

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: P510730

Luminaire Tested: **CST-CA8-230-740-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510730
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-230-740-U-T4-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: 31720 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

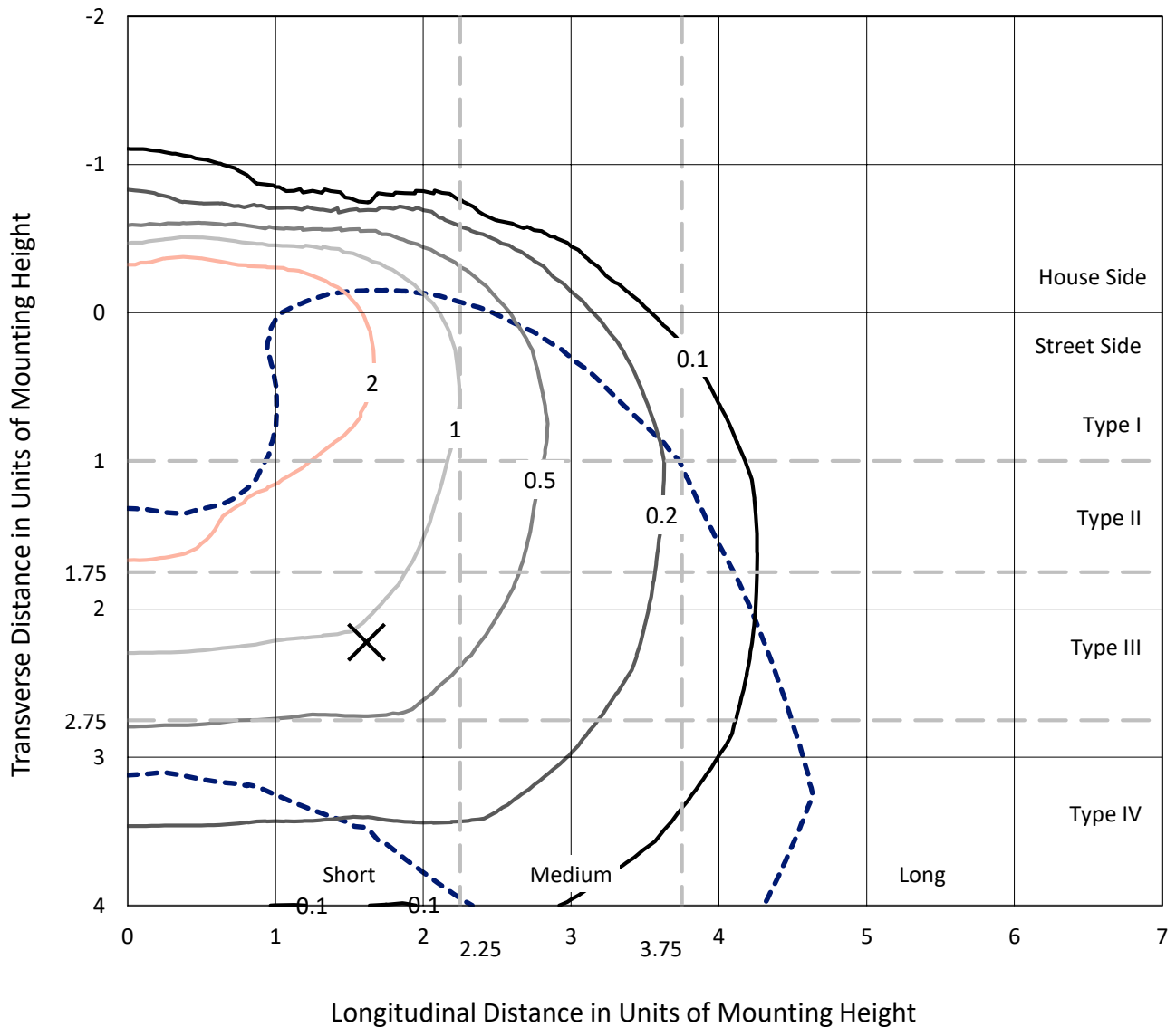
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P510730
 CATALOG NUMBER: CST-CA8-230-740-U-T4-HSS

Iso-Footcandle Lines of Horizontal Illumination

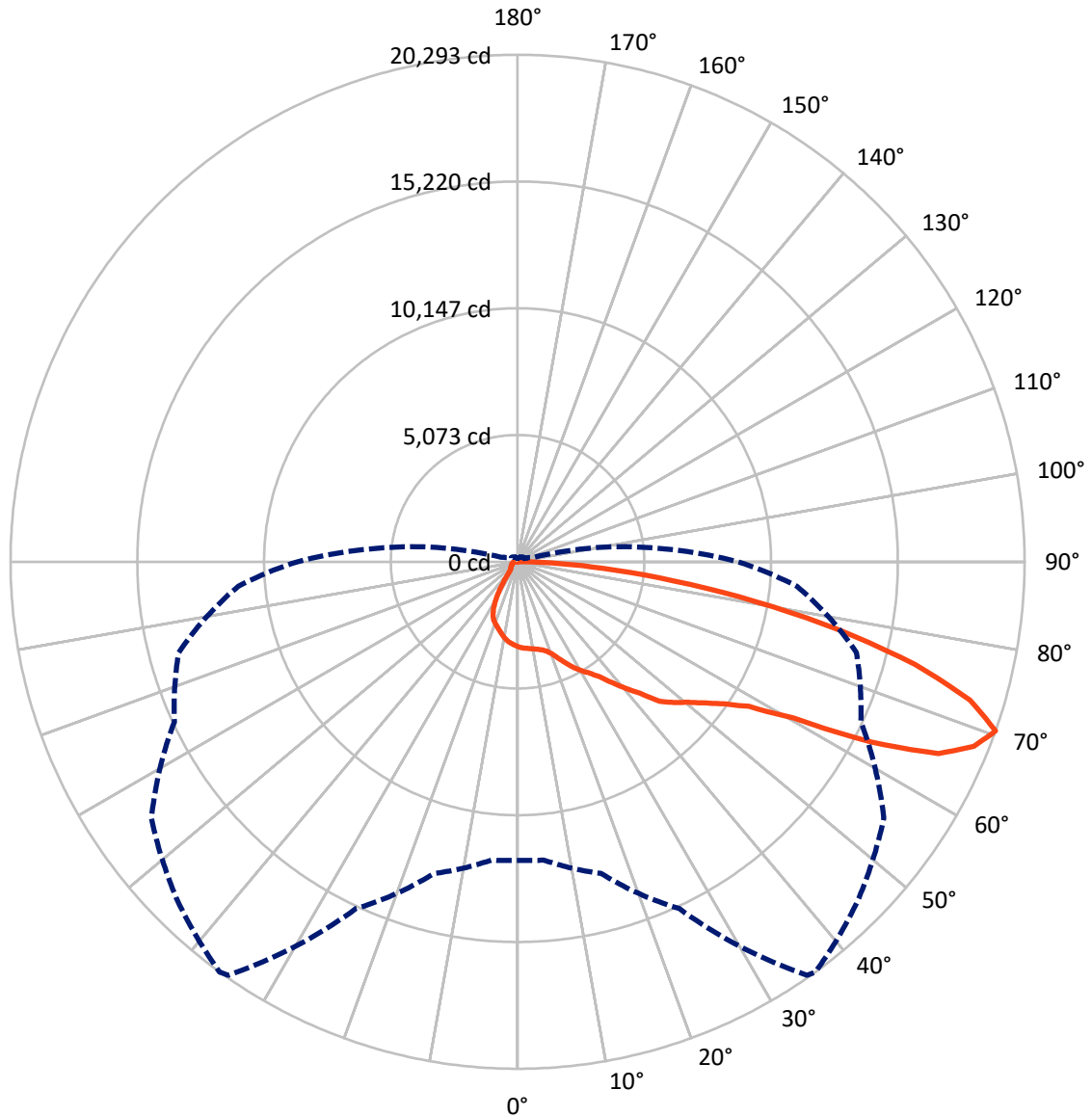
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

REPORT NUMBER: P510730
CATALOG NUMBER: CST-CA8-230-740-U-T4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P510730
 CATALOG NUMBER: CST-CA8-230-740-U-T4-HSS

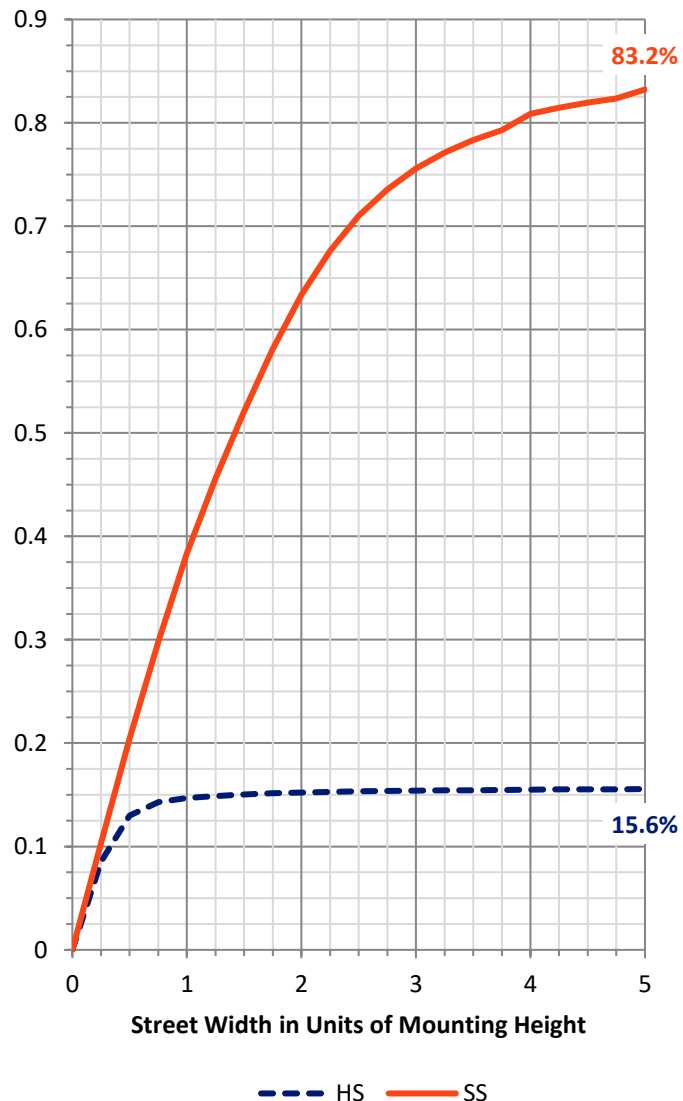
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5005.6 | 0.0 | 5005.6 |
| | % Fixture | 15.8 | 0.0 | 15.8 |
| Street Side | Lumens | 26714.3 | 0.0 | 26714.3 |
| | % Fixture | 84.2 | 0.0 | 84.2 |
| Total | Lumens | 31720.0 | 0.0 | 31720.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 322.3 | 1.0 |
| 10°-20° | 958.6 | 3.0 |
| 20°-30° | 1723.7 | 5.4 |
| 30°-40° | 2727.8 | 8.6 |
| 40°-50° | 4263.0 | 13.4 |
| 50°-60° | 6121.7 | 19.3 |
| 60°-70° | 8303.5 | 26.2 |
| 70°-80° | 6145.5 | 19.4 |
| 80°-90° | 1153.9 | 3.6 |
| 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° | 31720.0 | 100.0 |
| 0°-180° | 31720.0 | 100.0 |

Coefficient of Utilization

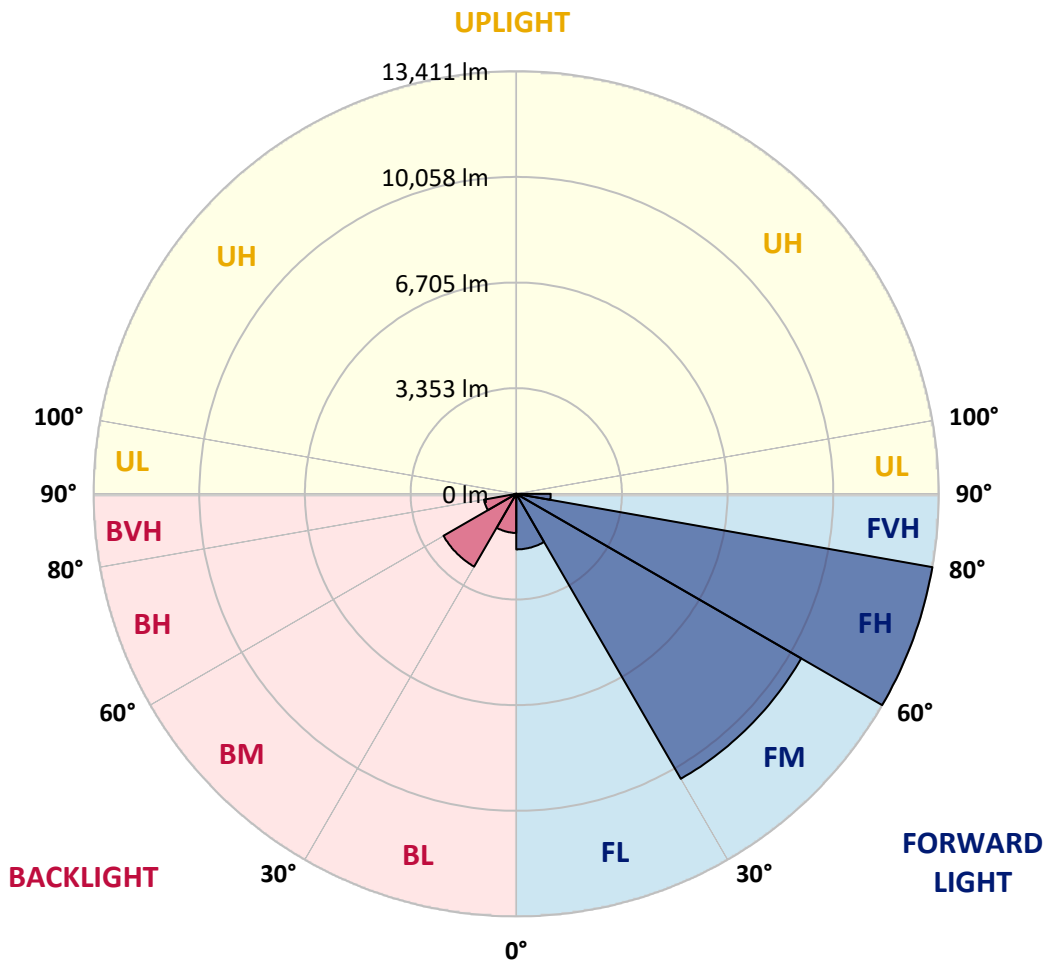


REPORT NUMBER: P510730
 CATALOG NUMBER: CST-CA8-230-740-U-T4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1764.3 | 5.6 | | | |
| FM (30°-60°) | 10445.1 | 32.9 | | | |
| FH (60°-80°) | 13410.9 | 42.3 | | | G5 |
| FVH (80°-90°) | 1094.1 | 3.4 | | | G5 |
| BL (0°-30°) | 1240.4 | 3.9 | B3/2500 | | |
| BM (30°-60°) | 2667.4 | 8.4 | B3/5000 | | |
| BH (60°-80°) | 1038.0 | 3.3 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 59.8 | 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-G5
 Type IV Short





REPORT NUMBER: P510730

CATALOG NUMBER: CST-CA8-230-740-U-T4-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 |
| 2.5° | 3467.5 | 3460.2 | 3454.3 | 3456.5 | 3452.1 | 3455.0 | 3448.4 | 3440.4 | 3421.3 | 3413.3 | 3409.6 |
| 5° | 3498.2 | 3496.0 | 3490.2 | 3485.8 | 3477.7 | 3474.8 | 3467.5 | 3474.1 | 3463.8 | 3437.5 | 3422.1 |
| 7.5° | 3516.5 | 3515.8 | 3509.2 | 3499.7 | 3504.1 | 3507.8 | 3515.1 | 3504.8 | 3491.6 | 3479.2 | 3447.7 |
| 10° | 3524.6 | 3524.6 | 3516.5 | 3521.7 | 3544.4 | 3546.6 | 3550.2 | 3556.8 | 3544.4 | 3526.1 | 3494.6 |
| 12.5° | 3545.1 | 3543.6 | 3546.6 | 3563.4 | 3586.8 | 3592.0 | 3610.3 | 3610.3 | 3611.7 | 3600.8 | 3564.1 |
| 15° | 3596.4 | 3596.4 | 3603.0 | 3618.3 | 3658.6 | 3661.5 | 3688.6 | 3712.8 | 3715.7 | 3699.6 | 3671.8 |
| 17.5° | 3715.0 | 3712.1 | 3708.4 | 3717.9 | 3761.1 | 3762.6 | 3809.5 | 3840.2 | 3848.3 | 3865.9 | 3861.5 |
| 20° | 3940.5 | 3937.6 | 3936.9 | 3937.6 | 3934.7 | 3930.3 | 3976.4 | 4009.4 | 4050.4 | 4081.2 | 4096.5 |
| 22.5° | 4263.5 | 4256.9 | 4256.9 | 4221.0 | 4193.2 | 4197.6 | 4204.9 | 4223.2 | 4277.4 | 4331.6 | 4389.5 |
| 25° | 4611.3 | 4606.9 | 4610.6 | 4519.1 | 4481.7 | 4496.4 | 4486.8 | 4515.4 | 4586.4 | 4633.3 | 4694.8 |
| 27.5° | 4895.5 | 4902.1 | 4881.6 | 4810.5 | 4786.4 | 4797.3 | 4775.4 | 4857.4 | 4935.8 | 5017.8 | 5110.8 |
| 30° | 5249.2 | 5214.0 | 5163.5 | 5077.1 | 5068.3 | 5069.8 | 5068.3 | 5200.1 | 5362.7 | 5479.9 | 5608.7 |
| 32.5° | 5711.3 | 5717.1 | 5603.6 | 5400.0 | 5325.3 | 5315.1 | 5344.4 | 5537.7 | 5757.4 | 6017.4 | 6187.3 |
| 35° | 6178.5 | 6188.0 | 6105.2 | 5892.9 | 5679.8 | 5647.6 | 5604.4 | 5855.5 | 6172.6 | 6694.0 | 6950.3 |
| 37.5° | 6674.3 | 6707.9 | 6609.8 | 6420.1 | 6167.5 | 6137.5 | 5933.2 | 6179.9 | 6648.6 | 7495.2 | 7831.3 |
| 40° | 7337.7 | 7301.8 | 7183.2 | 6942.3 | 6707.2 | 6658.9 | 6421.6 | 6551.2 | 7260.8 | 8498.4 | 8742.3 |
| 42.5° | 7826.9 | 7816.7 | 7716.3 | 7478.3 | 7241.8 | 7203.0 | 7011.8 | 7152.4 | 8032.0 | 9515.6 | 9624.7 |
| 45° | 8215.0 | 8278.0 | 8275.8 | 8126.4 | 7993.1 | 7971.2 | 7858.4 | 8065.6 | 8964.2 | 10475.7 | 10422.2 |
| 47.5° | 8559.9 | 8598.8 | 8536.5 | 8471.3 | 8409.1 | 8416.4 | 8499.9 | 8926.1 | 9916.9 | 11314.2 | 11077.6 |
| 50° | 9124.6 | 9074.8 | 8795.7 | 8746.0 | 8833.8 | 8837.5 | 9091.6 | 9747.7 | 10966.3 | 12039.1 | 11632.7 |
| 52.5° | 9877.4 | 9823.2 | 9249.8 | 9164.8 | 9372.8 | 9388.2 | 9810.7 | 10566.5 | 12048.7 | 12731.9 | 12184.9 |
| 55° | 10997.8 | 10871.8 | 10257.4 | 9876.6 | 9971.8 | 10034.1 | 10546.0 | 11353.7 | 12895.9 | 13342.6 | 12603.0 |
| 57.5° | 12373.8 | 12465.3 | 12150.4 | 11290.0 | 10893.8 | 10917.2 | 11387.4 | 12107.2 | 13643.6 | 13877.2 | 12847.6 |
| 60° | 13828.2 | 13806.2 | 13938.0 | 13575.5 | 12816.8 | 12690.9 | 12451.4 | 12876.2 | 14222.9 | 14327.6 | 13099.5 |
| 62.5° | 14624.9 | 14753.1 | 15192.5 | 15265.0 | 15949.7 | 15883.0 | 14250.7 | 13829.6 | 14892.2 | 14610.3 | 13168.4 |
| 65° | 14620.5 | 14676.2 | 15494.2 | 16393.4 | 18532.5 | 18513.5 | 17754.8 | 15208.6 | 15390.9 | 14761.1 | 13030.7 |
| 67.5° | 13675.8 | 13762.3 | 14718.7 | 16475.5 | 19726.2 | 19703.5 | 19179.1 | 17147.0 | 15547.6 | 14579.5 | 12388.4 |
| 70° | 11953.5 | 11982.8 | 12915.7 | 15320.6 | 20205.8 | 20293.0 | 19228.2 | 17891.0 | 15158.0 | 14039.8 | 11217.5 |
| 72.5° | 9861.3 | 9800.5 | 10712.9 | 13083.4 | 18984.3 | 18932.4 | 18415.3 | 17002.7 | 14501.9 | 12991.9 | 9148.7 |
| 75° | 7260.8 | 7430.0 | 8248.7 | 10505.0 | 16254.3 | 16444.7 | 16673.9 | 15643.6 | 12879.8 | 10707.1 | 6326.4 |
| 77.5° | 4794.4 | 5009.7 | 5837.2 | 7876.7 | 12868.1 | 13164.0 | 13757.9 | 13305.3 | 10477.9 | 7680.4 | 3012.7 |
| 80° | 2477.4 | 2640.0 | 3384.7 | 5226.5 | 9224.9 | 9651.8 | 10740.8 | 10077.3 | 7428.5 | 3472.6 | 674.5 |
| 82.5° | 937.4 | 916.1 | 1516.6 | 2991.5 | 5914.8 | 6303.0 | 7094.6 | 6043.0 | 2643.6 | 610.0 | 313.4 |
| 85° | 411.6 | 435.7 | 628.3 | 1364.3 | 3381.8 | 3432.3 | 4018.9 | 2355.8 | 387.4 | 291.5 | 213.1 |
| 87.5° | 178.0 | 204.3 | 263.6 | 392.5 | 1140.9 | 1317.4 | 1630.1 | 748.4 | 117.2 | 101.1 | 106.9 |
| 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: P510730
 CATALOG NUMBER: CST-CA8-230-740-U-T4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 | 3398.6 |
| 2.5° | 3403.0 | 3398.6 | 3391.3 | 3373.0 | 3343.0 | 3339.3 | 3336.4 | 3333.5 | 3327.6 | 3330.5 | 3347.4 |
| 5° | 3410.4 | 3402.3 | 3375.9 | 3349.6 | 3323.2 | 3299.8 | 3271.2 | 3260.2 | 3245.6 | 3236.1 | 3253.6 |
| 7.5° | 3435.3 | 3418.4 | 3379.6 | 3343.7 | 3272.0 | 3237.5 | 3200.9 | 3157.7 | 3127.0 | 3107.2 | 3124.8 |
| 10° | 3477.0 | 3455.8 | 3407.4 | 3333.5 | 3249.2 | 3154.8 | 3090.3 | 3018.6 | 2960.0 | 2943.9 | 2960.0 |
| 12.5° | 3545.1 | 3513.6 | 3457.2 | 3356.9 | 3207.5 | 3083.7 | 2961.5 | 2867.0 | 2772.5 | 2745.4 | 2753.5 |
| 15° | 3655.7 | 3630.8 | 3544.4 | 3406.0 | 3208.2 | 3019.3 | 2837.7 | 2685.4 | 2561.6 | 2518.4 | 2515.5 |
| 17.5° | 3832.9 | 3806.5 | 3706.9 | 3503.4 | 3234.6 | 2968.8 | 2716.1 | 2484.0 | 2296.5 | 2201.3 | 2185.9 |
| 20° | 4087.0 | 4050.4 | 3899.5 | 3646.9 | 3291.7 | 2946.8 | 2603.4 | 2291.4 | 1999.9 | 1821.2 | 1794.2 |
| 22.5° | 4369.7 | 4330.9 | 4108.2 | 3757.5 | 3332.7 | 2903.6 | 2495.7 | 2078.3 | 1694.6 | 1476.3 | 1445.6 |
| 25° | 4721.2 | 4636.2 | 4308.2 | 3862.2 | 3323.2 | 2812.8 | 2320.7 | 1789.0 | 1373.1 | 1184.1 | 1163.6 |
| 27.5° | 5068.3 | 4960.7 | 4511.7 | 3917.1 | 3281.5 | 2668.5 | 2064.4 | 1450.7 | 1075.0 | 941.0 | 924.2 |
| 30° | 5498.9 | 5290.9 | 4692.6 | 3942.7 | 3176.0 | 2452.5 | 1720.9 | 1102.9 | 804.8 | 712.5 | 696.4 |
| 32.5° | 6010.8 | 5695.9 | 4862.5 | 3914.2 | 3000.3 | 2123.0 | 1337.9 | 807.7 | 598.3 | 540.4 | 539.7 |
| 35° | 6686.0 | 6192.4 | 5049.3 | 3820.4 | 2730.8 | 1767.8 | 938.1 | 552.2 | 466.5 | 446.7 | 450.4 |
| 37.5° | 7475.4 | 6864.7 | 5238.9 | 3666.7 | 2426.1 | 1352.6 | 625.4 | 425.5 | 410.1 | 410.8 | 411.6 |
| 40° | 8308.0 | 7607.2 | 5494.5 | 3450.6 | 2056.3 | 979.1 | 450.4 | 382.3 | 381.5 | 388.9 | 391.1 |
| 42.5° | 9103.3 | 8328.5 | 5809.4 | 3162.8 | 1668.9 | 647.4 | 390.3 | 364.7 | 355.2 | 358.1 | 360.3 |
| 45° | 9842.2 | 8947.3 | 6077.4 | 2882.4 | 1253.7 | 462.1 | 383.0 | 344.2 | 329.5 | 328.1 | 329.5 |
| 47.5° | 10437.6 | 9443.1 | 6240.7 | 2552.8 | 893.4 | 383.7 | 367.6 | 325.1 | 304.6 | 300.2 | 298.0 |
| 50° | 10890.9 | 9811.5 | 6300.0 | 2179.3 | 604.2 | 366.2 | 347.1 | 303.2 | 278.3 | 279.0 | 279.0 |
| 52.5° | 11333.2 | 10146.1 | 6231.2 | 1802.9 | 444.5 | 350.8 | 333.2 | 285.6 | 259.2 | 273.2 | 276.8 |
| 55° | 11651.7 | 10286.7 | 6030.6 | 1395.8 | 370.5 | 331.7 | 317.8 | 265.1 | 246.8 | 269.5 | 276.8 |
| 57.5° | 11837.8 | 10397.3 | 5662.2 | 1007.7 | 339.8 | 313.4 | 298.0 | 246.1 | 229.2 | 235.1 | 238.7 |
| 60° | 11953.5 | 10242.8 | 5175.2 | 689.1 | 323.7 | 298.8 | 278.3 | 233.6 | 210.9 | 197.0 | 194.8 |
| 62.5° | 11889.7 | 9856.1 | 4533.7 | 473.8 | 306.8 | 282.7 | 261.4 | 221.9 | 191.9 | 173.6 | 172.1 |
| 65° | 11370.5 | 9140.7 | 3480.7 | 383.7 | 296.6 | 275.3 | 251.2 | 210.9 | 178.7 | 161.1 | 158.9 |
| 67.5° | 10407.6 | 7854.7 | 2032.9 | 341.3 | 292.2 | 268.0 | 243.1 | 200.7 | 171.4 | 152.3 | 149.4 |
| 70° | 8825.0 | 5908.3 | 681.0 | 304.6 | 291.5 | 267.3 | 236.5 | 193.3 | 163.3 | 143.5 | 140.6 |
| 72.5° | 6366.7 | 3564.9 | 331.7 | 268.0 | 272.4 | 256.3 | 231.4 | 187.5 | 158.2 | 133.3 | 128.2 |
| 75° | 3618.3 | 1160.7 | 299.5 | 231.4 | 253.4 | 244.6 | 228.5 | 188.2 | 160.4 | 120.8 | 115.0 |
| 77.5° | 1029.6 | 339.1 | 289.3 | 197.0 | 239.5 | 252.6 | 213.8 | 169.9 | 164.0 | 112.0 | 104.7 |
| 80° | 347.8 | 301.7 | 279.0 | 153.1 | 193.3 | 208.7 | 185.3 | 149.4 | 165.5 | 101.8 | 94.5 |
| 82.5° | 279.0 | 303.2 | 234.3 | 122.3 | 147.2 | 158.2 | 147.2 | 134.0 | 134.0 | 90.8 | 84.9 |
| 85° | 223.4 | 281.2 | 148.7 | 97.4 | 109.8 | 121.6 | 104.0 | 100.3 | 93.7 | 76.2 | 74.0 |
| 87.5° | 129.6 | 87.9 | 61.5 | 49.8 | 46.1 | 46.9 | 40.3 | 48.3 | 59.3 | 52.0 | 51.3 |
| 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)