

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: P190811

Luminaire Tested: **GAN-AF-03-LED-U-5MQ-ADJ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190811
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-03-LED-U-5MQ-ADJ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19528.1 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

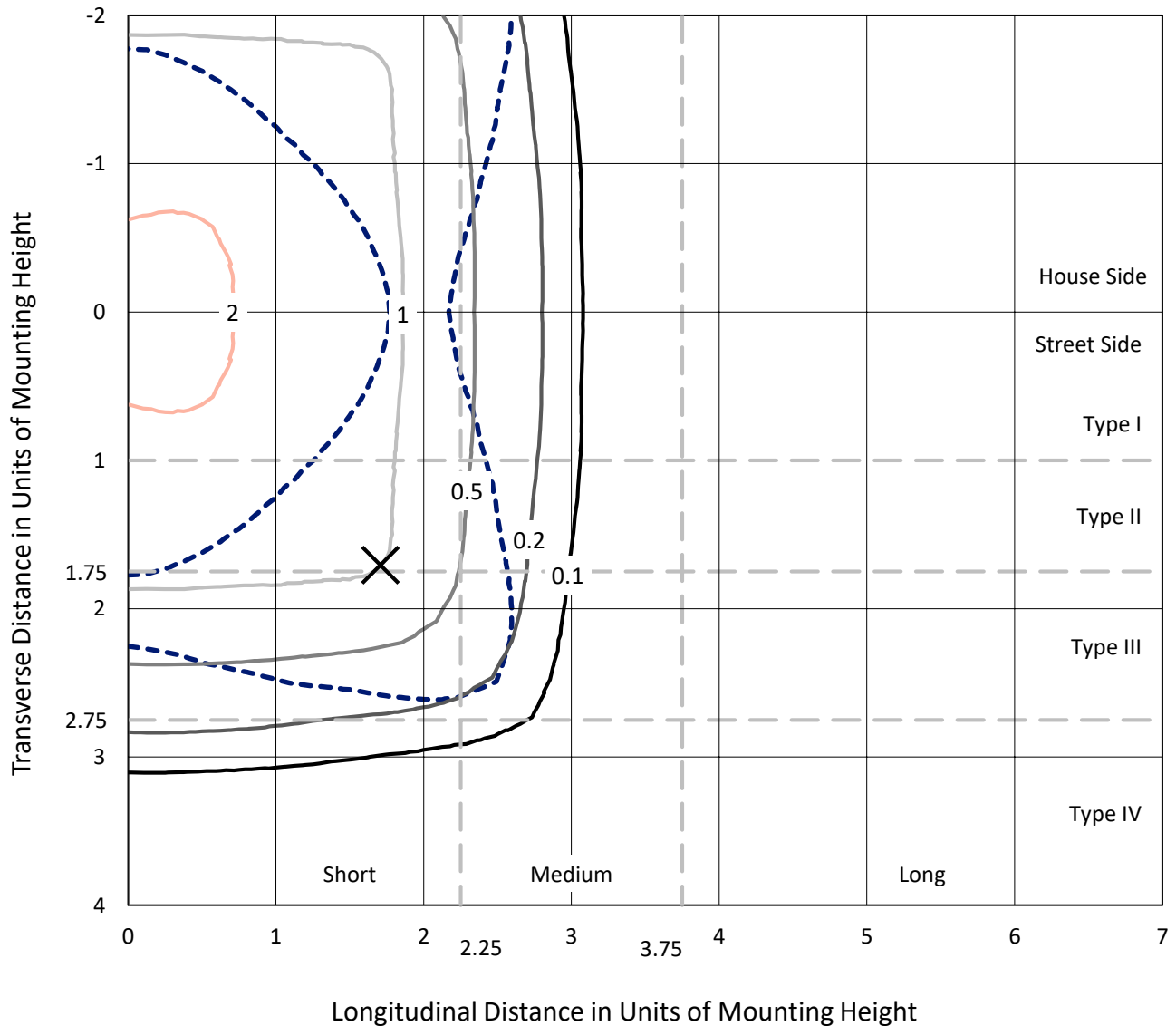
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

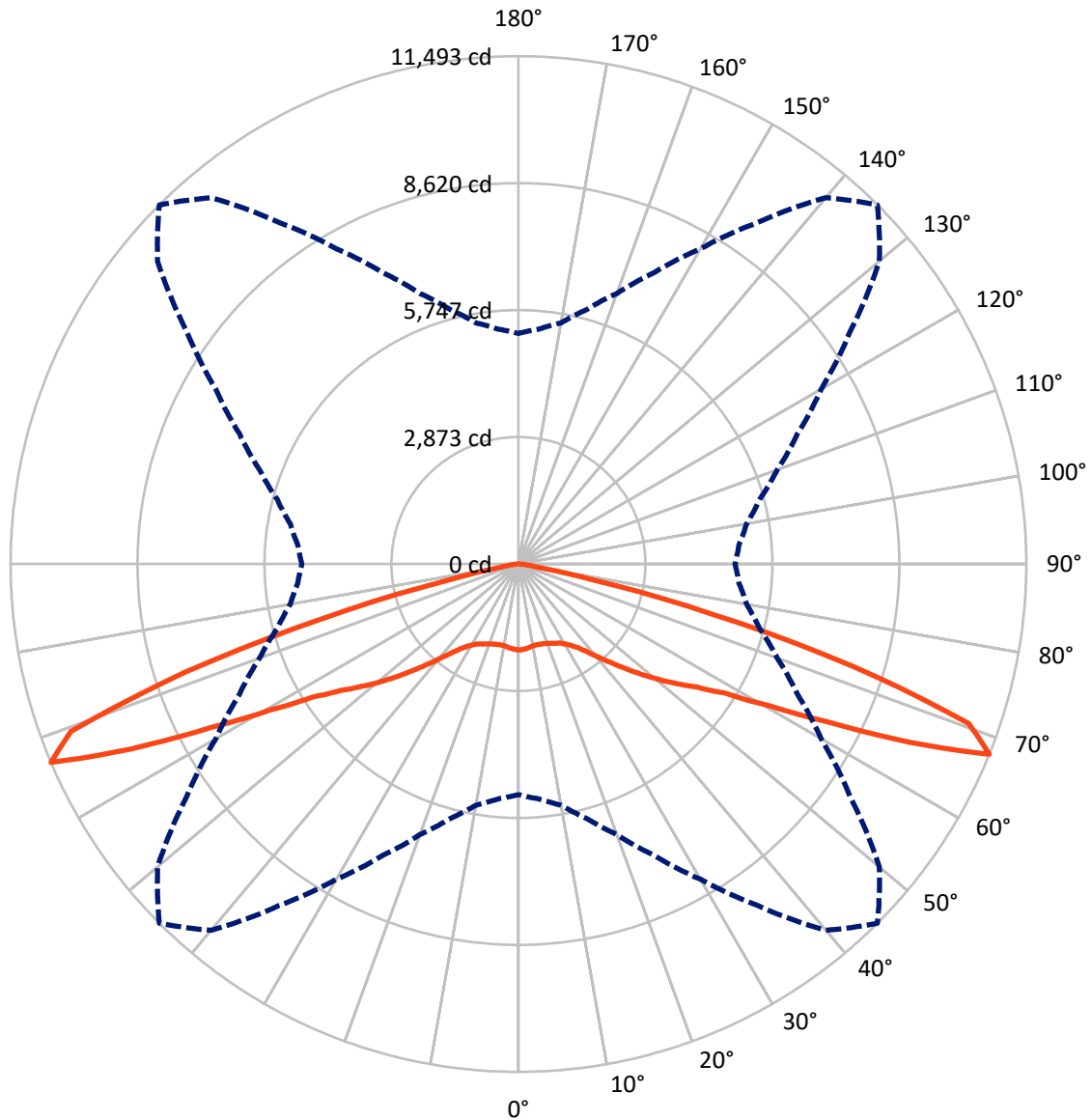
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9764.1 | 0.0 | 9764.1 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9764.1 | 0.0 | 9764.1 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 19528.1 | 0.0 | 19528.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 182.1 | 0.9 |
| 10°-20° | 528.5 | 2.7 |
| 20°-30° | 898.5 | 4.6 |
| 30°-40° | 1468.8 | 7.5 |
| 40°-50° | 2622.1 | 13.4 |
| 50°-60° | 4420.9 | 22.6 |
| 60°-70° | 6860.5 | 35.1 |
| 70°-80° | 2410.5 | 12.3 |
| 80°-90° | 136.2 | 0.7 |
| 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° | 19528.1 | 100.0 |
| 0°-180° | 19528.1 | 100.0 |

Coefficient of Utilization



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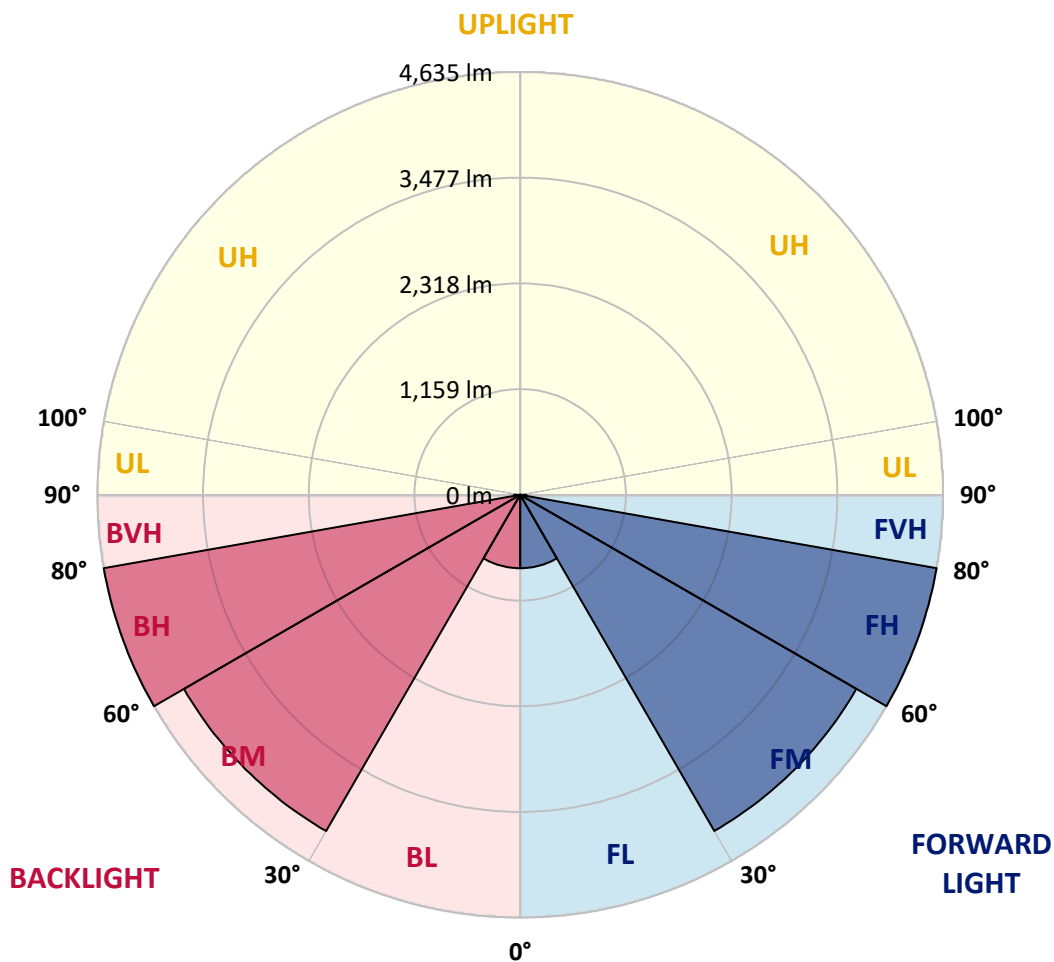
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 804.6 | 4.1 | | | |
| FM | (30°-60°) | 4255.9 | 21.8 | | | |
| FH | (60°-80°) | 4635.5 | 23.7 | | | G2/5000 |
| FVH | (80°-90°) | 68.1 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 804.6 | 4.1 | B2/1000 | | |
| BM | (30°-60°) | 4255.9 | 21.8 | B3/5000 | | |
| BH | (60°-80°) | 4635.5 | 23.7 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 68.1 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0° | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 |
| 2.5° | 1938.9 | 1940.6 | 1940.6 | 1940.6 | 1939.8 | 1939.8 | 1938.0 | 1939.8 | 1938.9 | 1936.1 | 1937.1 |
| 5° | 1922.7 | 1924.5 | 1924.5 | 1923.7 | 1926.3 | 1925.4 | 1922.7 | 1924.5 | 1923.7 | 1921.8 | 1922.7 |
| 7.5° | 1899.3 | 1902.1 | 1902.1 | 1901.2 | 1903.8 | 1903.0 | 1901.2 | 1902.1 | 1902.1 | 1899.3 | 1899.3 |
| 10° | 1873.3 | 1875.1 | 1875.1 | 1874.3 | 1878.8 | 1878.8 | 1877.8 | 1880.5 | 1881.4 | 1878.8 | 1876.9 |
| 12.5° | 1849.1 | 1851.7 | 1851.7 | 1855.3 | 1859.8 | 1861.7 | 1866.2 | 1869.7 | 1873.3 | 1872.4 | 1868.8 |
| 15° | 1834.7 | 1836.5 | 1840.1 | 1844.6 | 1851.7 | 1858.1 | 1865.2 | 1873.3 | 1880.5 | 1882.3 | 1876.9 |
| 17.5° | 1825.8 | 1828.4 | 1833.8 | 1840.1 | 1850.0 | 1860.7 | 1871.5 | 1882.3 | 1892.2 | 1895.7 | 1889.5 |
| 20° | 1823.0 | 1824.8 | 1830.3 | 1841.0 | 1854.5 | 1870.7 | 1885.9 | 1898.5 | 1911.9 | 1916.4 | 1911.9 |
| 22.5° | 1828.4 | 1832.0 | 1838.3 | 1850.8 | 1868.8 | 1889.5 | 1907.4 | 1924.5 | 1941.6 | 1949.6 | 1943.4 |
| 25° | 1852.7 | 1856.2 | 1864.3 | 1880.5 | 1900.2 | 1921.8 | 1942.5 | 1962.2 | 1977.5 | 1985.5 | 1981.0 |
| 27.5° | 1897.6 | 1902.1 | 1911.9 | 1928.1 | 1949.6 | 1973.0 | 1995.5 | 2011.6 | 2024.2 | 2026.9 | 2021.5 |
| 30° | 1964.9 | 1974.8 | 1986.5 | 2004.5 | 2029.5 | 2049.4 | 2071.8 | 2086.2 | 2101.4 | 2101.4 | 2096.9 |
| 32.5° | 2069.9 | 2079.9 | 2092.4 | 2109.5 | 2129.3 | 2150.9 | 2170.6 | 2183.2 | 2199.3 | 2200.2 | 2189.4 |
| 35° | 2227.2 | 2231.7 | 2242.4 | 2253.2 | 2271.2 | 2290.0 | 2307.1 | 2315.1 | 2328.6 | 2329.6 | 2319.6 |
| 37.5° | 2434.6 | 2435.5 | 2442.7 | 2446.3 | 2462.4 | 2483.1 | 2499.3 | 2504.6 | 2517.2 | 2515.4 | 2505.5 |
| 40° | 2676.1 | 2680.6 | 2683.4 | 2688.7 | 2705.8 | 2725.6 | 2742.6 | 2745.3 | 2758.8 | 2756.1 | 2743.6 |
| 42.5° | 2955.5 | 2957.2 | 2972.5 | 2980.6 | 2996.7 | 3006.7 | 3028.2 | 3030.9 | 3047.1 | 3039.9 | 3025.5 |
| 45° | 3268.8 | 3285.0 | 3299.4 | 3315.6 | 3332.7 | 3344.3 | 3361.4 | 3357.8 | 3368.6 | 3357.8 | 3349.7 |
| 47.5° | 3598.4 | 3610.1 | 3642.4 | 3667.6 | 3695.4 | 3705.3 | 3729.6 | 3718.8 | 3729.6 | 3714.3 | 3711.6 |
| 50° | 3961.3 | 3981.9 | 4009.8 | 4038.5 | 4068.2 | 4084.3 | 4115.7 | 4102.2 | 4116.7 | 4102.2 | 4094.2 |
| 52.5° | 4318.7 | 4324.1 | 4385.2 | 4427.3 | 4468.7 | 4487.5 | 4506.4 | 4500.1 | 4501.0 | 4500.1 | 4492.0 |
| 55° | 4658.1 | 4670.7 | 4731.8 | 4789.3 | 4861.1 | 4914.1 | 4946.4 | 4942.8 | 4934.7 | 4926.6 | 4913.2 |
| 57.5° | 5040.7 | 5053.3 | 5123.3 | 5194.2 | 5276.0 | 5351.5 | 5417.0 | 5484.3 | 5510.4 | 5517.6 | 5487.9 |
| 60° | 5558.0 | 5557.1 | 5650.5 | 5736.7 | 5853.4 | 5965.7 | 6109.4 | 6255.8 | 6423.7 | 6501.9 | 6398.6 |
| 62.5° | 6084.2 | 6105.8 | 6240.5 | 6393.1 | 6633.8 | 6868.2 | 7133.1 | 7393.6 | 7659.4 | 7875.8 | 7645.9 |
| 65° | 6021.4 | 6104.0 | 6304.2 | 6650.0 | 7094.6 | 7622.6 | 8193.7 | 8798.1 | 9344.1 | 9719.6 | 9298.3 |
| 67.5° | 5218.5 | 5336.2 | 5540.0 | 5960.3 | 6516.2 | 7277.8 | 8236.9 | 9432.1 | 10821.4 | 11493.2 | 10660.7 |
| 70° | 3782.6 | 3915.4 | 4129.2 | 4539.7 | 5090.1 | 5813.9 | 6855.7 | 8290.7 | 10130.0 | 10807.1 | 9890.2 |
| 72.5° | 1882.3 | 1954.1 | 2086.2 | 2347.5 | 2764.2 | 3351.5 | 4296.3 | 5675.6 | 7302.8 | 7924.3 | 7086.5 |
| 75° | 639.4 | 672.6 | 695.1 | 780.4 | 912.4 | 1143.2 | 1612.9 | 2481.3 | 3785.2 | 4537.8 | 3731.4 |
| 77.5° | 369.1 | 370.0 | 385.2 | 400.5 | 423.0 | 448.2 | 511.0 | 670.9 | 1160.2 | 1647.9 | 1200.6 |
| 80° | 238.9 | 237.9 | 250.5 | 262.2 | 277.5 | 290.1 | 293.7 | 310.8 | 358.3 | 424.7 | 379.8 |
| 82.5° | 123.9 | 139.2 | 167.0 | 182.3 | 211.0 | 216.5 | 209.2 | 203.0 | 214.6 | 222.7 | 228.1 |
| 85° | 68.2 | 59.2 | 88.9 | 115.0 | 127.6 | 129.3 | 129.3 | 122.1 | 126.6 | 123.9 | 134.7 |
| 87.5° | 31.4 | 28.7 | 35.0 | 56.6 | 60.1 | 51.1 | 53.9 | 47.6 | 34.2 | 33.2 | 37.7 |
| 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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CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 | 1946.1 |
| 2.5° | 1937.1 | 1938.0 | 1938.0 | 1940.6 | 1941.6 | 1943.4 | 1945.1 | 1946.1 |
| 5° | 1921.8 | 1924.5 | 1922.7 | 1925.4 | 1925.4 | 1927.2 | 1927.2 | 1928.1 |
| 7.5° | 1899.3 | 1902.1 | 1902.1 | 1902.1 | 1901.2 | 1903.8 | 1903.8 | 1903.8 |
| 10° | 1876.0 | 1877.8 | 1876.9 | 1875.1 | 1873.3 | 1876.0 | 1875.1 | 1874.3 |
| 12.5° | 1868.8 | 1864.3 | 1860.7 | 1858.9 | 1855.3 | 1856.2 | 1853.6 | 1853.6 |
| 15° | 1873.3 | 1865.2 | 1858.9 | 1856.2 | 1852.7 | 1850.8 | 1849.1 | 1850.0 |
| 17.5° | 1885.0 | 1875.1 | 1867.0 | 1862.6 | 1858.1 | 1855.3 | 1851.7 | 1852.7 |
| 20° | 1905.7 | 1894.0 | 1882.3 | 1873.3 | 1865.2 | 1860.7 | 1858.1 | 1857.2 |
| 22.5° | 1936.1 | 1919.2 | 1902.1 | 1888.6 | 1877.8 | 1871.5 | 1868.8 | 1867.0 |
| 25° | 1971.2 | 1952.3 | 1932.6 | 1917.3 | 1906.6 | 1898.5 | 1893.1 | 1893.1 |
| 27.5° | 2015.2 | 2000.0 | 1982.0 | 1964.1 | 1954.1 | 1946.1 | 1942.5 | 1940.6 |
| 30° | 2088.9 | 2074.4 | 2060.1 | 2043.0 | 2030.5 | 2022.4 | 2016.1 | 2010.7 |
| 32.5° | 2183.2 | 2171.5 | 2159.8 | 2147.2 | 2135.5 | 2124.8 | 2114.8 | 2110.4 |
| 35° | 2316.1 | 2307.1 | 2299.0 | 2284.7 | 2280.2 | 2273.8 | 2268.5 | 2264.0 |
| 37.5° | 2499.3 | 2495.7 | 2495.7 | 2480.3 | 2476.8 | 2474.1 | 2468.7 | 2469.6 |
| 40° | 2740.0 | 2743.6 | 2739.1 | 2733.6 | 2731.0 | 2723.8 | 2723.8 | 2730.1 |
| 42.5° | 3024.7 | 3027.3 | 3037.1 | 3028.2 | 3038.1 | 3029.1 | 3023.7 | 3028.2 |
| 45° | 3355.1 | 3365.0 | 3384.7 | 3375.7 | 3382.1 | 3366.7 | 3347.9 | 3348.8 |
| 47.5° | 3726.0 | 3735.0 | 3743.1 | 3736.7 | 3737.7 | 3712.5 | 3687.3 | 3681.1 |
| 50° | 4111.2 | 4114.8 | 4119.3 | 4110.3 | 4112.2 | 4084.3 | 4055.6 | 4056.5 |
| 52.5° | 4492.0 | 4509.1 | 4527.1 | 4502.8 | 4497.4 | 4466.0 | 4425.6 | 4409.4 |
| 55° | 4927.6 | 4951.8 | 4931.1 | 4889.0 | 4846.7 | 4804.5 | 4751.5 | 4742.6 |
| 57.5° | 5464.6 | 5423.3 | 5358.6 | 5278.7 | 5220.3 | 5161.1 | 5107.2 | 5084.7 |
| 60° | 6211.8 | 6056.4 | 5939.7 | 5821.1 | 5746.6 | 5673.8 | 5602.9 | 5592.2 |
| 62.5° | 7267.9 | 6999.3 | 6766.7 | 6521.6 | 6321.3 | 6165.1 | 6040.2 | 6005.2 |
| 65° | 8591.6 | 7956.7 | 7406.2 | 6892.4 | 6446.1 | 6109.4 | 5897.4 | 5804.0 |
| 67.5° | 9160.9 | 7907.3 | 6963.4 | 6234.2 | 5650.5 | 5242.8 | 5013.8 | 4899.7 |
| 70° | 8050.1 | 6557.5 | 5531.1 | 4800.9 | 4269.3 | 3834.6 | 3627.2 | 3505.0 |
| 72.5° | 5538.3 | 4171.4 | 3298.5 | 2692.3 | 2267.6 | 1903.8 | 1760.2 | 1749.3 |
| 75° | 2486.7 | 1647.1 | 1135.2 | 874.7 | 736.4 | 640.3 | 610.7 | 588.2 |
| 77.5° | 696.0 | 514.5 | 458.9 | 429.2 | 400.5 | 367.3 | 354.8 | 357.4 |
| 80° | 338.6 | 319.7 | 307.1 | 288.3 | 262.2 | 234.4 | 221.8 | 227.2 |
| 82.5° | 224.5 | 221.8 | 229.9 | 216.5 | 178.7 | 151.8 | 127.6 | 116.7 |
| 85° | 136.5 | 138.3 | 141.0 | 141.9 | 120.3 | 84.4 | 57.5 | 64.7 |
| 87.5° | 53.9 | 62.0 | 67.3 | 70.1 | 65.6 | 40.4 | 32.3 | 33.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)