

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: McGRAW-EDISON

Report Number: P164984

Luminaire Tested: **VTS-F09-LED-E1-SL2-HSS-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P164984
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: VTS-F09-LED-E1-SL2-HSS-7060
Description: VENTUS LED SITE LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (63) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13811.5 lumens
Efficiency: N/A
Efficacy: 58.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.5' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G3

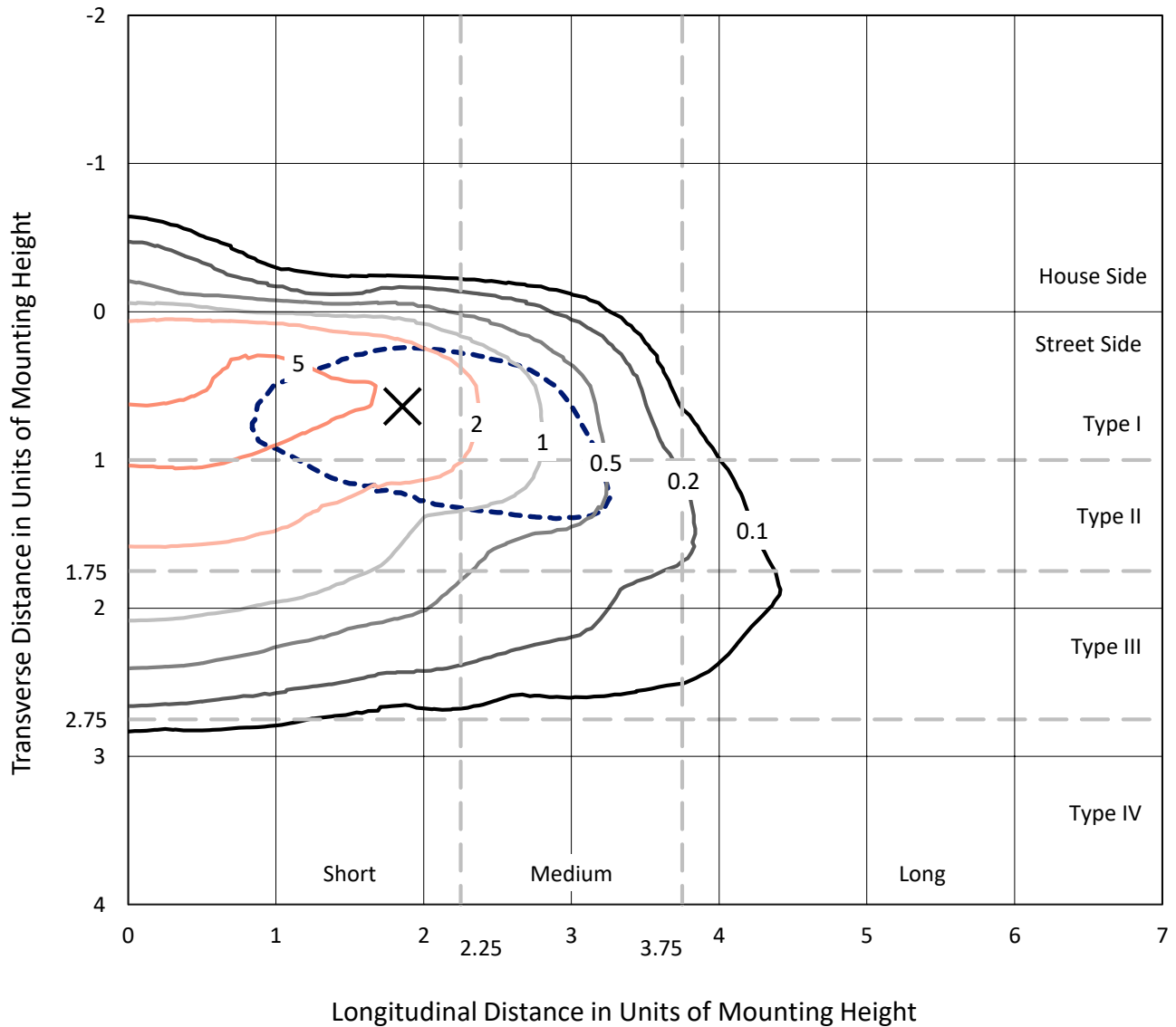
Input Watts (W): 234.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

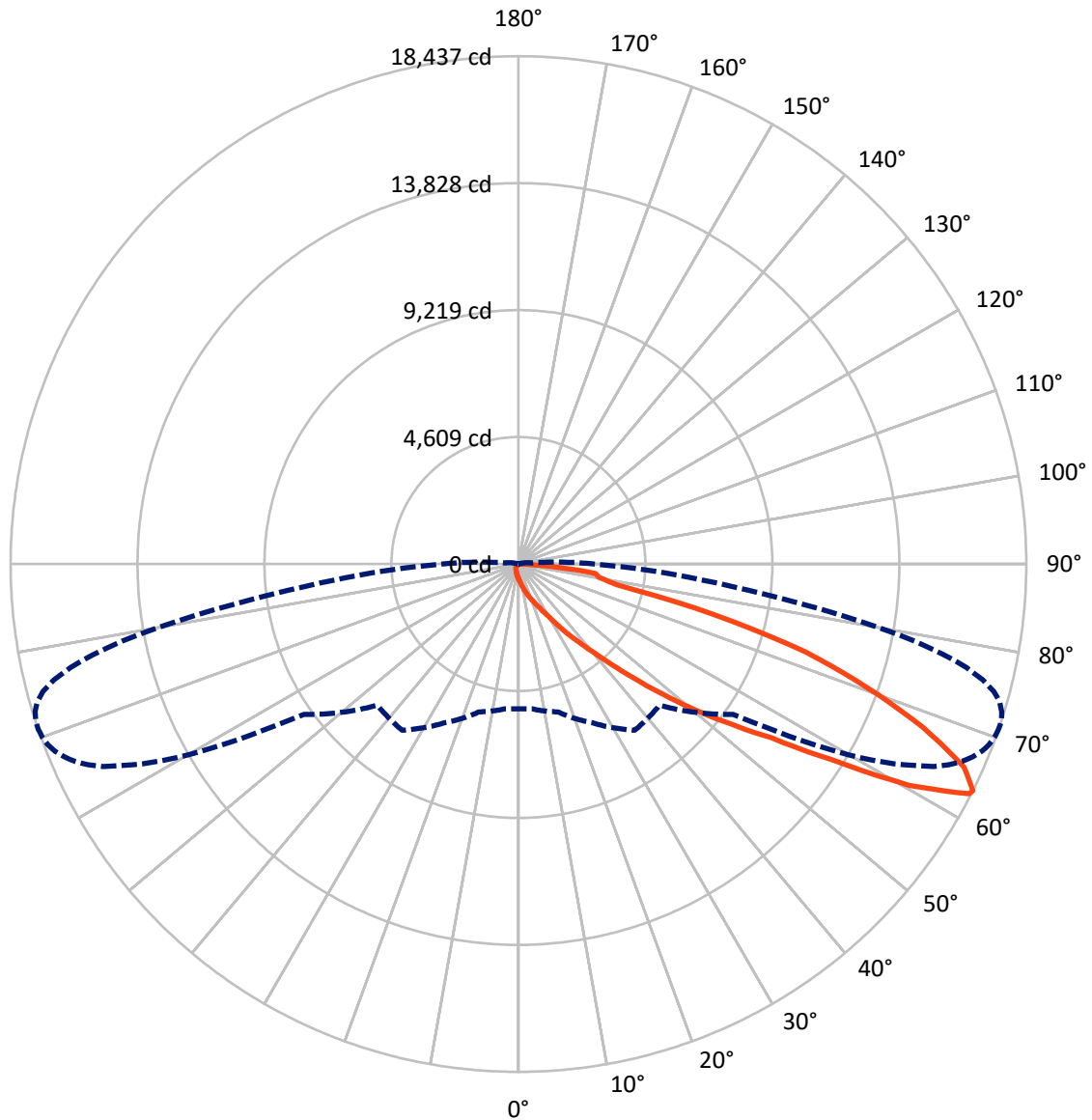


Based on 20 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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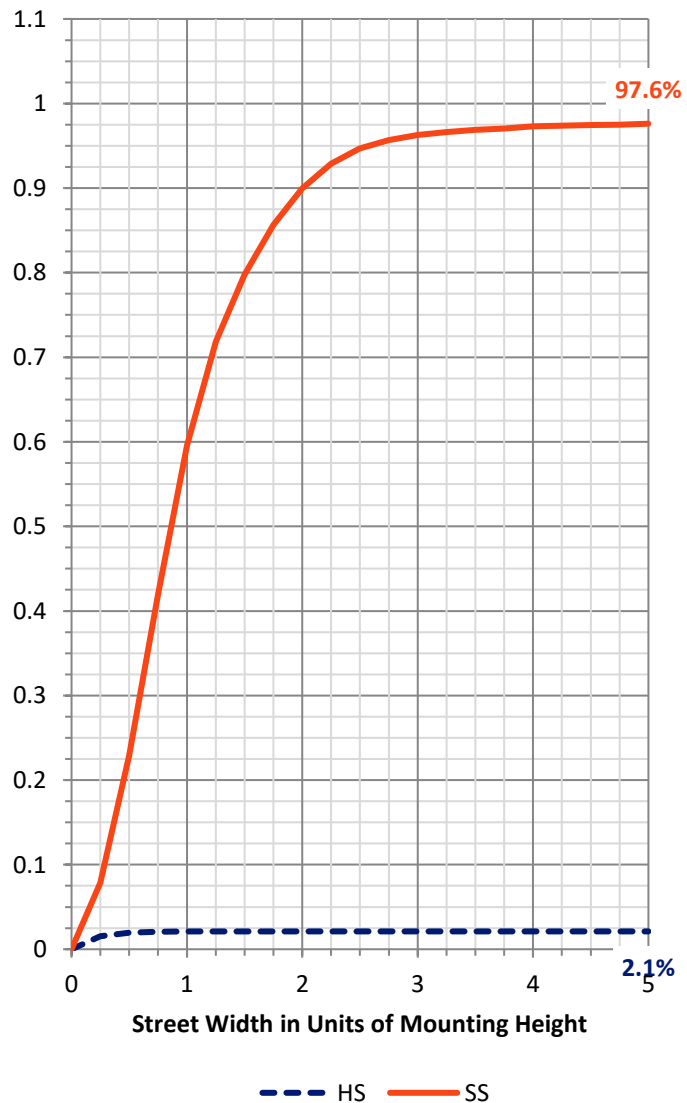
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 293.2 | 0.0 | 293.2 |
| | % Fixture | 2.1 | 0.0 | 2.1 |
| Street Side | Lumens | 13518.3 | 0.0 | 13518.3 |
| | % Fixture | 97.9 | 0.0 | 97.9 |
| Total | Lumens | 13811.5 | 0.0 | 13811.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 58.6 | 0.4 |
| 10°-20° | 227.1 | 1.6 |
| 20°-30° | 461.3 | 3.3 |
| 30°-40° | 1127.0 | 8.2 |
| 40°-50° | 2520.4 | 18.2 |
| 50°-60° | 3543.9 | 25.7 |
| 60°-70° | 4167.4 | 30.2 |
| 70°-80° | 1504.8 | 10.9 |
| 80°-90° | 201.2 | 1.5 |
| 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° | 13811.5 | 100.0 |
| 0°-180° | 13811.5 | 100.0 |



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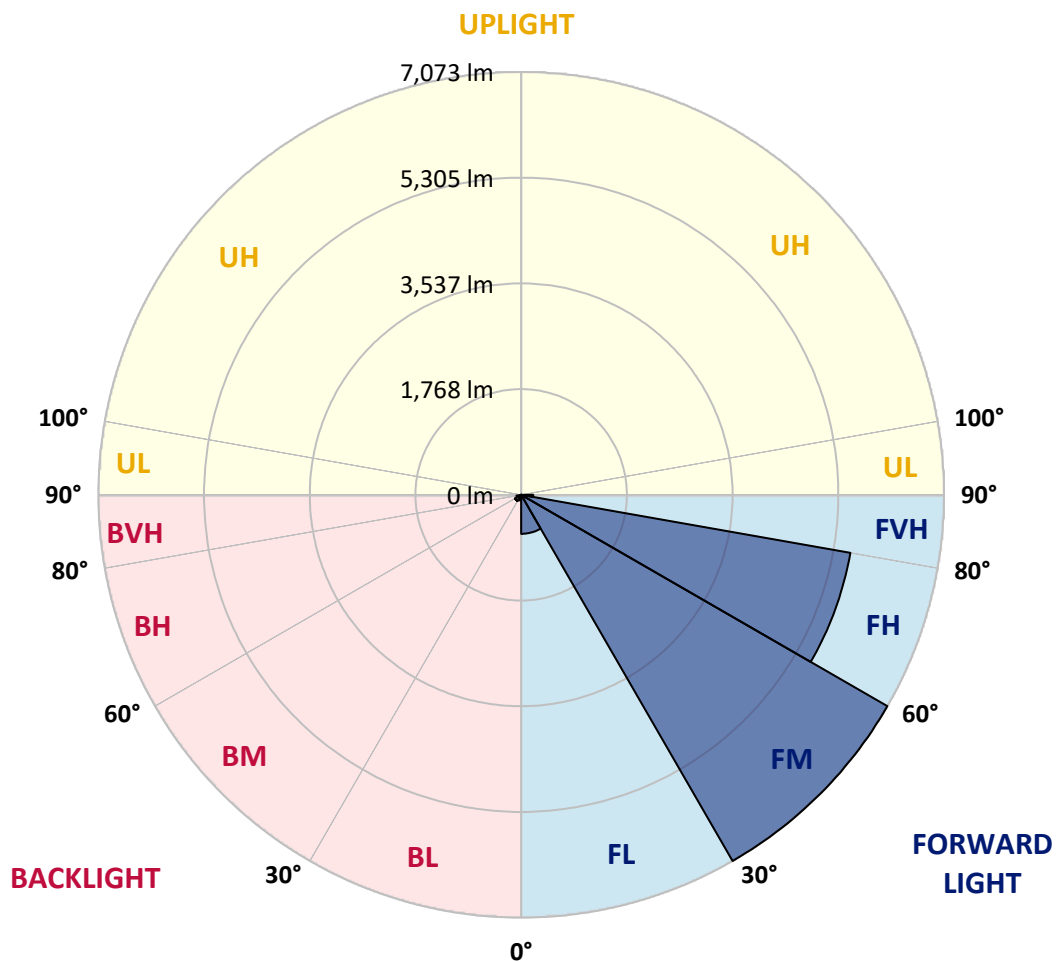
CATALOG NUMBER: VTS-F09-LED-E1-SL2-HSS-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 652.6 | 4.7 | | | |
| FM | (30°-60°) | 7073.1 | 51.2 | | | |
| FH | (60°-80°) | 5591.8 | 40.5 | | | G3/7500 |
| FVH | (80°-90°) | 200.8 | 1.5 | | | G2/225 |
| BL | (0°-30°) | 94.3 | 0.7 | B0/110 | | |
| BM | (30°-60°) | 118.1 | 0.9 | B0/220 | | |
| BH | (60°-80°) | 80.4 | 0.6 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.4 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 56° | 57° | 58° | 59° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 |
| 2.5° | 693.0 | 700.5 | 695.4 | 682.9 | 667.8 | 647.9 | 630.2 | 630.2 | 627.7 | 620.1 | 622.7 |
| 5° | 908.9 | 911.5 | 901.4 | 871.2 | 843.6 | 800.9 | 753.2 | 748.2 | 743.2 | 735.7 | 733.2 |
| 7.5° | 1119.9 | 1129.8 | 1119.9 | 1087.1 | 1031.9 | 966.7 | 891.4 | 883.9 | 868.8 | 868.8 | 858.7 |
| 10° | 1335.8 | 1335.8 | 1325.8 | 1288.1 | 1237.8 | 1144.9 | 1049.5 | 1037.0 | 1019.4 | 1014.4 | 999.3 |
| 12.5° | 1488.9 | 1488.9 | 1483.9 | 1463.9 | 1423.6 | 1340.9 | 1225.3 | 1212.8 | 1190.2 | 1182.6 | 1165.1 |
| 15° | 1549.1 | 1549.1 | 1551.7 | 1569.3 | 1571.9 | 1534.2 | 1413.6 | 1403.5 | 1381.0 | 1360.8 | 1353.4 |
| 17.5° | 1586.8 | 1584.4 | 1584.4 | 1609.5 | 1654.6 | 1679.8 | 1601.9 | 1591.8 | 1566.8 | 1556.8 | 1531.6 |
| 20° | 1669.7 | 1664.7 | 1649.6 | 1649.6 | 1692.3 | 1780.1 | 1780.1 | 1777.7 | 1750.1 | 1742.5 | 1730.0 |
| 22.5° | 1792.8 | 1787.8 | 1742.5 | 1704.8 | 1724.9 | 1835.5 | 1938.4 | 1933.4 | 1923.3 | 1913.2 | 1905.8 |
| 25° | 1993.6 | 1976.1 | 1898.1 | 1787.8 | 1770.2 | 1888.2 | 2058.9 | 2071.5 | 2079.0 | 2079.0 | 2084.0 |
| 27.5° | 2297.5 | 2274.9 | 2136.8 | 1930.9 | 1853.0 | 1973.5 | 2192.0 | 2217.1 | 2239.7 | 2244.7 | 2267.3 |
| 30° | 2719.2 | 2679.1 | 2480.7 | 2179.5 | 2001.2 | 2099.1 | 2387.9 | 2415.5 | 2448.1 | 2458.2 | 2493.2 |
| 32.5° | 3412.2 | 3389.6 | 3198.9 | 2746.8 | 2365.2 | 2345.2 | 2661.6 | 2696.6 | 2739.3 | 2756.9 | 2799.6 |
| 35° | 4466.9 | 4471.9 | 4316.2 | 3909.4 | 3382.2 | 3105.9 | 3151.2 | 3181.2 | 3196.3 | 3249.1 | 3271.6 |
| 37.5° | 5182.4 | 5194.9 | 5230.1 | 5069.4 | 4692.8 | 4411.5 | 4057.5 | 4090.3 | 4012.3 | 4019.8 | 4022.4 |
| 40° | 5574.1 | 5614.2 | 5820.2 | 5975.9 | 5945.7 | 5782.6 | 5498.8 | 5516.3 | 5370.7 | 5338.1 | 5179.8 |
| 42.5° | 5835.2 | 5887.9 | 6217.0 | 6698.9 | 6945.0 | 7093.2 | 7028.0 | 7020.3 | 6907.4 | 6864.7 | 6731.6 |
| 45° | 5998.5 | 6046.2 | 6460.5 | 7171.0 | 7738.5 | 8170.3 | 8348.5 | 8368.7 | 8273.2 | 8230.5 | 8120.1 |
| 47.5° | 5990.8 | 6046.2 | 6490.5 | 7346.8 | 8183.0 | 8873.4 | 9375.6 | 9400.6 | 9458.4 | 9420.7 | 9428.2 |
| 50° | 5659.5 | 5712.3 | 6159.2 | 7047.9 | 8052.3 | 9194.8 | 10113.7 | 10194.1 | 10286.9 | 10349.8 | 10379.9 |
| 52.5° | 5257.7 | 5295.4 | 5692.1 | 6535.8 | 7494.8 | 9061.7 | 10550.6 | 10688.7 | 10826.8 | 10944.9 | 11027.7 |
| 55° | 5109.5 | 5152.2 | 5463.6 | 6164.2 | 7047.9 | 8504.2 | 10754.0 | 10957.4 | 11153.3 | 11346.6 | 11504.7 |
| 57.5° | 5187.5 | 5227.6 | 5451.1 | 5988.4 | 6781.9 | 7916.7 | 10811.8 | 11128.1 | 11449.5 | 11763.3 | 12074.7 |
| 60° | 5473.7 | 5516.3 | 5707.2 | 6151.5 | 6711.6 | 7577.8 | 10585.8 | 11110.6 | 11645.3 | 12192.7 | 12707.5 |
| 62.5° | 5360.7 | 5378.2 | 5659.5 | 6437.9 | 7213.7 | 7289.0 | 9764.7 | 10498.0 | 11314.0 | 12157.6 | 12988.6 |
| 63° | 5252.7 | 5272.8 | 5559.0 | 6360.0 | 7366.9 | 7246.3 | 9511.2 | 10284.5 | 11145.7 | 12054.6 | 12958.6 |
| 65° | 4763.1 | 4765.6 | 4984.1 | 5616.8 | 7196.1 | 7321.6 | 8381.3 | 9119.4 | 10108.7 | 11198.4 | 12340.9 |
| 67.5° | 3555.4 | 3537.8 | 3748.7 | 4230.8 | 5649.5 | 7324.2 | 7193.6 | 7608.0 | 8295.9 | 9262.6 | 10286.9 |
| 70° | 1260.5 | 1232.9 | 1574.3 | 2242.1 | 3520.2 | 5990.8 | 6181.7 | 6209.3 | 6400.2 | 6922.5 | 7565.3 |
| 72.5° | 409.2 | 416.9 | 502.1 | 821.1 | 1622.0 | 4032.5 | 5596.7 | 5511.3 | 5461.1 | 5458.6 | 5543.9 |
| 75° | 163.1 | 165.7 | 200.8 | 364.1 | 728.2 | 1943.4 | 4901.3 | 4948.8 | 4966.5 | 4991.5 | 5019.3 |
| 77.5° | 77.8 | 85.4 | 113.0 | 203.4 | 361.5 | 961.7 | 3507.7 | 3911.9 | 4142.9 | 4321.3 | 4429.2 |
| 80° | 27.6 | 32.6 | 62.8 | 125.5 | 168.2 | 441.9 | 1848.0 | 2229.6 | 2568.6 | 3005.6 | 3382.2 |
| 82.5° | 0.0 | 0.0 | 12.5 | 87.8 | 92.9 | 178.2 | 758.3 | 888.8 | 1016.8 | 1318.1 | 1692.3 |
| 85° | 0.0 | 0.0 | 0.0 | 25.2 | 27.6 | 30.2 | 256.2 | 308.9 | 346.6 | 404.2 | 467.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 7.5 | 15.1 | 37.7 | 57.8 |
| 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):

| | 60° | 61° | 62° | 64° | 65° | 66° | 67° | 68° | 69° | 70° | 71° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 |
| 2.5° | 617.7 | 615.2 | 615.2 | 610.2 | 607.6 | 602.6 | 600.1 | 592.5 | 590.1 | 590.1 | 590.1 |
| 5° | 730.7 | 720.6 | 715.6 | 703.1 | 695.4 | 693.0 | 680.5 | 675.5 | 667.8 | 670.4 | 657.8 |
| 7.5° | 856.1 | 838.6 | 831.1 | 813.4 | 808.6 | 790.9 | 785.8 | 773.3 | 765.9 | 750.8 | 745.7 |
| 10° | 994.3 | 971.7 | 959.2 | 931.5 | 924.0 | 911.5 | 896.4 | 881.3 | 868.8 | 853.7 | 846.2 |
| 12.5° | 1152.5 | 1132.4 | 1122.4 | 1084.7 | 1067.2 | 1049.5 | 1029.5 | 1009.4 | 989.2 | 976.7 | 959.2 |
| 15° | 1338.3 | 1305.6 | 1295.6 | 1260.5 | 1230.3 | 1207.7 | 1180.1 | 1155.0 | 1139.9 | 1114.9 | 1097.2 |
| 17.5° | 1521.5 | 1488.9 | 1481.4 | 1428.7 | 1396.0 | 1381.0 | 1350.9 | 1318.1 | 1290.5 | 1265.5 | 1237.8 |
| 20° | 1704.8 | 1682.2 | 1662.1 | 1612.0 | 1576.9 | 1551.7 | 1511.5 | 1478.8 | 1456.3 | 1421.2 | 1386.0 |
| 22.5° | 1888.2 | 1865.5 | 1850.6 | 1797.8 | 1765.2 | 1730.0 | 1694.9 | 1659.7 | 1627.0 | 1584.4 | 1544.3 |
| 25° | 2076.5 | 2061.4 | 2053.8 | 2006.2 | 1976.1 | 1943.4 | 1908.2 | 1868.1 | 1827.9 | 1780.1 | 1737.6 |
| 27.5° | 2272.3 | 2277.3 | 2262.3 | 2252.2 | 2219.6 | 2197.0 | 2141.8 | 2114.2 | 2084.0 | 2026.2 | 1973.5 |
| 30° | 2520.8 | 2535.9 | 2530.9 | 2538.5 | 2518.4 | 2503.3 | 2460.6 | 2425.6 | 2390.3 | 2335.1 | 2274.9 |
| 32.5° | 2834.8 | 2854.9 | 2864.8 | 2892.6 | 2882.5 | 2877.5 | 2864.8 | 2814.7 | 2789.5 | 2694.2 | 2669.1 |
| 35° | 3319.4 | 3309.3 | 3352.0 | 3374.5 | 3364.5 | 3359.6 | 3344.5 | 3316.9 | 3286.7 | 3218.9 | 3156.2 |
| 37.5° | 3949.5 | 3959.6 | 3974.7 | 3929.5 | 3899.4 | 3896.9 | 3851.6 | 3824.0 | 3781.3 | 3706.0 | 3630.7 |
| 40° | 5104.5 | 5041.8 | 4971.6 | 4780.7 | 4697.9 | 4650.1 | 4517.0 | 4479.4 | 4406.5 | 4303.6 | 4225.8 |
| 42.5° | 6606.1 | 6543.3 | 6332.4 | 6013.6 | 5842.8 | 5606.8 | 5498.8 | 5365.7 | 5262.8 | 5094.6 | 5004.2 |
| 45° | 8097.6 | 7916.7 | 7891.6 | 7520.0 | 7309.1 | 6997.8 | 6804.4 | 6580.9 | 6347.5 | 6126.5 | 5965.8 |
| 47.5° | 9355.5 | 9315.2 | 9192.3 | 8966.2 | 8770.4 | 8509.2 | 8260.7 | 7916.7 | 7675.7 | 7361.9 | 7073.1 |
| 50° | 10362.3 | 10359.8 | 10314.5 | 10184.0 | 10020.9 | 9810.0 | 9591.5 | 9300.3 | 9026.6 | 8642.4 | 8333.6 |
| 52.5° | 11115.6 | 11155.7 | 11170.8 | 11130.6 | 11067.9 | 10882.0 | 10771.7 | 10528.0 | 10297.0 | 9970.6 | 9636.6 |
| 55° | 11667.9 | 11816.1 | 11891.4 | 11976.8 | 11959.3 | 11894.0 | 11889.0 | 11730.7 | 11625.4 | 11366.6 | 11130.6 |
| 57.5° | 12351.0 | 12594.5 | 12827.9 | 13242.3 | 13257.3 | 13403.0 | 13478.4 | 13553.7 | 13573.7 | 13470.7 | 13393.0 |
| 60° | 13219.6 | 13716.8 | 14158.7 | 15025.1 | 15251.0 | 15607.5 | 15838.5 | 16089.6 | 16302.9 | 16320.6 | 16315.6 |
| 62.5° | 13832.3 | 14598.1 | 15311.2 | 16596.8 | 17036.2 | 17448.0 | 17756.8 | 18000.4 | 18148.5 | 18299.1 | 18369.4 |
| 63° | 13849.9 | 14688.5 | 15446.8 | 16772.6 | 17234.5 | 17626.3 | 17920.1 | 18146.0 | 18301.7 | 18392.0 | 18437.3 |
| 65° | 13425.6 | 14442.5 | 15346.3 | 16667.0 | 17101.4 | 17495.7 | 17648.8 | 17797.0 | 17872.3 | 17907.4 | 17774.3 |
| 67.5° | 11379.3 | 12373.5 | 13428.0 | 14904.4 | 15276.0 | 15748.1 | 15873.7 | 15949.0 | 15984.1 | 15976.6 | 15863.7 |
| 70° | 8509.2 | 9343.0 | 10515.5 | 12202.8 | 12695.0 | 13156.9 | 13443.1 | 13566.2 | 13606.3 | 13593.8 | 13425.6 |
| 72.5° | 5940.7 | 6430.3 | 7397.0 | 9275.1 | 9945.5 | 10538.1 | 10892.1 | 11075.4 | 11113.0 | 11037.7 | 10882.0 |
| 75° | 4989.1 | 5014.2 | 5232.6 | 6259.5 | 6887.2 | 7520.0 | 7919.2 | 8034.7 | 7959.4 | 7730.9 | 7334.3 |
| 77.5° | 4454.2 | 4509.6 | 4509.6 | 4662.6 | 4785.7 | 4961.5 | 4999.2 | 4717.8 | 4391.5 | 3969.7 | 3628.3 |
| 80° | 3736.2 | 3929.5 | 4065.1 | 4178.1 | 4190.6 | 4155.5 | 4062.5 | 3904.4 | 3653.3 | 3331.9 | 2975.4 |
| 82.5° | 2269.9 | 2651.5 | 2807.2 | 3389.6 | 3675.8 | 3869.2 | 3854.2 | 3643.2 | 3452.5 | 3118.5 | 2814.7 |
| 85° | 572.5 | 617.7 | 670.4 | 871.2 | 976.7 | 1192.6 | 1328.2 | 1391.0 | 1413.6 | 1298.2 | 1175.1 |
| 87.5° | 55.2 | 37.7 | 62.8 | 47.7 | 67.9 | 50.2 | 67.9 | 62.8 | 77.8 | 82.8 | 90.4 |
| 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):

| | 72° | 73° | 74° | 75° | 76° | 77° | 78° | 79° | 80° | 81° | 82° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 |
| 2.5° | 585.0 | 582.4 | 580.0 | 577.6 | 575.0 | 572.5 | 567.5 | 567.5 | 562.5 | 559.9 | 557.4 |
| 5° | 650.3 | 645.3 | 642.8 | 637.8 | 630.2 | 625.1 | 617.7 | 607.6 | 600.1 | 597.5 | 592.5 |
| 7.5° | 733.2 | 720.6 | 715.6 | 708.1 | 698.0 | 682.9 | 672.9 | 665.4 | 652.9 | 645.3 | 630.2 |
| 10° | 826.1 | 813.4 | 798.5 | 783.4 | 768.3 | 750.8 | 738.1 | 728.2 | 708.1 | 698.0 | 680.5 |
| 12.5° | 944.1 | 921.6 | 903.9 | 883.9 | 863.8 | 843.6 | 828.5 | 798.5 | 780.8 | 758.3 | 743.2 |
| 15° | 1064.6 | 1044.4 | 1024.5 | 999.3 | 969.1 | 936.5 | 921.6 | 893.8 | 871.2 | 836.2 | 816.0 |
| 17.5° | 1210.2 | 1172.5 | 1142.5 | 1112.3 | 1084.7 | 1054.5 | 1024.5 | 981.8 | 949.1 | 919.0 | 878.9 |
| 20° | 1353.4 | 1308.2 | 1275.4 | 1235.3 | 1195.2 | 1147.5 | 1112.3 | 1082.1 | 1037.0 | 996.9 | 954.2 |
| 22.5° | 1506.4 | 1461.3 | 1408.6 | 1368.5 | 1313.3 | 1275.4 | 1227.9 | 1177.6 | 1132.4 | 1079.7 | 1026.9 |
| 25° | 1692.3 | 1644.6 | 1584.4 | 1531.6 | 1468.8 | 1416.2 | 1358.4 | 1300.6 | 1245.4 | 1185.2 | 1117.3 |
| 27.5° | 1920.9 | 1870.5 | 1805.3 | 1742.5 | 1659.7 | 1594.4 | 1539.2 | 1461.3 | 1391.0 | 1315.7 | 1237.8 |
| 30° | 2209.5 | 2154.3 | 2073.9 | 1983.5 | 1900.7 | 1827.9 | 1750.1 | 1647.2 | 1569.3 | 1478.8 | 1378.5 |
| 32.5° | 2586.3 | 2520.8 | 2412.9 | 2327.5 | 2224.6 | 2129.1 | 2021.2 | 1918.3 | 1807.9 | 1689.9 | 1574.3 |
| 35° | 3060.8 | 3000.5 | 2874.9 | 2749.4 | 2636.4 | 2523.4 | 2387.9 | 2269.9 | 2114.2 | 1971.0 | 1822.8 |
| 37.5° | 3552.9 | 3444.8 | 3329.4 | 3193.9 | 3053.1 | 2917.6 | 2751.8 | 2588.7 | 2410.5 | 2254.8 | 2068.9 |
| 40° | 4115.3 | 3984.7 | 3889.3 | 3743.7 | 3545.3 | 3352.0 | 3198.9 | 2995.5 | 2772.0 | 2563.5 | 2345.2 |
| 42.5° | 4886.2 | 4740.6 | 4569.8 | 4348.9 | 4205.7 | 3979.7 | 3781.3 | 3540.3 | 3246.5 | 3013.0 | 2749.4 |
| 45° | 5777.5 | 5579.2 | 5413.4 | 5200.0 | 5026.8 | 4745.6 | 4514.6 | 4193.2 | 3899.4 | 3593.0 | 3271.6 |
| 47.5° | 6794.4 | 6548.3 | 6307.2 | 6096.4 | 5820.2 | 5543.9 | 5250.3 | 4908.7 | 4532.1 | 4195.6 | 3814.0 |
| 50° | 7961.9 | 7612.9 | 7278.9 | 7007.8 | 6628.6 | 6309.8 | 5990.8 | 5606.8 | 5189.9 | 4803.2 | 4368.8 |
| 52.5° | 9260.0 | 8855.8 | 8414.0 | 7997.1 | 7557.7 | 7148.4 | 6764.2 | 6322.3 | 5857.9 | 5385.8 | 4901.3 |
| 55° | 10826.8 | 10523.0 | 10003.3 | 9473.5 | 8885.9 | 8338.6 | 7843.9 | 7296.6 | 6731.6 | 6111.4 | 5601.7 |
| 57.5° | 13280.0 | 13131.8 | 12697.4 | 12167.7 | 11401.8 | 10736.4 | 9897.8 | 9227.4 | 8408.9 | 7555.2 | 6897.3 |
| 60° | 16604.4 | 16421.0 | 16177.5 | 15748.1 | 15140.5 | 14236.6 | 13312.6 | 12270.6 | 11025.2 | 9842.6 | 8720.3 |
| 62.5° | 18377.0 | 18311.6 | 18113.4 | 17817.0 | 17249.6 | 16536.5 | 15605.1 | 14460.0 | 13054.0 | 11617.7 | 10186.6 |
| 63° | 18429.6 | 18346.8 | 18176.1 | 17874.8 | 17375.1 | 16684.7 | 15770.7 | 14658.4 | 13282.4 | 11818.7 | 10357.2 |
| 65° | 17716.7 | 17684.0 | 17510.7 | 17181.8 | 16840.4 | 16313.0 | 15605.1 | 14648.3 | 13493.3 | 12109.9 | 10656.1 |
| 67.5° | 15713.0 | 15615.0 | 15348.9 | 15248.4 | 15010.0 | 14643.3 | 14103.5 | 13445.6 | 12619.6 | 11532.3 | 10276.9 |
| 70° | 13289.9 | 13144.3 | 12810.4 | 12632.1 | 12340.9 | 12109.9 | 11781.0 | 11311.4 | 10801.7 | 10043.4 | 9106.9 |
| 72.5° | 10721.3 | 10420.0 | 10113.7 | 9649.3 | 9242.5 | 8830.7 | 8466.6 | 8135.2 | 7575.2 | 7268.9 | 6558.3 |
| 75° | 6962.6 | 6415.2 | 5890.5 | 5187.5 | 4554.7 | 3994.8 | 3449.9 | 3173.7 | 2598.8 | 2365.2 | 2031.3 |
| 77.5° | 3304.3 | 2997.9 | 2586.3 | 2267.3 | 1860.5 | 1519.1 | 1240.4 | 931.5 | 730.7 | 572.5 | 436.8 |
| 80° | 2666.5 | 2407.9 | 2159.3 | 1870.5 | 1564.2 | 1247.8 | 956.6 | 715.6 | 507.1 | 351.5 | 248.5 |
| 82.5° | 2377.8 | 2096.5 | 1790.2 | 1591.8 | 1383.5 | 1132.4 | 929.0 | 758.3 | 559.9 | 409.2 | 278.7 |
| 85° | 924.0 | 778.4 | 600.1 | 489.6 | 381.6 | 313.8 | 283.8 | 195.8 | 153.2 | 120.5 | 92.9 |
| 87.5° | 80.4 | 65.3 | 52.8 | 35.2 | 37.7 | 20.1 | 22.6 | 15.1 | 12.5 | 12.5 | 10.1 |
| 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: P164984

CATALOG NUMBER: VTS-F09-LED-E1-SL2-HSS-7060

CANDELA DISTRIBUTION (continued):

| | 83° | 84° | 85° | 86° | 87° | 88° | 89° | 90° | 95° | 105° | 115° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 0° | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 |
| 2.5° | 554.9 | 552.4 | 549.8 | 544.8 | 544.8 | 539.9 | 537.3 | 534.9 | 522.2 | 494.6 | 472.1 |
| 5° | 582.4 | 577.6 | 572.5 | 564.9 | 559.9 | 552.4 | 547.4 | 539.9 | 512.2 | 459.6 | 414.3 |
| 7.5° | 622.7 | 612.6 | 605.2 | 590.1 | 582.4 | 572.5 | 564.9 | 552.4 | 507.1 | 426.8 | 364.1 |
| 10° | 670.4 | 652.9 | 640.2 | 622.7 | 607.6 | 595.1 | 582.4 | 564.9 | 502.1 | 391.7 | 318.8 |
| 12.5° | 728.2 | 708.1 | 682.9 | 662.8 | 642.8 | 625.1 | 607.6 | 585.0 | 494.6 | 361.5 | 283.8 |
| 15° | 785.8 | 755.8 | 738.1 | 710.5 | 682.9 | 657.8 | 632.8 | 612.6 | 497.2 | 328.9 | 253.6 |
| 17.5° | 851.1 | 821.1 | 783.4 | 753.2 | 723.2 | 690.6 | 660.4 | 620.1 | 484.6 | 303.9 | 231.0 |
| 20° | 913.9 | 871.2 | 836.2 | 798.5 | 755.8 | 715.6 | 677.9 | 642.8 | 474.5 | 278.7 | 210.9 |
| 22.5° | 981.8 | 931.5 | 886.3 | 838.6 | 785.8 | 740.7 | 695.4 | 650.3 | 457.0 | 256.2 | 193.3 |
| 25° | 1064.6 | 1006.8 | 941.5 | 883.9 | 828.5 | 773.3 | 715.6 | 660.4 | 439.4 | 236.0 | 180.8 |
| 27.5° | 1165.1 | 1089.7 | 1024.5 | 951.6 | 873.8 | 803.5 | 740.7 | 680.5 | 421.9 | 220.9 | 168.2 |
| 30° | 1293.1 | 1205.2 | 1112.3 | 1019.4 | 936.5 | 856.1 | 768.3 | 693.0 | 404.2 | 205.8 | 155.7 |
| 32.5° | 1463.9 | 1353.4 | 1240.4 | 1132.4 | 1021.9 | 919.0 | 826.1 | 728.2 | 394.1 | 193.3 | 143.2 |
| 35° | 1689.9 | 1546.7 | 1408.6 | 1273.0 | 1139.9 | 1014.4 | 893.8 | 783.4 | 394.1 | 178.2 | 128.1 |
| 37.5° | 1903.2 | 1737.6 | 1561.8 | 1393.5 | 1235.3 | 1089.7 | 946.6 | 813.4 | 374.2 | 165.7 | 115.6 |
| 40° | 2134.2 | 1935.8 | 1730.0 | 1531.6 | 1340.9 | 1160.0 | 996.9 | 843.6 | 356.5 | 150.6 | 102.9 |
| 42.5° | 2488.2 | 2237.2 | 1968.6 | 1737.6 | 1509.0 | 1285.5 | 1082.1 | 901.4 | 333.9 | 135.5 | 90.4 |
| 45° | 2952.8 | 2633.8 | 2317.6 | 2036.3 | 1745.1 | 1471.4 | 1230.3 | 1006.8 | 328.9 | 123.0 | 77.8 |
| 47.5° | 3449.9 | 3073.3 | 2701.7 | 2342.6 | 2001.2 | 1682.2 | 1393.5 | 1124.8 | 328.9 | 110.5 | 67.9 |
| 50° | 3944.5 | 3472.6 | 3075.9 | 2659.0 | 2274.9 | 1898.1 | 1554.2 | 1247.8 | 331.5 | 100.5 | 55.2 |
| 52.5° | 4391.5 | 3886.9 | 3442.4 | 2960.3 | 2535.9 | 2099.1 | 1724.9 | 1368.5 | 326.4 | 87.8 | 45.1 |
| 55° | 5011.7 | 4419.1 | 3904.4 | 3372.1 | 2874.9 | 2382.9 | 1958.5 | 1549.1 | 328.9 | 77.8 | 37.7 |
| 57.5° | 6154.1 | 5458.6 | 4838.4 | 4140.4 | 3567.9 | 2932.7 | 2417.9 | 1920.9 | 359.1 | 65.3 | 27.6 |
| 60° | 7793.7 | 6889.8 | 6018.6 | 5167.3 | 4439.3 | 3683.5 | 3015.5 | 2430.6 | 421.9 | 52.8 | 20.1 |
| 62.5° | 8895.9 | 7713.3 | 6673.9 | 5734.8 | 4888.6 | 4097.7 | 3369.5 | 2704.1 | 464.4 | 42.7 | 12.5 |
| 63° | 9008.9 | 7786.2 | 6741.6 | 5772.5 | 4908.7 | 4117.9 | 3384.6 | 2724.2 | 467.0 | 40.1 | 12.5 |
| 65° | 9222.4 | 7911.7 | 6779.3 | 5780.0 | 4888.6 | 4090.3 | 3374.5 | 2721.8 | 472.1 | 32.6 | 10.1 |
| 67.5° | 8978.9 | 7718.4 | 6560.9 | 5564.1 | 4712.8 | 3927.0 | 3249.1 | 2621.3 | 469.5 | 22.6 | 7.5 |
| 70° | 8029.7 | 6985.3 | 5968.3 | 5039.3 | 4265.9 | 3555.4 | 2957.8 | 2390.3 | 431.8 | 15.1 | 5.0 |
| 72.5° | 5895.5 | 5184.9 | 4396.6 | 3726.2 | 3213.8 | 2669.1 | 2277.3 | 1795.2 | 333.9 | 10.1 | 2.4 |
| 75° | 1747.5 | 1591.8 | 1338.3 | 1180.1 | 1042.0 | 861.2 | 765.9 | 597.5 | 170.8 | 5.0 | 0.0 |
| 77.5° | 349.0 | 316.4 | 283.8 | 258.6 | 243.5 | 208.4 | 198.4 | 163.1 | 70.3 | 2.4 | 0.0 |
| 80° | 183.3 | 150.6 | 128.1 | 113.0 | 97.9 | 80.4 | 67.9 | 55.2 | 12.5 | 0.0 | 0.0 |
| 82.5° | 175.8 | 118.0 | 85.4 | 70.3 | 60.2 | 47.7 | 37.7 | 27.6 | 7.5 | 0.0 | 0.0 |
| 85° | 65.3 | 50.2 | 37.7 | 30.2 | 25.2 | 22.6 | 17.5 | 15.1 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.1 | 7.5 | 7.5 | 5.0 | 5.0 | 2.4 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 |
| 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: P164984

CATALOG NUMBER: VTS-F09-LED-E1-SL2-HSS-7060

CANDELA DISTRIBUTION (continued):

| | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 | 529.8 |
| 2.5° | 449.5 | 429.4 | 419.3 | 406.8 | 406.8 | 404.2 | 409.2 |
| 5° | 374.2 | 346.6 | 326.4 | 311.4 | 313.8 | 306.3 | 308.9 |
| 7.5° | 316.4 | 288.8 | 271.1 | 261.2 | 258.6 | 256.2 | 256.2 |
| 10° | 273.7 | 248.5 | 233.4 | 226.0 | 223.5 | 223.5 | 223.5 |
| 12.5° | 243.5 | 218.5 | 205.8 | 200.8 | 200.8 | 198.4 | 198.4 |
| 15° | 218.5 | 198.4 | 185.9 | 180.8 | 180.8 | 178.2 | 180.8 |
| 17.5° | 198.4 | 178.2 | 168.2 | 163.1 | 163.1 | 160.7 | 160.7 |
| 20° | 180.8 | 163.1 | 153.2 | 145.6 | 145.6 | 143.2 | 145.6 |
| 22.5° | 165.7 | 148.2 | 135.5 | 130.5 | 128.1 | 125.5 | 128.1 |
| 25° | 150.6 | 133.1 | 120.5 | 113.0 | 110.5 | 110.5 | 108.0 |
| 27.5° | 138.1 | 120.5 | 105.5 | 97.9 | 95.4 | 95.4 | 92.9 |
| 30° | 125.5 | 105.5 | 90.4 | 82.8 | 80.4 | 80.4 | 80.4 |
| 32.5° | 113.0 | 90.4 | 77.8 | 70.3 | 67.9 | 67.9 | 67.9 |
| 35° | 100.5 | 77.8 | 65.3 | 57.8 | 55.2 | 55.2 | 55.2 |
| 37.5° | 85.4 | 65.3 | 50.2 | 45.1 | 42.7 | 40.1 | 40.1 |
| 40° | 72.9 | 50.2 | 37.7 | 32.6 | 27.6 | 27.6 | 27.6 |
| 42.5° | 60.2 | 40.1 | 27.6 | 20.1 | 17.5 | 15.1 | 17.5 |
| 45° | 50.2 | 30.2 | 17.5 | 10.1 | 7.5 | 7.5 | 7.5 |
| 47.5° | 40.1 | 20.1 | 7.5 | 2.4 | 2.4 | 2.4 | 2.4 |
| 50° | 30.2 | 12.5 | 2.4 | 0.0 | 0.0 | 2.4 | 2.4 |
| 52.5° | 22.6 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 12.5 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63° | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)