

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: P591037

Luminaire Tested: **CTN-CA10-210-730-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591037
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-CA10-210-730-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31195 lumens
Efficiency: N/A
Efficacy: 146.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 212.9
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

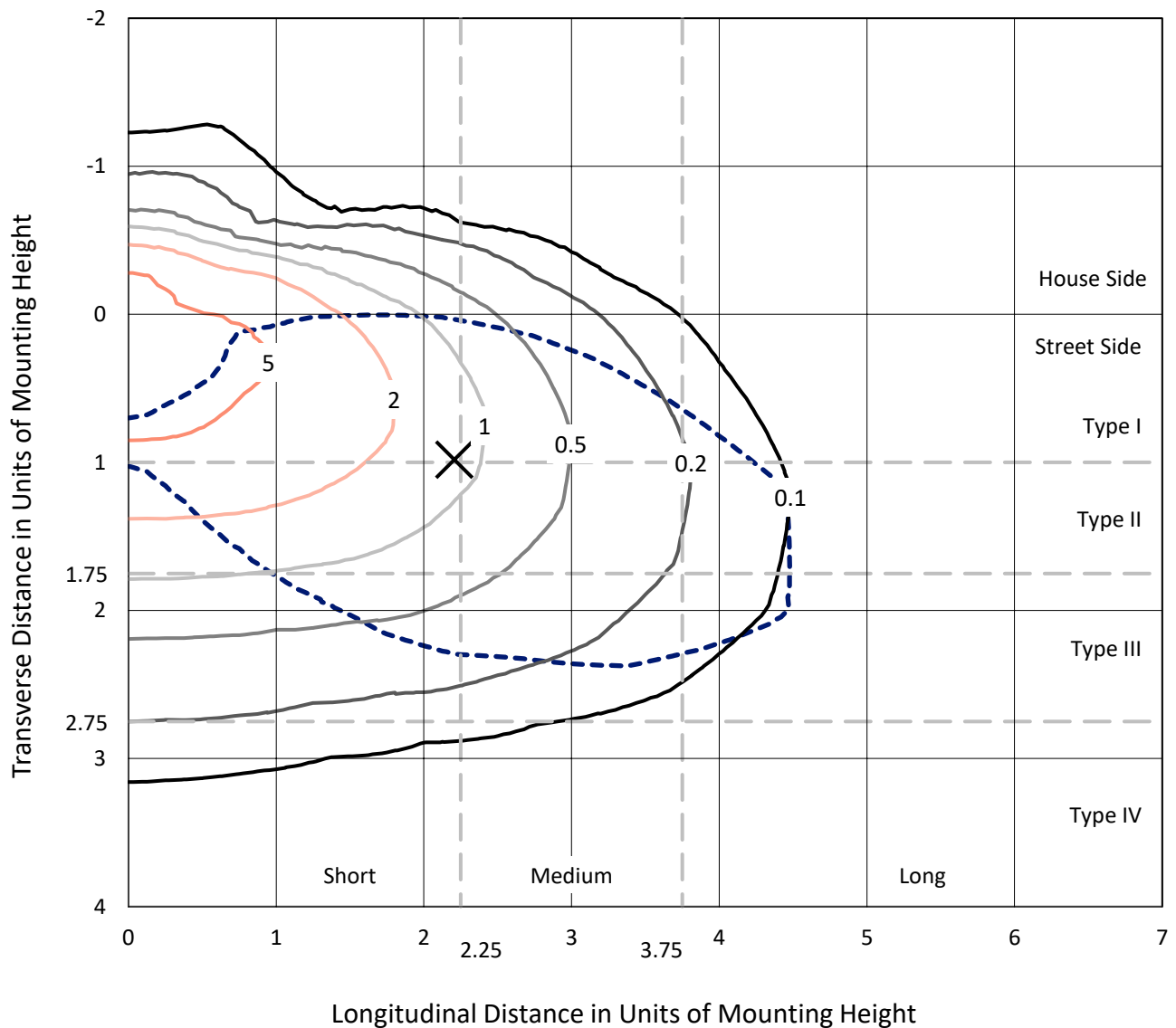




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Iso-Footcandle Lines of Horizontal Illumination

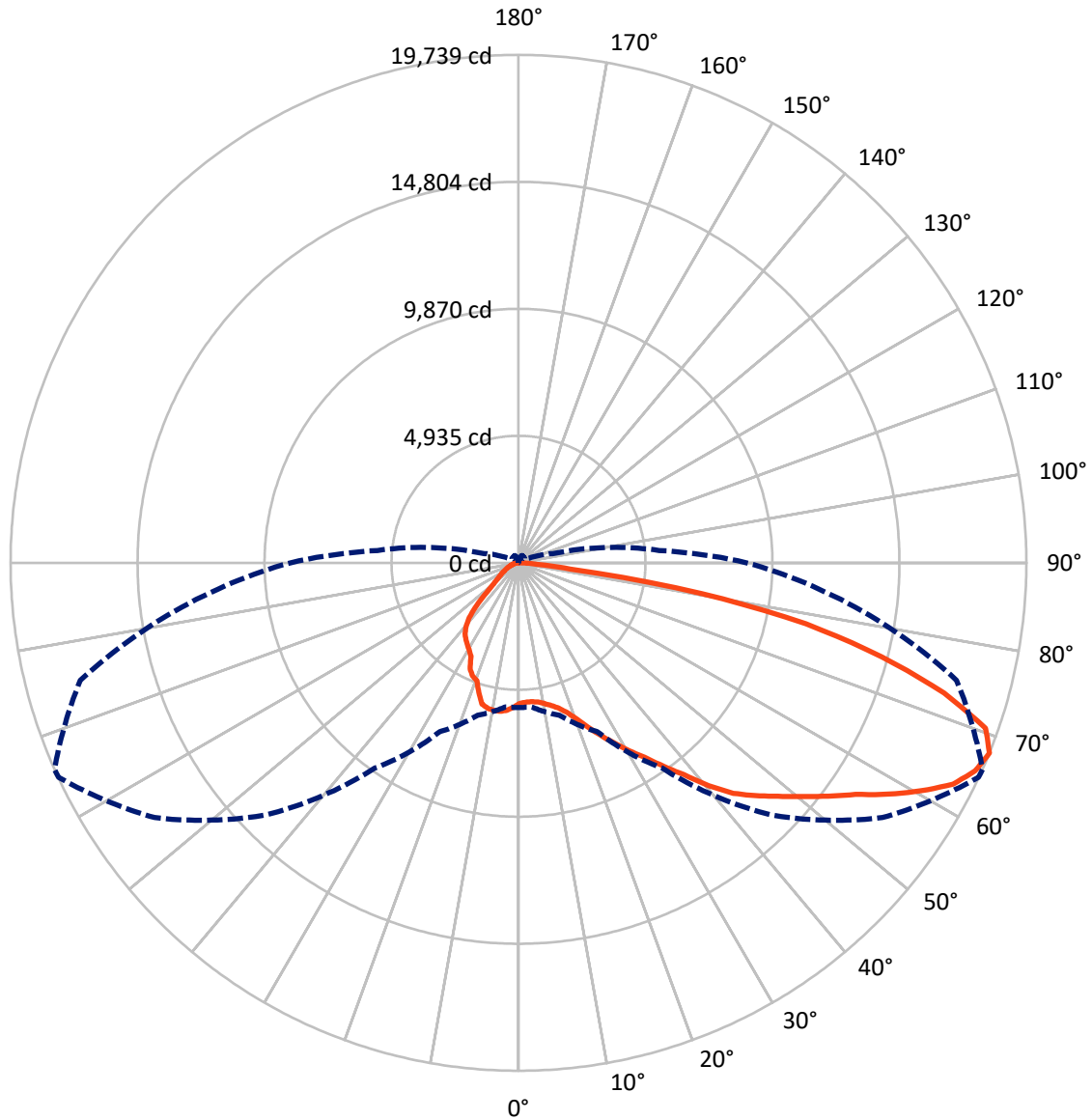
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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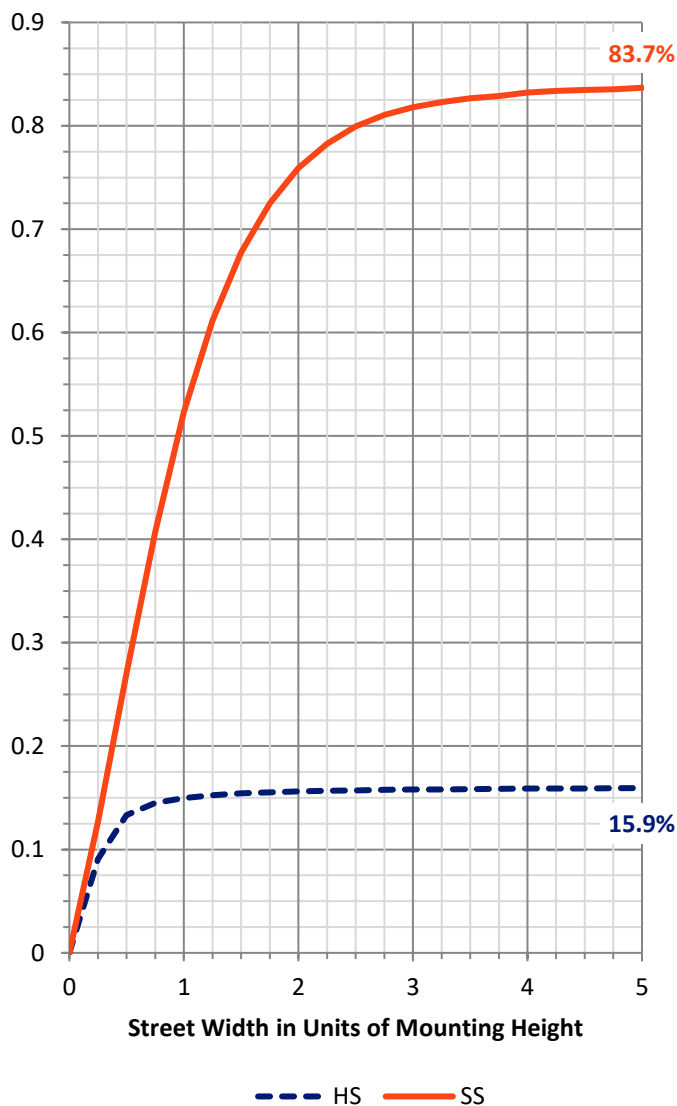
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5035.5 | 0.0 | 5035.5 |
| | % Fixture | 16.1 | 0.0 | 16.1 |
| Street Side | Lumens | 26159.5 | 0.0 | 26159.5 |
| | % Fixture | 83.9 | 0.0 | 83.9 |
| Total | Lumens | 31195.0 | 0.0 | 31195.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 541.3 | 1.7 |
| 10°-20° | 1631.9 | 5.2 |
| 20°-30° | 2652.8 | 8.5 |
| 30°-40° | 3875.1 | 12.4 |
| 40°-50° | 5161.3 | 16.5 |
| 50°-60° | 6243.5 | 20.0 |
| 60°-70° | 6684.3 | 21.4 |
| 70°-80° | 3966.9 | 12.7 |
| 80°-90° | 438.0 | 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° | 31195.0 | 100.0 |
| 0°-180° | 31195.0 | 100.0 |

Coefficient of Utilization



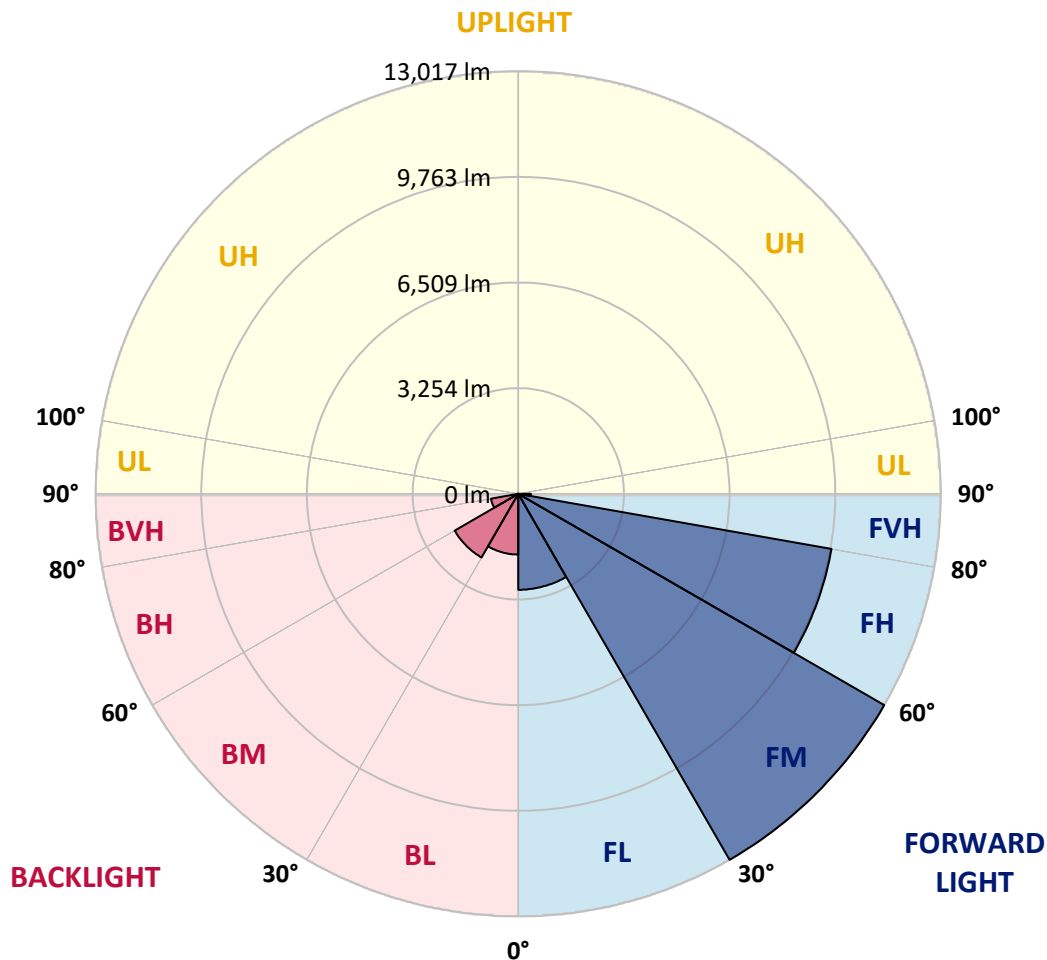
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2955.9 | 9.5 | | | |
| FM (30°-60°) | 13017.1 | 41.7 | | | |
| FH (60°-80°) | 9798.2 | 31.4 | | | G4/12000 |
| FVH (80°-90°) | 388.3 | 1.2 | | | G3/500 |
| BL (0°-30°) | 1870.1 | 6.0 | B3/2500 | | |
| BM (30°-60°) | 2262.7 | 7.3 | B2/2500 | | |
| BH (60°-80°) | 853.0 | 2.7 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 49.7 | 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





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 |
| 2.5° | 5392.2 | 5361.8 | 5375.5 | 5411.4 | 5342.6 | 5386.4 | 5355.4 | 5409.4 | 5424.2 | 5430.1 | 5451.7 |
| 5° | 5497.9 | 5457.6 | 5458.6 | 5481.2 | 5403.1 | 5422.2 | 5369.6 | 5407.5 | 5419.3 | 5435.0 | 5487.5 |
| 7.5° | 5683.1 | 5638.4 | 5634.4 | 5640.3 | 5543.1 | 5521.4 | 5447.3 | 5455.1 | 5464.0 | 5473.3 | 5541.6 |
| 10° | 5937.5 | 5891.8 | 5884.0 | 5868.7 | 5740.5 | 5684.0 | 5574.0 | 5556.8 | 5565.2 | 5549.9 | 5631.0 |
| 12.5° | 6243.1 | 6188.0 | 6159.1 | 6115.3 | 5967.0 | 5878.6 | 5733.2 | 5686.0 | 5693.4 | 5661.4 | 5717.9 |
| 15° | 6564.3 | 6505.9 | 6490.1 | 6422.8 | 6240.1 | 6119.3 | 5931.1 | 5859.4 | 5861.4 | 5824.5 | 5822.1 |
| 17.5° | 6907.2 | 6855.1 | 6842.4 | 6799.6 | 6597.2 | 6453.3 | 6221.0 | 6123.7 | 6116.3 | 6080.0 | 5971.9 |
| 20° | 7296.3 | 7263.3 | 7256.5 | 7231.9 | 7048.7 | 6880.2 | 6615.9 | 6485.2 | 6477.9 | 6420.4 | 6189.5 |
| 22.5° | 7774.7 | 7735.9 | 7715.3 | 7694.2 | 7557.1 | 7381.7 | 7097.8 | 6913.6 | 6942.6 | 6845.8 | 6472.0 |
| 25° | 8250.7 | 8219.8 | 8202.1 | 8188.3 | 8075.3 | 7909.3 | 7621.9 | 7405.8 | 7434.8 | 7331.1 | 6815.3 |
| 27.5° | 8723.3 | 8655.0 | 8683.5 | 8715.9 | 8602.9 | 8470.8 | 8158.4 | 7923.1 | 7931.9 | 7819.9 | 7226.5 |
| 30° | 9162.4 | 9126.6 | 9175.7 | 9206.2 | 9123.6 | 9020.5 | 8692.3 | 8464.9 | 8478.2 | 8345.0 | 7698.1 |
| 32.5° | 9552.5 | 9500.9 | 9610.4 | 9669.9 | 9620.8 | 9535.8 | 9218.9 | 9003.3 | 9007.2 | 8926.7 | 8261.0 |
| 35° | 9838.9 | 9842.3 | 9993.6 | 10153.3 | 10152.8 | 10032.9 | 9763.7 | 9663.5 | 9709.2 | 9673.3 | 8951.7 |
| 37.5° | 10130.7 | 10104.6 | 10279.5 | 10516.8 | 10594.4 | 10487.8 | 10328.1 | 10387.6 | 10449.0 | 10559.0 | 9604.1 |
| 40° | 10268.7 | 10269.7 | 10481.4 | 10755.5 | 10934.8 | 10914.7 | 10858.7 | 11256.1 | 11383.3 | 11416.2 | 9342.7 |
| 42.5° | 10102.2 | 10114.0 | 10491.7 | 10976.6 | 11255.1 | 11361.7 | 11484.5 | 12161.4 | 12247.4 | 12061.2 | 9650.7 |
| 45° | 9884.1 | 9900.3 | 10343.9 | 11052.7 | 11539.0 | 11839.2 | 12177.6 | 12837.8 | 12904.6 | 12657.1 | 10098.7 |
| 47.5° | 9679.2 | 9709.2 | 10170.9 | 11007.0 | 11764.0 | 12377.1 | 12797.6 | 13475.0 | 13556.5 | 13229.8 | 10516.3 |
| 50° | 9410.0 | 9476.8 | 9947.9 | 10885.7 | 11933.5 | 12845.2 | 13370.3 | 14241.8 | 14273.2 | 13788.9 | 10892.6 |
| 52.5° | 9149.7 | 9169.3 | 9695.4 | 10730.5 | 12061.2 | 13269.6 | 14053.6 | 15029.7 | 15066.1 | 14400.9 | 11239.9 |
| 55° | 8793.0 | 8822.5 | 9410.5 | 10535.9 | 12139.8 | 13625.3 | 14745.3 | 15851.0 | 15883.5 | 15136.3 | 11613.2 |
| 57.5° | 8400.5 | 8422.2 | 9041.1 | 10237.3 | 12080.8 | 13941.1 | 15482.6 | 16885.6 | 16965.2 | 15892.8 | 11948.7 |
| 60° | 7907.8 | 7936.3 | 8564.6 | 9823.2 | 11877.5 | 14309.6 | 16393.4 | 17991.3 | 17991.3 | 16587.4 | 12214.5 |
| 62.5° | 7213.7 | 7253.5 | 7889.7 | 9226.8 | 11455.0 | 14522.8 | 17120.4 | 18954.2 | 18947.8 | 17134.6 | 12304.4 |
| 65° | 6407.1 | 6413.5 | 6990.2 | 8387.8 | 10753.5 | 14409.3 | 17397.4 | 19516.6 | 19502.4 | 17530.6 | 12180.6 |
| 67.5° | 5624.6 | 5617.7 | 6129.6 | 7240.3 | 9742.1 | 13850.8 | 17265.3 | 19722.0 | 19739.1 | 17625.9 | 11719.3 |
| 70° | 4514.4 | 4505.6 | 4976.2 | 5884.0 | 8212.4 | 12647.7 | 16514.2 | 19200.8 | 19252.8 | 17081.6 | 10953.5 |
| 72.5° | 3230.3 | 3217.1 | 3442.5 | 4042.8 | 6030.8 | 10404.3 | 14641.6 | 17197.5 | 17292.8 | 15338.2 | 9554.9 |
| 75° | 1891.7 | 1906.0 | 2141.3 | 2486.6 | 3581.6 | 6844.3 | 11875.5 | 14442.7 | 14578.8 | 13048.1 | 7515.3 |
| 77.5° | 1052.2 | 1049.3 | 1222.2 | 1482.0 | 1761.6 | 3427.8 | 8290.5 | 11374.0 | 11420.1 | 10224.5 | 5053.8 |
| 80° | 507.9 | 505.5 | 552.1 | 696.6 | 1004.6 | 1540.0 | 4071.8 | 7066.9 | 7206.9 | 6214.1 | 2470.9 |
| 82.5° | 365.5 | 367.4 | 393.5 | 382.2 | 374.8 | 679.4 | 1358.7 | 2225.8 | 2032.2 | 1568.5 | 763.9 |
| 85° | 274.6 | 274.6 | 298.2 | 275.1 | 268.7 | 345.8 | 660.7 | 795.3 | 763.4 | 698.0 | 453.9 |
| 87.5° | 129.2 | 122.8 | 130.7 | 123.8 | 114.9 | 153.3 | 289.8 | 336.0 | 310.9 | 271.2 | 198.5 |
| 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-CA10-210-730-U-T3-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 | 5462.5 |
| 2.5° | 5488.5 | 5499.3 | 5555.8 | 5629.5 | 5636.4 | 5699.8 | 5719.4 | 5798.0 | 5795.1 | 5773.4 | 5796.0 |
| 5° | 5525.4 | 5558.3 | 5655.1 | 5758.7 | 5785.2 | 5864.8 | 5882.0 | 5959.1 | 5964.0 | 5937.5 | 5959.6 |
| 7.5° | 5584.3 | 5632.5 | 5723.8 | 5826.5 | 5838.3 | 5909.0 | 5906.1 | 5979.3 | 5966.5 | 5943.4 | 5972.9 |
| 10° | 5656.5 | 5693.9 | 5754.8 | 5822.6 | 5817.2 | 5873.7 | 5856.0 | 5908.5 | 5882.0 | 5863.3 | 5897.2 |
| 12.5° | 5729.2 | 5730.7 | 5735.6 | 5778.4 | 5744.9 | 5757.7 | 5722.8 | 5761.7 | 5720.9 | 5689.4 | 5710.1 |
| 15° | 5801.9 | 5760.7 | 5691.4 | 5664.9 | 5572.0 | 5524.4 | 5474.3 | 5520.9 | 5425.6 | 5375.5 | 5388.3 |
| 17.5° | 5904.6 | 5805.4 | 5572.5 | 5235.5 | 4949.6 | 4792.0 | 4673.6 | 4582.2 | 4584.2 | 4629.4 | 4656.4 |
| 20° | 5986.6 | 5609.4 | 5040.5 | 4832.2 | 4618.6 | 4330.2 | 3882.7 | 3759.9 | 3678.8 | 3677.4 | 3690.6 |
| 22.5° | 5957.7 | 5402.1 | 5041.0 | 4715.3 | 4250.6 | 3674.4 | 3480.9 | 3368.4 | 3179.2 | 2775.0 | 2742.1 |
| 25° | 6224.4 | 5585.8 | 5070.0 | 4473.6 | 3664.6 | 3372.3 | 3106.5 | 2887.9 | 2410.5 | 2335.3 | 2332.4 |
| 27.5° | 6544.2 | 5833.9 | 5109.3 | 3952.0 | 3430.3 | 3035.8 | 2697.8 | 2169.8 | 1940.9 | 1908.4 | 1897.1 |
| 30° | 6914.1 | 6126.1 | 4869.6 | 3784.9 | 3180.7 | 2644.3 | 2196.3 | 1666.3 | 1480.1 | 1468.8 | 1471.7 |
| 32.5° | 7377.8 | 6459.7 | 4619.5 | 3647.4 | 2878.6 | 2190.9 | 1497.8 | 1270.8 | 1164.2 | 1047.8 | 1085.1 |
| 35° | 7872.0 | 6267.6 | 4768.9 | 3477.4 | 2500.4 | 1647.6 | 1137.7 | 1009.5 | 923.0 | 772.2 | 710.8 |
| 37.5° | 7677.5 | 6399.8 | 4942.3 | 3290.8 | 2027.8 | 1117.1 | 880.3 | 769.3 | 688.2 | 562.5 | 560.0 |
| 40° | 7917.2 | 6778.0 | 5066.1 | 2990.1 | 1466.3 | 792.4 | 641.5 | 595.4 | 558.0 | 488.3 | 478.5 |
| 42.5° | 8340.6 | 7108.1 | 5150.1 | 2604.5 | 876.4 | 589.5 | 547.7 | 554.6 | 522.2 | 468.6 | 462.2 |
| 45° | 8757.7 | 7397.0 | 5071.0 | 2016.5 | 623.4 | 531.5 | 534.0 | 531.0 | 491.7 | 472.1 | 465.2 |
| 47.5° | 9137.4 | 7641.1 | 4848.5 | 1330.3 | 540.8 | 518.2 | 523.7 | 510.4 | 466.2 | 454.9 | 453.9 |
| 50° | 9463.6 | 7899.0 | 3839.0 | 1019.3 | 520.2 | 500.6 | 512.4 | 490.7 | 414.6 | 402.3 | 389.5 |
| 52.5° | 9664.5 | 7470.2 | 3410.6 | 783.0 | 498.6 | 473.1 | 476.5 | 494.2 | 390.5 | 310.9 | 291.3 |
| 55° | 9634.0 | 6729.4 | 3170.9 | 651.9 | 464.2 | 434.7 | 441.6 | 470.1 | 353.2 | 243.2 | 220.1 |
| 57.5° | 9778.9 | 6668.5 | 2922.3 | 554.6 | 400.4 | 394.0 | 380.2 | 428.4 | 321.3 | 161.1 | 152.8 |
| 60° | 9755.4 | 6661.1 | 2607.9 | 436.2 | 353.7 | 331.1 | 313.9 | 348.8 | 230.4 | 59.9 | 54.5 |
| 62.5° | 9717.0 | 6472.0 | 2250.8 | 391.0 | 325.7 | 316.8 | 302.1 | 341.4 | 196.0 | 41.8 | 30.9 |
| 65° | 9525.0 | 6165.0 | 1846.0 | 342.4 | 304.1 | 285.9 | 284.9 | 323.2 | 161.6 | 23.1 | 10.3 |
| 67.5° | 8869.2 | 5496.4 | 1373.5 | 315.4 | 291.3 | 282.0 | 299.2 | 311.4 | 155.2 | 23.6 | 9.3 |
| 70° | 8053.7 | 4614.6 | 886.2 | 284.4 | 273.1 | 278.0 | 292.3 | 314.9 | 150.8 | 21.6 | 8.4 |
| 72.5° | 6734.3 | 3569.8 | 537.4 | 254.0 | 247.1 | 261.8 | 288.4 | 314.9 | 139.5 | 18.2 | 6.9 |
| 75° | 5123.1 | 2381.0 | 399.9 | 224.5 | 216.6 | 235.3 | 262.8 | 302.6 | 137.1 | 15.7 | 4.4 |
| 77.5° | 3180.7 | 1124.4 | 315.4 | 188.6 | 180.3 | 199.4 | 220.6 | 249.5 | 139.0 | 15.2 | 2.5 |
| 80° | 1286.5 | 469.6 | 247.6 | 151.8 | 141.5 | 151.8 | 178.8 | 212.7 | 110.5 | 21.6 | 0.0 |
| 82.5° | 541.3 | 330.6 | 202.4 | 120.8 | 113.0 | 99.7 | 121.8 | 157.7 | 86.9 | 17.2 | 0.0 |
| 85° | 358.1 | 229.4 | 144.9 | 82.0 | 72.2 | 48.6 | 59.4 | 71.2 | 49.6 | 0.0 | 0.0 |
| 87.5° | 162.1 | 101.7 | 63.4 | 28.0 | 23.6 | 13.3 | 7.9 | 6.9 | 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)