6 | 15259.2 | 15070.3 | 14945.7 | 14738.7 | 14714.6 | 14738.7 |
| 55°   | 16571.3 | 16808.4 | 16933.0 | 17083.7 | 17085.7 | 17067.6 | 16989.2 | 16943.0 | 16750.1 | 16772.2 | 16744.1 |
| 57.5° | 17927.6 | 18275.2 | 18466.1 | 18787.6 | 18898.1 | 19044.8 | 18990.6 | 19050.8 | 18934.3 | 19010.7 | 18988.6 |
| 60°   | 19766.2 | 20248.4 | 20565.9 | 21006.0 | 21210.9 | 21578.6 | 21651.0 | 21695.2 | 21759.5 | 21916.2 | 21827.8 |
| 62.5° | 22079.0 | 22786.3 | 23445.3 | 24044.1 | 24241.0 | 24793.6 | 24884.0 | 25229.7 | 25247.7 | 25354.2 | 25159.3 |
| 65°   | 25864.6 | 26726.6 | 27452.0 | 28169.4 | 28583.3 | 29230.3 | 29491.5 | 30162.7 | 29957.7 | 30044.1 | 29628.2 |
| 67.5° | 28344.2 | 29346.9 | 30319.4 | 30998.6 | 31685.8 | 32346.9 | 32823.1 | 33257.1 | 33253.1 | 33168.7 | 32799.0 |
| 69°   | 28125.2 | 29242.4 | 30200.8 | 31111.1 | 31834.5 | 32513.6 | 33086.3 | 33367.6 | 33466.1 | 33343.5 | 33080.3 |
| 70°   | 27367.6 | 28515.0 | 29688.5 | 30437.9 | 31225.6 | 31971.1 | 32561.9 | 32869.3 | 32937.6 | 32851.2 | 32624.1 |
| 72.5° | 23867.3 | 24968.4 | 26262.5 | 26943.7 | 27896.1 | 28434.6 | 29248.4 | 29646.3 | 29716.6 | 29606.1 | 29457.4 |
| 75°   | 18626.9 | 18825.8 | 20143.9 | 20578.0 | 21269.2 | 21890.1 | 22396.4 | 22267.8 | 22627.5 | 22557.2 | 22500.9 |
| 77.5° | 8774.9  | 8244.4  | 9098.4  | 9496.3  | 9287.3  | 8730.7  | 9540.5  | 8955.8  | 9343.6  | 9847.9  | 9719.3  |
| 80°   | 1446.7  | 1442.7  | 1480.9  | 1565.3  | 1464.8  | 1555.3  | 1553.2  | 1509.0  | 1513.1  | 1621.6  | 1565.3  |
| 82.5° | 556.6   | 568.7   | 574.7   | 590.8   | 590.8   | 592.8   | 602.8   | 614.9   | 604.8   | 624.9   | 620.9   |
| 85°   | 301.4   | 321.5   | 303.4   | 289.3   | 299.4   | 305.4   | 313.5   | 323.5   | 313.5   | 343.6   | 327.5   |
| 87.5° | 78.4    | 82.4    | 72.3    | 72.3    | 70.3    | 64.3    | 64.3    | 68.3    | 74.3    | 88.4    | 96.4    |
| 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: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 95°     | 96°     | 97°     | 98°     | 99°     | 100°    | 101°    | 102°    | 103°    | 104°    | 105°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  |
| 2.5°  | 5955.8  | 5957.8  | 5959.8  | 5953.8  | 5949.7  | 5949.7  | 5947.7  | 5943.7  | 5941.7  | 5941.7  | 5941.7  |
| 5°    | 6024.1  | 6028.1  | 6018.1  | 6016.1  | 6012.0  | 6008.0  | 6008.0  | 6004.0  | 6006.0  | 6006.0  | 5996.0  |
| 7.5°  | 6160.7  | 6154.7  | 6142.6  | 6134.6  | 6142.6  | 6128.6  | 6122.6  | 6126.6  | 6122.6  | 6124.6  | 6120.5  |
| 10°   | 6343.6  | 6343.6  | 6329.5  | 6337.6  | 6327.5  | 6311.4  | 6317.5  | 6311.4  | 6307.4  | 6293.3  | 6301.4  |
| 12.5° | 6570.6  | 6564.6  | 6556.6  | 6538.5  | 6532.5  | 6530.5  | 6512.4  | 6514.4  | 6508.4  | 6504.3  | 6498.3  |
| 15°   | 6769.6  | 6767.6  | 6749.5  | 6739.4  | 6737.4  | 6729.4  | 6721.3  | 6717.3  | 6707.3  | 6705.3  | 6701.3  |
| 17.5° | 6902.2  | 6896.2  | 6888.1  | 6878.1  | 6878.1  | 6866.0  | 6862.0  | 6852.0  | 6849.9  | 6843.9  | 6837.9  |
| 20°   | 6946.4  | 6948.4  | 6940.4  | 6932.3  | 6928.3  | 6920.3  | 6914.2  | 6906.2  | 6902.2  | 6894.2  | 6888.1  |
| 22.5° | 6936.3  | 6936.3  | 6928.3  | 6926.3  | 6918.3  | 6906.2  | 6898.2  | 6888.1  | 6878.1  | 6868.0  | 6856.0  |
| 25°   | 6904.2  | 6902.2  | 6896.2  | 6886.1  | 6876.1  | 6858.0  | 6841.9  | 6825.8  | 6811.8  | 6799.7  | 6781.6  |
| 27.5° | 6876.1  | 6872.0  | 6860.0  | 6845.9  | 6825.8  | 6805.7  | 6775.6  | 6753.5  | 6735.4  | 6719.3  | 6699.2  |
| 30°   | 6866.0  | 6852.0  | 6833.9  | 6811.8  | 6787.7  | 6757.5  | 6725.4  | 6697.2  | 6677.1  | 6661.1  | 6653.0  |
| 32.5° | 6878.1  | 6860.0  | 6831.9  | 6803.7  | 6773.6  | 6737.4  | 6705.3  | 6681.2  | 6663.1  | 6659.1  | 6659.1  |
| 35°   | 6988.6  | 6958.5  | 6920.3  | 6880.1  | 6841.9  | 6811.8  | 6789.7  | 6787.7  | 6775.6  | 6789.7  | 6811.8  |
| 37.5° | 7312.1  | 7286.0  | 7227.7  | 7175.5  | 7149.3  | 7135.3  | 7115.2  | 7119.2  | 7091.1  | 7135.3  | 7171.4  |
| 40°   | 7999.3  | 7967.2  | 7898.8  | 7856.6  | 7804.4  | 7754.2  | 7794.3  | 7782.3  | 7802.4  | 7794.3  | 7832.5  |
| 42.5° | 9002.0  | 8969.8  | 8861.3  | 8845.3  | 8823.1  | 8803.1  | 8803.1  | 8787.0  | 8778.9  | 8807.1  | 8774.9  |
| 45°   | 10221.7 | 10157.4 | 10117.2 | 10165.4 | 10099.1 | 10119.2 | 10189.5 | 10095.1 | 10117.2 | 9986.6  | 9866.0  |
| 47.5° | 11487.6 | 11481.5 | 11471.5 | 11529.8 | 11539.8 | 11570.0 | 11608.1 | 11511.7 | 11336.9 | 11238.4 | 10993.3 |
| 50°   | 12944.4 | 13006.7 | 13030.8 | 13087.0 | 13111.1 | 13133.2 | 13073.0 | 12930.3 | 12634.9 | 12373.7 | 12084.4 |
| 52.5° | 14714.6 | 14606.1 | 14754.8 | 14809.1 | 14784.9 | 14696.5 | 14479.5 | 14304.7 | 13896.8 | 13521.1 | 13073.0 |
| 55°   | 16776.2 | 16802.4 | 16697.9 | 16655.7 | 16573.3 | 16328.1 | 16028.8 | 15634.9 | 15118.5 | 14628.2 | 14061.6 |
| 57.5° | 18876.0 | 18866.0 | 18703.2 | 18474.2 | 18194.9 | 17899.5 | 17453.4 | 16888.8 | 16285.9 | 15626.9 | 14941.7 |
| 60°   | 21429.9 | 21419.9 | 21090.4 | 20698.5 | 20300.7 | 19824.5 | 19125.2 | 18446.0 | 17638.3 | 16772.2 | 15956.4 |
| 62.5° | 24785.6 | 24353.6 | 24030.1 | 23445.3 | 22830.5 | 22207.6 | 21261.2 | 20358.9 | 19279.9 | 18186.8 | 17234.4 |
| 65°   | 29085.6 | 28374.3 | 28006.6 | 27158.7 | 26206.2 | 25233.7 | 24271.2 | 23085.7 | 21632.9 | 20310.7 | 19147.3 |
| 67.5° | 32266.5 | 31615.4 | 30942.3 | 30096.4 | 29051.5 | 27966.4 | 26648.3 | 25155.3 | 23505.6 | 22022.7 | 20754.8 |
| 69°   | 32545.8 | 31936.9 | 31129.2 | 30281.2 | 29292.6 | 28113.1 | 26674.4 | 25002.6 | 23330.8 | 21829.8 | 20582.0 |
| 70°   | 32121.8 | 31474.8 | 30624.8 | 29742.7 | 28637.6 | 27524.4 | 26017.3 | 24275.2 | 22601.4 | 21096.4 | 19878.7 |
| 72.5° | 28959.1 | 28328.1 | 27423.9 | 26369.0 | 25235.7 | 24283.2 | 22852.6 | 21036.1 | 19215.6 | 17825.1 | 16876.7 |
| 75°   | 22020.7 | 21882.0 | 21241.1 | 20626.2 | 19734.0 | 18671.1 | 17363.0 | 16141.3 | 14648.3 | 13177.5 | 12293.3 |
| 77.5° | 9395.8  | 9715.3  | 10048.9 | 10097.1 | 10129.2 | 9801.7  | 9598.8  | 9291.3  | 8292.7  | 7838.6  | 7370.4  |
| 80°   | 1736.1  | 1551.2  | 1655.7  | 1667.8  | 1736.1  | 1772.3  | 1904.9  | 2258.5  | 2298.7  | 2385.1  | 2491.6  |
| 82.5° | 616.9   | 626.9   | 643.0   | 649.0   | 655.1   | 679.2   | 769.6   | 922.3   | 1060.9  | 1241.8  | 1482.9  |
| 85°   | 349.6   | 355.7   | 369.7   | 381.8   | 389.8   | 413.9   | 464.2   | 554.6   | 691.2   | 898.2   | 1217.7  |
| 87.5° | 106.5   | 120.6   | 128.6   | 144.7   | 150.7   | 154.7   | 176.8   | 237.1   | 305.4   | 452.1   | 659.1   |
| 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: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 106°    | 107°    | 108°    | 109°    | 110°    | 115°    | 125°   | 135°   | 145°   | 155°   | 165°   |
|-------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| 0°    | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7  | 5945.7 | 5945.7 | 5945.7 | 5945.7 | 5945.7 |
| 2.5°  | 5941.7  | 5939.7  | 5935.7  | 5931.7  | 5933.7  | 5929.7  | 5917.6 | 5913.6 | 5899.5 | 5889.5 | 5881.4 |
| 5°    | 5996.0  | 5994.0  | 5985.9  | 5987.9  | 5985.9  | 5965.8  | 5951.8 | 5927.6 | 5913.6 | 5891.5 | 5883.4 |
| 7.5°  | 6108.5  | 6106.5  | 6092.4  | 6098.4  | 6094.4  | 6064.3  | 6040.2 | 6002.0 | 5981.9 | 5953.8 | 5931.7 |
| 10°   | 6277.3  | 6277.3  | 6261.2  | 6263.2  | 6263.2  | 6223.0  | 6180.8 | 6116.5 | 6070.3 | 6026.1 | 5987.9 |
| 12.5° | 6482.2  | 6474.2  | 6472.2  | 6462.1  | 6454.1  | 6409.9  | 6345.6 | 6259.2 | 6172.8 | 6100.4 | 6048.2 |
| 15°   | 6689.2  | 6677.1  | 6671.1  | 6659.1  | 6649.0  | 6608.8  | 6522.4 | 6415.9 | 6299.4 | 6182.8 | 6096.4 |
| 17.5° | 6823.8  | 6815.8  | 6803.7  | 6799.7  | 6785.6  | 6745.5  | 6685.2 | 6578.7 | 6434.0 | 6271.2 | 6140.6 |
| 20°   | 6874.1  | 6860.0  | 6852.0  | 6843.9  | 6835.9  | 6807.7  | 6807.7 | 6739.4 | 6578.7 | 6349.6 | 6150.7 |
| 22.5° | 6841.9  | 6833.9  | 6821.8  | 6815.8  | 6807.7  | 6811.8  | 6890.1 | 6880.1 | 6695.2 | 6367.7 | 6078.3 |
| 25°   | 6767.6  | 6757.5  | 6747.5  | 6747.5  | 6745.5  | 6787.7  | 6976.5 | 7002.7 | 6729.4 | 6279.3 | 5919.6 |
| 27.5° | 6691.2  | 6677.1  | 6681.2  | 6683.2  | 6693.2  | 6783.6  | 7071.0 | 7034.8 | 6637.0 | 6066.3 | 5646.3 |
| 30°   | 6645.0  | 6645.0  | 6655.0  | 6671.1  | 6691.2  | 6849.9  | 7145.3 | 6962.5 | 6397.8 | 5744.8 | 5284.6 |
| 32.5° | 6665.1  | 6685.2  | 6707.3  | 6747.5  | 6777.6  | 6996.6  | 7171.4 | 6775.6 | 6050.2 | 5346.9 | 4906.9 |
| 35°   | 6843.9  | 6868.0  | 6910.2  | 6972.5  | 7008.7  | 7207.6  | 7171.4 | 6502.3 | 5646.3 | 5005.3 | 4517.1 |
| 37.5° | 7233.7  | 7257.8  | 7308.1  | 7356.3  | 7392.5  | 7472.8  | 7141.3 | 6154.7 | 5308.8 | 4651.7 | 4167.4 |
| 40°   | 7860.7  | 7894.8  | 7931.0  | 7922.9  | 7898.8  | 7820.5  | 7081.0 | 5831.2 | 4997.3 | 4342.3 | 3823.8 |
| 42.5° | 8742.8  | 8710.6  | 8706.6  | 8628.2  | 8547.9  | 8212.3  | 7036.8 | 5620.2 | 4730.1 | 4016.7 | 3482.2 |
| 45°   | 9761.5  | 9630.9  | 9496.3  | 9391.8  | 9269.2  | 8642.3  | 7024.8 | 5449.4 | 4434.7 | 3655.0 | 3110.5 |
| 47.5° | 10786.3 | 10577.3 | 10316.1 | 10153.4 | 9954.4  | 9100.4  | 7060.9 | 5220.3 | 4054.9 | 3261.2 | 2762.9 |
| 50°   | 11791.0 | 11449.4 | 11125.9 | 10931.0 | 10705.9 | 9626.9  | 7119.2 | 4834.5 | 3600.8 | 2903.5 | 2445.4 |
| 52.5° | 12721.3 | 12281.3 | 11949.7 | 11720.7 | 11445.4 | 10239.8 | 7067.0 | 4328.2 | 3207.0 | 2559.9 | 2144.0 |
| 55°   | 13605.4 | 13119.2 | 12775.6 | 12534.5 | 12210.9 | 10854.6 | 6689.2 | 3868.0 | 2831.2 | 2224.4 | 1804.4 |
| 57.5° | 14379.1 | 13912.9 | 13555.2 | 13227.7 | 12954.4 | 11389.1 | 5943.7 | 3488.3 | 2469.5 | 1840.6 | 1436.7 |
| 60°   | 15283.3 | 14758.8 | 14334.9 | 13985.2 | 13663.7 | 11664.4 | 5107.8 | 3150.7 | 2083.7 | 1424.6 | 1038.8 |
| 62.5° | 16503.0 | 15900.2 | 15409.9 | 15010.0 | 14590.0 | 11724.7 | 4537.2 | 2813.1 | 1653.7 | 1030.8 | 755.5  |
| 65°   | 18311.4 | 17567.9 | 16955.1 | 16404.5 | 15835.9 | 11475.5 | 4255.8 | 2445.4 | 1229.7 | 765.6  | 633.0  |
| 67.5° | 19748.1 | 18976.5 | 18267.2 | 17559.9 | 16832.5 | 11013.4 | 4193.6 | 2105.8 | 944.4  | 651.0  | 568.7  |
| 69°   | 19573.3 | 18837.9 | 18186.8 | 17421.2 | 16615.5 | 10432.7 | 4131.3 | 1975.2 | 862.0  | 604.8  | 538.5  |
| 70°   | 18900.1 | 18202.9 | 17541.8 | 16918.9 | 15932.3 | 9785.6  | 3966.5 | 1902.9 | 829.9  | 582.7  | 516.4  |
| 72.5° | 15970.5 | 15162.7 | 14521.7 | 13746.1 | 12707.3 | 7271.9  | 3008.0 | 1539.2 | 761.6  | 532.5  | 466.2  |
| 75°   | 11648.3 | 10979.2 | 10340.2 | 9482.2  | 8471.5  | 4207.6  | 1872.7 | 880.1  | 558.6  | 482.2  | 422.0  |
| 77.5° | 6801.7  | 6651.0  | 6034.1  | 5469.5  | 4468.8  | 2142.0  | 1075.0 | 526.5  | 434.0  | 438.0  | 371.7  |
| 80°   | 2559.9  | 2726.7  | 2789.0  | 2594.1  | 2397.2  | 1478.9  | 781.6  | 428.0  | 377.8  | 432.0  | 315.5  |
| 82.5° | 1866.7  | 2166.1  | 2202.3  | 2109.8  | 1963.2  | 1378.4  | 624.9  | 343.6  | 307.4  | 464.2  | 271.3  |
| 85°   | 1557.3  | 1724.0  | 1750.2  | 1653.7  | 1605.5  | 1167.4  | 436.0  | 241.1  | 225.0  | 333.6  | 202.9  |
| 87.5° | 787.7   | 829.9   | 852.0   | 771.6   | 775.6   | 544.5   | 174.8  | 102.5  | 122.6  | 142.7  | 112.5  |
| 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: P158069

CATALOG NUMBER: VST-E11-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 175°   | 180°   |
|-------|--------|--------|
| 0°    | 5945.7 | 5945.7 |
| 2.5°  | 5863.3 | 5875.4 |
| 5°    | 5871.4 | 5871.4 |
| 7.5°  | 5917.6 | 5917.6 |
| 10°   | 5967.8 | 5969.8 |
| 12.5° | 6014.0 | 6012.0 |
| 15°   | 6050.2 | 6044.2 |
| 17.5° | 6072.3 | 6066.3 |
| 20°   | 6050.2 | 6040.2 |
| 22.5° | 5937.7 | 5909.6 |
| 25°   | 5732.7 | 5696.6 |
| 27.5° | 5461.5 | 5437.4 |
| 30°   | 5107.8 | 5071.7 |
| 32.5° | 4693.9 | 4675.8 |
| 35°   | 4298.0 | 4275.9 |
| 37.5° | 3936.4 | 3930.3 |
| 40°   | 3630.9 | 3598.8 |
| 42.5° | 3273.3 | 3259.2 |
| 45°   | 2909.6 | 2901.5 |
| 47.5° | 2568.0 | 2559.9 |
| 50°   | 2252.5 | 2236.4 |
| 52.5° | 1943.1 | 1916.9 |
| 55°   | 1599.5 | 1581.4 |
| 57.5° | 1227.7 | 1211.7 |
| 60°   | 864.0  | 845.9  |
| 62.5° | 614.9  | 594.8  |
| 65°   | 512.4  | 496.3  |
| 67.5° | 464.2  | 446.1  |
| 69°   | 442.1  | 426.0  |
| 70°   | 428.0  | 415.9  |
| 72.5° | 397.9  | 389.8  |
| 75°   | 363.7  | 357.7  |
| 77.5° | 319.5  | 309.4  |
| 80°   | 267.2  | 257.2  |
| 82.5° | 225.0  | 215.0  |
| 85°   | 150.7  | 136.6  |
| 87.5° | 68.3   | 60.3   |
| 90°   | 0.0    | 0.0    |

(END OF REPORT)