

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: P591223

Luminaire Tested: **CTN-CA10-630-727-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591223
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54118 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G5

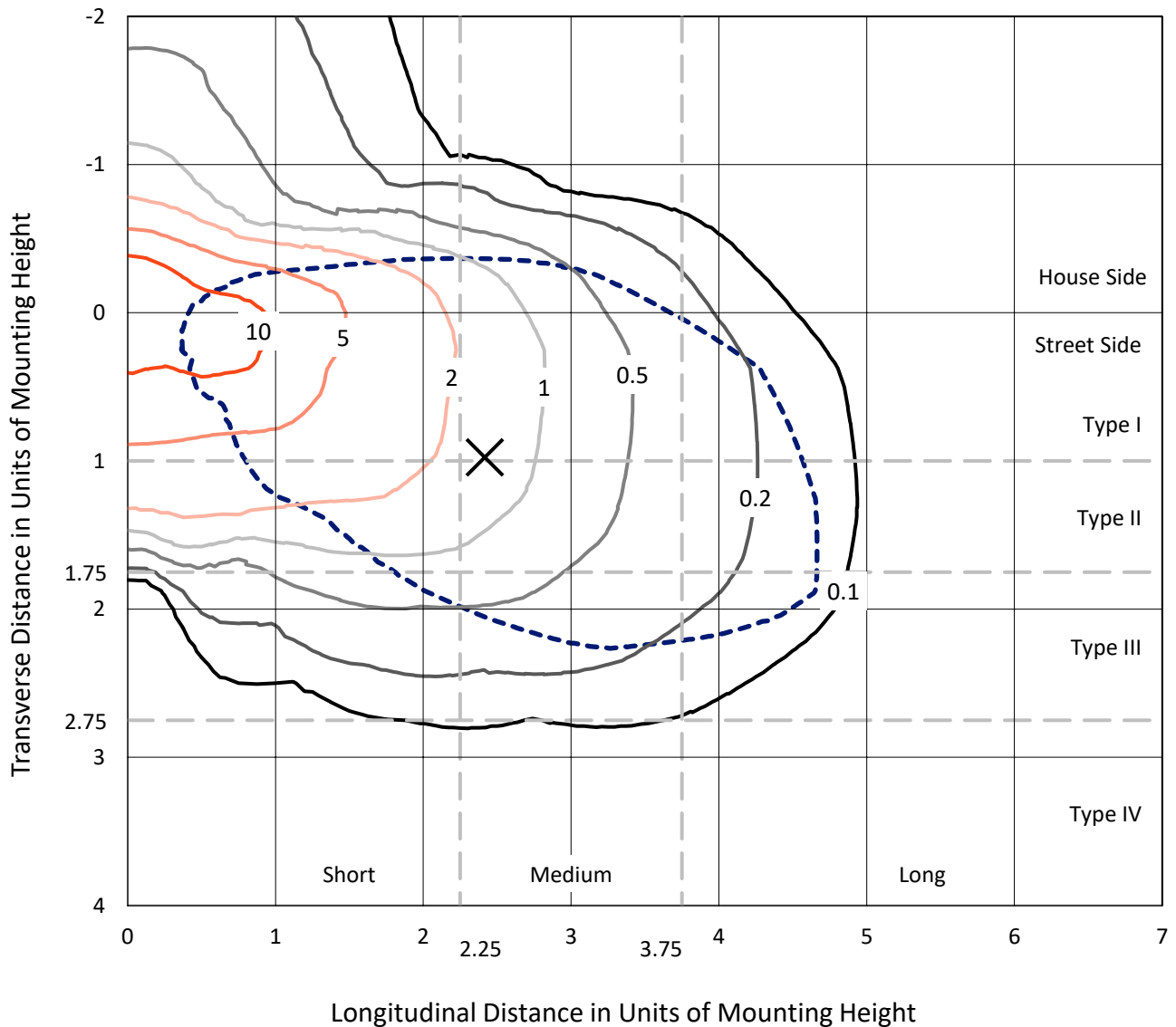
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591223
 CATALOG NUMBER: CTN-CA10-630-727-U-T3-SSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

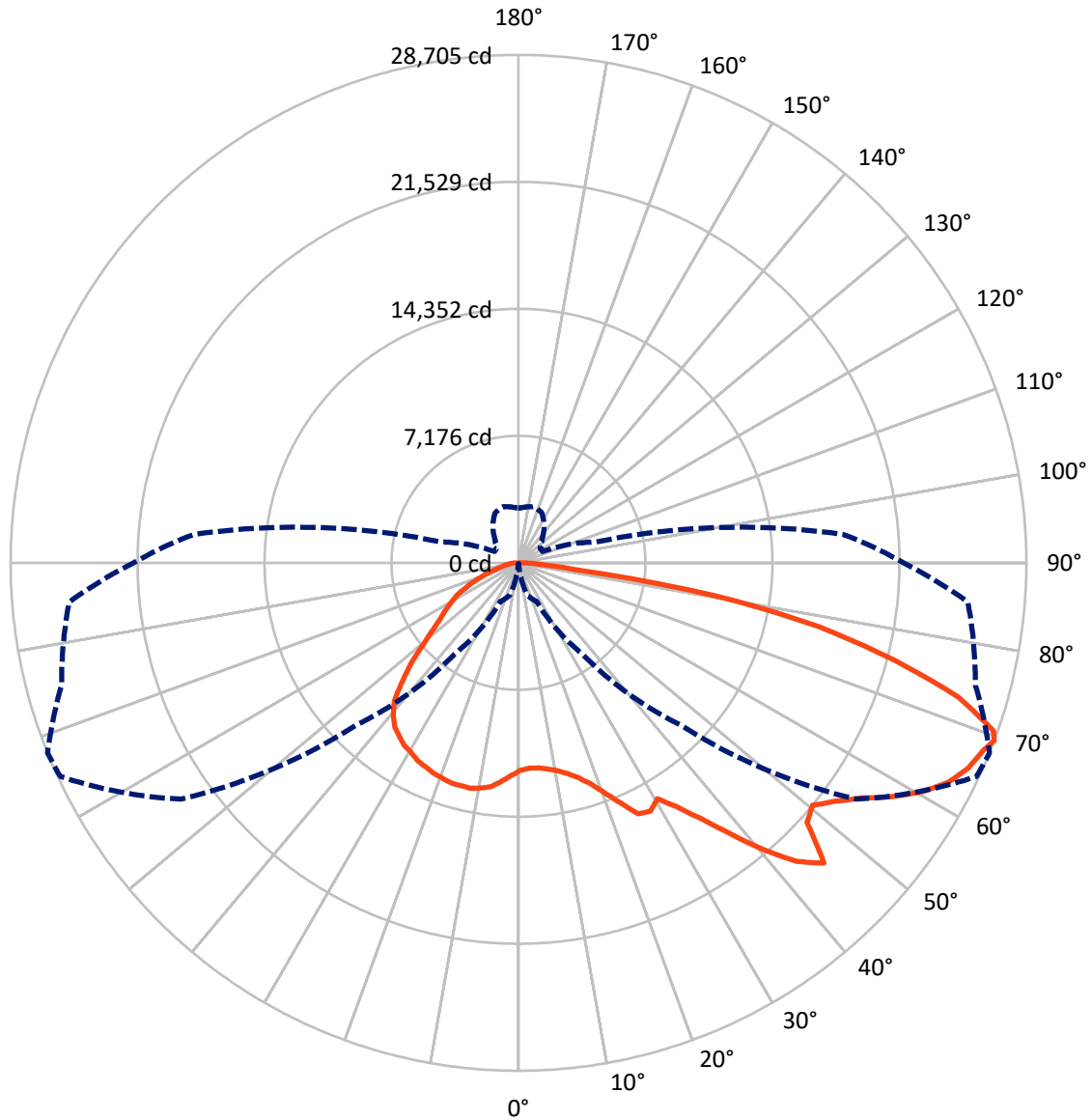
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.5 fc
 Type III - Medium - N/A

REPORT NUMBER: P591223
CATALOG NUMBER: CTN-CA10-630-727-U-T3-SSS-HM-EX90

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P591223
 CATALOG NUMBER: CTN-CA10-630-727-U-T3-SSS-HM-EX90

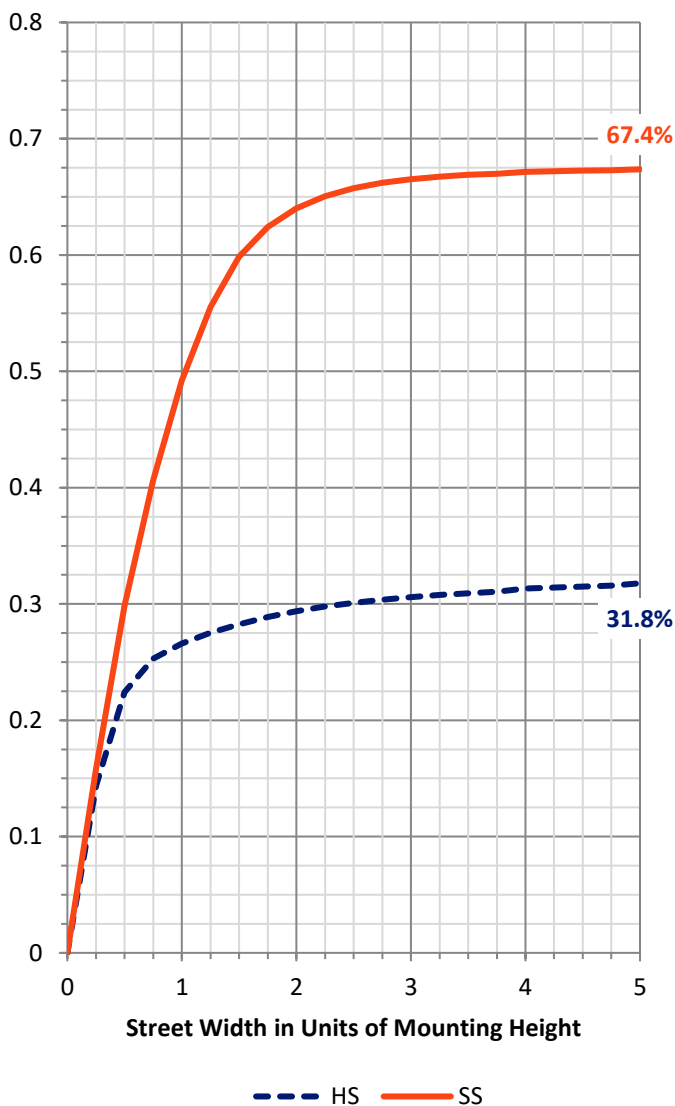
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 17652.5 | 0.0 | 17652.5 |
| | % Fixture | 32.6 | 0.0 | 32.6 |
| Street Side | Lumens | 36465.5 | 0.0 | 36465.5 |
| | % Fixture | 67.4 | 0.0 | 67.4 |
| Total | Lumens | 54118.0 | 0.0 | 54118.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1171.7 | 2.2 |
| 10°-20° | 3625.2 | 6.7 |
| 20°-30° | 5573.8 | 10.3 |
| 30°-40° | 7239.2 | 13.4 |
| 40°-50° | 8935.8 | 16.5 |
| 50°-60° | 10035.7 | 18.5 |
| 60°-70° | 9807.9 | 18.1 |
| 70°-80° | 6586.3 | 12.2 |
| 80°-90° | 1142.3 | 2.1 |
| 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° | 54118.0 | 100.0 |
| 0°-180° | 54118.0 | 100.0 |

Coefficient of Utilization

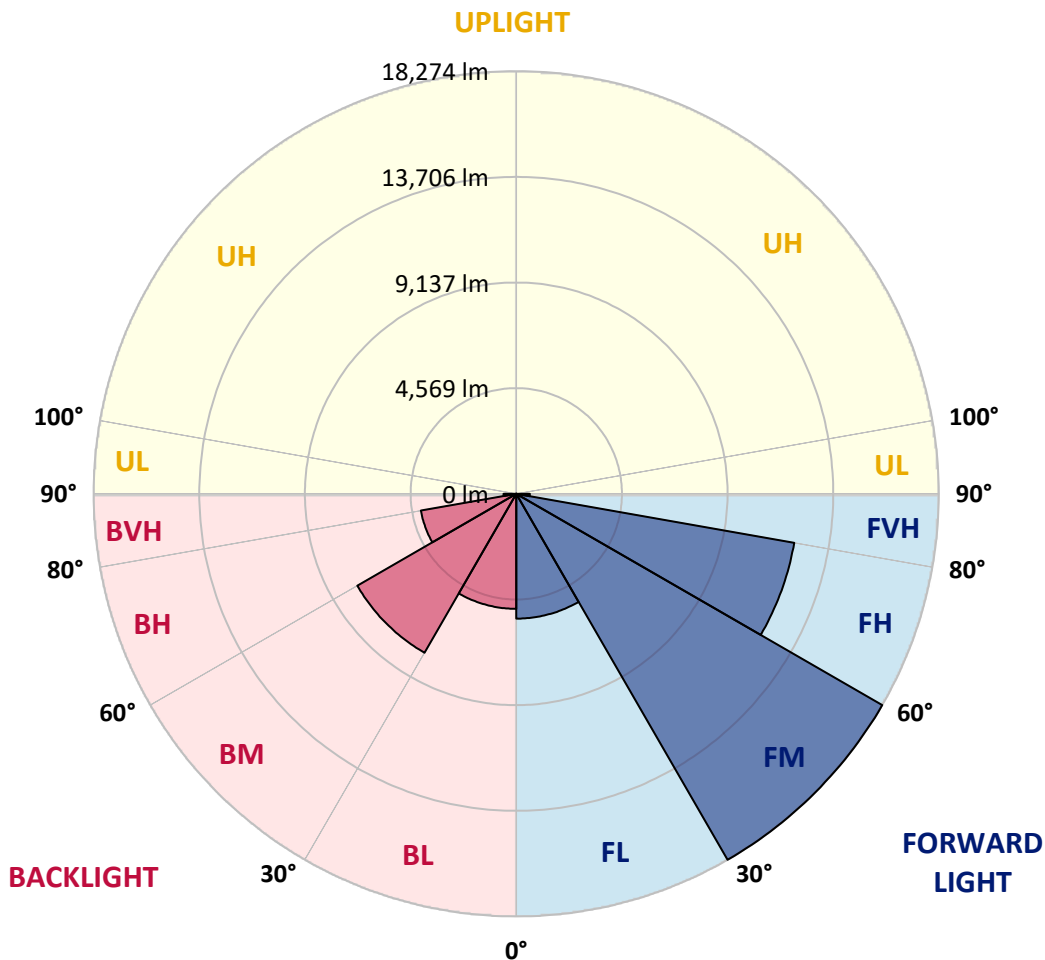


REPORT NUMBER: P591223
 CATALOG NUMBER: CTN-CA10-630-727-U-T3-SSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 5396.1 | 10.0 | | | |
| FM | (30°-60°) | 18274.3 | 33.8 | | | |
| FH | (60°-80°) | 12206.3 | 22.6 | | | G5 |
| FVH | (80°-90°) | 588.8 | 1.1 | | | G4/750 |
| BL | (0°-30°) | 4974.6 | 9.2 | B4/5000 | | |
| BM | (30°-60°) | 7936.5 | 14.7 | B4/8500 | | |
| BH | (60°-80°) | 4187.9 | 7.7 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 553.5 | 1.0 | | | G4/750 |
| 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 Medium





REPORT NUMBER: P591223

CATALOG NUMBER: CTN-CA10-630-727-U-T3-SSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 68° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 |
| 2.5° | 11494.5 | 11424.5 | 11451.0 | 11547.6 | 11352.0 | 11480.0 | 11419.7 | 11550.1 | 11617.7 | 11588.7 | 11772.2 |
| 5° | 11603.2 | 11525.9 | 11530.7 | 11598.4 | 11388.3 | 11496.9 | 11429.3 | 11569.4 | 11644.2 | 11603.2 | 11849.5 |
| 7.5° | 11934.0 | 11849.5 | 11825.3 | 11820.5 | 11622.5 | 11704.6 | 11569.4 | 11682.9 | 11760.1 | 11738.4 | 12016.1 |
| 10° | 12441.1 | 12339.7 | 12293.8 | 12267.3 | 12030.6 | 12006.5 | 11837.4 | 11888.1 | 11946.1 | 11970.2 | 12269.7 |
| 12.5° | 12998.9 | 12861.3 | 12832.3 | 12752.6 | 12448.4 | 12395.2 | 12190.0 | 12214.1 | 12214.1 | 12269.7 | 12566.7 |
| 15° | 13472.2 | 13358.8 | 13358.8 | 13276.6 | 12979.6 | 12904.8 | 12622.2 | 12593.3 | 12588.4 | 12631.9 | 12897.5 |
| 17.5° | 13168.0 | 13105.2 | 13049.7 | 13008.6 | 12549.8 | 12429.0 | 13194.5 | 13143.8 | 13119.7 | 13163.2 | 13317.7 |
| 20° | 12146.5 | 12315.6 | 11958.2 | 11453.5 | 11525.9 | 12979.6 | 13931.1 | 13839.3 | 13853.8 | 13897.3 | 13853.8 |
| 22.5° | 10690.4 | 10272.6 | 10929.4 | 11110.6 | 11412.4 | 12487.0 | 14602.4 | 14699.0 | 14727.9 | 14730.4 | 14503.4 |
| 25° | 9161.8 | 9393.6 | 10284.7 | 11666.0 | 11627.3 | 12523.2 | 14194.3 | 15568.3 | 15713.2 | 15698.7 | 15305.1 |
| 27.5° | 9601.3 | 9557.8 | 10246.1 | 11154.0 | 12301.1 | 13291.1 | 14445.4 | 15056.4 | 15887.1 | 16807.1 | 16273.4 |
| 30° | 9985.3 | 9949.0 | 10021.5 | 11291.7 | 12745.4 | 14059.0 | 15384.8 | 15285.8 | 15462.1 | 17128.3 | 17415.6 |
| 32.5° | 10328.2 | 10301.6 | 10386.1 | 10526.2 | 12006.5 | 14887.3 | 16391.8 | 16372.4 | 16432.8 | 16563.2 | 18763.1 |
| 35° | 10651.7 | 10654.2 | 10758.0 | 10987.4 | 12100.6 | 15058.8 | 17386.7 | 17591.9 | 17751.3 | 18038.7 | 18531.3 |
| 37.5° | 10873.9 | 10878.7 | 10960.8 | 11238.5 | 11704.6 | 14211.2 | 18393.6 | 19125.3 | 19410.3 | 19927.0 | 19229.2 |
| 40° | 10871.5 | 10907.7 | 11105.7 | 11468.0 | 12091.0 | 13650.9 | 18705.1 | 20864.0 | 21322.8 | 21699.5 | 20525.9 |
| 42.5° | 10644.5 | 10663.8 | 11033.3 | 11687.7 | 12433.9 | 14075.9 | 17736.8 | 22559.2 | 23068.7 | 22964.9 | 21598.1 |
| 45° | 10436.8 | 10432.0 | 10852.2 | 11658.7 | 12740.6 | 14660.3 | 17867.2 | 22510.9 | 24203.7 | 24078.1 | 22583.3 |
| 47.5° | 10159.1 | 10166.4 | 10610.7 | 11533.2 | 13020.7 | 15285.8 | 18833.1 | 20470.4 | 21936.2 | 25034.4 | 23385.1 |
| 50° | 9811.4 | 9854.9 | 10306.4 | 11342.4 | 13160.7 | 15870.2 | 19668.7 | 21366.3 | 21540.1 | 22484.3 | 24169.9 |
| 52.5° | 9234.2 | 9157.0 | 9980.4 | 11122.6 | 13259.7 | 16295.2 | 20465.5 | 22225.9 | 22390.2 | 22047.3 | 24969.2 |
| 55° | 5242.6 | 6505.5 | 9572.3 | 10866.7 | 13288.7 | 16551.1 | 21083.7 | 23203.9 | 23459.9 | 23136.3 | 25618.8 |
| 57.5° | 3293.8 | 3395.2 | 8292.5 | 10188.1 | 13044.8 | 16710.5 | 21842.0 | 24546.6 | 24925.7 | 24155.4 | 26111.4 |
| 60° | 1166.4 | 1258.1 | 4032.7 | 4677.5 | 10692.8 | 16271.0 | 22996.3 | 26128.3 | 26253.9 | 25114.1 | 26473.6 |
| 62.5° | 123.2 | 161.8 | 2733.6 | 3433.9 | 8302.1 | 15015.3 | 23793.2 | 27400.9 | 27287.4 | 25824.0 | 26669.2 |
| 65° | 43.5 | 60.4 | 2402.7 | 3071.6 | 7727.4 | 14624.1 | 24056.4 | 27944.2 | 27941.8 | 26278.0 | 26529.1 |
| 67.5° | 33.8 | 45.9 | 2088.8 | 2668.4 | 6896.7 | 13786.2 | 23619.3 | 28352.3 | 28313.7 | 26727.2 | 26159.7 |
| 69° | 33.8 | 48.3 | 1881.1 | 2405.2 | 6295.4 | 12984.5 | 23281.2 | 28567.2 | 28704.9 | 26734.4 | 25490.8 |
| 70° | 33.8 | 48.3 | 1748.3 | 2221.6 | 5805.2 | 12250.4 | 22795.8 | 28403.0 | 28473.1 | 26502.6 | 24797.7 |
| 72.5° | 33.8 | 48.3 | 1354.7 | 1719.3 | 4414.3 | 9429.8 | 19970.5 | 25882.0 | 26014.8 | 24466.9 | 22286.3 |
| 75° | 33.8 | 48.3 | 953.9 | 1250.9 | 2897.8 | 6326.8 | 15901.5 | 21557.0 | 21916.9 | 20678.1 | 18260.8 |
| 77.5° | 33.8 | 48.3 | 569.9 | 854.8 | 1818.4 | 3472.5 | 10941.5 | 16522.2 | 17335.9 | 16181.7 | 13052.1 |
| 80° | 33.8 | 45.9 | 268.0 | 466.1 | 1036.0 | 1840.1 | 5013.2 | 10171.2 | 11231.3 | 10122.9 | 6826.7 |
| 82.5° | 33.8 | 45.9 | 219.7 | 335.7 | 524.0 | 915.2 | 1958.4 | 3332.4 | 3272.1 | 2938.8 | 2199.9 |
| 85° | 31.4 | 41.1 | 181.1 | 246.3 | 376.7 | 579.6 | 1091.5 | 1357.1 | 1294.3 | 1144.6 | 1151.9 |
| 87.5° | 21.7 | 24.1 | 62.8 | 111.1 | 152.1 | 287.4 | 528.8 | 574.7 | 586.8 | 490.2 | 514.4 |
| 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: P591223

CATALOG NUMBER: CTN-CA10-630-727-U-T3-SSS-HM-EX90

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 | 11731.2 |
| 2.5° | 11859.2 | 11873.6 | 11943.7 | 12069.2 | 12066.8 | 12202.1 | 12165.8 | 12479.8 | 12491.8 | 12487.0 | 12511.2 |
| 5° | 11967.8 | 12049.9 | 12204.5 | 12472.5 | 12627.1 | 12829.9 | 12791.3 | 13107.6 | 13126.9 | 13100.4 | 13168.0 |
| 7.5° | 12156.2 | 12257.6 | 12511.2 | 12842.0 | 12883.0 | 13139.0 | 13085.9 | 13341.8 | 13329.8 | 13281.5 | 13397.4 |
| 10° | 12421.8 | 12542.5 | 12772.0 | 12960.3 | 13078.6 | 13228.4 | 13170.4 | 13387.7 | 13346.7 | 13293.6 | 13404.6 |
| 12.5° | 12692.3 | 12750.2 | 12878.2 | 13090.7 | 13100.4 | 13134.2 | 13066.6 | 13242.8 | 13197.0 | 13117.3 | 13233.2 |
| 15° | 12950.6 | 12957.9 | 12936.2 | 13032.8 | 12931.3 | 12953.1 | 12805.8 | 12916.8 | 12837.2 | 12800.9 | 12875.8 |
| 17.5° | 13286.3 | 13199.4 | 13044.8 | 13003.8 | 12764.7 | 12663.3 | 12446.0 | 12441.1 | 12301.1 | 12250.4 | 12301.1 |
| 20° | 13689.6 | 13501.2 | 13143.8 | 12803.3 | 12390.4 | 12182.7 | 11813.3 | 11714.3 | 11600.8 | 11492.1 | 11552.5 |
| 22.5° | 14247.4 | 13882.8 | 13267.0 | 12631.9 | 11948.5 | 11540.4 | 11086.4 | 10806.3 | 10593.8 | 10383.7 | 10446.5 |
| 25° | 14882.5 | 14373.0 | 13440.9 | 12339.7 | 11419.7 | 10697.6 | 10108.4 | 9630.3 | 9326.0 | 9019.3 | 9157.0 |
| 27.5° | 15742.2 | 15039.5 | 13547.1 | 12122.4 | 10731.4 | 9763.1 | 8823.7 | 8200.7 | 7884.4 | 7664.6 | 7594.6 |
| 30° | 16744.3 | 15901.5 | 13737.9 | 11694.9 | 9922.5 | 8613.6 | 7420.7 | 6725.3 | 6389.6 | 6285.8 | 6329.2 |
| 32.5° | 17966.2 | 16949.6 | 14126.7 | 11337.6 | 9101.4 | 7394.2 | 6003.2 | 5459.9 | 5218.4 | 5201.5 | 5196.7 |
| 35° | 19601.0 | 18287.4 | 14459.9 | 10782.1 | 8014.8 | 5971.8 | 4776.5 | 4327.3 | 4317.7 | 4310.4 | 4327.3 |
| 37.5° | 20856.7 | 19649.3 | 14814.9 | 10238.8 | 6725.3 | 4663.0 | 3820.2 | 3547.4 | 3518.4 | 3602.9 | 3624.6 |
| 40° | 21846.8 | 20624.9 | 15346.1 | 9321.2 | 5213.6 | 3482.2 | 2934.0 | 2832.6 | 3037.8 | 3223.8 | 3262.4 |
| 42.5° | 22740.3 | 21446.0 | 15462.1 | 8343.2 | 3798.5 | 2673.2 | 2431.7 | 2600.8 | 2917.1 | 3129.6 | 3170.7 |
| 45° | 23578.2 | 22308.1 | 15020.1 | 6889.5 | 2716.7 | 2265.1 | 2313.4 | 2566.9 | 2921.9 | 3148.9 | 3173.1 |
| 47.5° | 24493.5 | 22885.2 | 14542.0 | 5539.6 | 2233.7 | 2170.9 | 2289.2 | 2579.0 | 2950.9 | 3180.3 | 3192.4 |
| 50° | 25097.2 | 23298.1 | 13346.7 | 4332.2 | 2093.6 | 2113.0 | 2279.6 | 2605.6 | 2955.7 | 3119.9 | 3129.6 |
| 52.5° | 25343.5 | 23629.0 | 12264.8 | 3467.7 | 2023.6 | 2069.5 | 2291.7 | 2651.5 | 2943.7 | 3035.4 | 3030.6 |
| 55° | 25498.0 | 23781.1 | 11335.1 | 2885.7 | 1960.8 | 2035.7 | 2313.4 | 2685.3 | 2970.2 | 3064.4 | 3064.4 |
| 57.5° | 25399.0 | 23440.6 | 10644.5 | 2458.3 | 1898.0 | 2011.5 | 2340.0 | 2736.0 | 3221.4 | 3388.0 | 3371.1 |
| 60° | 25326.6 | 22803.1 | 9664.1 | 2170.9 | 1823.2 | 1985.0 | 2373.8 | 2912.3 | 3757.5 | 3926.5 | 3870.9 |
| 62.5° | 24952.3 | 22264.6 | 8601.6 | 1987.4 | 1738.7 | 1970.5 | 2402.7 | 3148.9 | 3832.3 | 3822.7 | 3714.0 |
| 65° | 23998.4 | 21168.3 | 6925.7 | 1801.5 | 1651.7 | 1951.2 | 2412.4 | 3252.8 | 3525.6 | 3373.5 | 3342.1 |
| 67.5° | 22646.1 | 19586.6 | 5464.7 | 1615.5 | 1555.1 | 1910.1 | 2492.1 | 3129.6 | 3354.2 | 3223.8 | 3175.5 |
| 69° | 21762.3 | 18415.4 | 4539.9 | 1499.6 | 1492.4 | 1876.3 | 2523.5 | 3117.5 | 3291.4 | 3144.1 | 3081.3 |
| 70° | 21049.9 | 17401.1 | 3919.2 | 1424.7 | 1444.1 | 1849.7 | 2492.1 | 3115.1 | 3264.8 | 3081.3 | 3011.3 |
| 72.5° | 17992.8 | 14097.7 | 2530.7 | 1246.0 | 1301.6 | 1779.7 | 2373.8 | 3035.4 | 3209.3 | 3088.5 | 2992.0 |
| 75° | 13943.1 | 10263.0 | 1637.2 | 1077.0 | 1151.9 | 1661.4 | 2255.4 | 2984.7 | 3260.0 | 3040.3 | 2832.6 |
| 77.5° | 8946.9 | 5491.3 | 1267.8 | 905.6 | 990.1 | 1494.8 | 2042.9 | 2779.5 | 3165.8 | 2967.8 | 2699.8 |
| 80° | 3897.5 | 2038.1 | 978.0 | 734.1 | 801.7 | 1214.7 | 1753.2 | 2470.4 | 3001.6 | 2979.9 | 2798.8 |
| 82.5° | 1654.1 | 1313.7 | 753.4 | 562.7 | 637.5 | 898.3 | 1374.0 | 2117.8 | 2651.5 | 2755.3 | 2953.3 |
| 85° | 936.9 | 787.2 | 502.3 | 386.4 | 473.3 | 661.7 | 978.0 | 1625.2 | 2158.8 | 2393.1 | 2559.7 |
| 87.5° | 403.3 | 328.4 | 231.8 | 207.7 | 268.0 | 342.9 | 420.2 | 763.1 | 1151.9 | 1405.4 | 1511.7 |
| 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)