

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: P190832

Luminaire Tested: **GLEON-AF-04-LED-E1-5NQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-5NQ-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16693.5 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

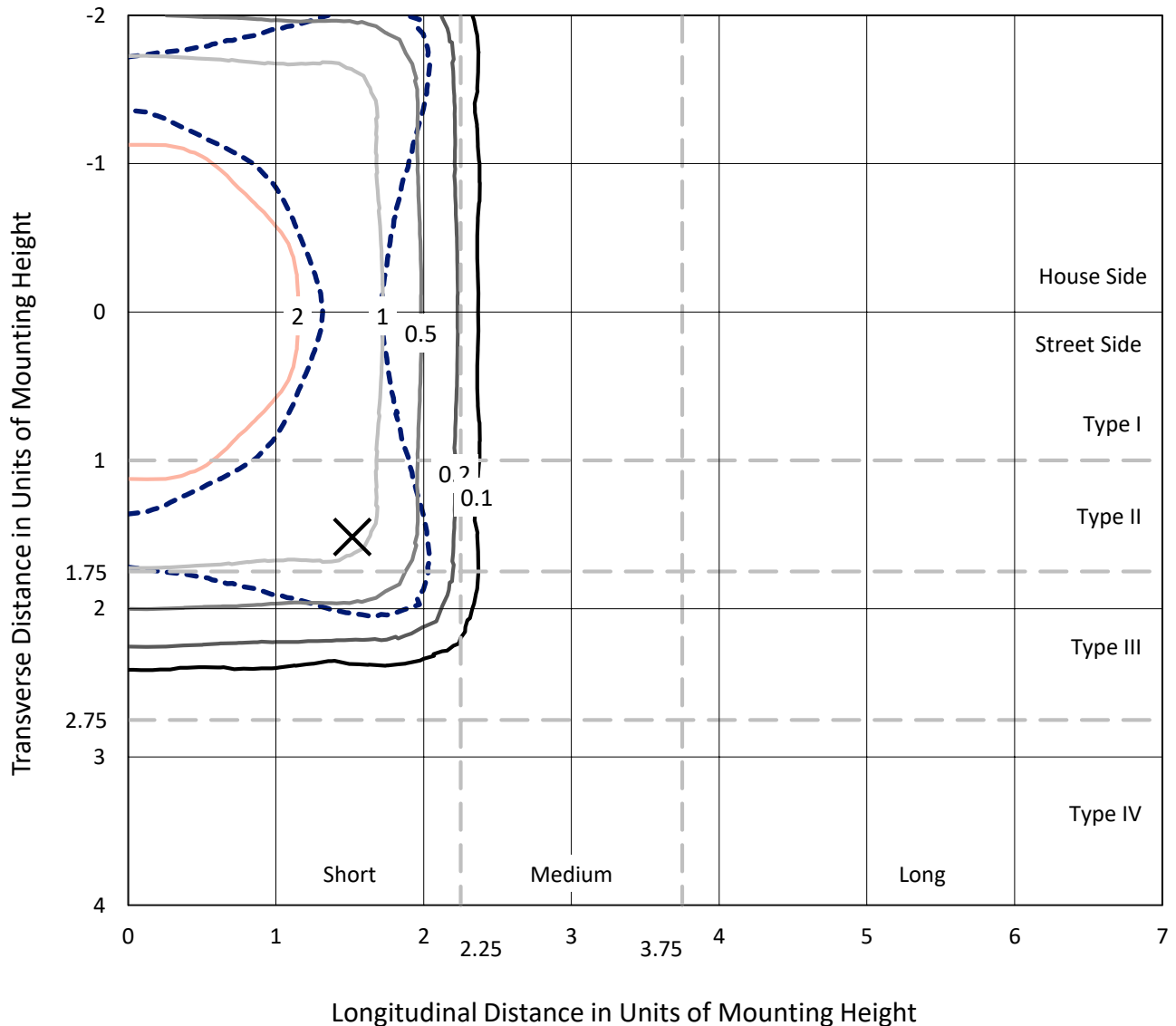
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

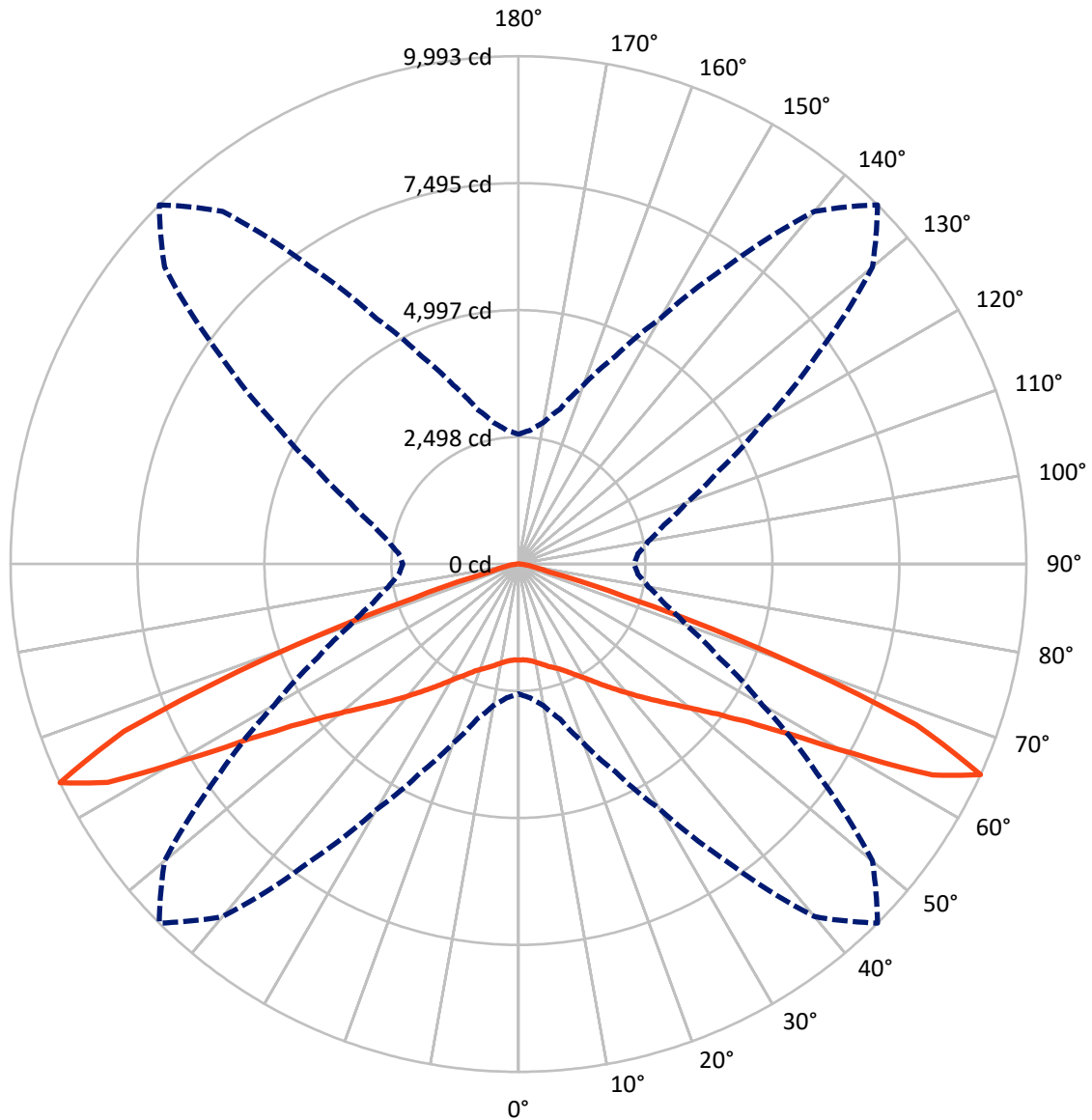
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8346.8 | 0.0 | 8346.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 8346.8 | 0.0 | 8346.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 16693.5 | 0.0 | 16693.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 184.1 | 1.1 |
| 10°-20° | 590.5 | 3.5 |
| 20°-30° | 1104.0 | 6.6 |
| 30°-40° | 1867.2 | 11.2 |
| 40°-50° | 3053.2 | 18.3 |
| 50°-60° | 4855.0 | 29.1 |
| 60°-70° | 4388.6 | 26.3 |
| 70°-80° | 555.4 | 3.3 |
| 80°-90° | 95.5 | 0.6 |
| 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° | 16693.5 | 100.0 |
| 0°-180° | 16693.5 | 100.0 |



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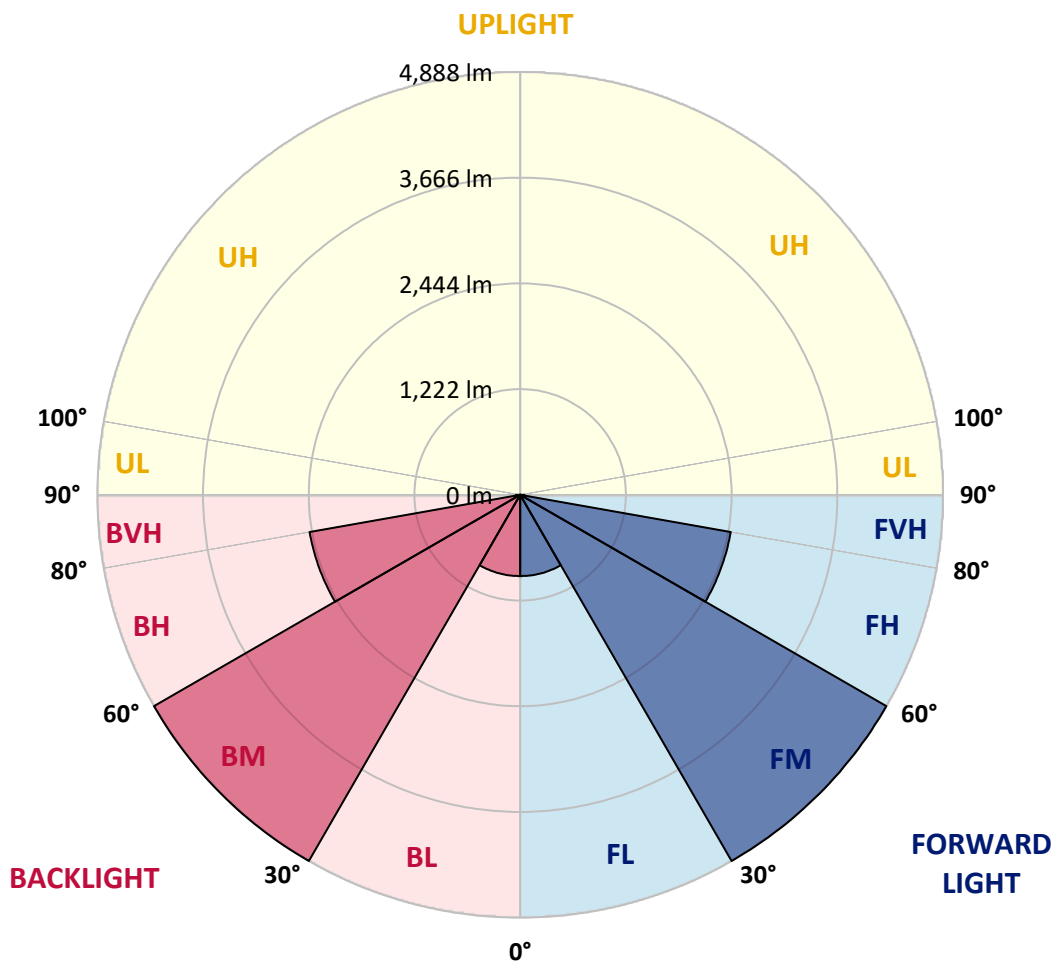
CATALOG NUMBER: GLEON-AF-04-LED-E1-5NQ-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 939.3 | 5.6 | | | |
| FM | (30°-60°) | 4887.7 | 29.3 | | | |
| FH | (60°-80°) | 2472.0 | 14.8 | | | G2/5000 |
| FVH | (80°-90°) | 47.8 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 939.3 | 5.6 | B2/1000 | | |
| BM | (30°-60°) | 4887.7 | 29.3 | B3/5000 | | |
| BH | (60°-80°) | 2472.0 | 14.8 | B3/2500 | | G2/5000 |
| BVH | (80°-90°) | 47.8 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 |
| 2.5° | 1890.4 | 1892.0 | 1893.6 | 1892.0 | 1893.6 | 1891.2 | 1889.7 | 1892.0 | 1889.7 | 1887.3 | 1888.9 |
| 5° | 1906.9 | 1907.6 | 1907.6 | 1905.3 | 1907.6 | 1906.1 | 1903.7 | 1906.9 | 1904.5 | 1902.2 | 1903.7 |
| 7.5° | 1934.2 | 1937.4 | 1935.0 | 1932.7 | 1934.2 | 1932.7 | 1931.1 | 1931.8 | 1931.1 | 1928.8 | 1929.5 |
| 10° | 1971.0 | 1973.3 | 1971.7 | 1971.0 | 1972.6 | 1971.7 | 1970.2 | 1969.4 | 1970.2 | 1967.9 | 1967.9 |
| 12.5° | 2015.5 | 2014.8 | 2014.0 | 2014.8 | 2017.1 | 2017.1 | 2016.3 | 2017.1 | 2018.7 | 2019.4 | 2017.9 |
| 15° | 2059.3 | 2060.8 | 2060.8 | 2060.8 | 2065.5 | 2069.5 | 2071.8 | 2073.4 | 2076.5 | 2077.3 | 2074.1 |
| 17.5° | 2114.0 | 2114.0 | 2113.3 | 2114.0 | 2118.7 | 2125.0 | 2127.3 | 2130.5 | 2133.6 | 2135.9 | 2132.0 |
| 20° | 2175.0 | 2176.6 | 2176.6 | 2178.2 | 2184.4 | 2191.5 | 2191.5 | 2193.0 | 2191.5 | 2193.0 | 2190.6 |
| 22.5° | 2249.3 | 2254.0 | 2254.0 | 2254.8 | 2261.0 | 2269.6 | 2267.3 | 2269.6 | 2265.7 | 2268.8 | 2265.7 |
| 25° | 2346.2 | 2353.3 | 2351.8 | 2351.8 | 2356.4 | 2361.9 | 2362.7 | 2367.3 | 2366.6 | 2370.5 | 2368.1 |
| 27.5° | 2455.7 | 2466.6 | 2469.8 | 2469.0 | 2472.2 | 2477.6 | 2479.1 | 2484.6 | 2481.5 | 2484.6 | 2483.1 |
| 30° | 2587.0 | 2591.7 | 2598.0 | 2600.3 | 2604.2 | 2609.8 | 2609.8 | 2610.5 | 2606.6 | 2611.3 | 2613.6 |
| 32.5° | 2723.1 | 2731.7 | 2737.9 | 2752.0 | 2759.0 | 2763.0 | 2762.2 | 2763.7 | 2759.8 | 2766.1 | 2770.8 |
| 35° | 2902.9 | 2909.2 | 2919.3 | 2930.2 | 2939.7 | 2938.8 | 2936.5 | 2937.3 | 2937.3 | 2942.8 | 2947.4 |
| 37.5° | 3119.5 | 3121.0 | 3134.3 | 3150.0 | 3154.7 | 3150.0 | 3135.9 | 3132.8 | 3125.7 | 3132.8 | 3140.6 |
| 40° | 3348.5 | 3354.1 | 3380.6 | 3390.8 | 3393.1 | 3384.5 | 3364.2 | 3352.4 | 3336.9 | 3345.5 | 3356.4 |
| 42.5° | 3588.6 | 3599.6 | 3623.7 | 3641.7 | 3649.6 | 3644.1 | 3615.9 | 3597.9 | 3577.7 | 3582.3 | 3593.2 |
| 45° | 3854.4 | 3867.7 | 3902.0 | 3919.2 | 3934.2 | 3925.6 | 3898.2 | 3870.8 | 3838.7 | 3841.1 | 3858.3 |
| 47.5° | 4151.4 | 4164.7 | 4209.3 | 4238.3 | 4246.1 | 4244.5 | 4214.0 | 4176.5 | 4132.7 | 4131.2 | 4146.0 |
| 50° | 4484.5 | 4497.8 | 4553.4 | 4597.9 | 4620.6 | 4618.2 | 4582.3 | 4529.1 | 4475.9 | 4476.7 | 4495.5 |
| 52.5° | 4809.8 | 4826.2 | 4884.1 | 4960.7 | 5005.2 | 5037.3 | 5015.4 | 4965.4 | 4900.4 | 4902.0 | 4919.3 |
| 55° | 5114.7 | 5142.1 | 5208.5 | 5312.5 | 5395.3 | 5485.3 | 5511.0 | 5509.5 | 5470.4 | 5481.4 | 5498.6 |
| 57.5° | 5262.5 | 5303.1 | 5405.5 | 5569.7 | 5738.5 | 5921.6 | 6076.3 | 6192.0 | 6241.3 | 6315.6 | 6298.4 |
| 60° | 4982.6 | 5047.4 | 5198.3 | 5440.0 | 5773.7 | 6155.3 | 6564.2 | 6963.7 | 7304.6 | 7561.8 | 7414.0 |
| 62.5° | 4079.5 | 4164.0 | 4346.9 | 4656.6 | 5161.6 | 5772.2 | 6554.8 | 7499.3 | 8528.1 | 9148.9 | 8705.6 |
| 65° | 2552.7 | 2640.2 | 2826.3 | 3157.7 | 3748.8 | 4507.9 | 5569.7 | 7134.9 | 9057.4 | 9993.2 | 9091.1 |
| 67.5° | 995.2 | 1043.0 | 1143.8 | 1355.7 | 1799.8 | 2475.2 | 3540.8 | 5317.2 | 7616.5 | 8436.7 | 7475.0 |
| 70° | 498.8 | 503.5 | 522.2 | 561.4 | 656.7 | 852.9 | 1297.8 | 2465.1 | 4368.0 | 5275.8 | 4210.9 |
| 72.5° | 360.4 | 361.2 | 370.6 | 387.8 | 418.3 | 462.1 | 546.5 | 754.4 | 1420.6 | 2171.1 | 1331.5 |
| 75° | 276.0 | 279.1 | 284.6 | 294.0 | 310.4 | 332.3 | 362.7 | 434.7 | 538.7 | 624.7 | 525.4 |
| 77.5° | 212.7 | 218.9 | 222.8 | 231.4 | 241.6 | 256.5 | 265.0 | 292.4 | 340.1 | 358.0 | 352.6 |
| 80° | 161.8 | 167.4 | 175.9 | 182.9 | 190.0 | 197.0 | 193.8 | 206.4 | 231.4 | 246.2 | 238.4 |
| 82.5° | 103.2 | 109.5 | 134.5 | 140.8 | 143.8 | 148.5 | 143.1 | 143.8 | 154.8 | 164.2 | 154.8 |
| 85° | 66.5 | 70.4 | 85.2 | 93.0 | 93.8 | 97.0 | 94.6 | 89.1 | 89.1 | 81.3 | 91.5 |
| 87.5° | 30.5 | 31.3 | 38.3 | 45.3 | 47.0 | 42.2 | 41.4 | 39.9 | 32.0 | 30.5 | 32.8 |
| 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° | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 | 1888.9 |
| 2.5° | 1888.1 | 1889.7 | 1890.4 | 1892.8 | 1893.6 | 1893.6 | 1894.4 | 1895.9 |
| 5° | 1903.0 | 1905.3 | 1906.1 | 1909.2 | 1910.0 | 1909.2 | 1910.8 | 1911.6 |
| 7.5° | 1929.5 | 1933.5 | 1935.0 | 1938.2 | 1935.8 | 1938.9 | 1939.7 | 1939.7 |
| 10° | 1968.7 | 1972.6 | 1973.3 | 1976.4 | 1974.9 | 1976.4 | 1976.4 | 1974.9 |
| 12.5° | 2020.2 | 2021.0 | 2018.7 | 2021.0 | 2017.9 | 2019.4 | 2017.1 | 2015.5 |
| 15° | 2077.3 | 2075.0 | 2069.5 | 2069.5 | 2064.8 | 2065.5 | 2064.8 | 2064.0 |
| 17.5° | 2132.9 | 2128.1 | 2124.3 | 2122.6 | 2118.7 | 2117.9 | 2115.6 | 2115.6 |
| 20° | 2193.8 | 2191.5 | 2189.1 | 2185.9 | 2182.1 | 2178.2 | 2177.4 | 2179.0 |
| 22.5° | 2267.3 | 2266.6 | 2266.6 | 2264.9 | 2259.5 | 2255.6 | 2253.3 | 2253.3 |
| 25° | 2365.8 | 2358.7 | 2358.7 | 2358.0 | 2355.7 | 2353.3 | 2348.6 | 2350.9 |
| 27.5° | 2476.8 | 2472.9 | 2476.1 | 2475.2 | 2472.9 | 2472.9 | 2469.8 | 2469.8 |
| 30° | 2613.6 | 2612.1 | 2616.7 | 2612.8 | 2605.0 | 2604.2 | 2601.2 | 2597.2 |
| 32.5° | 2771.6 | 2769.9 | 2777.0 | 2772.3 | 2759.8 | 2752.8 | 2746.5 | 2743.5 |
| 35° | 2947.4 | 2948.2 | 2956.8 | 2953.8 | 2939.7 | 2934.9 | 2924.0 | 2922.5 |
| 37.5° | 3139.8 | 3152.3 | 3167.2 | 3170.3 | 3158.6 | 3155.4 | 3143.7 | 3137.5 |
| 40° | 3365.7 | 3382.2 | 3404.8 | 3410.3 | 3397.8 | 3395.5 | 3379.0 | 3370.4 |
| 42.5° | 3606.5 | 3634.6 | 3662.9 | 3667.5 | 3655.0 | 3642.5 | 3626.9 | 3620.6 |
| 45° | 3875.4 | 3909.1 | 3945.8 | 3955.2 | 3936.5 | 3921.6 | 3901.3 | 3901.3 |
| 47.5° | 4177.3 | 4219.5 | 4260.9 | 4286.8 | 4269.5 | 4253.9 | 4229.7 | 4214.0 |
| 50° | 4533.8 | 4591.6 | 4645.6 | 4672.1 | 4644.8 | 4615.1 | 4572.9 | 4558.8 |
| 52.5° | 4981.0 | 5043.6 | 5090.4 | 5076.4 | 5034.1 | 4992.7 | 4946.6 | 4927.9 |
| 55° | 5551.8 | 5572.8 | 5572.8 | 5519.6 | 5435.2 | 5365.7 | 5293.0 | 5268.7 |
| 57.5° | 6265.6 | 6184.2 | 6059.1 | 5900.4 | 5701.0 | 5527.5 | 5410.2 | 5354.7 |
| 60° | 7104.4 | 6713.5 | 6271.8 | 5837.9 | 5481.4 | 5187.4 | 5013.1 | 4933.3 |
| 62.5° | 7663.4 | 6640.8 | 5755.7 | 5059.2 | 4546.3 | 4192.2 | 3951.4 | 3857.5 |
| 65° | 7162.3 | 5538.5 | 4353.2 | 3519.8 | 2960.7 | 2600.3 | 2361.9 | 2274.3 |
| 67.5° | 5246.0 | 3470.5 | 2318.1 | 1661.4 | 1217.3 | 971.0 | 873.3 | 832.7 |
| 70° | 2354.8 | 1222.0 | 749.0 | 584.8 | 504.3 | 462.9 | 444.9 | 438.6 |
| 72.5° | 709.9 | 513.6 | 433.1 | 390.9 | 358.9 | 338.5 | 323.7 | 322.1 |
| 75° | 428.4 | 356.5 | 316.6 | 291.6 | 271.3 | 254.9 | 247.0 | 244.7 |
| 77.5° | 299.4 | 261.9 | 243.2 | 225.2 | 209.5 | 197.0 | 190.0 | 184.5 |
| 80° | 210.3 | 192.3 | 183.7 | 173.6 | 163.4 | 151.7 | 141.5 | 136.8 |
| 82.5° | 140.8 | 136.8 | 136.8 | 130.5 | 121.9 | 111.0 | 90.7 | 86.0 |
| 85° | 90.7 | 89.9 | 91.5 | 89.1 | 82.9 | 71.1 | 58.6 | 55.5 |
| 87.5° | 42.2 | 43.0 | 47.7 | 47.0 | 45.3 | 37.5 | 29.7 | 28.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)