

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: P479073

Luminaire Tested: **IFLD-M-SA4A-827-U-5NQ**

Issue Date: 02/26/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P479073  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 02/26/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: IFLD-M-SA4A-827-U-5NQ  
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ 5NQ distribution lens  
Light Source: (64) 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

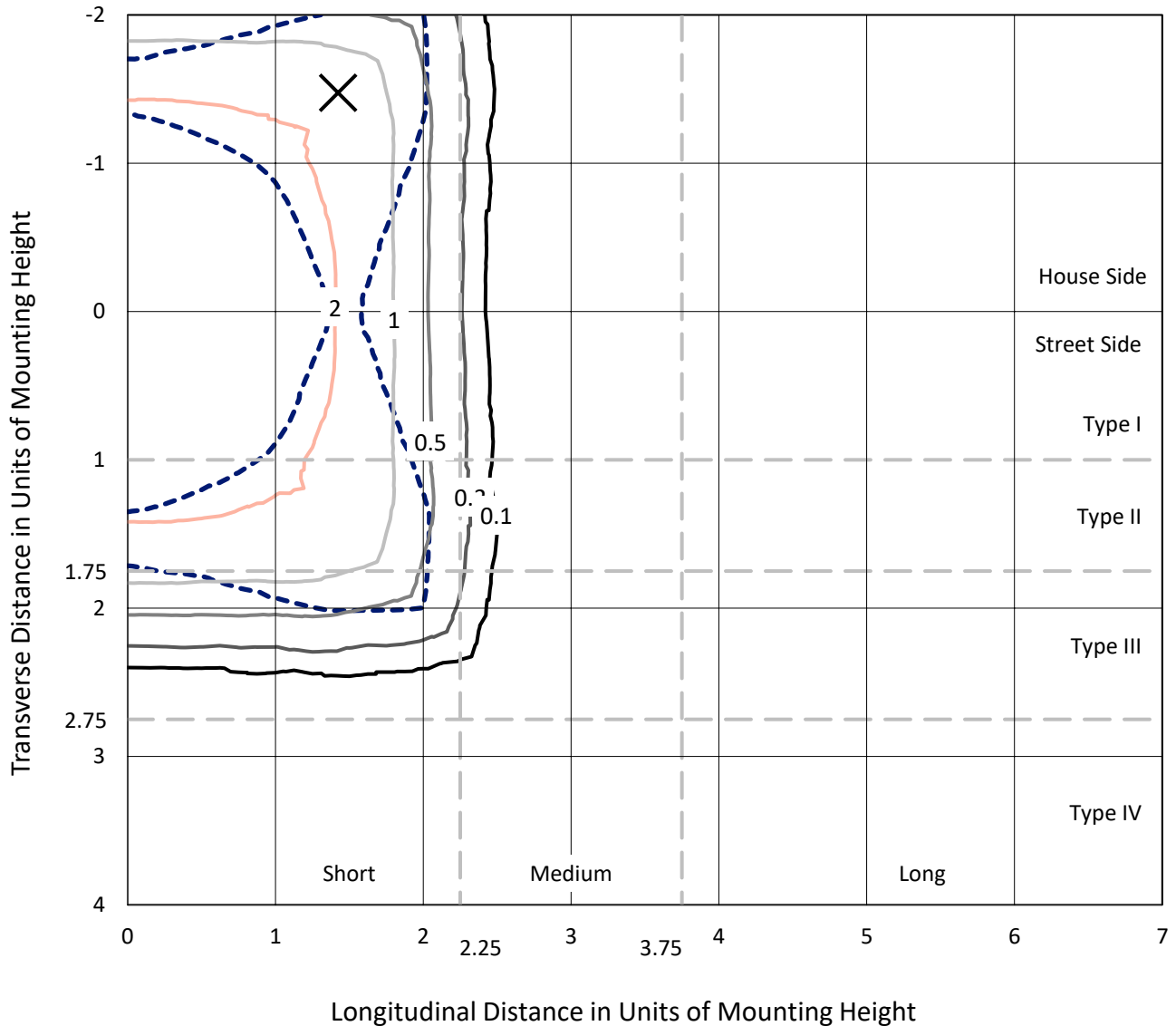
Lumens per Lamp: N/A  
Luminaire Lumens: 13539.7 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G2

Input Watts (W): 128.6  
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

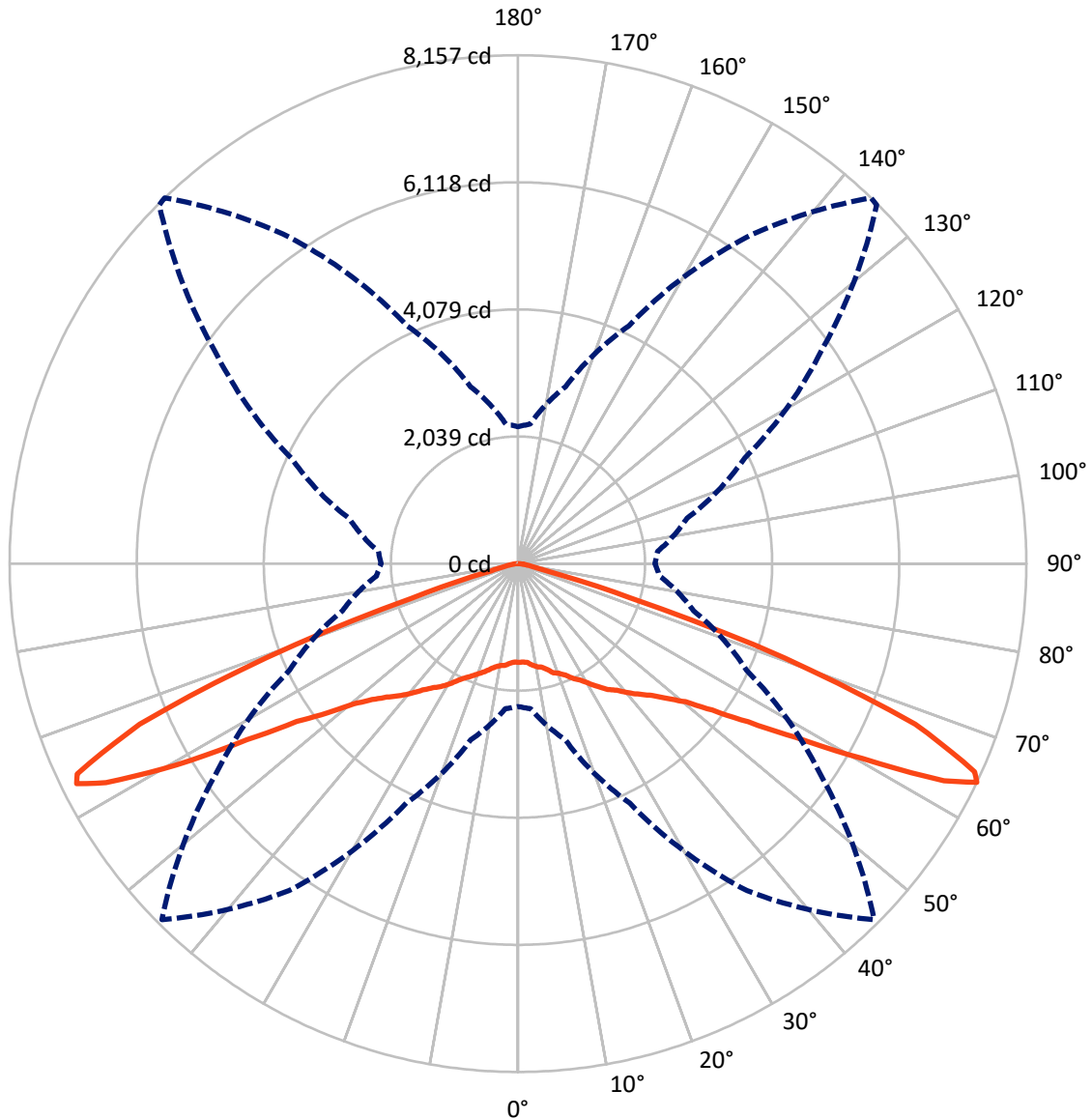
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 136-Deg Lateral      - - - Horizontal Cone Through 64-Deg Vertical

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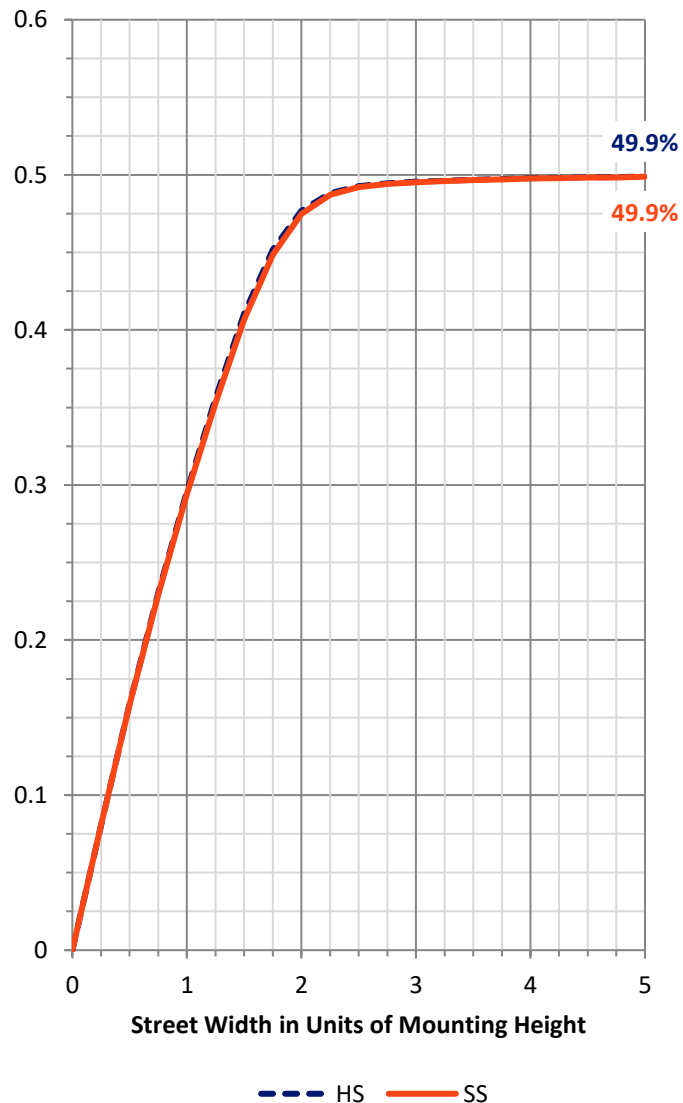
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6776.3   | 0.0    | 6776.3  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 6763.4   | 0.0    | 6763.4  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 13539.7  | 0.0    | 13539.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 155.8   | 1.2       |
| 10°-20°   | 502.0   | 3.7       |
| 20°-30°   | 943.5   | 7.0       |
| 30°-40°   | 1556.0  | 11.5      |
| 40°-50°   | 2433.4  | 18.0      |
| 50°-60°   | 3931.9  | 29.0      |
| 60°-70°   | 3540.4  | 26.1      |
| 70°-80°   | 419.4   | 3.1       |
| 80°-90°   | 57.4    | 0.4       |
| 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°    | 13539.7 | 100.0     |
| 0°-180°   | 13539.7 | 100.0     |

**Coefficient of Utilization**



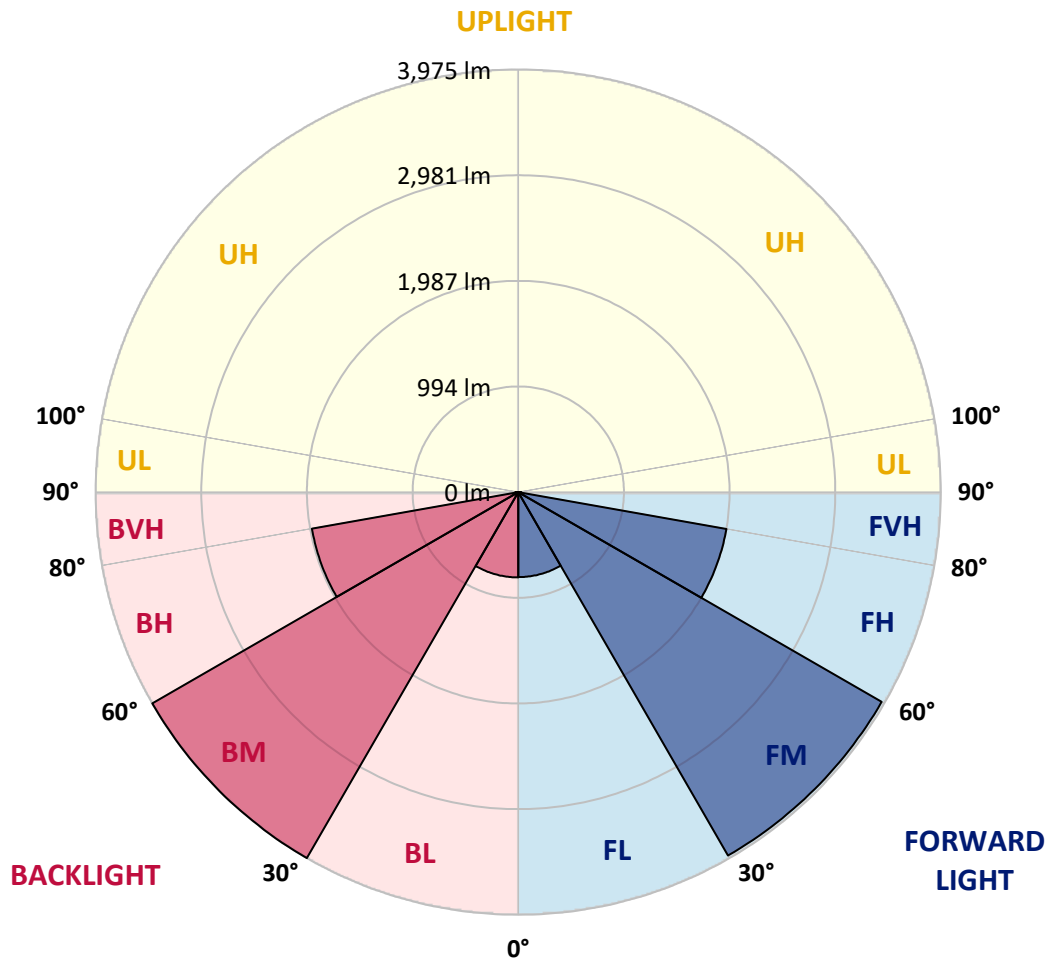
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 799.1  | 5.9       |                         |      |         |
| FM (30°-60°)   | 3946.4 | 29.1      |                         |      |         |
| FH (60°-80°)   | 1988.5 | 14.7      |                         |      | G2/5000 |
| FVH (80°-90°)  | 29.4   | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 802.2  | 5.9       | B2/1000                 |      |         |
| BM (30°-60°)   | 3974.9 | 29.4      | B3/5000                 |      |         |
| BH (60°-80°)   | 1971.3 | 14.6      | B3/2500                 |      | G2/5000 |
| BVH (80°-90°)  | 28.0   | 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-G2**

Type V Short





REPORT NUMBER: P479073

CATALOG NUMBER: IFLD-M-SA4A-827-U-5NQ

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 |
| 2.5°  | 1566.6 | 1569.7 | 1597.6 | 1586.8 | 1596.1 | 1579.0 | 1591.4 | 1617.8 | 1586.8 | 1610.1 | 1617.8 |
| 5°    | 1583.7 | 1588.3 | 1588.3 | 1599.2 | 1605.4 | 1602.3 | 1610.1 | 1599.2 | 1628.7 | 1616.3 | 1634.9 |
| 7.5°  | 1645.8 | 1638.0 | 1625.6 | 1634.9 | 1636.5 | 1644.2 | 1652.0 | 1666.0 | 1661.3 | 1650.4 | 1669.1 |
| 10°   | 1656.6 | 1650.4 | 1669.1 | 1670.6 | 1662.9 | 1656.6 | 1664.4 | 1664.4 | 1678.4 | 1681.5 | 1681.5 |
| 12.5° | 1675.3 | 1681.5 | 1679.9 | 1692.4 | 1693.9 | 1689.2 | 1701.7 | 1725.0 | 1718.7 | 1723.4 | 1712.5 |
| 15°   | 1746.7 | 1738.9 | 1737.4 | 1749.8 | 1770.0 | 1740.5 | 1762.2 | 1760.7 | 1754.5 | 1763.8 | 1738.9 |
| 17.5° | 1808.8 | 1784.0 | 1794.8 | 1815.0 | 1807.2 | 1813.5 | 1841.4 | 1816.6 | 1822.8 | 1811.9 | 1804.1 |
| 20°   | 1863.1 | 1843.0 | 1844.5 | 1852.3 | 1852.3 | 1870.9 | 1881.8 | 1872.5 | 1866.2 | 1864.7 | 1867.8 |
| 22.5° | 1923.7 | 1900.4 | 1902.0 | 1934.6 | 1945.4 | 1939.2 | 1931.5 | 1947.0 | 1950.1 | 1937.7 | 1951.6 |
| 25°   | 1968.7 | 1993.6 | 2001.3 | 2016.8 | 1993.6 | 2010.6 | 2004.4 | 2033.9 | 2052.6 | 2027.7 | 2044.8 |
| 27.5° | 2086.7 | 2075.8 | 2096.0 | 2094.5 | 2113.1 | 2096.0 | 2106.9 | 2116.2 | 2124.0 | 2125.5 | 2117.8 |
| 30°   | 2192.3 | 2197.0 | 2176.8 | 2231.1 | 2187.6 | 2215.6 | 2234.2 | 2238.9 | 2248.2 | 2248.2 | 2224.9 |
| 32.5° | 2304.1 | 2294.8 | 2327.4 | 2315.0 | 2307.2 | 2328.9 | 2308.7 | 2372.4 | 2335.1 | 2356.9 | 2330.5 |
| 35°   | 2429.8 | 2429.8 | 2442.3 | 2476.4 | 2429.8 | 2415.9 | 2453.1 | 2479.5 | 2479.5 | 2440.7 | 2450.0 |
| 37.5° | 2571.1 | 2558.7 | 2574.2 | 2617.7 | 2582.0 | 2535.4 | 2603.7 | 2614.6 | 2606.8 | 2596.0 | 2577.3 |
| 40°   | 2670.5 | 2667.4 | 2698.4 | 2755.9 | 2704.7 | 2695.3 | 2707.8 | 2737.3 | 2746.6 | 2757.4 | 2732.6 |
| 42.5° | 2838.2 | 2852.2 | 2942.2 | 2928.2 | 2886.3 | 2853.7 | 2850.6 | 2960.8 | 2934.4 | 2906.5 | 2892.5 |
| 45°   | 3086.6 | 3074.2 | 3120.8 | 3122.3 | 3068.0 | 2996.5 | 3012.1 | 3113.0 | 3158.0 | 3095.9 | 3119.2 |
| 47.5° | 3283.8 | 3290.0 | 3322.6 | 3389.4 | 3263.6 | 3189.1 | 3246.5 | 3409.5 | 3395.6 | 3372.3 | 3394.0 |
| 50°   | 3547.7 | 3575.7 | 3678.1 | 3654.9 | 3543.1 | 3451.5 | 3577.2 | 3730.9 | 3748.0 | 3662.6 | 3647.1 |
| 52.5° | 3912.6 | 3956.1 | 4012.0 | 4030.6 | 3923.5 | 3890.9 | 3898.6 | 4089.6 | 4047.7 | 3965.4 | 3912.6 |
| 55°   | 4232.4 | 4252.6 | 4355.1 | 4508.8 | 4501.0 | 4344.2 | 4434.3 | 4505.7 | 4334.9 | 4165.7 | 4179.6 |
| 57.5° | 4369.1 | 4378.4 | 4664.1 | 4971.5 | 5154.7 | 5190.4 | 5087.9 | 4847.3 | 4440.5 | 4114.4 | 4094.2 |
| 60°   | 4029.0 | 4117.5 | 4462.2 | 5156.2 | 5993.1 | 6406.1 | 5724.5 | 4886.1 | 4193.6 | 3797.7 | 3768.2 |
| 62.5° | 3220.1 | 3224.8 | 3737.1 | 4789.8 | 6514.8 | 7597.0 | 5968.3 | 4521.2 | 3535.3 | 3086.6 | 2968.6 |
| 64°   | 2293.2 | 2336.7 | 2925.1 | 4240.2 | 6406.1 | 8081.4 | 5938.8 | 4044.6 | 2914.3 | 2277.7 | 2195.4 |
| 65°   | 1645.8 | 1706.3 | 2274.6 | 3681.3 | 6151.5 | 8023.9 | 5850.3 | 3634.7 | 2356.9 | 1738.9 | 1655.1 |
| 67.5° | 605.5  | 630.4  | 892.8  | 1841.4 | 4417.2 | 6837.7 | 4636.1 | 1998.2 | 1035.6 | 737.5  | 663.0  |
| 70°   | 281.0  | 282.6  | 330.7  | 608.6  | 1931.5 | 4572.5 | 2212.5 | 749.9  | 389.7  | 309.0  | 287.2  |
| 72.5° | 206.5  | 211.2  | 231.3  | 281.0  | 568.3  | 1936.1 | 726.6  | 307.4  | 228.2  | 201.8  | 197.2  |
| 75°   | 167.7  | 170.8  | 177.0  | 203.4  | 262.4  | 518.6  | 295.0  | 212.7  | 181.7  | 163.0  | 156.8  |
| 77.5° | 128.9  | 128.9  | 142.8  | 155.3  | 173.9  | 242.2  | 195.6  | 169.2  | 147.5  | 128.9  | 124.2  |
| 80°   | 93.2   | 94.7   | 111.8  | 121.1  | 118.0  | 159.9  | 141.3  | 139.7  | 121.1  | 100.9  | 93.2   |
| 82.5° | 54.3   | 59.0   | 80.7   | 86.9   | 83.8   | 94.7   | 102.5  | 108.7  | 94.7   | 69.9   | 63.7   |
| 85°   | 31.1   | 32.6   | 46.6   | 48.1   | 48.1   | 45.0   | 59.0   | 65.2   | 63.7   | 43.5   | 38.8   |
| 87.5° | 9.3    | 9.3    | 12.4   | 12.4   | 14.0   | 15.5   | 23.3   | 27.9   | 31.1   | 21.7   | 20.2   |
| 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: IFLD-M-SA4A-827-U-5NQ

**CANDELA DISTRIBUTION (continued):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 136°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 | 1585.2 |
| 2.5°  | 1610.1 | 1586.8 | 1588.3 | 1594.5 | 1574.4 | 1582.1 | 1605.4 | 1588.3 | 1583.7 | 1574.4 | 1569.7 |
| 5°    | 1602.3 | 1627.1 | 1617.8 | 1620.9 | 1616.3 | 1594.5 | 1591.4 | 1605.4 | 1613.2 | 1599.2 | 1627.1 |
| 7.5°  | 1656.6 | 1645.8 | 1633.4 | 1638.0 | 1627.1 | 1645.8 | 1658.2 | 1630.2 | 1644.2 | 1636.5 | 1620.9 |
| 10°   | 1687.7 | 1667.5 | 1676.8 | 1673.7 | 1666.0 | 1684.6 | 1672.2 | 1669.1 | 1656.6 | 1639.6 | 1664.4 |
| 12.5° | 1698.6 | 1721.9 | 1737.4 | 1711.0 | 1715.6 | 1706.3 | 1698.6 | 1698.6 | 1684.6 | 1679.9 | 1684.6 |
| 15°   | 1746.7 | 1766.9 | 1760.7 | 1780.9 | 1754.5 | 1763.8 | 1773.1 | 1749.8 | 1762.2 | 1728.1 | 1754.5 |
| 17.5° | 1835.2 | 1818.1 | 1839.9 | 1813.5 | 1822.8 | 1841.4 | 1811.9 | 1811.9 | 1821.2 | 1802.6 | 1779.3 |
| 20°   | 1891.1 | 1883.3 | 1875.6 | 1877.1 | 1861.6 | 1878.7 | 1869.3 | 1864.7 | 1850.7 | 1856.9 | 1869.3 |
| 22.5° | 1943.9 | 1933.0 | 1936.1 | 1940.8 | 1951.6 | 1943.9 | 1939.2 | 1943.9 | 1909.7 | 1940.8 | 1897.3 |
| 25°   | 2009.1 | 2038.6 | 2029.3 | 2049.5 | 2018.4 | 2038.6 | 2037.0 | 2007.5 | 2026.2 | 2013.7 | 2004.4 |
| 27.5° | 2117.8 | 2102.2 | 2116.2 | 2091.4 | 2113.1 | 2114.7 | 2096.0 | 2145.7 | 2124.0 | 2120.9 | 2114.7 |
| 30°   | 2257.5 | 2246.6 | 2237.3 | 2223.3 | 2240.4 | 2226.5 | 2242.0 | 2246.6 | 2226.5 | 2210.9 | 2181.4 |
| 32.5° | 2336.7 | 2366.2 | 2377.1 | 2342.9 | 2344.5 | 2352.2 | 2338.2 | 2324.3 | 2336.7 | 2341.3 | 2336.7 |
| 35°   | 2448.5 | 2476.4 | 2482.6 | 2456.2 | 2442.3 | 2481.1 | 2453.1 | 2499.7 | 2459.3 | 2460.9 | 2419.0 |
| 37.5° | 2578.9 | 2586.7 | 2639.4 | 2609.9 | 2597.5 | 2578.9 | 2630.1 | 2623.9 | 2633.2 | 2558.7 | 2596.0 |
| 40°   | 2726.4 | 2754.3 | 2783.8 | 2709.3 | 2707.8 | 2724.8 | 2721.7 | 2757.4 | 2740.4 | 2729.5 | 2703.1 |
| 42.5° | 2887.9 | 2946.9 | 2951.5 | 2901.8 | 2870.8 | 2867.7 | 2883.2 | 2962.4 | 2963.9 | 2892.5 | 2861.5 |
| 45°   | 3102.1 | 3167.3 | 3150.3 | 3054.0 | 3019.8 | 3015.2 | 3091.3 | 3125.4 | 3154.9 | 3127.0 | 3100.6 |
| 47.5° | 3369.2 | 3412.7 | 3400.2 | 3311.7 | 3201.5 | 3232.5 | 3307.1 | 3414.2 | 3383.2 | 3345.9 | 3314.8 |
| 50°   | 3654.9 | 3706.1 | 3679.7 | 3591.2 | 3485.6 | 3485.6 | 3577.2 | 3713.9 | 3704.5 | 3631.6 | 3603.6 |
| 52.5° | 3971.6 | 4046.1 | 4106.7 | 3980.9 | 3892.4 | 3906.4 | 4050.8 | 4100.5 | 4077.2 | 4025.9 | 4002.6 |
| 55°   | 4207.6 | 4350.4 | 4474.6 | 4480.8 | 4485.5 | 4484.0 | 4521.2 | 4570.9 | 4404.8 | 4322.5 | 4238.6 |
| 57.5° | 4150.1 | 4420.3 | 4845.7 | 5134.5 | 5219.9 | 5264.9 | 5252.5 | 5022.7 | 4629.9 | 4359.7 | 4387.7 |
| 60°   | 3740.3 | 4181.2 | 4867.5 | 5794.4 | 6415.4 | 6353.3 | 6126.6 | 5218.3 | 4505.7 | 4049.2 | 3991.8 |
| 62.5° | 2984.1 | 3515.1 | 4502.6 | 5980.7 | 7691.7 | 7673.0 | 6486.8 | 4766.5 | 3754.2 | 3176.7 | 3140.9 |
| 64°   | 2248.2 | 2807.1 | 4016.6 | 5932.5 | 8138.8 | 8157.4 | 6395.2 | 4210.7 | 2937.5 | 2248.2 | 2193.8 |
| 65°   | 1720.3 | 2238.9 | 3540.0 | 5833.2 | 8042.6 | 8053.4 | 6140.6 | 3636.2 | 2232.7 | 1596.1 | 1537.1 |
| 67.5° | 684.7  | 953.3  | 1920.6 | 4423.4 | 6906.0 | 6876.5 | 4381.5 | 1759.1 | 853.9  | 555.8  | 545.0  |
| 70°   | 291.9  | 363.3  | 673.8  | 2096.0 | 4623.7 | 4538.3 | 1886.4 | 571.4  | 316.7  | 265.5  | 263.9  |
| 72.5° | 200.3  | 222.0  | 288.8  | 647.4  | 1922.1 | 1877.1 | 537.2  | 265.5  | 215.8  | 198.7  | 198.7  |
| 75°   | 161.5  | 177.0  | 209.6  | 271.7  | 509.3  | 490.6  | 253.1  | 195.6  | 172.3  | 159.9  | 158.4  |
| 77.5° | 125.8  | 141.3  | 164.6  | 187.9  | 232.9  | 231.3  | 169.2  | 147.5  | 133.5  | 124.2  | 121.1  |
| 80°   | 99.4   | 114.9  | 130.4  | 133.5  | 152.2  | 149.1  | 114.9  | 116.4  | 108.7  | 90.1   | 88.5   |
| 82.5° | 68.3   | 93.2   | 104.0  | 94.7   | 90.1   | 90.1   | 82.3   | 82.3   | 76.1   | 55.9   | 51.2   |
| 85°   | 41.9   | 62.1   | 65.2   | 55.9   | 41.9   | 41.9   | 45.0   | 43.5   | 40.4   | 29.5   | 27.9   |
| 87.5° | 21.7   | 29.5   | 26.4   | 21.7   | 14.0   | 14.0   | 12.4   | 9.3    | 9.3    | 7.8    | 7.8    |
| 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)