

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: P676560

Luminaire Tested: **CCW-SA-2D-735-U-T4FT-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676560
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2D-735-U-T4FT-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/
T4FT distribution lens and House Side Shield
Light Source: (32) 3500K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

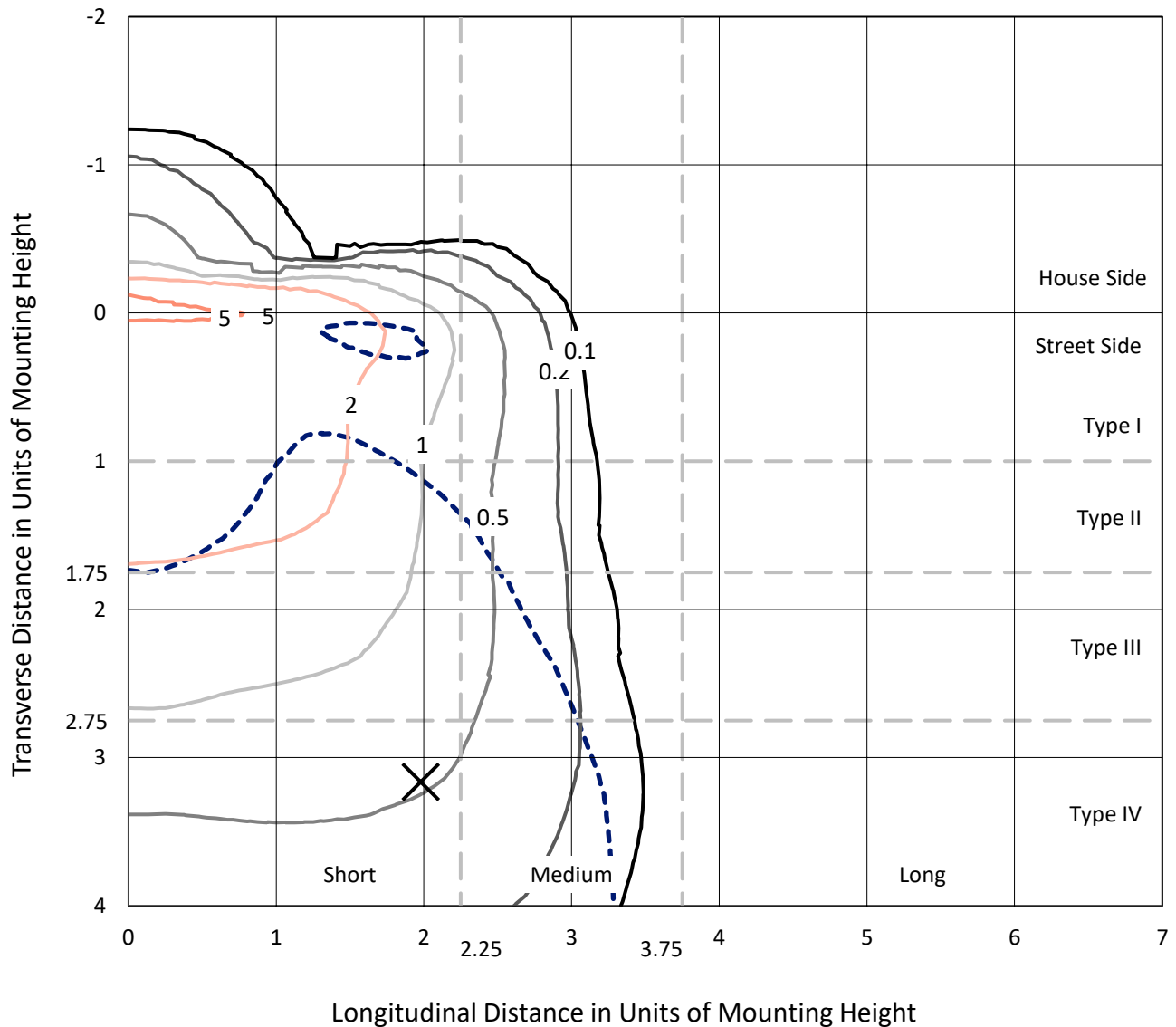
Lumens per Lamp: N/A
Luminaire Lumens: 7898.5 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

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

REPORT NUMBER: P676560
 CATALOG NUMBER: CCW-SA-2D-735-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

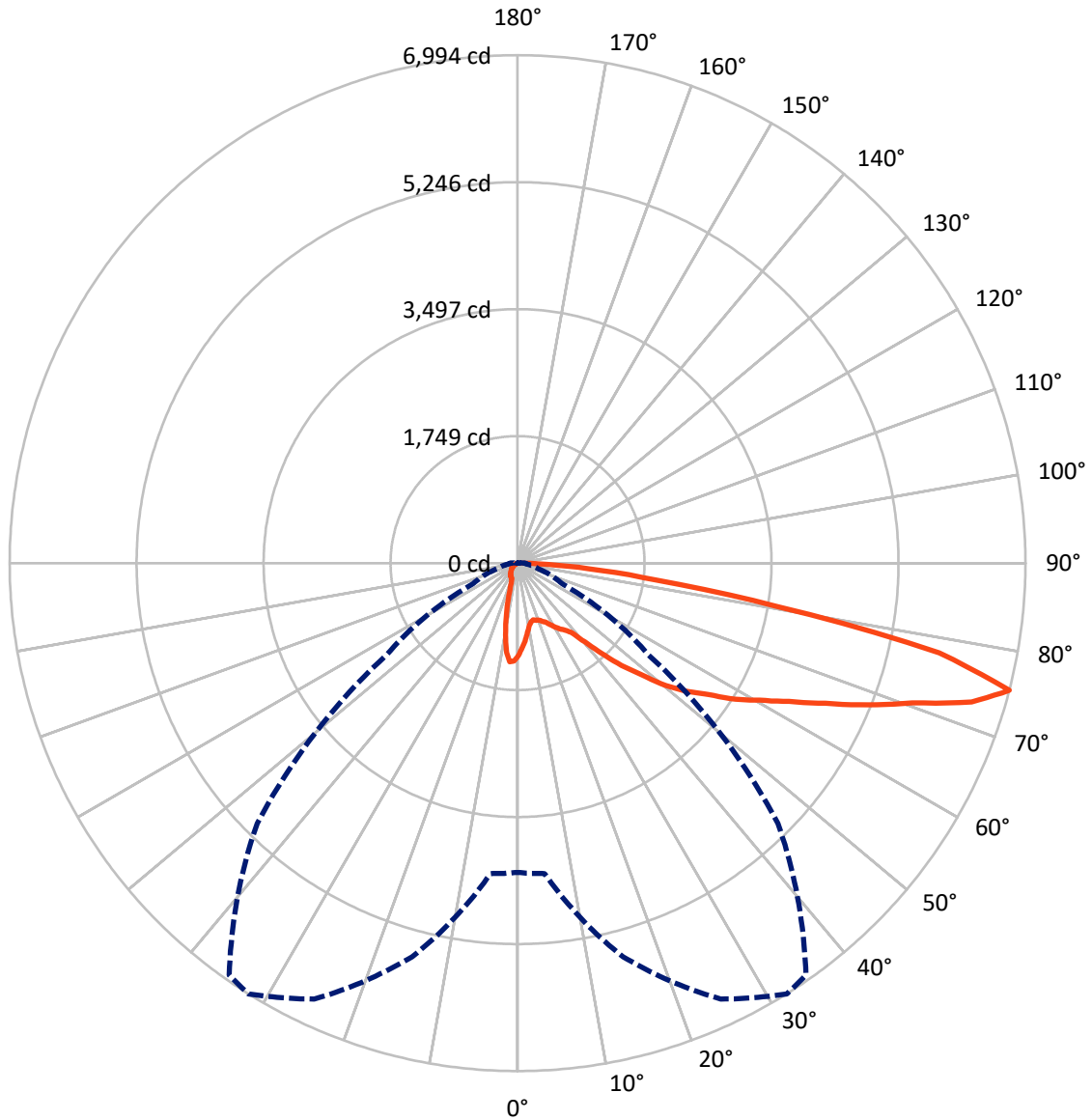
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P676560
CATALOG NUMBER: CCW-SA-2D-735-U-T4FT-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P676560
 CATALOG NUMBER: CCW-SA-2D-735-U-T4FT-HSS

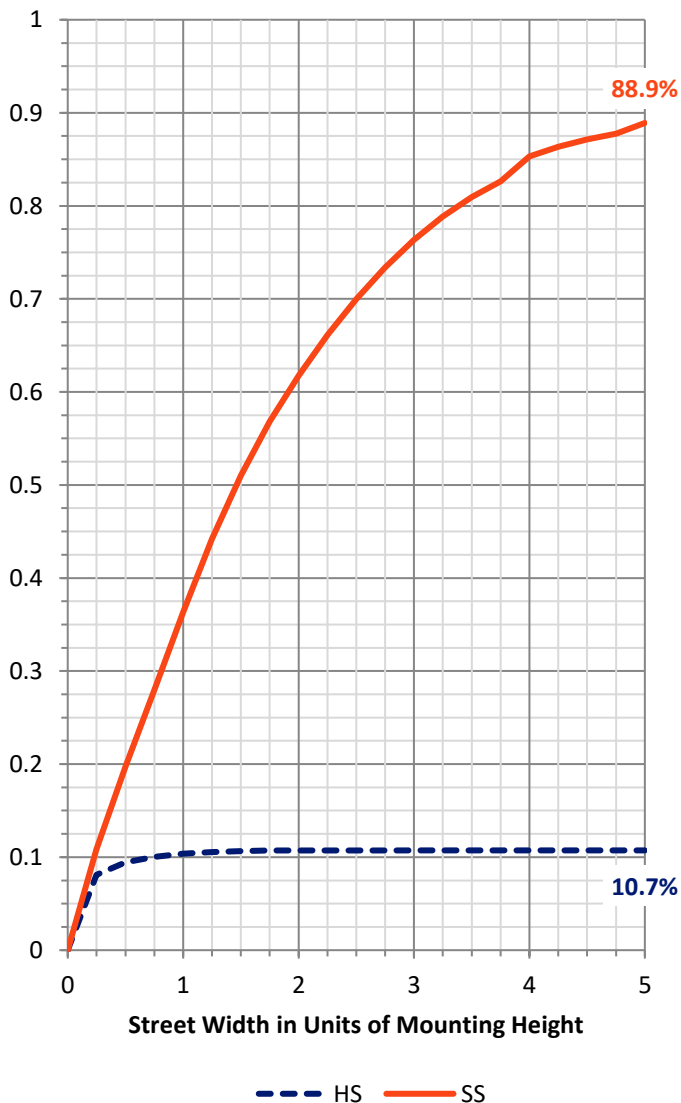
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 853.3 | 0.0 | 853.3 |
| | % Fixture | 10.8 | 0.0 | 10.8 |
| Street Side | Lumens | 7045.2 | 0.0 | 7045.2 |
| | % Fixture | 89.2 | 0.0 | 89.2 |
| Total | Lumens | 7898.5 | 0.0 | 7898.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 112.1 | 1.4 |
| 10°-20° | 254.4 | 3.2 |
| 20°-30° | 381.0 | 4.8 |
| 30°-40° | 584.8 | 7.4 |
| 40°-50° | 1022.7 | 12.9 |
| 50°-60° | 1598.6 | 20.2 |
| 60°-70° | 2066.7 | 26.2 |
| 70°-80° | 1683.3 | 21.3 |
| 80°-90° | 194.9 | 2.5 |
| 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° | 7898.5 | 100.0 |
| 0°-180° | 7898.5 | 100.0 |



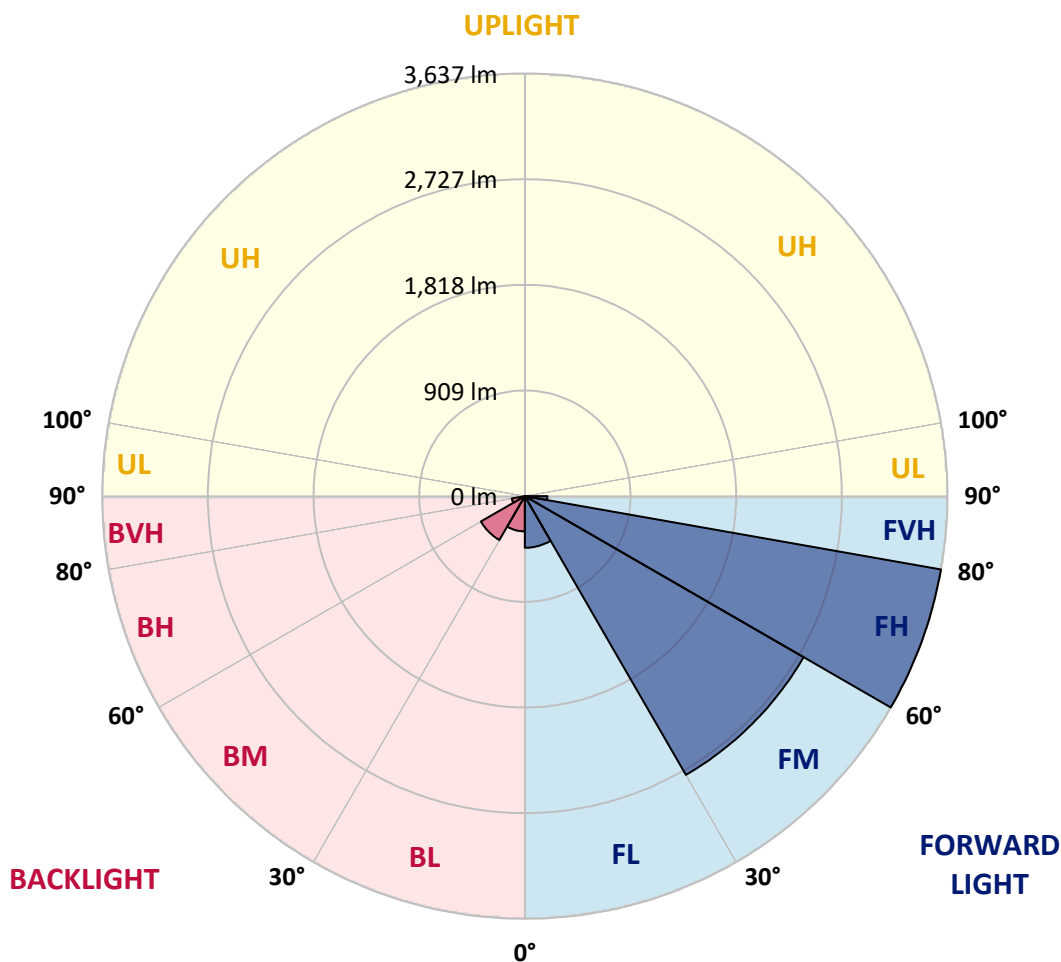
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 444.4 | 5.6 | | | |
| FM (30°-60°) | 2769.6 | 35.1 | | | |
| FH (60°-80°) | 3636.6 | 46.0 | | | G2/5000 |
| FVH (80°-90°) | 194.7 | 2.5 | | | G2/225 |
| BL (0°-30°) | 303.1 | 3.8 | B1/500 | | |
| BM (30°-60°) | 436.5 | 5.5 | B1/1000 | | |
| BH (60°-80°) | 113.5 | 1.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.2 | 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 Short





REPORT NUMBER: P676560

CATALOG NUMBER: CCW-SA-2D-735-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 |
| 2.5° | 1143.8 | 1160.0 | 1158.0 | 1168.1 | 1170.1 | 1176.2 | 1190.3 | 1190.3 | 1230.8 | 1259.2 | 1277.4 |
| 5° | 1040.5 | 1030.4 | 1034.5 | 1046.6 | 1077.0 | 1075.0 | 1109.4 | 1127.6 | 1176.2 | 1216.7 | 1259.2 |
| 7.5° | 913.0 | 911.0 | 919.1 | 947.4 | 969.7 | 987.9 | 1024.3 | 1070.9 | 1135.7 | 1196.4 | 1271.3 |
| 10° | 832.0 | 828.0 | 844.2 | 852.3 | 878.6 | 890.7 | 947.4 | 1020.3 | 1097.2 | 1184.3 | 1271.3 |
| 12.5° | 813.8 | 799.6 | 807.7 | 805.7 | 830.0 | 836.1 | 890.7 | 979.8 | 1072.9 | 1180.2 | 1287.5 |
| 15° | 823.9 | 813.8 | 805.7 | 805.7 | 811.8 | 815.8 | 874.5 | 953.5 | 1058.8 | 1186.3 | 1324.0 |
| 17.5° | 856.3 | 850.2 | 826.0 | 801.7 | 828.0 | 828.0 | 864.4 | 947.4 | 1060.8 | 1204.5 | 1368.5 |
| 20° | 894.8 | 888.7 | 846.2 | 817.9 | 836.1 | 856.3 | 894.8 | 961.6 | 1066.9 | 1218.7 | 1437.3 |
| 22.5° | 937.3 | 937.3 | 878.6 | 846.2 | 870.5 | 872.5 | 941.3 | 1006.1 | 1091.1 | 1255.1 | 1481.9 |
| 25° | 989.9 | 985.9 | 929.2 | 892.8 | 900.9 | 923.1 | 985.9 | 1054.7 | 1135.7 | 1305.7 | 1564.9 |
| 27.5° | 1058.8 | 1052.7 | 985.9 | 949.4 | 959.6 | 983.9 | 1054.7 | 1123.5 | 1176.2 | 1326.0 | 1635.7 |
| 30° | 1115.4 | 1109.4 | 1054.7 | 1000.0 | 1022.3 | 1044.6 | 1127.6 | 1188.3 | 1226.8 | 1364.4 | 1716.7 |
| 32.5° | 1127.6 | 1117.5 | 1081.0 | 1056.7 | 1081.0 | 1123.5 | 1188.3 | 1251.1 | 1309.8 | 1461.6 | 1870.5 |
| 35° | 1267.3 | 1230.8 | 1135.7 | 1097.2 | 1133.7 | 1147.8 | 1255.1 | 1366.5 | 1423.1 | 1538.5 | 2042.6 |
| 37.5° | 1534.5 | 1500.1 | 1374.6 | 1267.3 | 1216.7 | 1232.9 | 1372.5 | 1510.2 | 1564.9 | 1682.3 | 2230.9 |
| 40° | 1862.4 | 1805.8 | 1672.1 | 1528.4 | 1425.2 | 1404.9 | 1496.0 | 1698.5 | 1751.1 | 1862.4 | 2477.9 |
| 42.5° | 2236.9 | 2182.3 | 1975.8 | 1805.8 | 1700.5 | 1674.2 | 1688.3 | 1917.1 | 1961.6 | 2028.4 | 2639.8 |
| 45° | 2506.2 | 2477.9 | 2245.0 | 2093.2 | 2010.2 | 1981.9 | 1947.5 | 2156.0 | 2212.7 | 2234.9 | 2874.6 |
| 47.5° | 2662.1 | 2641.8 | 2512.3 | 2409.0 | 2297.7 | 2267.3 | 2289.6 | 2488.0 | 2449.5 | 2467.7 | 3099.3 |
| 50° | 2870.6 | 2817.9 | 2641.8 | 2674.2 | 2651.9 | 2643.9 | 2682.3 | 2769.4 | 2712.7 | 2660.0 | 3344.3 |
| 52.5° | 3038.6 | 2945.5 | 2822.0 | 2900.9 | 2935.4 | 2965.7 | 3101.4 | 3166.1 | 2913.1 | 2832.1 | 3502.2 |
| 55° | 3141.9 | 3052.8 | 3085.2 | 3158.0 | 3194.5 | 3334.2 | 3494.1 | 3445.5 | 3044.7 | 2969.8 | 3712.7 |
| 57.5° | 3235.0 | 3241.0 | 3328.1 | 3350.4 | 3536.6 | 3560.9 | 3868.6 | 3710.7 | 3137.8 | 3095.3 | 3795.7 |
| 60° | 3459.7 | 3437.4 | 3508.3 | 3652.0 | 3830.1 | 3965.8 | 4259.3 | 3888.9 | 3184.4 | 3160.1 | 3773.5 |
| 62.5° | 3864.6 | 3726.9 | 3751.2 | 3933.4 | 4194.5 | 4342.3 | 4484.0 | 3969.8 | 3172.2 | 3170.2 | 3706.7 |
| 65° | 4378.8 | 4220.9 | 4148.0 | 4318.0 | 4656.1 | 4864.6 | 4737.1 | 4060.9 | 3091.2 | 3147.9 | 3457.7 |
| 67.5° | 4805.9 | 4807.9 | 4672.3 | 4767.4 | 5208.8 | 5253.3 | 4975.9 | 4042.7 | 2955.6 | 2971.8 | 2850.3 |
| 70° | 5297.8 | 5364.6 | 5245.2 | 5542.8 | 5763.4 | 5791.8 | 5249.2 | 3892.9 | 2664.1 | 2241.0 | 1637.7 |
| 72.5° | 5423.3 | 5457.8 | 5830.2 | 6287.8 | 6536.8 | 6544.8 | 5518.5 | 3392.9 | 1753.1 | 989.9 | 508.1 |
| 75° | 4259.3 | 4291.7 | 5611.6 | 6623.8 | 6994.3 | 6923.4 | 5069.1 | 2202.5 | 682.2 | 289.5 | 121.5 |
| 77.5° | 2376.6 | 2386.8 | 3484.0 | 5354.5 | 5933.5 | 5648.0 | 3550.8 | 858.3 | 275.3 | 166.0 | 56.7 |
| 80° | 649.8 | 763.2 | 1291.6 | 2639.8 | 3623.7 | 3556.9 | 1690.4 | 279.4 | 178.1 | 129.6 | 26.3 |
| 82.5° | 155.9 | 168.0 | 415.0 | 1168.1 | 1915.1 | 1998.1 | 504.1 | 141.7 | 123.5 | 107.3 | 14.2 |
| 85° | 56.7 | 62.8 | 127.5 | 568.9 | 983.9 | 902.9 | 151.8 | 70.9 | 91.1 | 83.0 | 6.1 |
| 87.5° | 20.2 | 20.2 | 40.5 | 186.2 | 287.5 | 216.6 | 50.6 | 24.3 | 46.6 | 50.6 | 2.0 |
| 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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 CATALOG NUMBER: CCW-SA-2D-735-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 | 1275.4 |
| 2.5° | 1279.4 | 1279.4 | 1307.8 | 1332.0 | 1340.1 | 1350.3 | 1340.1 | 1362.4 | 1360.4 | 1350.3 | 1354.3 |
| 5° | 1281.4 | 1317.9 | 1342.2 | 1358.4 | 1366.5 | 1364.4 | 1368.5 | 1344.2 | 1330.0 | 1319.9 | 1309.8 |
| 7.5° | 1291.6 | 1326.0 | 1370.5 | 1366.5 | 1344.2 | 1297.6 | 1261.2 | 1196.4 | 1133.7 | 1131.6 | 1121.5 |
| 10° | 1326.0 | 1356.3 | 1382.7 | 1366.5 | 1285.5 | 1143.8 | 1028.4 | 941.3 | 862.4 | 826.0 | 830.0 |
| 12.5° | 1350.3 | 1407.0 | 1394.8 | 1311.8 | 1143.8 | 957.5 | 787.5 | 660.0 | 589.1 | 522.3 | 522.3 |
| 15° | 1400.9 | 1421.1 | 1417.1 | 1232.9 | 969.7 | 747.0 | 540.5 | 411.0 | 336.0 | 305.7 | 301.6 |
| 17.5° | 1449.5 | 1471.7 | 1402.9 | 1113.4 | 797.6 | 502.0 | 328.0 | 255.1 | 245.0 | 240.9 | 242.9 |
| 20° | 1510.2 | 1512.2 | 1390.8 | 994.0 | 599.2 | 317.8 | 234.8 | 228.8 | 230.8 | 228.8 | 228.8 |
| 22.5° | 1575.0 | 1589.1 | 1348.2 | 826.0 | 398.8 | 230.8 | 218.6 | 220.7 | 220.7 | 220.7 | 226.7 |
| 25° | 1660.0 | 1637.7 | 1281.4 | 666.0 | 261.1 | 212.6 | 212.6 | 214.6 | 214.6 | 214.6 | 216.6 |
| 27.5° | 1716.7 | 1686.3 | 1196.4 | 479.8 | 204.5 | 200.4 | 204.5 | 204.5 | 208.5 | 208.5 | 208.5 |
| 30° | 1834.1 | 1755.1 | 1089.1 | 309.7 | 184.2 | 190.3 | 194.3 | 198.4 | 200.4 | 204.5 | 206.5 |
| 32.5° | 1925.2 | 1815.9 | 955.5 | 206.5 | 168.0 | 172.1 | 182.2 | 190.3 | 198.4 | 196.4 | 196.4 |
| 35° | 2091.2 | 1915.1 | 832.0 | 164.0 | 153.9 | 153.9 | 164.0 | 178.1 | 190.3 | 194.3 | 194.3 |
| 37.5° | 2281.5 | 1996.0 | 660.0 | 149.8 | 141.7 | 141.7 | 147.8 | 164.0 | 180.2 | 188.3 | 184.2 |
| 40° | 2439.4 | 2089.2 | 487.9 | 139.7 | 131.6 | 131.6 | 135.6 | 147.8 | 166.0 | 180.2 | 182.2 |
| 42.5° | 2550.7 | 2158.0 | 330.0 | 129.6 | 123.5 | 121.5 | 127.5 | 133.6 | 147.8 | 168.0 | 172.1 |
| 45° | 2651.9 | 2194.4 | 204.5 | 119.4 | 115.4 | 115.4 | 115.4 | 121.5 | 131.6 | 149.8 | 153.9 |
| 47.5° | 2832.1 | 2234.9 | 147.8 | 111.3 | 105.3 | 107.3 | 109.3 | 111.3 | 119.4 | 123.5 | 125.5 |
| 50° | 2983.9 | 2265.3 | 121.5 | 103.2 | 99.2 | 101.2 | 101.2 | 101.2 | 105.3 | 99.2 | 99.2 |
| 52.5° | 3099.3 | 2234.9 | 103.2 | 95.1 | 91.1 | 93.1 | 91.1 | 91.1 | 87.0 | 79.0 | 79.0 |
| 55° | 3184.4 | 2180.3 | 83.0 | 87.0 | 87.0 | 87.0 | 83.0 | 76.9 | 68.8 | 62.8 | 62.8 |
| 57.5° | 3206.6 | 2087.1 | 64.8 | 72.9 | 79.0 | 79.0 | 70.9 | 62.8 | 52.6 | 46.6 | 44.5 |
| 60° | 3172.2 | 1884.7 | 48.6 | 52.6 | 60.7 | 62.8 | 56.7 | 46.6 | 36.4 | 30.4 | 30.4 |
| 62.5° | 3048.7 | 1724.8 | 38.5 | 34.4 | 44.5 | 46.6 | 40.5 | 30.4 | 20.2 | 14.2 | 12.1 |
| 65° | 2813.9 | 1477.8 | 28.3 | 24.3 | 30.4 | 32.4 | 26.3 | 14.2 | 6.1 | 2.0 | 0.0 |
| 67.5° | 2257.2 | 1113.4 | 18.2 | 16.2 | 20.2 | 20.2 | 12.1 | 4.0 | 0.0 | 0.0 | 0.0 |
| 70° | 1249.0 | 625.5 | 12.1 | 8.1 | 10.1 | 6.1 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 360.3 | 178.1 | 6.1 | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 97.2 | 42.5 | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 42.5 | 16.2 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 18.2 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 10.1 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.0 | 0.0 | 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)