

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: STREETWORKS

Report Number: P721928

Luminaire Tested: **CST-CA8-430-750-U-T2-HSS**

Issue Date: 10/25/2023

Test Information

Test Method: LM-79-08
Report Number: P721928
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-430-750-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 5000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 60440 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G5

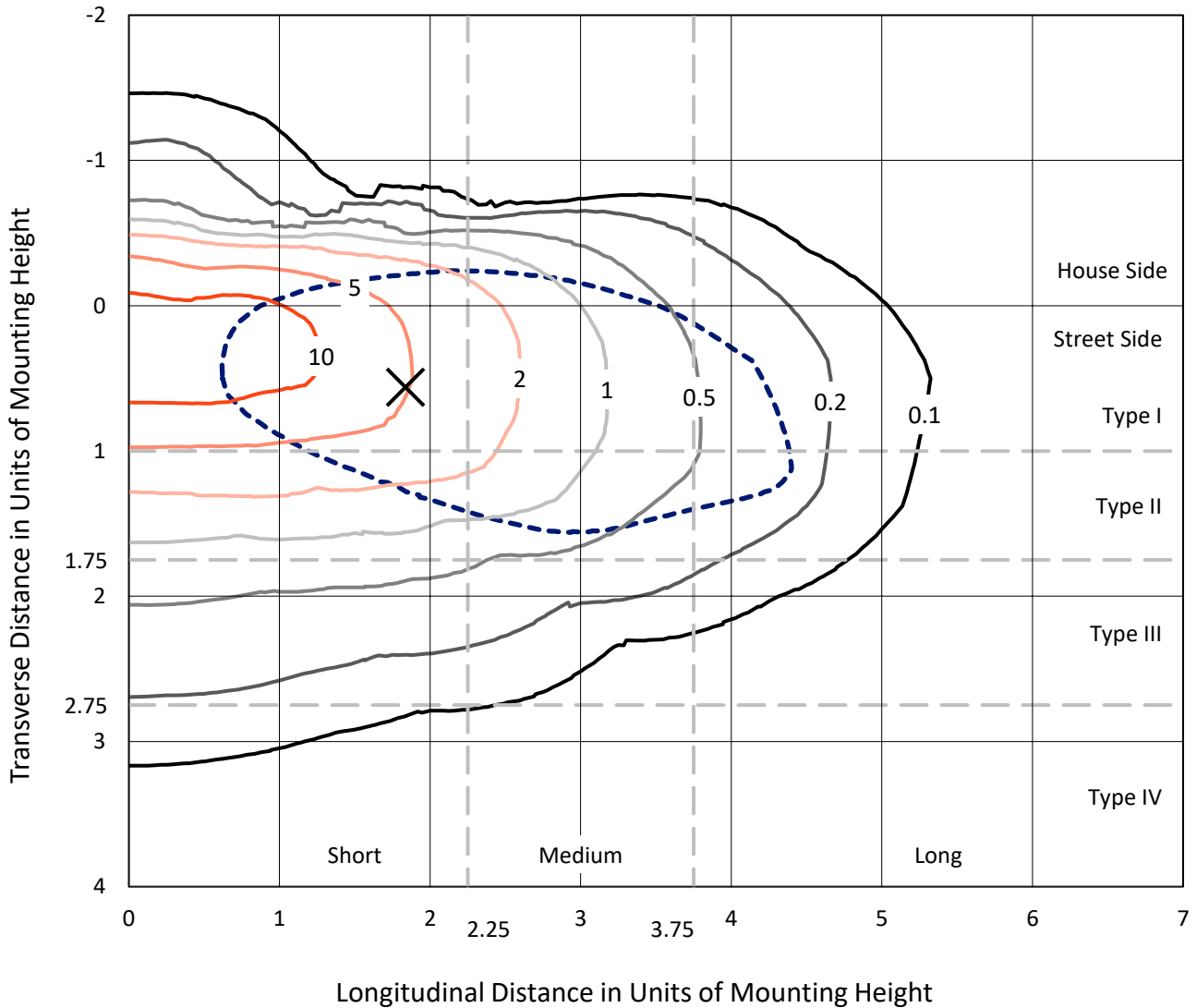
Input Watts (W): 434.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

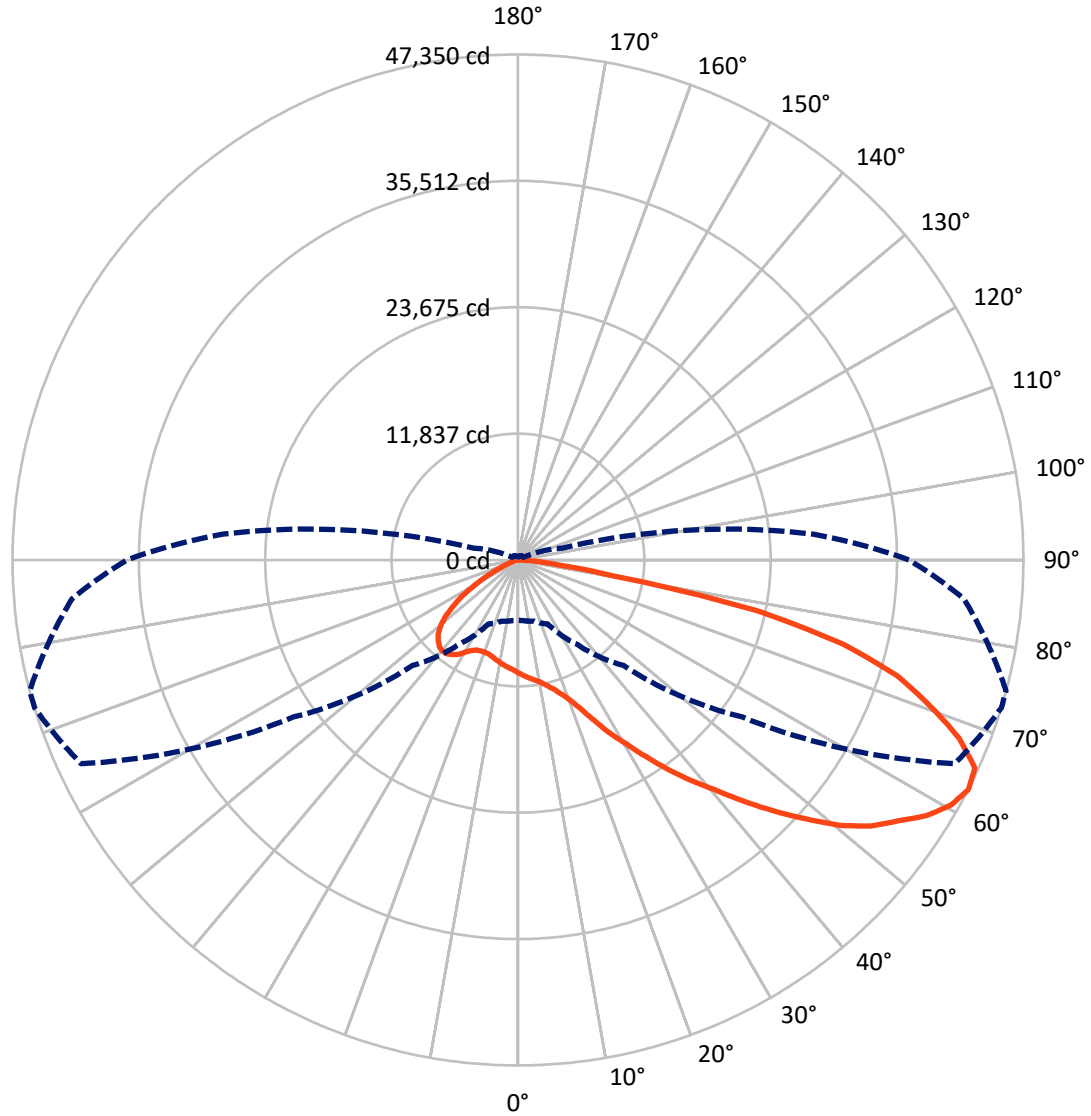
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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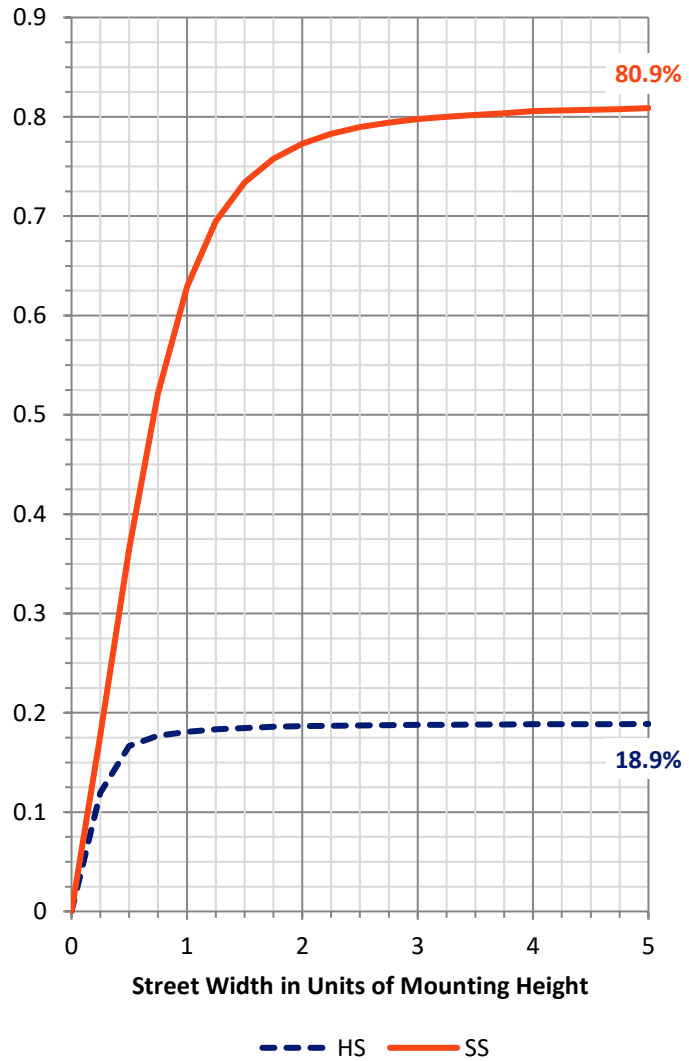
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11561.9 | 0.0 | 11561.9 |
| | % Fixture | 19.1 | 0.0 | 19.1 |
| Street Side | Lumens | 48878.1 | 0.0 | 48878.1 |
| | % Fixture | 80.9 | 0.0 | 80.9 |
| Total | Lumens | 60440.0 | 0.0 | 60440.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1012.4 | 1.7 |
| 10°-20° | 3045.1 | 5.0 |
| 20°-30° | 5261.3 | 8.7 |
| 30°-40° | 7911.8 | 13.1 |
| 40°-50° | 10549.6 | 17.5 |
| 50°-60° | 12424.2 | 20.6 |
| 60°-70° | 12351.9 | 20.4 |
| 70°-80° | 7091.5 | 11.7 |
| 80°-90° | 792.2 | 1.3 |
| 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° | 60440.0 | 100.0 |
| 0°-180° | 60440.0 | 100.0 |

Coefficient of Utilization



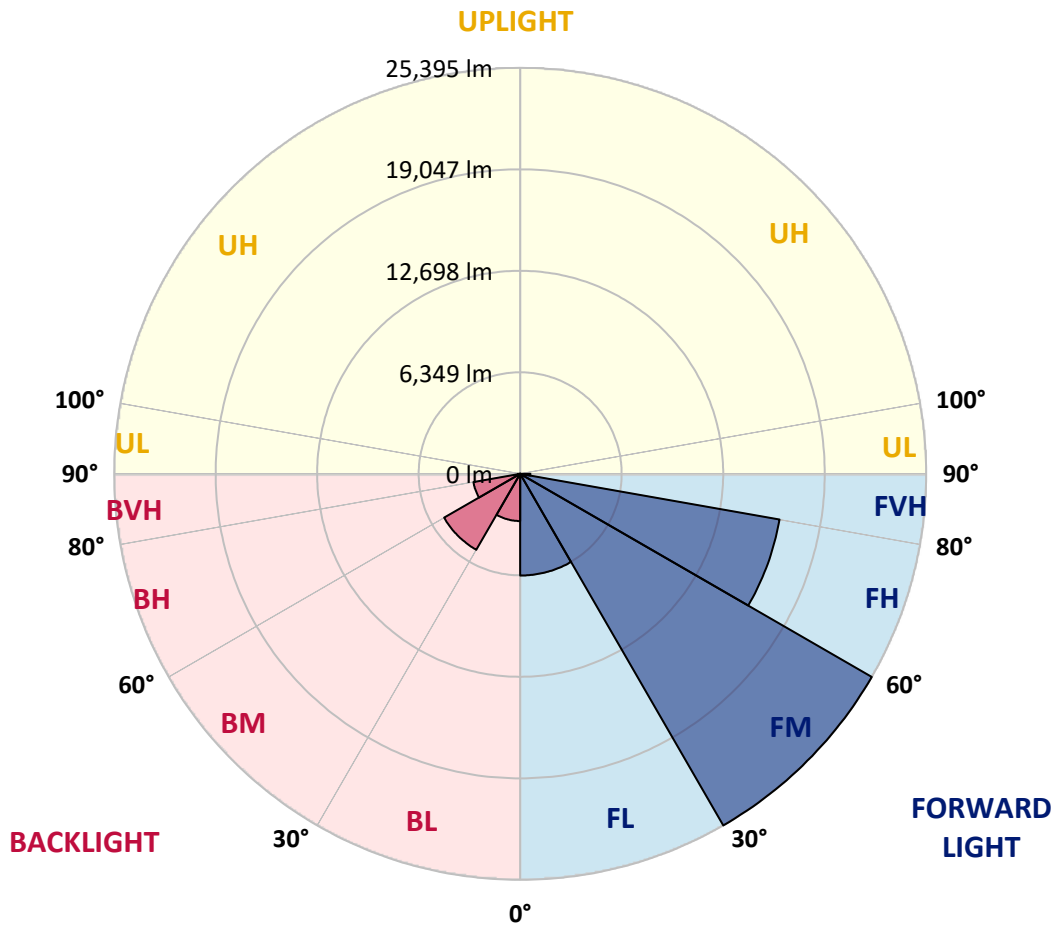
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 6364.3 | 10.5 | | | |
| FM (30°-60°) | 25395.4 | 42.0 | | | |
| FH (60°-80°) | 16475.0 | 27.3 | | | G5 |
| FVH (80°-90°) | 643.4 | 1.1 | | | G4/750 |
| BL (0°-30°) | 2954.6 | 4.9 | B4/5000 | | |
| BM (30°-60°) | 5490.1 | 9.1 | B4/8500 | | |
| BH (60°-80°) | 2968.4 | 4.9 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 148.8 | 0.2 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 73° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 |
| 2.5° | 11340.6 | 11369.0 | 11335.1 | 11320.2 | 11303.9 | 11198.1 | 11074.6 | 10948.5 | 10846.7 | 10830.4 | 10697.5 |
| 5° | 12136.9 | 12151.9 | 12096.2 | 12032.5 | 11922.6 | 11747.6 | 11526.4 | 11308.0 | 11104.5 | 11050.2 | 10807.4 |
| 7.5° | 12748.8 | 12720.3 | 12706.7 | 12652.5 | 12556.1 | 12363.5 | 12028.4 | 11670.2 | 11355.5 | 11279.5 | 10910.5 |
| 10° | 13322.7 | 13310.5 | 13207.4 | 13139.5 | 12986.2 | 12808.5 | 12533.1 | 12078.6 | 11635.0 | 11512.9 | 11000.0 |
| 12.5° | 13944.0 | 13916.9 | 13874.8 | 13728.3 | 13603.5 | 13303.7 | 12971.3 | 12557.5 | 12063.7 | 11900.9 | 11153.3 |
| 15° | 14503.0 | 14429.7 | 14406.7 | 14253.4 | 14127.2 | 13897.9 | 13564.2 | 13083.9 | 12556.1 | 12416.4 | 11445.0 |
| 17.5° | 15034.8 | 15000.9 | 14949.3 | 14844.9 | 14703.8 | 14527.4 | 14260.1 | 13746.0 | 13200.6 | 12997.1 | 11940.2 |
| 20° | 15486.6 | 15444.5 | 15399.8 | 15428.3 | 15397.0 | 15284.4 | 15116.2 | 14678.0 | 14011.9 | 13815.1 | 12542.6 |
| 22.5° | 15801.3 | 15800.0 | 15979.1 | 16083.5 | 16143.2 | 16139.2 | 16098.5 | 15850.2 | 15180.0 | 14980.5 | 13443.4 |
| 25° | 16063.2 | 16083.5 | 16310.1 | 16707.6 | 17063.1 | 17095.6 | 17383.2 | 17265.2 | 16695.4 | 16487.8 | 14798.7 |
| 27.5° | 16140.5 | 16181.2 | 16592.3 | 17217.7 | 17757.7 | 18275.9 | 18697.9 | 18913.6 | 18385.8 | 18137.6 | 16255.8 |
| 30° | 16196.1 | 16212.4 | 16615.4 | 17364.2 | 18502.5 | 19323.3 | 20077.6 | 20442.6 | 19988.1 | 19806.3 | 17879.8 |
| 32.5° | 15804.1 | 15809.5 | 16426.8 | 17561.0 | 19049.2 | 20472.4 | 21365.1 | 22053.0 | 21933.6 | 21693.4 | 19655.7 |
| 35° | 15264.1 | 15364.5 | 16072.7 | 17371.0 | 19499.7 | 21527.9 | 22743.5 | 23769.2 | 24007.9 | 23835.6 | 21430.2 |
| 37.5° | 14596.6 | 14675.3 | 15433.7 | 17088.8 | 19598.7 | 22253.7 | 23815.3 | 25513.9 | 26137.9 | 26109.5 | 23572.4 |
| 40° | 13775.8 | 13872.1 | 14779.8 | 16481.0 | 19549.9 | 22781.5 | 25072.9 | 27445.8 | 28238.1 | 28148.6 | 25697.0 |
| 42.5° | 12805.8 | 12946.9 | 13827.4 | 15699.6 | 19193.1 | 23104.4 | 26102.7 | 29413.0 | 30838.9 | 30780.5 | 27577.4 |
| 45° | 11846.6 | 11922.6 | 12725.7 | 14611.5 | 18536.4 | 23208.9 | 27071.3 | 32123.6 | 33506.1 | 33441.0 | 29843.1 |
| 47.5° | 10857.6 | 10924.0 | 11762.5 | 13465.1 | 17396.8 | 22998.6 | 27837.9 | 34451.7 | 36223.6 | 36158.4 | 32093.8 |
| 50° | 8556.6 | 8807.6 | 10526.5 | 12457.1 | 16098.5 | 22403.0 | 28561.0 | 37352.3 | 39067.2 | 38790.4 | 34065.1 |
| 52.5° | 7320.7 | 7411.6 | 8302.9 | 11440.9 | 14802.8 | 21386.8 | 29044.0 | 40039.9 | 41406.1 | 41007.2 | 36081.1 |
| 55° | 6843.1 | 6904.2 | 7341.0 | 9567.4 | 13585.9 | 19849.7 | 29612.4 | 42734.3 | 43160.3 | 43058.5 | 37725.4 |
| 57.5° | 6480.9 | 6548.7 | 6860.8 | 7990.9 | 12303.8 | 17695.3 | 29434.7 | 44629.6 | 45162.8 | 44837.2 | 39471.5 |
| 60° | 5968.1 | 6050.8 | 6464.6 | 7174.2 | 10846.7 | 15508.3 | 27870.4 | 45405.6 | 46618.5 | 46252.2 | 40799.7 |
| 62.5° | 5645.2 | 5699.4 | 5936.9 | 6624.7 | 9639.3 | 13969.8 | 25644.1 | 45156.0 | 47349.8 | 47336.2 | 41951.5 |
| 65° | 5207.0 | 5287.0 | 5540.7 | 6098.3 | 8564.8 | 12777.3 | 23544.0 | 43922.8 | 47035.0 | 47047.2 | 42188.9 |
| 67.5° | 4748.4 | 4781.0 | 5046.9 | 5494.6 | 7299.0 | 11685.1 | 20826.5 | 41813.1 | 44583.5 | 44862.9 | 40546.0 |
| 70° | 4175.9 | 4159.6 | 4447.2 | 4774.2 | 5965.4 | 9921.5 | 16763.2 | 38060.5 | 40961.1 | 41076.4 | 37223.4 |
| 72.5° | 3285.9 | 3300.8 | 3380.9 | 3607.4 | 4528.6 | 7807.7 | 12164.1 | 32156.2 | 37174.6 | 37379.5 | 32977.0 |
| 75° | 2208.7 | 2233.1 | 2606.2 | 2827.3 | 3257.4 | 5611.3 | 7649.0 | 21705.6 | 31426.3 | 32004.3 | 26989.9 |
| 77.5° | 1685.0 | 1699.9 | 1808.5 | 2050.0 | 2356.6 | 3999.5 | 4146.0 | 11827.6 | 22879.2 | 24250.8 | 21114.1 |
| 80° | 1193.9 | 1199.3 | 1092.1 | 971.4 | 1254.9 | 2713.4 | 2448.8 | 5037.4 | 9116.9 | 10773.5 | 12401.5 |
| 82.5° | 534.5 | 526.4 | 620.0 | 515.5 | 723.1 | 1050.1 | 1155.9 | 2444.8 | 3786.5 | 4070.1 | 4430.9 |
| 85° | 248.3 | 278.1 | 318.8 | 267.3 | 430.1 | 405.6 | 450.4 | 1041.9 | 1774.5 | 1959.1 | 1948.2 |
| 87.5° | 61.1 | 66.5 | 84.1 | 107.2 | 156.0 | 138.4 | 135.7 | 306.6 | 396.2 | 394.8 | 606.4 |
| 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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CATALOG NUMBER: CST-CA8-430-750-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 | 10599.8 |
| 2.5° | 10606.6 | 10536.0 | 10369.2 | 10207.7 | 10054.4 | 9952.7 | 9838.7 | 9719.3 | 9647.4 | 9613.5 | 9686.7 |
| 5° | 10659.5 | 10525.2 | 10206.4 | 9886.2 | 9614.8 | 9382.9 | 9220.0 | 9081.7 | 9007.0 | 9013.8 | 9017.9 |
| 7.5° | 10704.3 | 10515.7 | 10069.3 | 9617.6 | 9194.3 | 8906.7 | 8693.7 | 8544.4 | 8458.9 | 8393.8 | 8442.7 |
| 10° | 10743.6 | 10476.3 | 9909.2 | 9306.9 | 8847.0 | 8421.0 | 8132.0 | 7951.5 | 7794.2 | 7706.0 | 7775.2 |
| 12.5° | 10785.7 | 10461.4 | 9730.2 | 9028.8 | 8433.2 | 7957.0 | 7560.8 | 7381.7 | 7227.1 | 7160.6 | 7202.7 |
| 15° | 10968.8 | 10518.4 | 9563.3 | 8701.8 | 8024.8 | 7408.9 | 6981.5 | 6761.7 | 6639.6 | 6559.6 | 6577.2 |
| 17.5° | 11283.6 | 10669.0 | 9456.1 | 8359.9 | 7569.0 | 6917.7 | 6364.2 | 6107.8 | 5905.7 | 5848.7 | 5833.8 |
| 20° | 11731.3 | 10955.3 | 9456.1 | 8070.9 | 7052.1 | 6372.4 | 5734.7 | 5301.9 | 4987.2 | 4869.2 | 4960.0 |
| 22.5° | 12482.9 | 11442.3 | 9549.7 | 7809.1 | 6607.1 | 5806.6 | 5046.9 | 4386.2 | 3961.5 | 3789.2 | 3889.6 |
| 25° | 13534.3 | 12195.3 | 9701.7 | 7579.8 | 6201.4 | 5155.4 | 4174.5 | 3414.8 | 2946.7 | 2741.9 | 2739.2 |
| 27.5° | 14907.3 | 13347.1 | 10008.3 | 7392.6 | 5715.7 | 4312.9 | 3264.2 | 2532.9 | 2093.4 | 1969.9 | 1987.5 |
| 30° | 16429.5 | 14595.2 | 10587.6 | 7121.3 | 5125.6 | 3370.0 | 2376.9 | 1861.4 | 1552.1 | 1389.2 | 1392.0 |
| 32.5° | 17897.4 | 15888.2 | 11275.4 | 6944.9 | 4359.0 | 2541.1 | 1694.5 | 1328.2 | 1135.5 | 1039.2 | 1054.1 |
| 35° | 19471.2 | 17003.4 | 11786.9 | 6649.1 | 3459.6 | 1837.0 | 1198.0 | 995.8 | 915.8 | 865.6 | 868.3 |
| 37.5° | 21171.1 | 18229.8 | 12207.5 | 6253.0 | 2615.7 | 1261.7 | 884.6 | 853.4 | 819.4 | 755.7 | 750.2 |
| 40° | 22947.0 | 19650.3 | 12458.5 | 5612.6 | 1818.0 | 873.7 | 751.6 | 786.9 | 767.9 | 685.1 | 678.3 |
| 42.5° | 24452.9 | 20746.5 | 12520.9 | 4764.7 | 1176.2 | 708.2 | 681.1 | 735.3 | 739.4 | 655.3 | 644.4 |
| 45° | 25899.2 | 21723.3 | 12398.8 | 3648.1 | 815.4 | 666.1 | 637.6 | 712.3 | 717.7 | 641.7 | 624.1 |
| 47.5° | 27517.7 | 23059.6 | 12177.6 | 2433.9 | 674.3 | 629.5 | 622.7 | 674.3 | 693.3 | 630.9 | 609.2 |
| 50° | 29483.5 | 24146.3 | 11522.3 | 1495.1 | 636.3 | 606.4 | 606.4 | 637.6 | 663.4 | 609.2 | 598.3 |
| 52.5° | 31499.6 | 25093.3 | 10552.3 | 1025.7 | 613.2 | 582.0 | 599.7 | 613.2 | 622.7 | 573.9 | 583.4 |
| 55° | 32944.4 | 25933.1 | 9106.1 | 824.9 | 599.7 | 565.7 | 607.8 | 580.7 | 567.1 | 525.0 | 515.5 |
| 57.5° | 34548.0 | 26931.6 | 7627.3 | 731.3 | 582.0 | 575.2 | 580.7 | 529.1 | 491.1 | 447.7 | 438.2 |
| 60° | 35667.3 | 27468.9 | 5817.5 | 687.8 | 561.7 | 565.7 | 535.9 | 466.7 | 397.5 | 366.3 | 359.5 |
| 62.5° | 36644.1 | 27775.5 | 4264.1 | 632.2 | 542.7 | 541.3 | 485.7 | 398.9 | 327.0 | 293.0 | 287.6 |
| 65° | 36496.3 | 27296.6 | 2763.6 | 587.4 | 527.8 | 510.1 | 435.5 | 341.9 | 272.7 | 246.9 | 244.2 |
| 67.5° | 34869.6 | 25177.4 | 1740.6 | 541.3 | 502.0 | 470.8 | 390.7 | 305.3 | 251.0 | 221.1 | 218.4 |
| 70° | 31454.8 | 22251.0 | 1065.0 | 481.6 | 446.4 | 416.5 | 346.0 | 286.3 | 237.4 | 202.1 | 195.4 |
| 72.5° | 26734.9 | 19057.4 | 753.0 | 424.6 | 389.4 | 354.1 | 293.0 | 272.7 | 226.6 | 181.8 | 176.4 |
| 75° | 21964.8 | 14037.6 | 630.9 | 370.4 | 332.4 | 284.9 | 249.6 | 253.7 | 213.0 | 165.5 | 161.4 |
| 77.5° | 15467.6 | 8752.0 | 587.4 | 302.5 | 261.8 | 226.6 | 215.7 | 232.0 | 195.4 | 151.9 | 147.9 |
| 80° | 9027.4 | 4915.3 | 485.7 | 238.8 | 196.7 | 175.0 | 180.4 | 196.7 | 170.9 | 137.0 | 131.6 |
| 82.5° | 3644.1 | 1945.5 | 341.9 | 185.9 | 143.8 | 139.7 | 147.9 | 160.1 | 141.1 | 115.3 | 112.6 |
| 85° | 1301.1 | 607.8 | 194.0 | 122.1 | 92.3 | 96.3 | 95.0 | 114.0 | 101.8 | 84.1 | 82.8 |
| 87.5° | 341.9 | 120.7 | 86.8 | 48.8 | 39.3 | 39.3 | 36.6 | 52.9 | 48.8 | 38.0 | 42.1 |
| 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)