

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: P591027

Luminaire Tested: **CTN-CA8-330-722-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591027
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-722-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36314 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

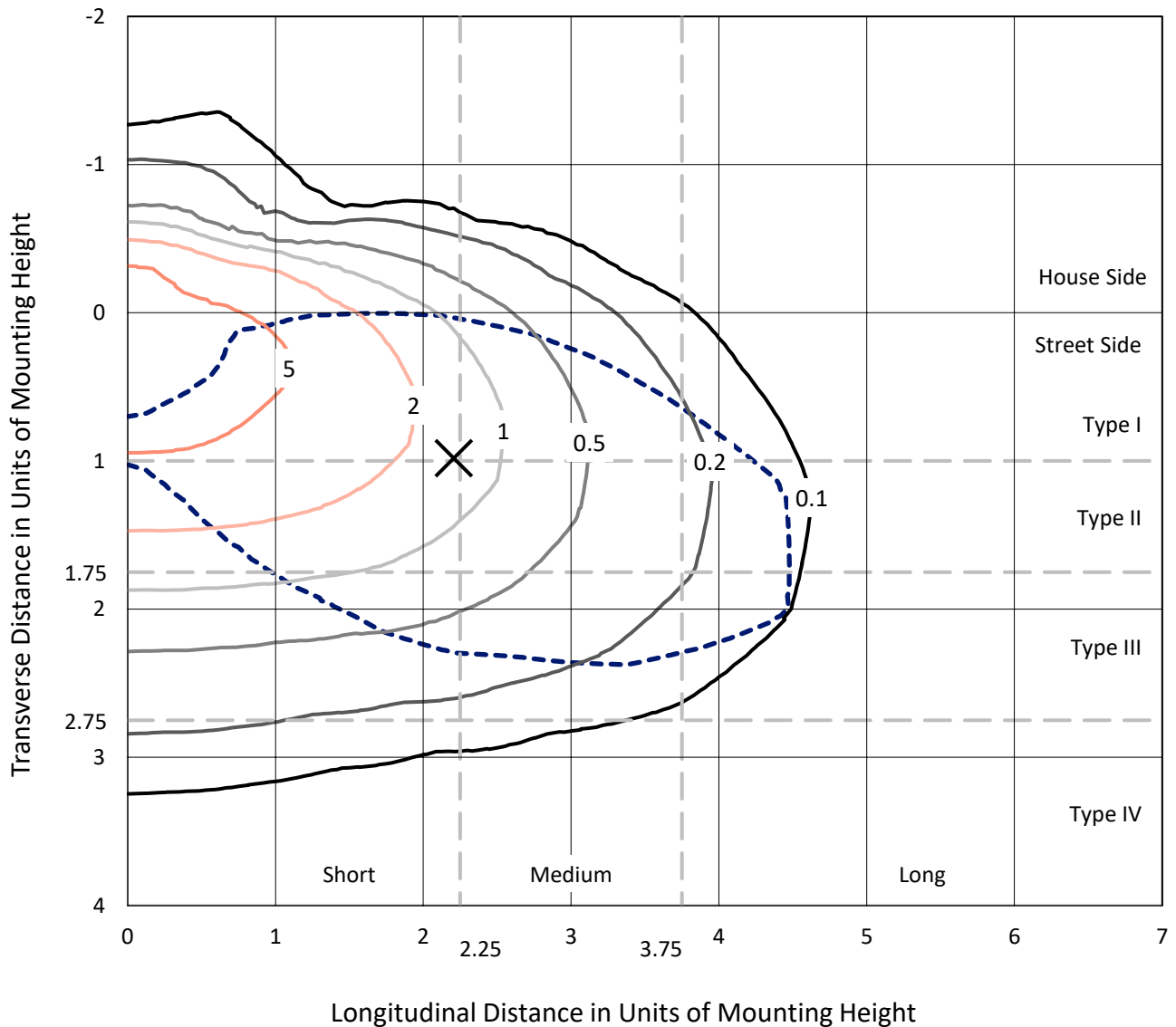
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591027
 CATALOG NUMBER: CTN-CA8-330-722-U-T3-HSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

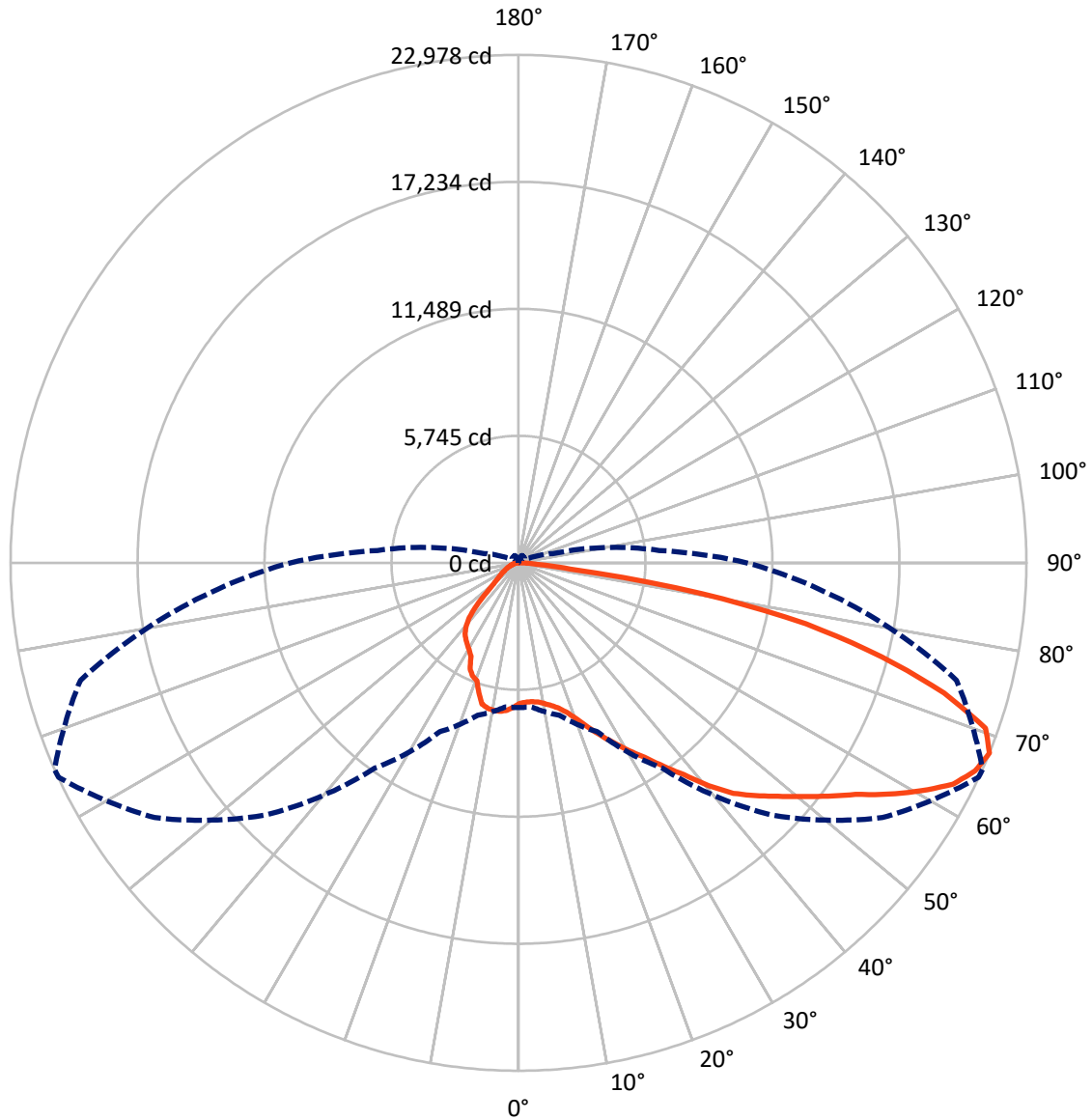
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type III - Short - N/A

REPORT NUMBER: P591027
CATALOG NUMBER: CTN-CA8-330-722-U-T3-HSS-HM-EX120

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P591027
 CATALOG NUMBER: CTN-CA8-330-722-U-T3-HSS-HM-EX120

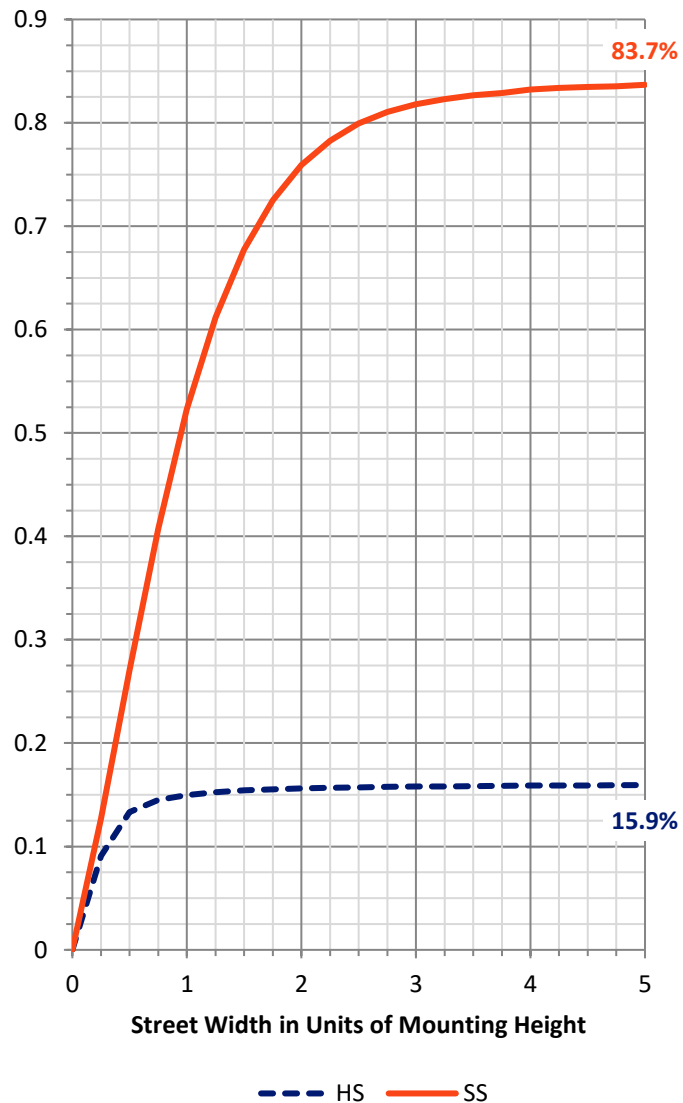
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5861.8 | 0.0 | 5861.8 |
| | % Fixture | 16.1 | 0.0 | 16.1 |
| Street Side | Lumens | 30452.2 | 0.0 | 30452.2 |
| | % Fixture | 83.9 | 0.0 | 83.9 |
| Total | Lumens | 36314.0 | 0.0 | 36314.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 630.1 | 1.7 |
| 10°-20° | 1899.7 | 5.2 |
| 20°-30° | 3088.2 | 8.5 |
| 30°-40° | 4511.0 | 12.4 |
| 40°-50° | 6008.2 | 16.5 |
| 50°-60° | 7268.0 | 20.0 |
| 60°-70° | 7781.2 | 21.4 |
| 70°-80° | 4617.8 | 12.7 |
| 80°-90° | 509.9 | 1.4 |
| 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° | 36314.0 | 100.0 |
| 0°-180° | 36314.0 | 100.0 |

Coefficient of Utilization

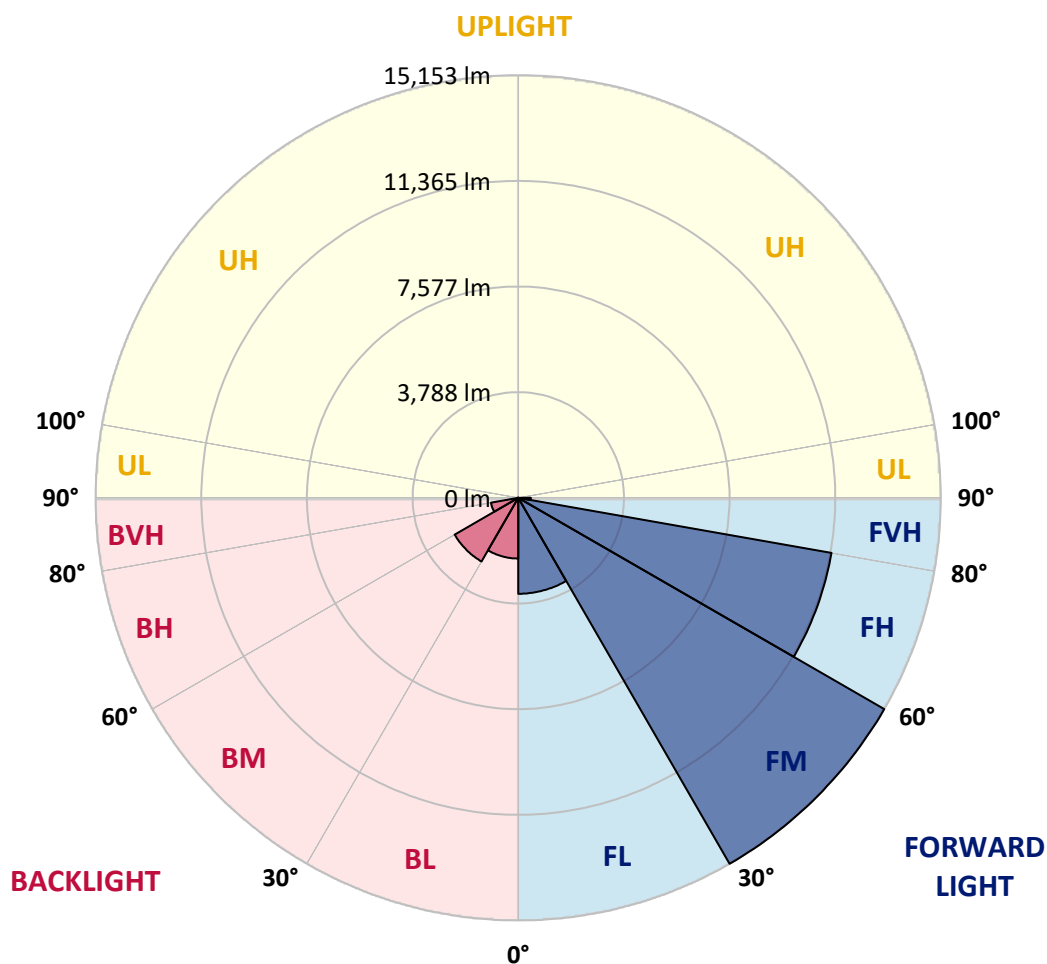


REPORT NUMBER: P591027
 CATALOG NUMBER: CTN-CA8-330-722-U-T3-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 3441.0 | 9.5 | | | |
| FM (30°-60°) | 15153.2 | 41.7 | | | |
| FH (60°-80°) | 11406.0 | 31.4 | | | G4/12000 |
| FVH (80°-90°) | 452.0 | 1.2 | | | G3/500 |
| BL (0°-30°) | 2177.0 | 6.0 | B3/2500 | | |
| BM (30°-60°) | 2634.0 | 7.3 | B3/5000 | | |
| BH (60°-80°) | 992.9 | 2.7 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 57.9 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type III Short





REPORT NUMBER: P591027

CATALOG NUMBER: CTN-CA8-330-722-U-T3-HSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 |
| 2.5° | 6277.1 | 6241.6 | 6257.7 | 6299.4 | 6219.3 | 6270.2 | 6234.2 | 6297.1 | 6314.3 | 6321.1 | 6346.3 |
| 5° | 6400.0 | 6353.2 | 6354.3 | 6380.6 | 6289.7 | 6312.0 | 6250.8 | 6294.8 | 6308.5 | 6326.8 | 6388.0 |
| 7.5° | 6615.6 | 6563.6 | 6559.0 | 6565.9 | 6452.7 | 6427.5 | 6341.1 | 6350.3 | 6360.6 | 6371.4 | 6450.9 |
| 10° | 6911.8 | 6858.7 | 6849.5 | 6831.8 | 6682.5 | 6616.8 | 6488.7 | 6468.7 | 6478.4 | 6460.7 | 6555.0 |
| 12.5° | 7267.5 | 7203.5 | 7169.7 | 7118.8 | 6946.1 | 6843.2 | 6674.0 | 6619.1 | 6627.6 | 6590.5 | 6656.2 |
| 15° | 7641.5 | 7573.5 | 7555.2 | 7476.8 | 7264.1 | 7123.4 | 6904.4 | 6820.9 | 6823.2 | 6780.3 | 6777.5 |
| 17.5° | 8040.7 | 7980.0 | 7965.2 | 7915.4 | 7679.8 | 7512.3 | 7241.8 | 7128.6 | 7120.0 | 7077.7 | 6951.9 |
| 20° | 8493.5 | 8455.2 | 8447.2 | 8418.6 | 8205.3 | 8009.2 | 7701.6 | 7549.4 | 7540.9 | 7474.0 | 7205.2 |
| 22.5° | 9050.5 | 9005.3 | 8981.3 | 8956.7 | 8797.2 | 8593.0 | 8262.5 | 8048.1 | 8081.8 | 7969.2 | 7534.0 |
| 25° | 9604.6 | 9568.6 | 9548.0 | 9532.0 | 9400.5 | 9207.2 | 8872.7 | 8621.1 | 8654.8 | 8534.2 | 7933.7 |
| 27.5° | 10154.7 | 10075.3 | 10108.4 | 10146.2 | 10014.6 | 9860.8 | 9497.1 | 9223.2 | 9233.5 | 9103.1 | 8412.3 |
| 30° | 10666.0 | 10624.2 | 10681.4 | 10716.9 | 10620.8 | 10500.7 | 10118.7 | 9854.0 | 9869.4 | 9714.4 | 8961.3 |
| 32.5° | 11120.0 | 11060.0 | 11187.5 | 11256.7 | 11199.5 | 11100.6 | 10731.7 | 10480.7 | 10485.3 | 10391.5 | 9616.6 |
| 35° | 11453.4 | 11457.4 | 11633.5 | 11819.4 | 11818.8 | 11679.3 | 11365.9 | 11249.2 | 11302.4 | 11260.7 | 10420.7 |
| 37.5° | 11793.1 | 11762.8 | 11966.3 | 12242.5 | 12332.9 | 12208.8 | 12023.0 | 12092.1 | 12163.6 | 12291.7 | 11180.1 |
| 40° | 11953.8 | 11954.9 | 12201.4 | 12520.5 | 12729.2 | 12705.7 | 12640.5 | 13103.2 | 13251.3 | 13289.6 | 10875.8 |
| 42.5° | 11759.9 | 11773.6 | 12213.4 | 12777.8 | 13102.0 | 13226.1 | 13369.1 | 14157.1 | 14257.1 | 14040.4 | 11234.4 |
| 45° | 11506.0 | 11524.9 | 12041.2 | 12866.4 | 13432.5 | 13781.9 | 14175.9 | 14944.5 | 15022.3 | 14734.0 | 11755.9 |
| 47.5° | 11267.5 | 11302.4 | 11840.0 | 12813.2 | 13694.4 | 14408.1 | 14897.6 | 15686.2 | 15781.1 | 15400.8 | 12242.0 |
| 50° | 10954.2 | 11032.0 | 11580.3 | 12672.0 | 13891.7 | 14953.1 | 15564.4 | 16578.8 | 16615.4 | 16051.6 | 12680.0 |
| 52.5° | 10651.1 | 10674.0 | 11286.4 | 12491.3 | 14040.4 | 15447.1 | 16359.8 | 17496.0 | 17538.4 | 16764.1 | 13084.3 |
| 55° | 10235.9 | 10270.3 | 10954.8 | 12264.8 | 14131.9 | 15861.1 | 17164.9 | 18452.2 | 18489.9 | 17620.1 | 13518.9 |
| 57.5° | 9779.0 | 9804.2 | 10524.7 | 11917.2 | 14063.3 | 16228.8 | 18023.3 | 19656.5 | 19749.1 | 18500.8 | 13909.5 |
| 60° | 9205.5 | 9238.7 | 9970.0 | 11435.1 | 13826.5 | 16657.7 | 19083.5 | 20943.7 | 20943.7 | 19309.3 | 14218.8 |
| 62.5° | 8397.5 | 8443.8 | 9184.3 | 10740.9 | 13334.8 | 16905.9 | 19929.8 | 22064.5 | 22057.0 | 19946.4 | 14323.5 |
| 65° | 7458.5 | 7466.0 | 8137.3 | 9764.2 | 12518.2 | 16773.8 | 20252.3 | 22719.2 | 22702.6 | 20407.3 | 14179.4 |
| 67.5° | 6547.6 | 6539.6 | 7135.4 | 8428.4 | 11340.7 | 16123.6 | 20098.5 | 22958.3 | 22978.3 | 20518.2 | 13642.4 |
| 70° | 5255.2 | 5244.9 | 5792.7 | 6849.5 | 9560.0 | 14723.2 | 19224.1 | 22351.5 | 22412.2 | 19884.6 | 12750.9 |
| 72.5° | 3760.4 | 3745.0 | 4007.5 | 4706.2 | 7020.5 | 12111.6 | 17044.3 | 20019.6 | 20130.5 | 17855.2 | 11122.9 |
| 75° | 2202.2 | 2218.7 | 2492.7 | 2894.7 | 4169.3 | 7967.5 | 13824.2 | 16812.7 | 16971.1 | 15189.2 | 8748.6 |
| 77.5° | 1224.9 | 1221.5 | 1422.7 | 1725.2 | 2050.6 | 3990.3 | 9651.0 | 13240.4 | 13294.2 | 11902.3 | 5883.1 |
| 80° | 591.3 | 588.4 | 642.7 | 810.9 | 1169.4 | 1792.7 | 4740.0 | 8226.5 | 8389.5 | 7233.8 | 2876.4 |
| 82.5° | 425.4 | 427.7 | 458.0 | 444.9 | 436.3 | 790.9 | 1581.7 | 2591.0 | 2365.7 | 1825.9 | 889.2 |
| 85° | 319.7 | 319.7 | 347.1 | 320.2 | 312.8 | 402.6 | 769.1 | 925.8 | 888.6 | 812.6 | 528.4 |
| 87.5° | 150.4 | 143.0 | 152.1 | 144.1 | 133.8 | 178.4 | 337.4 | 391.1 | 362.0 | 315.7 | 231.0 |
| 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: P591027

CATALOG NUMBER: CTN-CA8-330-722-U-T3-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 | 6358.9 |
| 2.5° | 6389.2 | 6401.8 | 6467.5 | 6553.3 | 6561.3 | 6635.1 | 6657.9 | 6749.4 | 6746.0 | 6720.8 | 6747.1 |
| 5° | 6432.1 | 6470.4 | 6583.0 | 6703.7 | 6734.6 | 6827.2 | 6847.2 | 6937.0 | 6942.7 | 6911.8 | 6937.6 |
| 7.5° | 6500.7 | 6556.7 | 6663.1 | 6782.6 | 6796.3 | 6878.7 | 6875.2 | 6960.4 | 6945.6 | 6918.7 | 6953.0 |
| 10° | 6584.7 | 6628.2 | 6699.1 | 6778.0 | 6771.7 | 6837.5 | 6816.9 | 6878.1 | 6847.2 | 6825.5 | 6864.9 |
| 12.5° | 6669.4 | 6671.1 | 6676.8 | 6726.6 | 6687.7 | 6702.5 | 6661.9 | 6707.1 | 6659.7 | 6623.1 | 6647.1 |
| 15° | 6754.0 | 6706.0 | 6625.3 | 6594.5 | 6486.4 | 6430.9 | 6372.6 | 6426.9 | 6316.0 | 6257.7 | 6272.5 |
| 17.5° | 6873.5 | 6758.0 | 6487.0 | 6094.7 | 5761.9 | 5578.3 | 5440.5 | 5334.1 | 5336.4 | 5389.0 | 5420.5 |
| 20° | 6969.0 | 6529.8 | 5867.7 | 5625.2 | 5376.4 | 5040.8 | 4519.8 | 4376.9 | 4282.5 | 4280.8 | 4296.2 |
| 22.5° | 6935.3 | 6288.5 | 5868.2 | 5489.1 | 4948.1 | 4277.4 | 4052.1 | 3921.1 | 3701.0 | 3230.3 | 3192.0 |
| 25° | 7245.8 | 6502.4 | 5902.0 | 5207.8 | 4265.9 | 3925.7 | 3616.3 | 3361.9 | 2806.0 | 2718.5 | 2715.1 |
| 27.5° | 7618.1 | 6791.2 | 5947.7 | 4600.5 | 3993.2 | 3534.0 | 3140.5 | 2525.8 | 2259.3 | 2221.6 | 2208.4 |
| 30° | 8048.7 | 7131.4 | 5668.7 | 4406.0 | 3702.7 | 3078.2 | 2556.7 | 1939.7 | 1723.0 | 1709.8 | 1713.2 |
| 32.5° | 8588.5 | 7519.7 | 5377.6 | 4245.9 | 3351.0 | 2550.4 | 1743.5 | 1479.4 | 1355.3 | 1219.7 | 1263.2 |
| 35° | 9163.7 | 7296.1 | 5551.4 | 4048.1 | 2910.7 | 1918.0 | 1324.4 | 1175.1 | 1074.5 | 898.9 | 827.5 |
| 37.5° | 8937.3 | 7449.9 | 5753.3 | 3830.8 | 2360.6 | 1300.4 | 1024.7 | 895.5 | 801.1 | 654.8 | 651.9 |
| 40° | 9216.4 | 7890.3 | 5897.4 | 3480.8 | 1706.9 | 922.4 | 746.8 | 693.1 | 649.6 | 568.4 | 557.0 |
| 42.5° | 9709.3 | 8274.5 | 5995.2 | 3031.9 | 1020.2 | 686.2 | 637.6 | 645.6 | 607.9 | 545.5 | 538.1 |
| 45° | 10194.8 | 8610.8 | 5903.1 | 2347.4 | 725.7 | 618.7 | 621.6 | 618.2 | 572.4 | 549.5 | 541.5 |
| 47.5° | 10636.8 | 8895.0 | 5644.1 | 1548.5 | 629.6 | 603.3 | 609.6 | 594.1 | 542.7 | 529.5 | 528.4 |
| 50° | 11016.5 | 9195.2 | 4468.9 | 1186.6 | 605.6 | 582.7 | 596.4 | 571.3 | 482.6 | 468.3 | 453.5 |
| 52.5° | 11250.4 | 8696.0 | 3970.3 | 911.5 | 580.4 | 550.7 | 554.7 | 575.3 | 454.6 | 362.0 | 339.1 |
| 55° | 11214.9 | 7833.6 | 3691.2 | 758.8 | 540.4 | 506.1 | 514.1 | 547.3 | 411.2 | 283.1 | 256.2 |
| 57.5° | 11383.6 | 7762.7 | 3401.9 | 645.6 | 466.1 | 458.6 | 442.6 | 498.6 | 374.0 | 187.6 | 177.8 |
| 60° | 11356.2 | 7754.2 | 3035.9 | 507.8 | 411.7 | 385.4 | 365.4 | 406.0 | 268.2 | 69.8 | 63.5 |
| 62.5° | 11311.6 | 7534.0 | 2620.2 | 455.2 | 379.1 | 368.8 | 351.7 | 397.4 | 228.2 | 48.6 | 36.0 |
| 65° | 11088.0 | 7176.6 | 2149.0 | 398.6 | 354.0 | 332.8 | 331.7 | 376.3 | 188.1 | 26.9 | 12.0 |
| 67.5° | 10324.6 | 6398.3 | 1598.9 | 367.1 | 339.1 | 328.2 | 348.3 | 362.5 | 180.7 | 27.4 | 10.9 |
| 70° | 9375.3 | 5371.9 | 1031.6 | 331.1 | 317.9 | 323.7 | 340.2 | 366.5 | 175.6 | 25.2 | 9.7 |
| 72.5° | 7839.4 | 4155.6 | 625.6 | 295.6 | 287.6 | 304.8 | 335.7 | 366.5 | 162.4 | 21.2 | 8.0 |
| 75° | 5963.7 | 2771.7 | 465.5 | 261.3 | 252.2 | 273.9 | 305.9 | 352.3 | 159.5 | 18.3 | 5.1 |
| 77.5° | 3702.7 | 1308.9 | 367.1 | 219.6 | 209.9 | 232.2 | 256.8 | 290.5 | 161.8 | 17.7 | 2.9 |
| 80° | 1497.7 | 546.7 | 288.2 | 176.7 | 164.7 | 176.7 | 208.2 | 247.6 | 128.7 | 25.2 | 0.0 |
| 82.5° | 630.2 | 384.8 | 235.6 | 140.7 | 131.5 | 116.1 | 141.8 | 183.6 | 101.2 | 20.0 | 0.0 |
| 85° | 416.9 | 267.0 | 168.7 | 95.5 | 84.1 | 56.6 | 69.2 | 82.9 | 57.8 | 0.0 | 0.0 |
| 87.5° | 188.7 | 118.4 | 73.8 | 32.6 | 27.4 | 15.4 | 9.1 | 8.0 | 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)