

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: P510788

Luminaire Tested: **CTN-CA8-330-740-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510788
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-740-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45651 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

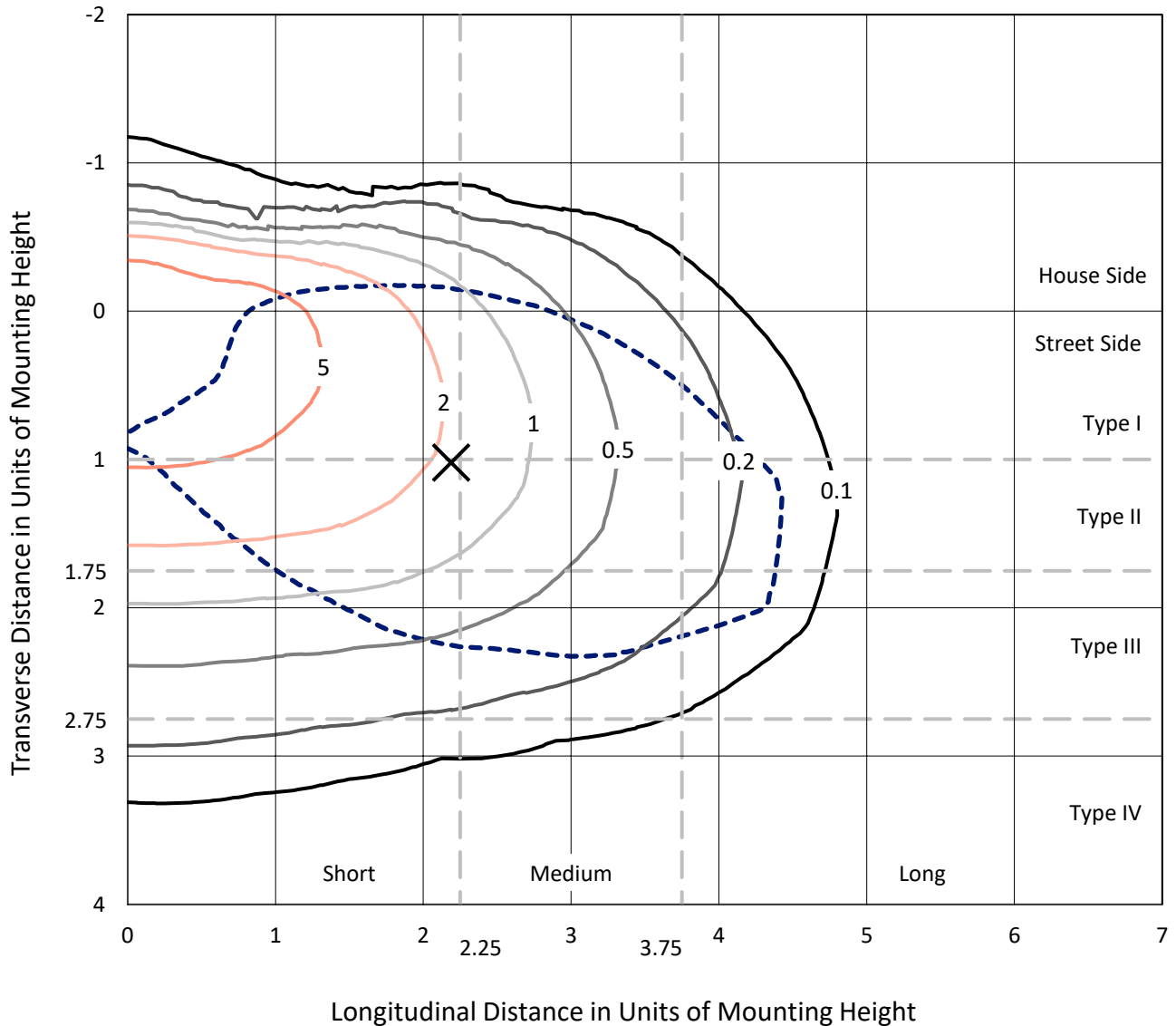
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

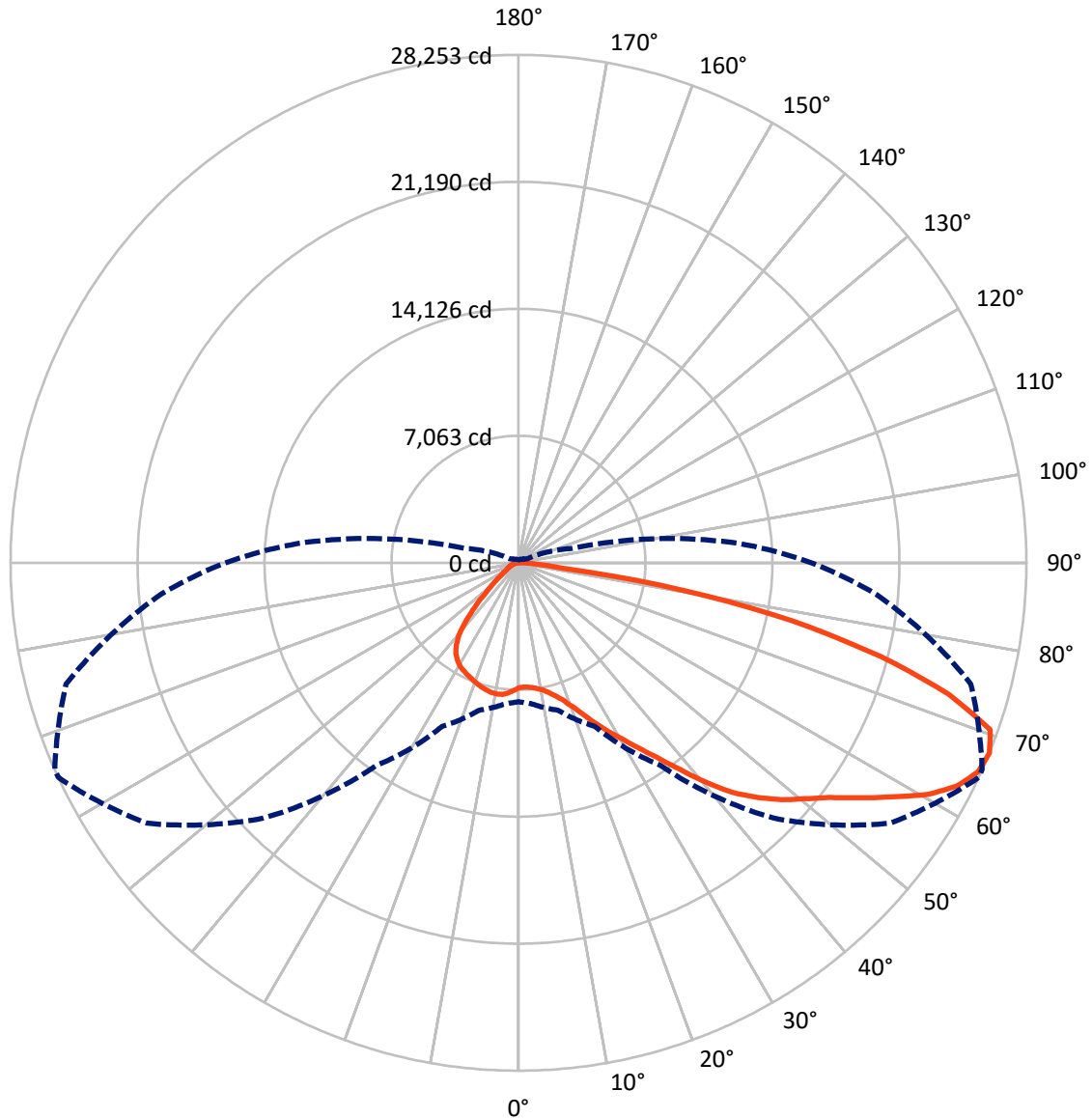
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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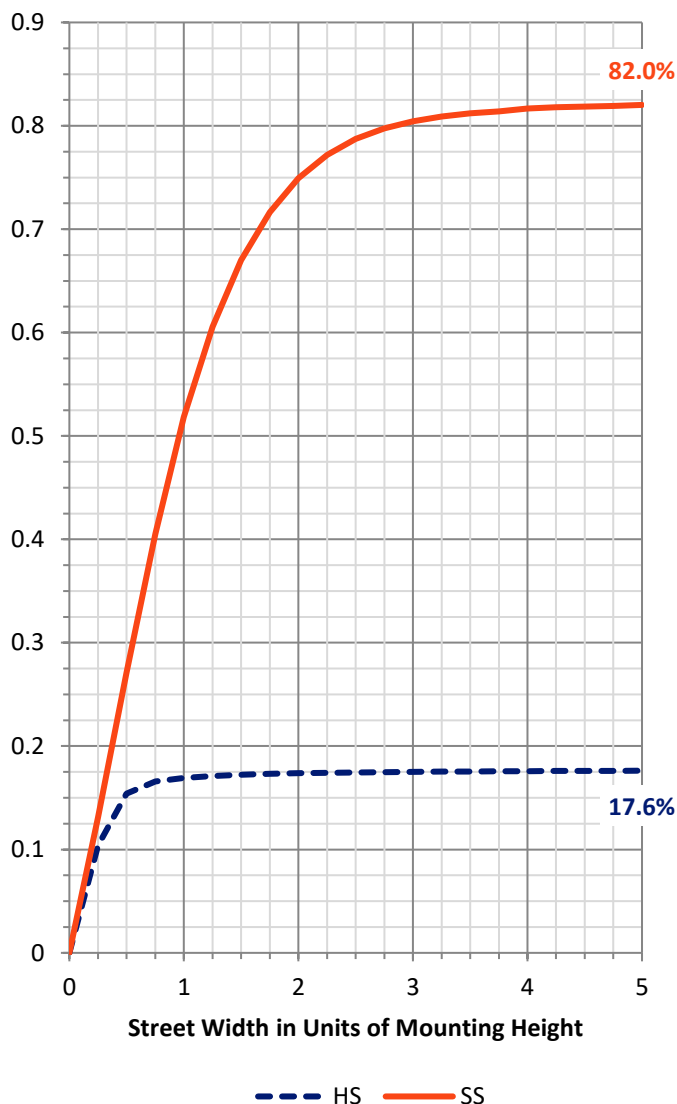
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8159.0 | 0.0 | 8159.0 |
| | % Fixture | 17.9 | 0.0 | 17.9 |
| Street Side | Lumens | 37492.0 | 0.0 | 37492.0 |
| | % Fixture | 82.1 | 0.0 | 82.1 |
| Total | Lumens | 45651.0 | 0.0 | 45651.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 686.3 | 1.5 |
| 10°-20° | 2118.9 | 4.6 |
| 20°-30° | 3675.8 | 8.1 |
| 30°-40° | 5544.8 | 12.1 |
| 40°-50° | 7688.3 | 16.8 |
| 50°-60° | 9490.2 | 20.8 |
| 60°-70° | 10111.7 | 22.1 |
| 70°-80° | 5786.1 | 12.7 |
| 80°-90° | 549.0 | 1.2 |
| 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° | 45651.0 | 100.0 |
| 0°-180° | 45651.0 | 100.0 |

Coefficient of Utilization



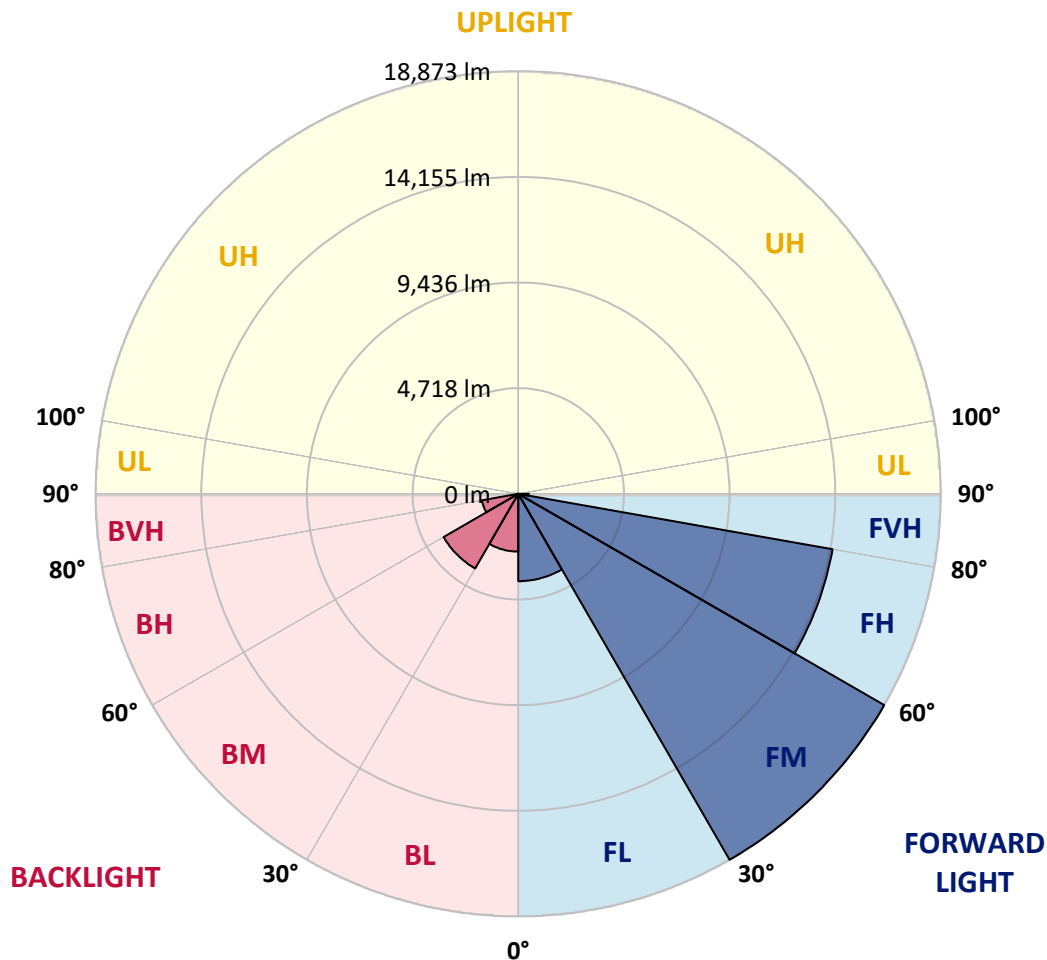
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 CATALOG NUMBER: CTN-CA8-330-740-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3899.2 | 8.5 | | | |
| FM (30°-60°) | 18872.8 | 41.3 | | | |
| FH (60°-80°) | 14251.0 | 31.2 | | | G5 |
| FVH (80°-90°) | 469.1 | 1.0 | | | G3/500 |
| BL (0°-30°) | 2581.7 | 5.7 | B4/5000 | | |
| BM (30°-60°) | 3850.6 | 8.4 | B3/5000 | | |
| BH (60°-80°) | 1646.7 | 3.6 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 79.9 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 |
| 2.5° | 6870.0 | 6861.0 | 6853.0 | 6867.0 | 6875.0 | 6888.0 | 6907.0 | 6920.0 | 6924.0 | 6936.0 | 6951.0 |
| 5° | 6980.0 | 6979.0 | 6968.0 | 6962.0 | 6945.0 | 6939.0 | 6943.0 | 6959.0 | 6960.0 | 6975.0 | 7022.0 |
| 7.5° | 7196.0 | 7194.0 | 7167.0 | 7155.0 | 7119.0 | 7079.0 | 7049.0 | 7052.0 | 7051.0 | 7066.0 | 7129.0 |
| 10° | 7522.0 | 7506.0 | 7468.0 | 7431.0 | 7361.0 | 7286.0 | 7231.0 | 7181.0 | 7181.0 | 7203.0 | 7273.0 |
| 12.5° | 7890.0 | 7912.0 | 7860.0 | 7804.0 | 7687.0 | 7552.0 | 7456.0 | 7400.0 | 7394.0 | 7405.0 | 7455.0 |
| 15° | 8347.0 | 8347.0 | 8312.0 | 8232.0 | 8129.0 | 7941.0 | 7743.0 | 7672.0 | 7662.0 | 7685.0 | 7682.0 |
| 17.5° | 8862.0 | 8877.0 | 8811.0 | 8771.0 | 8613.0 | 8405.0 | 8157.0 | 8034.0 | 8034.0 | 8019.0 | 7950.0 |
| 20° | 9519.0 | 9437.0 | 9444.0 | 9378.0 | 9262.0 | 8960.0 | 8708.0 | 8529.0 | 8527.0 | 8497.0 | 8303.0 |
| 22.5° | 10233.0 | 10188.0 | 10149.0 | 10091.0 | 9931.0 | 9661.0 | 9311.0 | 9134.0 | 9130.0 | 9056.0 | 8768.0 |
| 25° | 10936.9 | 10970.9 | 10927.9 | 10821.9 | 10704.9 | 10411.0 | 10025.0 | 9851.0 | 9850.0 | 9727.0 | 9319.0 |
| 27.5° | 11660.9 | 11697.9 | 11683.9 | 11587.9 | 11431.9 | 11201.9 | 10836.9 | 10610.0 | 10596.0 | 10516.0 | 10003.0 |
| 30° | 12460.9 | 12427.9 | 12470.9 | 12429.9 | 12351.9 | 11976.9 | 11646.9 | 11382.9 | 11416.9 | 11392.9 | 10779.9 |
| 32.5° | 13042.9 | 13063.9 | 13204.9 | 13208.9 | 13126.9 | 12848.9 | 12445.9 | 12283.9 | 12337.9 | 12305.9 | 11734.9 |
| 35° | 13568.9 | 13602.9 | 13784.9 | 13963.9 | 14023.9 | 13719.9 | 13309.9 | 13299.9 | 13369.9 | 13564.9 | 13050.9 |
| 37.5° | 14020.9 | 14044.9 | 14299.9 | 14532.9 | 14726.9 | 14518.9 | 14220.9 | 14575.9 | 14678.9 | 15077.9 | 14408.9 |
| 40° | 14291.9 | 14322.9 | 14652.9 | 14980.9 | 15326.9 | 15252.9 | 15224.9 | 16064.9 | 16161.9 | 16512.9 | 15399.9 |
| 42.5° | 14138.9 | 14199.9 | 14749.9 | 15349.9 | 15858.9 | 16006.9 | 16389.9 | 17469.9 | 17580.9 | 17610.9 | 16373.9 |
| 45° | 13865.9 | 13941.9 | 14556.9 | 15527.9 | 16357.9 | 16832.9 | 17561.9 | 18614.9 | 18675.9 | 18590.9 | 17180.9 |
| 47.5° | 13571.9 | 13652.9 | 14339.9 | 15474.9 | 16758.9 | 17793.9 | 18608.9 | 19692.9 | 19735.9 | 19474.9 | 17993.9 |
| 50° | 13237.9 | 13312.9 | 14051.9 | 15350.9 | 17060.9 | 18700.9 | 19684.9 | 20624.9 | 20785.9 | 20269.9 | 18625.9 |
| 52.5° | 12831.9 | 12911.9 | 13695.9 | 15156.9 | 17325.9 | 19373.9 | 20633.9 | 21677.9 | 21688.9 | 21263.9 | 19337.9 |
| 55° | 12305.9 | 12444.9 | 13248.9 | 14820.9 | 17464.9 | 19951.9 | 21460.9 | 23070.9 | 23141.9 | 22730.9 | 19933.9 |
| 57.5° | 11720.9 | 11841.9 | 12710.9 | 14372.9 | 17339.9 | 20390.9 | 22790.9 | 24564.9 | 24555.9 | 23730.9 | 20454.9 |
| 60° | 10947.9 | 11033.9 | 12009.9 | 13786.9 | 16936.9 | 20921.9 | 24175.9 | 26165.9 | 26149.9 | 24710.9 | 20789.9 |
| 62.5° | 9956.0 | 10042.0 | 10959.9 | 12867.9 | 16344.9 | 21277.9 | 25115.9 | 27364.9 | 27318.9 | 25423.9 | 20892.9 |
| 65° | 8806.0 | 8960.0 | 9757.0 | 11674.9 | 15297.9 | 21043.9 | 25569.9 | 28070.9 | 27996.9 | 25967.9 | 20646.9 |
| 67.5° | 7728.0 | 7859.0 | 8490.0 | 10033.0 | 13752.9 | 20094.9 | 25249.9 | 28252.9 | 28230.9 | 26046.9 | 19951.9 |
| 70° | 6202.0 | 6250.0 | 6828.0 | 8149.0 | 11442.9 | 18062.9 | 24143.9 | 27832.9 | 27842.9 | 25318.9 | 18555.9 |
| 72.5° | 4245.0 | 4362.0 | 4619.0 | 5662.0 | 8327.0 | 14364.9 | 20809.9 | 25048.9 | 25050.9 | 22702.9 | 16166.9 |
| 75° | 2283.0 | 2464.0 | 2764.0 | 3281.0 | 4655.0 | 9218.0 | 16711.9 | 20784.9 | 20823.9 | 18928.9 | 12849.9 |
| 77.5° | 1132.0 | 1197.0 | 1371.0 | 1755.0 | 2134.0 | 4349.0 | 10747.9 | 15601.9 | 15694.9 | 14529.9 | 8764.0 |
| 80° | 518.0 | 529.0 | 542.0 | 539.0 | 817.0 | 1908.0 | 4614.0 | 9370.0 | 9398.0 | 8642.0 | 4001.0 |
| 82.5° | 405.0 | 403.0 | 409.0 | 372.0 | 374.0 | 736.0 | 1597.0 | 2454.0 | 2617.0 | 2060.0 | 1269.0 |
| 85° | 245.0 | 244.0 | 263.0 | 204.0 | 251.0 | 398.0 | 806.0 | 979.0 | 991.0 | 806.0 | 657.0 |
| 87.5° | 93.0 | 90.0 | 83.0 | 73.0 | 84.0 | 112.0 | 279.0 | 360.0 | 352.0 | 250.0 | 227.0 |
| 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: CTN-CA8-330-740-U-T3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 | 6937.0 |
| 2.5° | 6964.0 | 6996.0 | 7055.0 | 7100.0 | 7115.0 | 7163.0 | 7209.0 | 7217.0 | 7250.0 | 7263.0 | 7306.0 |
| 5° | 7051.0 | 7105.0 | 7197.0 | 7258.0 | 7285.0 | 7365.0 | 7417.0 | 7443.0 | 7434.0 | 7439.0 | 7487.0 |
| 7.5° | 7178.0 | 7229.0 | 7303.0 | 7377.0 | 7390.0 | 7404.0 | 7399.0 | 7395.0 | 7360.0 | 7330.0 | 7375.0 |
| 10° | 7294.0 | 7342.0 | 7388.0 | 7399.0 | 7333.0 | 7296.0 | 7230.0 | 7179.0 | 7111.0 | 7080.0 | 7116.0 |
| 12.5° | 7457.0 | 7467.0 | 7422.0 | 7362.0 | 7220.0 | 7088.0 | 6981.0 | 6888.0 | 6804.0 | 6746.0 | 6794.0 |
| 15° | 7629.0 | 7590.0 | 7459.0 | 7284.0 | 7064.0 | 6875.0 | 6700.0 | 6545.0 | 6406.0 | 6372.0 | 6385.0 |
| 17.5° | 7857.0 | 7751.0 | 7487.0 | 7193.0 | 6851.0 | 6557.0 | 6332.0 | 6136.0 | 5954.0 | 5878.0 | 5871.0 |
| 20° | 8135.0 | 7964.0 | 7544.0 | 7078.0 | 6599.0 | 6208.0 | 5860.0 | 5567.0 | 5316.0 | 5110.0 | 5115.0 |
| 22.5° | 8497.0 | 8249.0 | 7630.0 | 6958.0 | 6320.0 | 5799.0 | 5293.0 | 4795.0 | 4382.0 | 4204.0 | 4160.0 |
| 25° | 8975.0 | 8605.0 | 7752.0 | 6849.0 | 6008.0 | 5279.0 | 4564.0 | 3861.0 | 3424.0 | 3251.0 | 3232.0 |
| 27.5° | 9570.0 | 9083.0 | 7938.0 | 6728.0 | 5674.0 | 4662.0 | 3634.0 | 2945.0 | 2544.0 | 2362.0 | 2301.0 |
| 30° | 10246.0 | 9672.0 | 8129.0 | 6602.0 | 5270.0 | 3869.0 | 2771.0 | 2096.0 | 1685.0 | 1522.0 | 1501.0 |
| 32.5° | 11120.9 | 10418.0 | 8413.0 | 6404.0 | 4680.0 | 3041.0 | 1933.0 | 1308.0 | 1029.0 | 959.0 | 939.0 |
| 35° | 12363.9 | 11426.9 | 8764.0 | 6154.0 | 3922.0 | 2124.0 | 1198.0 | 766.0 | 617.0 | 582.0 | 575.0 |
| 37.5° | 13522.9 | 12416.9 | 9118.0 | 5739.0 | 2978.0 | 1326.0 | 685.0 | 491.0 | 458.0 | 459.0 | 461.0 |
| 40° | 14441.9 | 13093.9 | 9404.0 | 5193.0 | 1959.0 | 753.0 | 476.0 | 408.0 | 409.0 | 406.0 | 404.0 |
| 42.5° | 15259.9 | 13633.9 | 9533.0 | 4386.0 | 1135.0 | 504.0 | 413.0 | 376.0 | 367.0 | 370.0 | 368.0 |
| 45° | 15936.9 | 14184.9 | 9283.0 | 3479.0 | 669.0 | 452.0 | 390.0 | 349.0 | 339.0 | 355.0 | 357.0 |
| 47.5° | 16648.9 | 14707.9 | 8900.0 | 2621.0 | 543.0 | 430.0 | 369.0 | 329.0 | 324.0 | 344.0 | 346.0 |
| 50° | 17247.9 | 15086.9 | 8247.0 | 1975.0 | 518.0 | 406.0 | 350.0 | 309.0 | 308.0 | 326.0 | 326.0 |
| 52.5° | 17748.9 | 15315.9 | 7472.0 | 1525.0 | 501.0 | 385.0 | 331.0 | 290.0 | 290.0 | 296.0 | 297.0 |
| 55° | 18101.9 | 15269.9 | 7010.0 | 1200.0 | 483.0 | 365.0 | 311.0 | 272.0 | 260.0 | 256.0 | 258.0 |
| 57.5° | 18165.9 | 15147.9 | 6474.0 | 936.0 | 462.0 | 346.0 | 293.0 | 251.0 | 229.0 | 226.0 | 225.0 |
| 60° | 18124.9 | 14879.9 | 5862.0 | 782.0 | 438.0 | 328.0 | 275.0 | 229.0 | 207.0 | 200.0 | 202.0 |
| 62.5° | 17953.9 | 14404.9 | 5155.0 | 686.0 | 414.0 | 314.0 | 255.0 | 214.0 | 194.0 | 185.0 | 185.0 |
| 65° | 17437.9 | 13724.9 | 4105.0 | 601.0 | 384.0 | 299.0 | 239.0 | 208.0 | 186.0 | 176.0 | 174.0 |
| 67.5° | 16303.9 | 12313.9 | 3085.0 | 527.0 | 355.0 | 283.0 | 237.0 | 207.0 | 182.0 | 168.0 | 166.0 |
| 70° | 14782.9 | 10578.0 | 2106.0 | 463.0 | 323.0 | 268.0 | 236.0 | 208.0 | 178.0 | 160.0 | 158.0 |
| 72.5° | 12340.9 | 8339.0 | 1213.0 | 403.0 | 291.0 | 254.0 | 232.0 | 209.0 | 171.0 | 149.0 | 146.0 |
| 75° | 9273.0 | 5849.0 | 712.0 | 346.0 | 260.0 | 233.0 | 221.0 | 203.0 | 160.0 | 136.0 | 133.0 |
| 77.5° | 5577.0 | 2731.0 | 536.0 | 287.0 | 223.0 | 205.0 | 197.0 | 186.0 | 146.0 | 126.0 | 123.0 |
| 80° | 2046.0 | 1037.0 | 421.0 | 230.0 | 177.0 | 178.0 | 170.0 | 163.0 | 133.0 | 116.0 | 114.0 |
| 82.5° | 892.0 | 634.0 | 311.0 | 175.0 | 139.0 | 159.0 | 140.0 | 134.0 | 114.0 | 104.0 | 100.0 |
| 85° | 541.0 | 378.0 | 200.0 | 119.0 | 96.0 | 108.0 | 98.0 | 103.0 | 88.0 | 82.0 | 79.0 |
| 87.5° | 179.0 | 113.0 | 89.0 | 58.0 | 48.0 | 45.0 | 44.0 | 53.0 | 50.0 | 46.0 | 46.0 |
| 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)