

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: INVUE

Report Number: P676682

Luminaire Tested: **CCW-SA-2D-727-U-T4W-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676682  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2D-727-U-T4W-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/  
T4W distribution lens and House Side Shield  
Light Source: (32) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

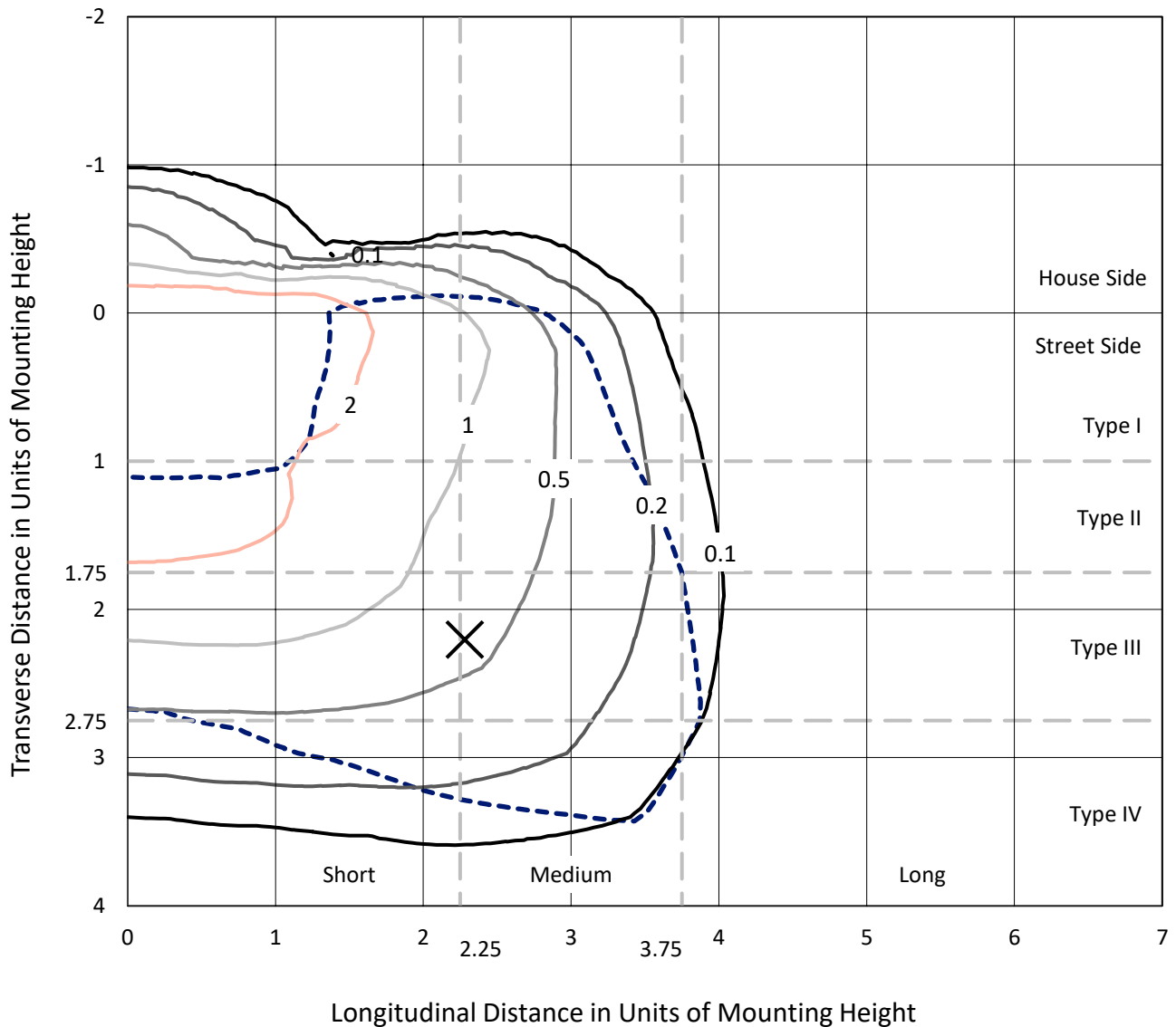
Lumens per Lamp: N/A  
Luminaire Lumens: 6729.3 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 80.8  
Input Voltage (V): 120  
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: 25 FT

REPORT NUMBER: P676682  
 CATALOG NUMBER: CCW-SA-2D-727-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

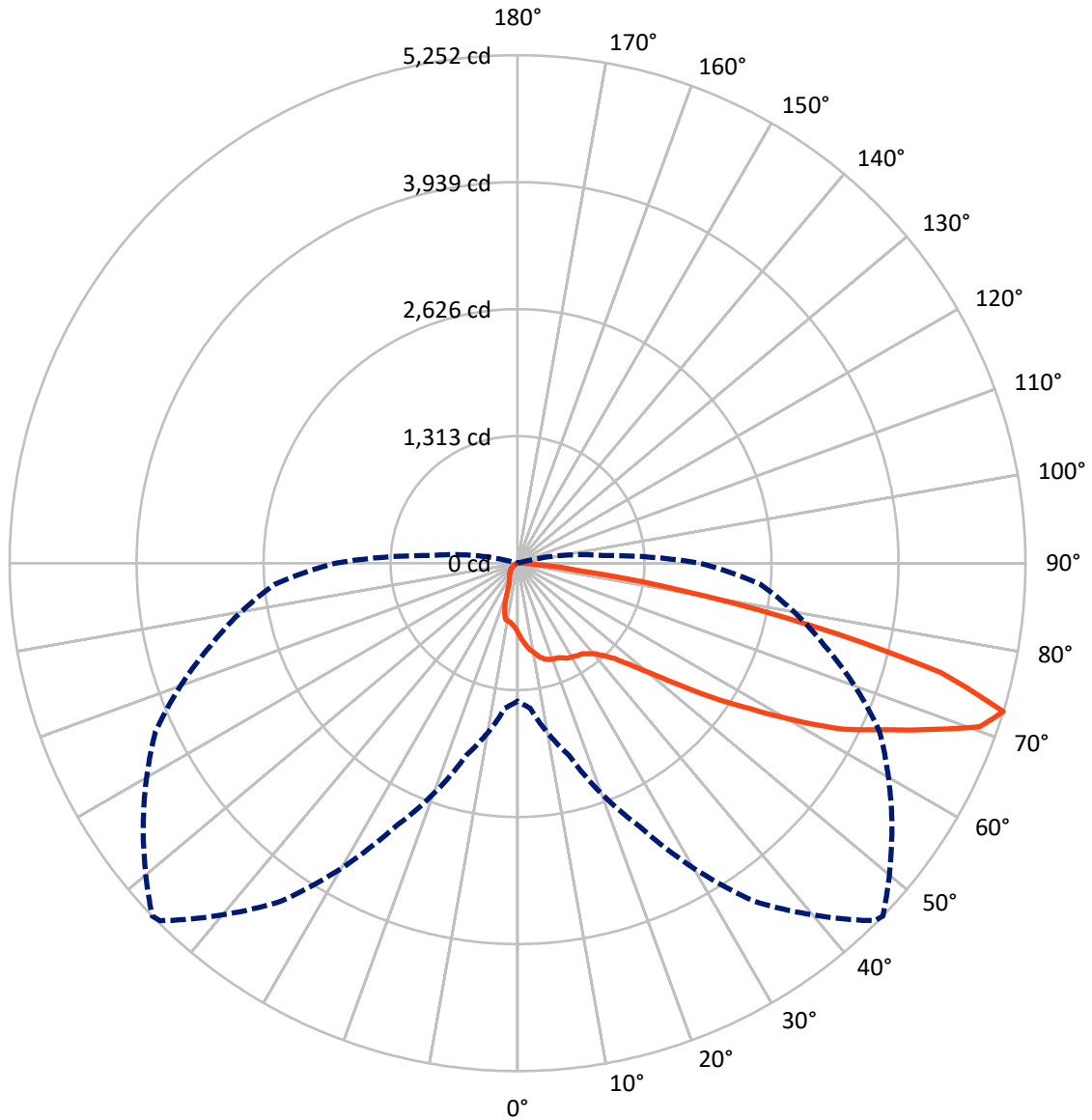
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.7 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P676682  
CATALOG NUMBER: CCW-SA-2D-727-U-T4W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P676682  
 CATALOG NUMBER: CCW-SA-2D-727-U-T4W-HSS

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 724.5    | 0.0    | 724.5  |
|                    | % Fixture | 10.8     | 0.0    | 10.8   |
| <b>Street Side</b> | Lumens    | 6004.8   | 0.0    | 6004.8 |
|                    | % Fixture | 89.2     | 0.0    | 89.2   |
| <b>Total</b>       | Lumens    | 6729.3   | 0.0    | 6729.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 72.0   | 1.1       |
| 10°-20°   | 217.3  | 3.2       |
| 20°-30°   | 340.2  | 5.1       |
| 30°-40°   | 476.5  | 7.1       |
| 40°-50°   | 785.7  | 11.7      |
| 50°-60°   | 1412.2 | 21.0      |
| 60°-70°   | 2046.8 | 30.4      |
| 70°-80°   | 1277.4 | 19.0      |
| 80°-90°   | 101.2  | 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°    | 6729.3 | 100.0     |
| 0°-180°   | 6729.3 | 100.0     |

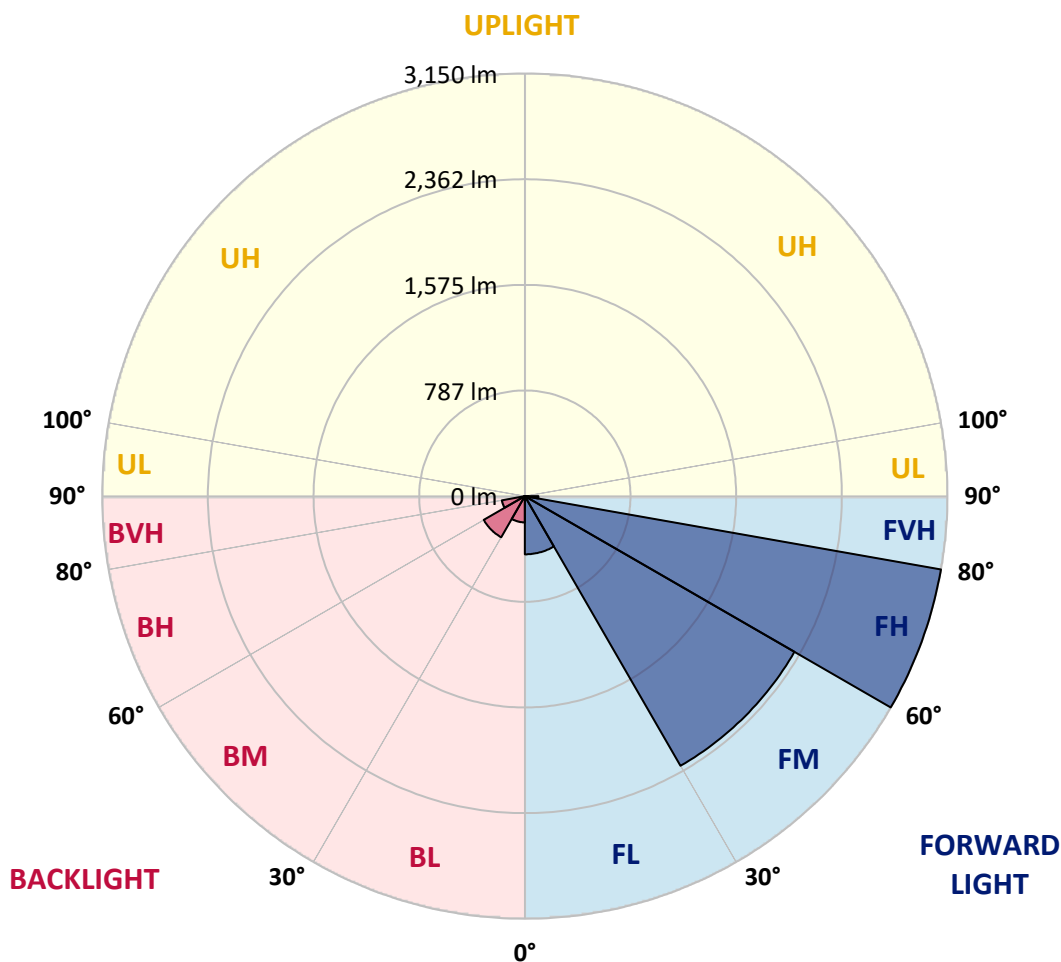


REPORT NUMBER: P676682  
 CATALOG NUMBER: CCW-SA-2D-727-U-T4W-HSS

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 433.7  | 6.4       |                         |      |         |
| FM (30°-60°)   | 2320.4 | 34.5      |                         |      |         |
| FH (60°-80°)   | 3150.0 | 46.8      |                         |      | G2/5000 |
| FVH (80°-90°)  | 100.7  | 1.5       |                         |      | G2/225  |
| BL (0°-30°)    | 195.8  | 2.9       | B1/500                  |      |         |
| BM (30°-60°)   | 353.9  | 5.3       | B1/1000                 |      |         |
| BH (60°-80°)   | 174.2  | 2.6       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 0.5    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**  
 Type IV Medium





REPORT NUMBER: P676682

CATALOG NUMBER: CCW-SA-2D-727-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 46°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  | 719.2  |
| 2.5°  | 805.0  | 801.6  | 806.7  | 805.0  | 784.4  | 787.9  | 786.1  | 772.4  | 748.4  | 734.6  | 726.1  |
| 5°    | 897.7  | 906.3  | 899.4  | 884.0  | 872.0  | 847.9  | 844.5  | 822.2  | 784.4  | 760.4  | 734.6  |
| 7.5°  | 993.8  | 993.8  | 980.1  | 956.1  | 930.3  | 904.6  | 901.1  | 863.4  | 830.8  | 789.6  | 753.5  |
| 10°   | 1065.9 | 1057.3 | 1047.0 | 1021.3 | 992.1  | 957.8  | 940.6  | 913.2  | 877.1  | 827.3  | 781.0  |
| 12.5° | 1129.4 | 1115.7 | 1098.5 | 1060.8 | 1026.4 | 988.7  | 992.1  | 947.5  | 923.5  | 878.8  | 810.2  |
| 15°   | 1165.5 | 1153.5 | 1138.0 | 1103.7 | 1050.5 | 1033.3 | 1026.4 | 999.0  | 956.1  | 911.4  | 846.2  |
| 17.5° | 1174.1 | 1165.5 | 1144.9 | 1100.3 | 1071.1 | 1050.5 | 1048.8 | 1016.1 | 997.3  | 959.5  | 887.4  |
| 20°   | 1156.9 | 1141.4 | 1126.0 | 1096.8 | 1069.4 | 1062.5 | 1057.3 | 1057.3 | 1033.3 | 983.5  | 913.2  |
| 22.5° | 1127.7 | 1110.6 | 1102.0 | 1084.8 | 1062.5 | 1060.8 | 1064.2 | 1060.8 | 1041.9 | 1009.3 | 940.6  |
| 25°   | 1105.4 | 1096.8 | 1083.1 | 1077.9 | 1064.2 | 1090.0 | 1084.8 | 1079.7 | 1074.5 | 1036.7 | 983.5  |
| 27.5° | 1112.3 | 1110.6 | 1100.3 | 1079.7 | 1069.4 | 1096.8 | 1112.3 | 1114.0 | 1112.3 | 1074.5 | 1023.0 |
| 30°   | 1115.7 | 1107.1 | 1096.8 | 1091.7 | 1095.1 | 1122.6 | 1122.6 | 1160.3 | 1144.9 | 1107.1 | 1062.5 |
| 32.5° | 1155.2 | 1150.0 | 1115.7 | 1103.7 | 1105.4 | 1138.0 | 1139.7 | 1177.5 | 1172.3 | 1146.6 | 1096.8 |
| 35°   | 1239.3 | 1205.0 | 1155.2 | 1120.9 | 1120.9 | 1163.8 | 1150.0 | 1205.0 | 1218.7 | 1177.5 | 1120.9 |
| 37.5° | 1364.6 | 1338.8 | 1249.6 | 1172.3 | 1143.2 | 1174.1 | 1187.8 | 1218.7 | 1259.9 | 1223.8 | 1168.9 |
| 40°   | 1613.5 | 1608.3 | 1481.3 | 1314.8 | 1199.8 | 1227.3 | 1232.4 | 1280.5 | 1307.9 | 1258.2 | 1242.7 |
| 42.5° | 1977.4 | 1951.6 | 1833.2 | 1570.6 | 1302.8 | 1290.8 | 1309.7 | 1340.6 | 1405.8 | 1364.6 | 1326.8 |
| 45°   | 2332.7 | 2320.7 | 2202.2 | 1908.7 | 1489.9 | 1417.8 | 1407.5 | 1462.4 | 1558.5 | 1513.9 | 1484.7 |
| 47.5° | 2590.1 | 2566.1 | 2499.2 | 2252.0 | 1764.5 | 1567.1 | 1574.0 | 1628.9 | 1750.8 | 1716.5 | 1725.0 |
| 50°   | 2787.5 | 2775.5 | 2705.1 | 2569.5 | 2111.2 | 1802.3 | 1788.6 | 1843.5 | 2008.3 | 2030.6 | 2054.6 |
| 52.5° | 3003.8 | 3026.1 | 2931.7 | 2816.7 | 2521.5 | 2118.1 | 2087.2 | 2106.1 | 2318.9 | 2370.4 | 2437.4 |
| 55°   | 3211.5 | 3247.5 | 3153.1 | 3137.7 | 2950.6 | 2468.3 | 2463.1 | 2418.5 | 2693.1 | 2700.0 | 2736.0 |
| 57.5° | 3347.1 | 3335.1 | 3328.2 | 3412.3 | 3379.7 | 2869.9 | 2844.2 | 2799.6 | 3048.4 | 3003.8 | 3111.9 |
| 60°   | 3357.4 | 3391.7 | 3506.7 | 3714.4 | 3772.8 | 3342.0 | 3304.2 | 3182.3 | 3355.7 | 3249.3 | 3455.2 |
| 62.5° | 3434.6 | 3462.1 | 3674.9 | 3961.6 | 4037.1 | 3757.3 | 3783.1 | 3474.1 | 3618.3 | 3534.2 | 3836.3 |
| 65°   | 3239.0 | 3324.8 | 3752.2 | 4153.8 | 4383.8 | 4177.9 | 4152.1 | 3850.0 | 3887.8 | 3808.8 | 4212.2 |
| 67.5° | 3062.2 | 3094.8 | 3541.1 | 4212.2 | 4658.5 | 4600.1 | 4589.8 | 4183.0 | 4165.9 | 4020.0 | 4318.6 |
| 70°   | 2488.9 | 2528.4 | 2969.5 | 3913.5 | 4751.2 | 5092.7 | 5068.7 | 4649.9 | 4354.7 | 3905.0 | 3772.8 |
| 72.5° | 1426.4 | 1505.3 | 2058.0 | 3014.1 | 4268.8 | 5230.1 | 5252.4 | 4725.4 | 4131.5 | 3283.6 | 2519.8 |
| 75°   | 466.9  | 489.2  | 854.8  | 1707.9 | 3192.6 | 4562.4 | 4522.9 | 4061.2 | 3333.4 | 2167.9 | 1138.0 |
| 77.5° | 157.9  | 161.3  | 252.3  | 617.9  | 1769.7 | 3082.8 | 3105.1 | 2902.5 | 2047.7 | 901.1  | 314.1  |
| 80°   | 80.7   | 85.8   | 123.6  | 231.7  | 727.8  | 1678.7 | 1714.7 | 1654.7 | 858.2  | 266.1  | 75.5   |
| 82.5° | 37.8   | 39.5   | 72.1   | 128.7  | 333.0  | 659.1  | 659.1  | 724.3  | 303.8  | 149.3  | 30.9   |
| 85°   | 13.7   | 13.7   | 37.8   | 73.8   | 140.7  | 219.7  | 221.4  | 223.1  | 159.6  | 111.6  | 13.7   |
| 87.5° | 5.1    | 5.1    | 18.9   | 30.9   | 51.5   | 66.9   | 66.9   | 53.2   | 80.7   | 73.8   | 5.1    |
| 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: P676682  
 CATALOG NUMBER: CCW-SA-2D-727-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 719.2  | 719.2  | 719.2 | 719.2 | 719.2 | 719.2 | 719.2 | 719.2 | 719.2 | 719.2 | 719.2 |
| 2.5°  | 722.6  | 712.3  | 703.7 | 691.7 | 676.3 | 667.7 | 669.4 | 659.1 | 659.1 | 654.0 | 652.3 |
| 5°    | 722.6  | 712.3  | 690.0 | 669.4 | 655.7 | 638.5 | 629.9 | 623.1 | 623.1 | 619.6 | 621.4 |
| 7.5°  | 727.8  | 712.3  | 681.4 | 654.0 | 631.7 | 614.5 | 600.8 | 599.0 | 595.6 | 587.0 | 593.9 |
| 10°   | 758.7  | 736.4  | 684.9 | 647.1 | 621.4 | 602.5 | 578.4 | 571.6 | 561.3 | 545.8 | 547.6 |
| 12.5° | 784.4  | 755.2  | 708.9 | 657.4 | 624.8 | 593.9 | 539.0 | 478.9 | 453.1 | 425.7 | 427.4 |
| 15°   | 822.2  | 781.0  | 717.5 | 671.1 | 624.8 | 525.2 | 425.7 | 348.4 | 307.2 | 286.6 | 286.6 |
| 17.5° | 842.8  | 808.5  | 741.5 | 679.7 | 575.0 | 427.4 | 302.1 | 235.2 | 228.3 | 231.7 | 231.7 |
| 20°   | 885.7  | 839.4  | 769.0 | 686.6 | 492.6 | 303.8 | 221.4 | 214.6 | 218.0 | 224.9 | 223.1 |
| 22.5° | 913.2  | 866.8  | 789.6 | 655.7 | 381.1 | 218.0 | 207.7 | 204.3 | 207.7 | 216.3 | 216.3 |
| 25°   | 935.5  | 906.3  | 822.2 | 580.2 | 269.5 | 197.4 | 194.0 | 197.4 | 200.8 | 204.3 | 209.4 |
| 27.5° | 990.4  | 940.6  | 844.5 | 482.3 | 194.0 | 183.7 | 187.1 | 188.8 | 188.8 | 194.0 | 195.7 |
| 30°   | 1026.4 | 987.0  | 861.7 | 372.5 | 171.6 | 169.9 | 173.4 | 175.1 | 176.8 | 181.9 | 183.7 |
| 32.5° | 1060.8 | 1047.0 | 839.4 | 252.3 | 161.3 | 157.9 | 156.2 | 157.9 | 164.8 | 169.9 | 168.2 |
| 35°   | 1110.6 | 1102.0 | 806.7 | 175.1 | 151.0 | 144.2 | 140.7 | 142.5 | 147.6 | 152.8 | 151.0 |
| 37.5° | 1170.6 | 1179.2 | 727.8 | 152.8 | 140.7 | 132.2 | 125.3 | 125.3 | 127.0 | 132.2 | 133.9 |
| 40°   | 1241.0 | 1263.3 | 635.1 | 142.5 | 133.9 | 123.6 | 116.7 | 108.1 | 106.4 | 104.7 | 106.4 |
| 42.5° | 1369.7 | 1395.5 | 530.4 | 135.6 | 123.6 | 111.6 | 101.3 | 91.0  | 82.4  | 77.2  | 77.2  |
| 45°   | 1550.0 | 1529.4 | 393.1 | 128.7 | 118.4 | 101.3 | 85.8  | 73.8  | 61.8  | 56.6  | 56.6  |
| 47.5° | 1798.9 | 1728.5 | 269.5 | 121.9 | 109.9 | 89.3  | 72.1  | 56.6  | 46.3  | 41.2  | 41.2  |
| 50°   | 2143.9 | 1912.1 | 175.1 | 115.0 | 104.7 | 77.2  | 58.4  | 41.2  | 34.3  | 32.6  | 34.3  |
| 52.5° | 2470.0 | 2099.2 | 139.0 | 106.4 | 94.4  | 66.9  | 44.6  | 34.3  | 30.9  | 29.2  | 29.2  |
| 55°   | 2770.4 | 2193.6 | 123.6 | 97.8  | 85.8  | 54.9  | 37.8  | 29.2  | 27.5  | 25.7  | 25.7  |
| 57.5° | 3024.4 | 2226.3 | 106.4 | 85.8  | 68.7  | 42.9  | 30.9  | 25.7  | 22.3  | 20.6  | 20.6  |
| 60°   | 3244.1 | 2234.8 | 82.4  | 68.7  | 49.8  | 32.6  | 25.7  | 22.3  | 18.9  | 15.4  | 15.4  |
| 62.5° | 3419.2 | 2174.8 | 58.4  | 48.1  | 34.3  | 25.7  | 22.3  | 15.4  | 10.3  | 6.9   | 5.1   |
| 65°   | 3558.2 | 2054.6 | 39.5  | 32.6  | 22.3  | 18.9  | 13.7  | 6.9   | 1.7   | 0.0   | 0.0   |
| 67.5° | 3395.2 | 1781.7 | 30.9  | 24.0  | 15.4  | 12.0  | 6.9   | 1.7   | 0.0   | 0.0   | 0.0   |
| 70°   | 2768.7 | 1381.8 | 22.3  | 15.4  | 10.3  | 3.4   | 1.7   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 1884.7 | 890.8  | 17.2  | 10.3  | 5.1   | 1.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 846.2  | 319.3  | 12.0  | 6.9   | 1.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 206.0  | 75.5   | 8.6   | 3.4   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 54.9   | 18.9   | 5.1   | 1.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 20.6   | 6.9    | 1.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 8.6    | 3.4    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 3.4    | 1.7    | 0.0   | 0.0   | 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   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)