

Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: LUMARK

Report Number: P1444988

Luminaire Tested: XAS180-SFPM (3000K-72W-T5)

Issue Date: 5/5/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1444988  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA ( )  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/5/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: LUMARK  
Catalog Number: XAS180-SFPM (3000K-72W-T5)  
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.  
LUMEN OUTPUT - 40% (72W)  
OPTICS - TYPE 5  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 28062 (1 lamp)  
Luminaire Lumens: 11532.8 lumens  
Efficiency: 41.1%  
Efficacy: 157.6 lumens/watt  
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

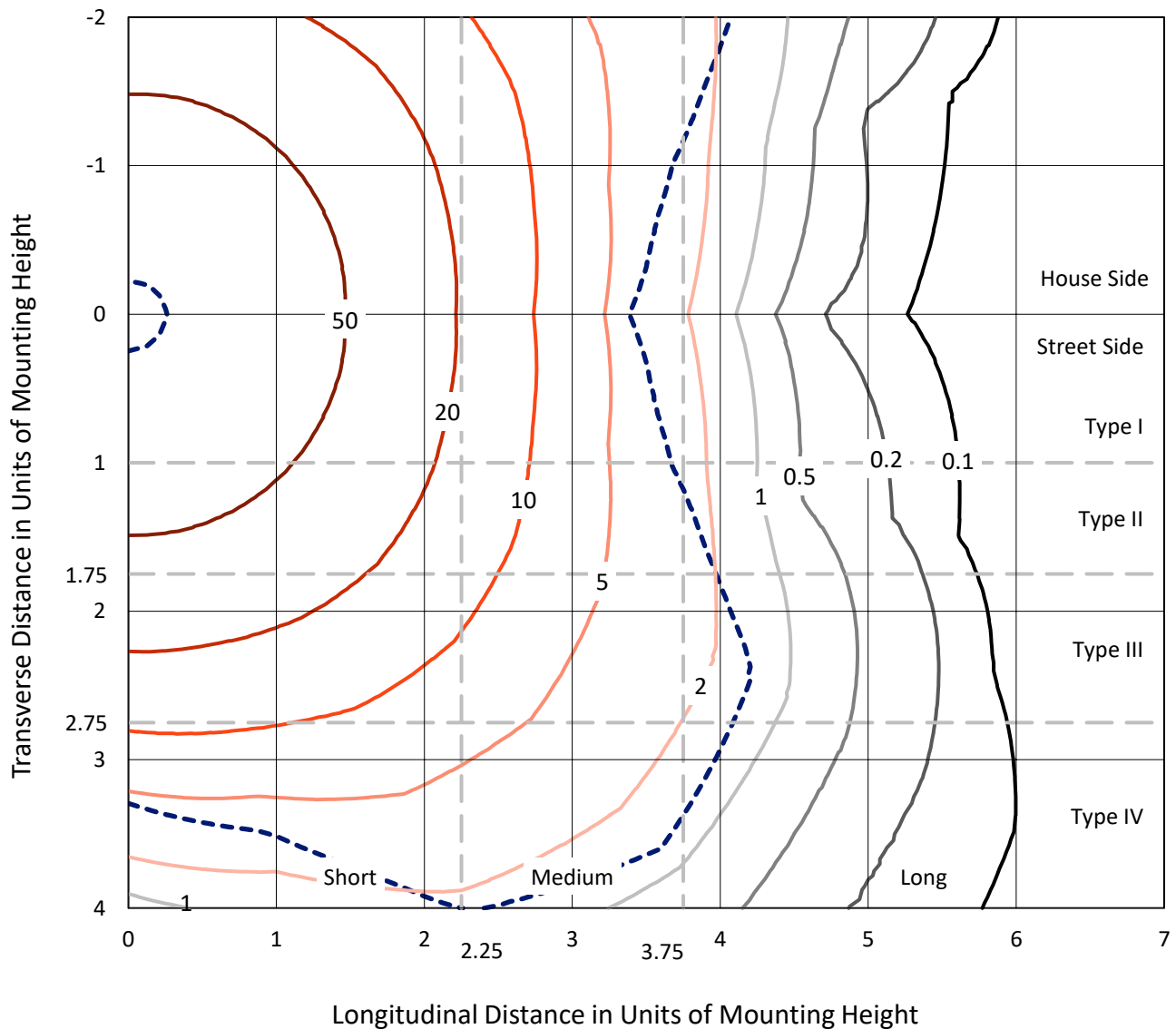
Input Watts (W): 73.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

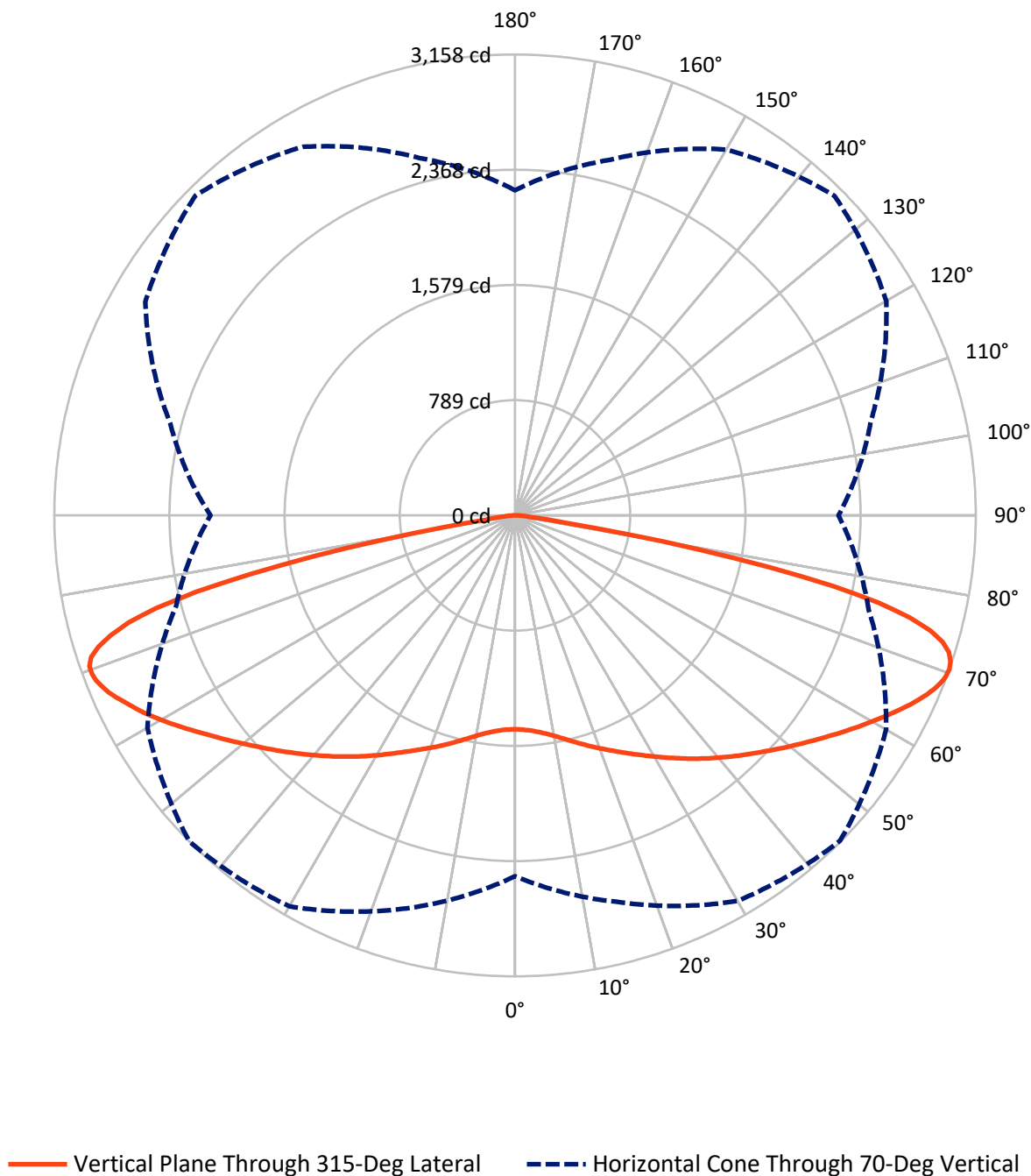


Based on 3 foot mounting height. Maximum calculated value = 163.2 fc  
Type V - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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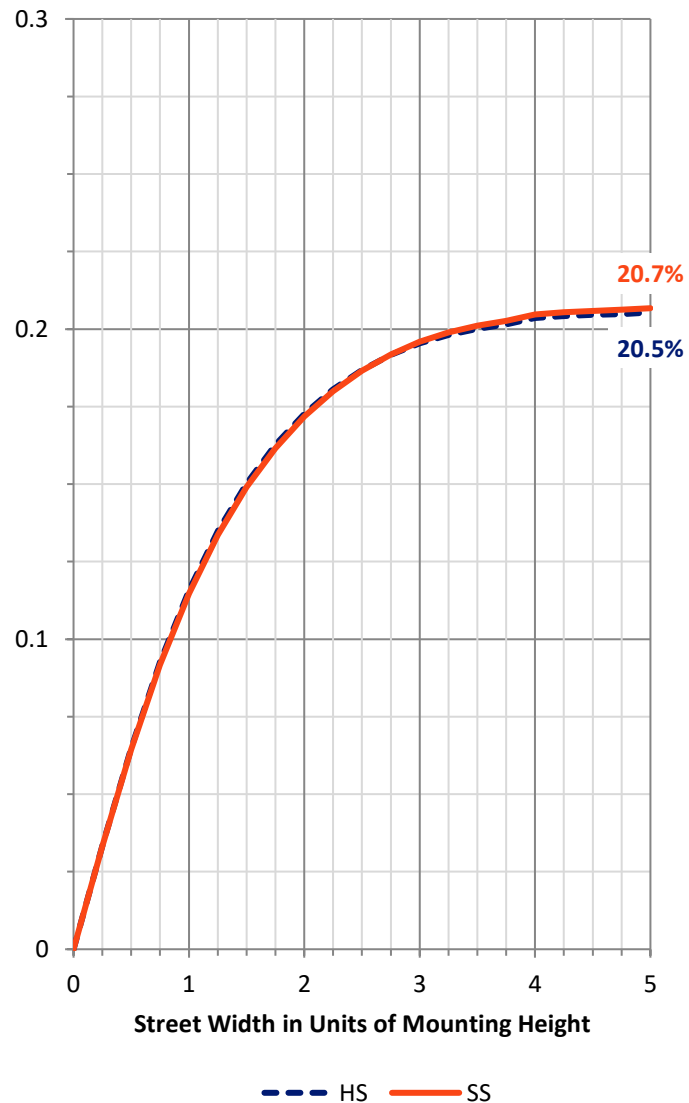
**FLUX DISTRIBUTION:**

|                    |        | Downward | Upward | Total   |
|--------------------|--------|----------|--------|---------|
| <b>House Side</b>  | Lumens | 5738.9   | 0.0    | 5738.9  |
|                    | % Lamp | 20.5     | 0.0    | 20.5    |
| <b>Street Side</b> | Lumens | 5793.9   | 0.0    | 5793.9  |
|                    | % Lamp | 20.6     | 0.0    | 20.6    |
| <b>Total</b>       | Lumens | 11532.8  | 0.0    | 11532.8 |
|                    | % Lamp | 41.1     | 0.0    | 41.1    |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10°    | 143.2   | 1.2       | 0.5    |
| 10°-20°   | 458.2   | 4.0       | 1.6    |
| 20°-30°   | 833.1   | 7.2       | 3.0    |
| 30°-40°   | 1276.1  | 11.1      | 4.5    |
| 40°-50°   | 1778.6  | 15.4      | 6.3    |
| 50°-60°   | 2327.9  | 20.2      | 8.3    |
| 60°-70°   | 2782.0  | 24.1      | 9.9    |
| 70°-80°   | 1843.2  | 16.0      | 6.6    |
| 80°-90°   | 90.6    | 0.8       | 0.3    |
| 90°-100°  | 0.0     | 0.0       | 0.0    |
| 100°-110° | 0.0     | 0.0       | 0.0    |
| 110°-120° | 0.0     | 0.0       | 0.0    |
| 120°-130° | 0.0     | 0.0       | 0.0    |
| 130°-140° | 0.0     | 0.0       | 0.0    |
| 140°-150° | 0.0     | 0.0       | 0.0    |
| 150°-160° | 0.0     | 0.0       | 0.0    |
| 160°-170° | 0.0     | 0.0       | 0.0    |
| 170°-180° | 0.0     | 0.0       | 0.0    |
| 0°-90°    | 11532.8 | 100.0     | 41.1   |
| 0°-180°   | 11532.8 | 100.0     | 41.1   |



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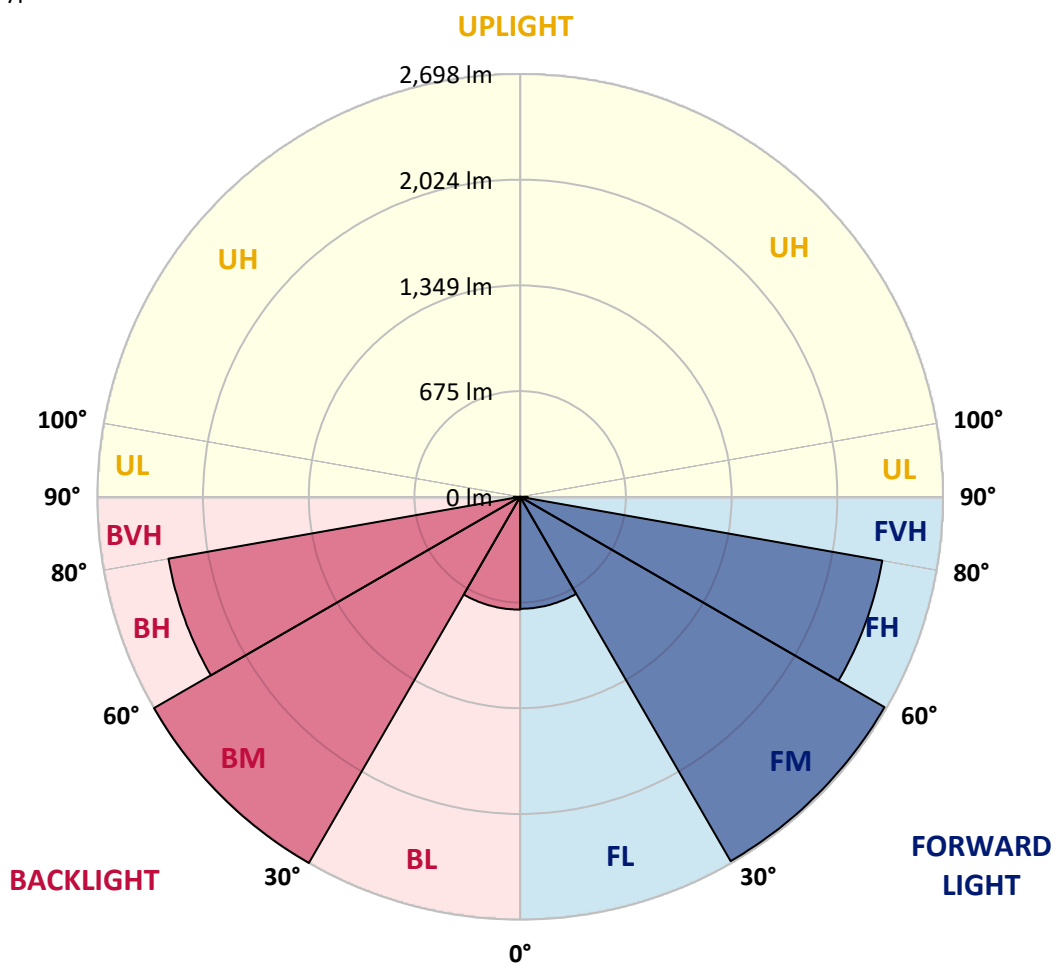
CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

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

| Zone          |             | Lumens  | % Lamp | Zone Rating/Lumen Limit |      |         |
|---------------|-------------|---------|--------|-------------------------|------|---------|
|               |             |         |        | B                       | U    | G       |
| FL            | (0°-30°)    | 714.5   | 2.5    |                         |      |         |
| FM            | (30°-60°)   | 2684.4  | 9.6    |                         |      |         |
| FH            | (60°-80°)   | 2346.4  | 8.4    |                         |      | G2/5000 |
| FVH           | (80°-90°)   | 48.6    | 0.2    |                         |      | G1/100  |
| BL            | (0°-30°)    | 720.0   | 2.6    | B2/1000                 |      |         |
| BM            | (30°-60°)   | 2698.1  | 9.6    | B3/5000                 |      |         |
| BH            | (60°-80°)   | 2278.8  | 8.1    | B3/2500                 |      | G2/5000 |
| BVH           | (80°-90°)   | 42.0    | 0.1    |                         |      | G1/100  |
| UL            | (90°-100°)  | 0.0     | 0.0    |                         | U0/0 |         |
| UH            | (100°-180°) | 0.0     | 0.0    |                         | U0/0 |         |
| Trapped Light |             | 16529.2 | 58.9   |                         |      |         |

**BUG Rating: B3-U0-G2**

Type V Short



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CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (FULL):**

|     | 0°     | 15°    | 30°    | 45°    | 60°    | 75°    | 90°    | 105°   | 120°   | 135°   | 150°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°  | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 |
| 1°  | 1466.7 | 1466.4 | 1466.7 | 1466.4 | 1466.4 | 1466.3 | 1465.2 | 1465.3 | 1465.3 | 1465.8 | 1466.1 |
| 2°  | 1469.0 | 1468.4 | 1468.3 | 1467.9 | 1467.3 | 1466.8 | 1465.9 | 1465.9 | 1466.1 | 1466.9 | 1467.7 |
| 3°  | 1472.8 | 1471.9 | 1471.3 | 1470.4 | 1470.0 | 1469.3 | 1468.3 | 1468.2 | 1468.4 | 1469.3 | 1470.5 |
| 4°  | 1478.3 | 1477.1 | 1476.0 | 1475.1 | 1474.1 | 1473.1 | 1472.1 | 1472.0 | 1472.3 | 1473.6 | 1475.1 |
| 5°  | 1484.5 | 1483.1 | 1481.8 | 1480.2 | 1478.8 | 1478.0 | 1476.6 | 1477.2 | 1478.1 | 1479.5 | 1481.1 |
| 6°  | 1491.6 | 1489.8 | 1489.0 | 1487.1 | 1484.9 | 1483.6 | 1482.2 | 1482.7 | 1484.1 | 1486.6 | 1488.6 |
| 7°  | 1499.4 | 1497.6 | 1497.0 | 1495.0 | 1492.8 | 1490.8 | 1489.1 | 1489.8 | 1491.2 | 1494.9 | 1497.6 |
| 8°  | 1508.4 | 1506.5 | 1505.5 | 1503.9 | 1501.4 | 1499.2 | 1498.0 | 1498.9 | 1500.5 | 1503.8 | 1507.8 |
| 9°  | 1518.3 | 1516.5 | 1515.2 | 1513.5 | 1511.4 | 1508.6 | 1507.0 | 1508.2 | 1511.1 | 1514.6 | 1518.6 |
| 10° | 1529.1 | 1527.3 | 1526.1 | 1524.4 | 1522.5 | 1519.3 | 1517.8 | 1519.1 | 1522.7 | 1526.9 | 1530.4 |
| 11° | 1540.9 | 1538.8 | 1538.3 | 1536.7 | 1534.3 | 1531.2 | 1529.2 | 1531.3 | 1535.2 | 1540.5 | 1543.6 |
| 12° | 1553.0 | 1550.3 | 1550.6 | 1549.7 | 1547.0 | 1543.7 | 1541.4 | 1544.1 | 1548.6 | 1554.6 | 1558.1 |
| 13° | 1564.6 | 1562.1 | 1563.7 | 1563.8 | 1560.4 | 1557.3 | 1554.0 | 1557.2 | 1563.2 | 1569.4 | 1573.6 |
| 14° | 1577.6 | 1574.7 | 1576.8 | 1578.0 | 1574.8 | 1571.0 | 1567.2 | 1571.3 | 1577.6 | 1585.3 | 1589.3 |
| 15° | 1590.3 | 1587.6 | 1590.3 | 1593.0 | 1589.6 | 1585.0 | 1581.3 | 1585.2 | 1593.1 | 1601.5 | 1604.9 |
| 16° | 1604.1 | 1602.0 | 1604.3 | 1607.9 | 1605.1 | 1600.1 | 1596.5 | 1600.3 | 1609.1 | 1618.2 | 1621.6 |
| 17° | 1619.0 | 1617.0 | 1619.6 | 1623.4 | 1621.4 | 1615.5 | 1611.6 | 1615.7 | 1626.2 | 1634.4 | 1638.2 |
| 18° | 1634.5 | 1631.8 | 1635.1 | 1638.9 | 1637.5 | 1631.5 | 1627.6 | 1632.1 | 1643.0 | 1651.2 | 1654.2 |
| 19° | 1650.4 | 1647.5 | 1651.3 | 1655.1 | 1654.4 | 1648.2 | 1644.3 | 1649.4 | 1660.4 | 1668.4 | 1670.3 |
| 20° | 1667.6 | 1664.2 | 1667.7 | 1671.5 | 1671.5 | 1665.9 | 1662.0 | 1667.6 | 1678.3 | 1685.5 | 1686.5 |
| 21° | 1685.2 | 1681.7 | 1684.2 | 1688.4 | 1689.3 | 1683.8 | 1679.8 | 1686.3 | 1696.5 | 1702.1 | 1703.3 |
| 22° | 1703.8 | 1700.1 | 1701.8 | 1705.5 | 1708.3 | 1702.5 | 1699.0 | 1705.8 | 1715.8 | 1720.3 | 1721.1 |
| 23° | 1723.5 | 1719.5 | 1719.9 | 1723.9 | 1727.5 | 1722.2 | 1718.6 | 1726.3 | 1735.3 | 1738.6 | 1739.8 |
| 24° | 1744.2 | 1739.7 | 1738.7 | 1742.6 | 1747.0 | 1742.2 | 1739.4 | 1747.2 | 1755.7 | 1757.6 | 1759.2 |
| 25° | 1765.9 | 1760.6 | 1758.3 | 1762.5 | 1767.7 | 1763.1 | 1761.1 | 1769.1 | 1775.9 | 1777.4 | 1778.3 |
| 26° | 1788.4 | 1782.1 | 1778.8 | 1782.7 | 1788.3 | 1783.6 | 1783.2 | 1791.1 | 1796.6 | 1797.5 | 1797.9 |
| 27° | 1811.6 | 1804.0 | 1799.3 | 1803.7 | 1808.8 | 1804.7 | 1805.7 | 1813.4 | 1817.7 | 1818.6 | 1818.2 |
| 28° | 1835.8 | 1826.3 | 1820.5 | 1825.1 | 1829.8 | 1826.2 | 1829.0 | 1835.5 | 1839.6 | 1840.3 | 1838.6 |
| 29° | 1860.5 | 1848.8 | 1842.5 | 1847.6 | 1850.8 | 1848.0 | 1853.5 | 1858.0 | 1861.4 | 1862.9 | 1860.1 |
| 30° | 1885.7 | 1871.3 | 1865.0 | 1870.2 | 1872.4 | 1870.5 | 1878.5 | 1881.0 | 1883.7 | 1885.7 | 1881.7 |
| 31° | 1911.4 | 1894.4 | 1888.4 | 1893.7 | 1894.0 | 1892.4 | 1903.9 | 1903.8 | 1906.2 | 1909.1 | 1904.4 |
| 32° | 1936.9 | 1917.5 | 1911.7 | 1917.4 | 1915.9 | 1915.9 | 1928.7 | 1927.4 | 1929.3 | 1932.9 | 1927.1 |
| 33° | 1962.3 | 1941.3 | 1936.2 | 1940.7 | 1939.1 | 1938.6 | 1954.3 | 1950.2 | 1952.8 | 1956.7 | 1950.5 |
| 34° | 1987.9 | 1964.9 | 1960.2 | 1964.6 | 1962.1 | 1960.8 | 1979.3 | 1972.9 | 1976.5 | 1980.1 | 1974.1 |
| 35° | 2015.0 | 1988.4 | 1984.9 | 1988.9 | 1985.5 | 1983.2 | 2005.1 | 1995.5 | 2000.4 | 2004.6 | 1998.9 |
| 36° | 2041.7 | 2012.6 | 2010.1 | 2013.6 | 2009.9 | 2006.4 | 2030.7 | 2018.7 | 2025.5 | 2029.4 | 2024.3 |
| 37° | 2068.5 | 2037.1 | 2035.9 | 2038.9 | 2034.4 | 2028.8 | 2056.1 | 2042.2 | 2050.4 | 2054.6 | 2050.2 |
| 38° | 2095.7 | 2062.5 | 2061.7 | 2064.1 | 2058.8 | 2052.3 | 2082.4 | 2065.3 | 2074.7 | 2079.8 | 2075.9 |
| 39° | 2122.3 | 2087.9 | 2087.3 | 2089.7 | 2083.3 | 2076.7 | 2109.0 | 2089.2 | 2099.9 | 2104.7 | 2101.1 |
| 40° | 2148.7 | 2114.4 | 2112.8 | 2115.7 | 2108.2 | 2101.3 | 2135.5 | 2113.7 | 2125.3 | 2130.8 | 2127.4 |
| 41° | 2174.7 | 2141.4 | 2139.3 | 2141.6 | 2133.9 | 2126.7 | 2161.9 | 2139.5 | 2150.3 | 2156.9 | 2152.5 |
| 42° | 2201.8 | 2169.1 | 2166.3 | 2168.7 | 2159.8 | 2152.6 | 2187.3 | 2165.4 | 2176.2 | 2184.1 | 2180.1 |
| 43° | 2228.1 | 2197.9 | 2193.8 | 2196.1 | 2186.7 | 2179.5 | 2212.0 | 2192.4 | 2202.4 | 2211.6 | 2207.4 |
| 44° | 2253.8 | 2227.5 | 2221.5 | 2223.9 | 2213.5 | 2207.3 | 2235.7 | 2220.2 | 2228.5 | 2238.6 | 2235.2 |

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CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|     | 0°     | 15°    | 30°    | 45°    | 60°    | 75°    | 90°    | 105°   | 120°   | 135°   | 150°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 2279.6 | 2257.0 | 2250.0 | 2251.4 | 2240.8 | 2236.2 | 2258.9 | 2248.3 | 2255.2 | 2266.6 | 2264.0 |
| 46° | 2305.5 | 2288.2 | 2279.5 | 2280.1 | 2269.4 | 2266.1 | 2282.4 | 2277.7 | 2282.4 | 2295.1 | 2293.1 |
| 47° | 2332.3 | 2321.2 | 2310.1 | 2310.1 | 2299.0 | 2296.9 | 2306.7 | 2307.1 | 2311.1 | 2324.8 | 2324.0 |
| 48° | 2359.5 | 2353.8 | 2341.1 | 2340.6 | 2328.4 | 2328.3 | 2329.5 | 2337.8 | 2340.8 | 2354.0 | 2355.2 |
| 49° | 2387.6 | 2388.1 | 2373.7 | 2372.2 | 2358.9 | 2359.9 | 2352.1 | 2368.0 | 2370.9 | 2384.3 | 2385.9 |
| 50° | 2416.3 | 2421.4 | 2406.4 | 2403.9 | 2389.1 | 2391.8 | 2374.9 | 2398.2 | 2400.7 | 2416.3 | 2418.1 |
| 51° | 2445.8 | 2456.0 | 2440.0 | 2436.4 | 2421.3 | 2423.2 | 2398.7 | 2427.8 | 2431.7 | 2448.7 | 2452.0 |
| 52° | 2476.0 | 2491.3 | 2475.4 | 2471.1 | 2453.9 | 2454.3 | 2423.1 | 2458.3 | 2463.5 | 2482.8 | 2485.5 |
| 53° | 2506.3 | 2525.9 | 2511.5 | 2505.4 | 2486.5 | 2484.2 | 2446.3 | 2488.3 | 2495.3 | 2516.2 | 2519.9 |
| 54° | 2536.6 | 2560.5 | 2548.1 | 2542.1 | 2519.5 | 2513.4 | 2469.4 | 2516.9 | 2528.3 | 2550.4 | 2554.3 |
| 55° | 2565.7 | 2592.1 | 2585.6 | 2578.2 | 2552.2 | 2540.8 | 2492.1 | 2542.9 | 2561.5 | 2587.2 | 2590.4 |
| 56° | 2593.0 | 2623.5 | 2623.9 | 2616.3 | 2586.0 | 2566.7 | 2513.9 | 2569.0 | 2594.7 | 2624.3 | 2627.5 |
| 57° | 2618.9 | 2652.9 | 2662.2 | 2656.3 | 2619.3 | 2590.6 | 2533.3 | 2592.4 | 2627.6 | 2662.2 | 2663.5 |
| 58° | 2643.2 | 2680.7 | 2701.3 | 2696.8 | 2652.2 | 2611.9 | 2549.9 | 2613.4 | 2660.5 | 2701.4 | 2698.0 |
| 59° | 2665.0 | 2706.6 | 2741.3 | 2737.8 | 2685.3 | 2629.6 | 2565.4 | 2632.7 | 2692.7 | 2741.3 | 2731.3 |
| 60° | 2684.7 | 2730.0 | 2780.5 | 2780.5 | 2717.1 | 2644.6 | 2577.6 | 2649.2 | 2723.4 | 2781.7 | 2763.4 |
| 61° | 2700.7 | 2751.1 | 2818.6 | 2823.0 | 2748.6 | 2658.0 | 2587.1 | 2663.4 | 2755.2 | 2821.5 | 2795.7 |
| 62° | 2713.3 | 2768.8 | 2855.8 | 2866.7 | 2778.9 | 2667.6 | 2592.4 | 2673.9 | 2784.7 | 2860.8 | 2826.6 |
| 63° | 2724.3 | 2784.8 | 2892.2 | 2910.8 | 2810.1 | 2672.6 | 2592.7 | 2682.0 | 2814.3 | 2897.1 | 2855.5 |
| 64° | 2734.1 | 2797.7 | 2925.4 | 2954.3 | 2839.3 | 2673.7 | 2588.6 | 2686.8 | 2843.8 | 2932.2 | 2882.8 |
| 65° | 2743.8 | 2808.7 | 2957.5 | 2997.2 | 2867.3 | 2673.2 | 2581.3 | 2687.7 | 2871.1 | 2968.0 | 2906.6 |
| 66° | 2749.3 | 2819.2 | 2986.2 | 3038.3 | 2891.5 | 2667.8 | 2570.5 | 2683.8 | 2895.6 | 3004.0 | 2928.9 |
| 67° | 2749.3 | 2826.5 | 3010.6 | 3076.5 | 2911.5 | 2658.2 | 2552.8 | 2675.4 | 2915.7 | 3037.2 | 2946.8 |
| 68° | 2724.0 | 2825.1 | 3031.4 | 3110.1 | 2925.3 | 2642.4 | 2498.4 | 2658.1 | 2931.7 | 3063.5 | 2935.3 |
| 69° | 2642.8 | 2803.7 | 3044.9 | 3135.2 | 2933.4 | 2599.1 | 2384.1 | 2614.8 | 2939.5 | 3084.4 | 2908.4 |
| 70° | 2471.7 | 2742.0 | 3050.0 | 3151.2 | 2936.5 | 2509.6 | 2217.3 | 2527.0 | 2938.2 | 3096.4 | 2894.0 |
| 71° | 2201.0 | 2602.8 | 3042.9 | 3157.8 | 2916.7 | 2370.4 | 2010.7 | 2389.1 | 2914.7 | 3094.4 | 2854.0 |
| 72° | 1919.0 | 2375.3 | 3018.7 | 3148.4 | 2865.8 | 2192.8 | 1822.3 | 2208.3 | 2853.0 | 3062.5 | 2786.9 |
| 73° | 1620.1 | 2078.8 | 2959.7 | 3115.6 | 2778.7 | 2002.0 | 1677.0 | 2013.2 | 2749.9 | 2993.4 | 2702.5 |
| 74° | 1274.6 | 1755.3 | 2830.1 | 3045.5 | 2656.8 | 1828.4 | 1494.5 | 1833.7 | 2615.4 | 2888.2 | 2563.3 |
| 75° | 843.9  | 1402.9 | 2592.9 | 2920.8 | 2496.8 | 1635.4 | 1141.9 | 1644.1 | 2444.2 | 2747.9 | 2355.7 |
| 76° | 436.4  | 984.6  | 2272.8 | 2720.5 | 2307.4 | 1345.5 | 789.4  | 1367.5 | 2255.6 | 2540.8 | 2072.5 |
| 77° | 315.8  | 529.7  | 1926.1 | 2427.5 | 2074.9 | 905.5  | 437.3  | 990.3  | 2030.9 | 2248.5 | 1721.4 |
| 78° | 201.8  | 380.7  | 1505.4 | 1997.5 | 1751.5 | 469.3  | 188.3  | 613.1  | 1719.5 | 1859.4 | 1300.7 |
| 79° | 87.9   | 237.1  | 976.5  | 1522.2 | 1299.6 | 339.3  | 148.3  | 238.6  | 1282.7 | 1407.1 | 879.9  |
| 80° | 73.0   | 93.4   | 498.3  | 991.2  | 786.9  | 212.8  | 108.3  | 184.3  | 845.9  | 951.9  | 460.6  |
| 81° | 62.4   | 77.0   | 360.4  | 501.6  | 386.5  | 86.2   | 69.2   | 130.0  | 413.2  | 501.4  | 211.6  |
| 82° | 53.2   | 65.0   | 228.0  | 360.7  | 285.0  | 73.4   | 59.1   | 75.7   | 184.0  | 202.8  | 161.4  |
| 83° | 44.6   | 54.3   | 95.7   | 229.3  | 186.5  | 62.1   | 50.0   | 63.8   | 144.6  | 158.3  | 111.3  |
| 84° | 36.9   | 44.5   | 75.0   | 98.0   | 88.1   | 51.7   | 41.4   | 53.0   | 105.2  | 113.8  | 61.5   |
| 85° | 29.1   | 36.4   | 57.2   | 80.8   | 66.9   | 42.3   | 33.4   | 43.1   | 66.1   | 69.4   | 44.5   |
| 86° | 21.4   | 28.3   | 42.9   | 65.0   | 49.1   | 34.0   | 25.9   | 34.2   | 47.4   | 54.4   | 29.8   |
| 87° | 14.4   | 20.3   | 31.2   | 47.8   | 36.1   | 25.7   | 18.4   | 25.9   | 34.2   | 38.6   | 18.5   |
| 88° | 8.3    | 13.1   | 19.6   | 38.3   | 23.2   | 17.3   | 12.9   | 18.4   | 23.7   | 24.1   | 13.1   |
| 89° | 3.3    | 5.7    | 7.9    | 29.0   | 10.4   | 9.3    | 7.3    | 12.7   | 16.3   | 16.6   | 7.8    |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 0°  | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| 90°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 91°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 92°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 93°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 94°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 95°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 96°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 97°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 98°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 99°  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 101° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 102° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 103° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 104° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 106° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 107° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 108° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 109° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 111° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 112° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 113° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 114° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 115° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 116° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 117° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 118° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 119° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 120° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 121° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 122° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 123° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 124° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 125° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 126° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 127° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 128° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 129° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 130° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 131° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 132° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 133° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 134° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 0°  | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| 135° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 136° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 137° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 138° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 139° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 140° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 141° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 142° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 143° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 144° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 145° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 146° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 147° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 148° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 149° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 151° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 152° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 153° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 154° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 156° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 157° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 158° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 159° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 161° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 162° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 163° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 164° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 166° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 167° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 168° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 169° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 171° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 172° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 173° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 174° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 176° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 177° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 178° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |
| 179° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |



REPORT NUMBER: P1444988  
CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

CANDELA DISTRIBUTION (continued):

|      | 0°  | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|     | 165°   | 180°   | 195°   | 210°   | 225°   | 240°   | 255°   | 270°   | 285°   | 300°   | 315°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°  | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 | 1466.0 |
| 1°  | 1466.4 | 1466.7 | 1467.0 | 1467.5 | 1467.7 | 1467.9 | 1468.1 | 1467.2 | 1467.0 | 1466.8 | 1467.0 |
| 2°  | 1468.2 | 1469.0 | 1469.3 | 1470.1 | 1470.6 | 1470.7 | 1470.9 | 1470.1 | 1470.2 | 1469.8 | 1469.9 |
| 3°  | 1471.3 | 1472.6 | 1473.5 | 1474.2 | 1475.0 | 1475.3 | 1475.8 | 1474.6 | 1474.7 | 1474.3 | 1474.6 |
| 4°  | 1476.4 | 1477.9 | 1478.9 | 1479.9 | 1480.8 | 1481.2 | 1481.7 | 1480.8 | 1480.5 | 1480.2 | 1480.0 |
| 5°  | 1482.7 | 1484.6 | 1485.8 | 1487.2 | 1487.9 | 1488.4 | 1488.5 | 1487.5 | 1487.4 | 1487.0 | 1486.8 |
| 6°  | 1490.7 | 1492.6 | 1494.4 | 1495.9 | 1496.6 | 1496.6 | 1496.7 | 1495.5 | 1495.5 | 1495.3 | 1495.0 |
| 7°  | 1500.1 | 1501.9 | 1504.1 | 1505.8 | 1506.5 | 1506.9 | 1507.4 | 1505.8 | 1505.5 | 1504.9 | 1504.7 |
| 8°  | 1510.3 | 1512.5 | 1514.9 | 1517.1 | 1518.1 | 1518.9 | 1518.5 | 1516.6 | 1516.2 | 1515.6 | 1514.8 |
| 9°  | 1521.4 | 1523.8 | 1526.8 | 1529.6 | 1531.2 | 1531.6 | 1530.6 | 1527.8 | 1527.9 | 1527.7 | 1526.9 |
| 10° | 1533.7 | 1536.6 | 1539.9 | 1543.4 | 1545.4 | 1545.4 | 1543.7 | 1541.0 | 1540.8 | 1541.1 | 1539.5 |
| 11° | 1547.2 | 1550.5 | 1554.3 | 1558.6 | 1560.8 | 1560.5 | 1558.4 | 1555.4 | 1555.4 | 1555.7 | 1553.6 |
| 12° | 1561.3 | 1564.6 | 1569.5 | 1574.6 | 1577.2 | 1576.5 | 1574.1 | 1570.5 | 1570.9 | 1570.9 | 1568.4 |
| 13° | 1575.8 | 1579.1 | 1584.5 | 1591.7 | 1594.9 | 1593.9 | 1590.2 | 1586.7 | 1587.3 | 1587.3 | 1584.3 |
| 14° | 1591.0 | 1594.1 | 1600.4 | 1608.7 | 1613.1 | 1611.7 | 1607.7 | 1603.4 | 1604.3 | 1604.8 | 1600.8 |
| 15° | 1606.4 | 1609.1 | 1616.5 | 1626.3 | 1632.0 | 1630.5 | 1625.4 | 1620.8 | 1622.0 | 1623.0 | 1617.7 |
| 16° | 1622.1 | 1624.9 | 1632.7 | 1643.9 | 1651.3 | 1650.6 | 1644.0 | 1638.7 | 1640.2 | 1641.3 | 1634.8 |
| 17° | 1637.9 | 1640.6 | 1649.3 | 1661.6 | 1670.7 | 1670.0 | 1663.6 | 1657.7 | 1658.8 | 1660.0 | 1652.8 |
| 18° | 1654.2 | 1656.9 | 1666.3 | 1679.0 | 1689.9 | 1690.4 | 1683.3 | 1676.6 | 1678.6 | 1679.3 | 1670.8 |
| 19° | 1670.7 | 1674.3 | 1683.1 | 1696.8 | 1709.6 | 1710.5 | 1703.2 | 1696.3 | 1698.4 | 1698.7 | 1688.4 |
| 20° | 1687.6 | 1691.7 | 1701.0 | 1715.9 | 1728.9 | 1731.4 | 1724.0 | 1716.9 | 1719.1 | 1718.8 | 1706.9 |
| 21° | 1705.4 | 1709.7 | 1719.4 | 1734.6 | 1748.7 | 1752.8 | 1746.0 | 1738.2 | 1739.9 | 1739.3 | 1725.3 |
| 22° | 1723.9 | 1728.5 | 1738.6 | 1754.4 | 1769.6 | 1774.6 | 1768.3 | 1759.7 | 1761.9 | 1760.0 | 1745.1 |
| 23° | 1742.3 | 1747.8 | 1758.9 | 1775.2 | 1790.6 | 1797.3 | 1790.2 | 1782.4 | 1784.7 | 1781.0 | 1765.4 |
| 24° | 1762.2 | 1768.3 | 1779.6 | 1796.2 | 1812.4 | 1819.6 | 1813.0 | 1805.4 | 1807.4 | 1802.1 | 1785.2 |
| 25° | 1781.8 | 1789.0 | 1800.7 | 1817.3 | 1834.6 | 1842.1 | 1836.7 | 1829.1 | 1830.2 | 1824.1 | 1805.8 |
| 26° | 1802.6 | 1811.4 | 1822.5 | 1839.5 | 1857.2 | 1864.7 | 1860.2 | 1853.8 | 1852.9 | 1845.8 | 1827.6 |
| 27° | 1823.4 | 1833.6 | 1844.3 | 1861.6 | 1879.5 | 1887.2 | 1883.6 | 1878.4 | 1875.9 | 1867.7 | 1849.2 |
| 28° | 1844.5 | 1858.1 | 1866.7 | 1884.4 | 1903.7 | 1910.8 | 1907.7 | 1904.4 | 1899.4 | 1890.3 | 1872.1 |
| 29° | 1866.4 | 1882.4 | 1889.7 | 1907.9 | 1927.2 | 1934.0 | 1932.1 | 1930.3 | 1923.0 | 1913.6 | 1896.1 |
| 30° | 1888.9 | 1908.1 | 1913.1 | 1931.1 | 1951.3 | 1957.6 | 1956.1 | 1956.2 | 1946.3 | 1936.5 | 1920.3 |
| 31° | 1912.1 | 1933.9 | 1936.8 | 1954.5 | 1974.3 | 1981.2 | 1979.7 | 1982.8 | 1969.9 | 1959.5 | 1944.7 |
| 32° | 1935.3 | 1960.1 | 1960.7 | 1978.0 | 1998.7 | 2005.8 | 2004.1 | 2009.2 | 1992.7 | 1982.4 | 1969.2 |
| 33° | 1959.2 | 1986.6 | 1984.6 | 2002.7 | 2023.1 | 2030.6 | 2028.4 | 2035.7 | 2016.5 | 2006.9 | 1994.7 |
| 34° | 1983.0 | 2013.1 | 2008.1 | 2027.7 | 2048.3 | 2055.1 | 2052.9 | 2062.6 | 2040.0 | 2031.1 | 2020.2 |
| 35° | 2006.3 | 2040.8 | 2032.8 | 2053.3 | 2073.5 | 2080.1 | 2077.0 | 2089.5 | 2064.3 | 2056.5 | 2047.0 |
| 36° | 2030.4 | 2068.5 | 2057.6 | 2079.0 | 2098.4 | 2104.5 | 2101.5 | 2116.9 | 2088.5 | 2081.8 | 2073.3 |
| 37° | 2054.0 | 2096.2 | 2082.8 | 2104.9 | 2123.7 | 2129.2 | 2126.9 | 2144.3 | 2113.5 | 2107.6 | 2099.7 |
| 38° | 2078.9 | 2123.6 | 2108.7 | 2131.3 | 2149.7 | 2154.8 | 2152.1 | 2171.6 | 2138.6 | 2133.6 | 2126.6 |
| 39° | 2104.3 | 2151.3 | 2134.8 | 2158.2 | 2176.4 | 2180.1 | 2178.3 | 2198.5 | 2164.0 | 2160.2 | 2153.2 |
| 40° | 2130.8 | 2177.2 | 2162.1 | 2185.6 | 2203.0 | 2206.5 | 2204.5 | 2224.3 | 2190.0 | 2187.3 | 2180.3 |
| 41° | 2158.5 | 2203.3 | 2189.7 | 2213.2 | 2230.6 | 2232.5 | 2230.7 | 2249.3 | 2216.7 | 2214.6 | 2207.4 |
| 42° | 2185.7 | 2228.7 | 2218.5 | 2240.4 | 2257.8 | 2259.5 | 2257.7 | 2274.1 | 2244.8 | 2242.5 | 2235.8 |
| 43° | 2214.0 | 2253.8 | 2247.5 | 2268.1 | 2286.3 | 2288.0 | 2286.2 | 2299.2 | 2273.7 | 2270.2 | 2263.2 |
| 44° | 2243.2 | 2278.9 | 2277.3 | 2296.8 | 2315.1 | 2316.4 | 2315.0 | 2325.3 | 2303.3 | 2298.1 | 2291.9 |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|     | 165°   | 180°   | 195°   | 210°   | 225°   | 240°   | 255°   | 270°   | 285°   | 300°   | 315°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 2273.0 | 2304.5 | 2307.5 | 2326.7 | 2344.9 | 2345.2 | 2345.4 | 2350.4 | 2333.6 | 2327.0 | 2320.8 |
| 46° | 2303.9 | 2329.4 | 2339.0 | 2356.0 | 2374.9 | 2374.1 | 2375.7 | 2373.3 | 2365.3 | 2356.4 | 2350.5 |
| 47° | 2336.4 | 2353.8 | 2371.0 | 2385.6 | 2405.2 | 2403.0 | 2405.9 | 2396.0 | 2395.6 | 2386.1 | 2381.5 |
| 48° | 2369.3 | 2379.5 | 2404.0 | 2416.3 | 2436.0 | 2432.7 | 2435.7 | 2419.3 | 2426.3 | 2415.9 | 2412.9 |
| 49° | 2402.4 | 2407.0 | 2438.0 | 2447.2 | 2467.8 | 2462.6 | 2465.2 | 2443.1 | 2456.5 | 2446.2 | 2444.7 |
| 50° | 2437.1 | 2434.1 | 2472.5 | 2479.6 | 2499.6 | 2493.0 | 2494.0 | 2467.2 | 2486.2 | 2477.6 | 2477.1 |
| 51° | 2473.6 | 2462.0 | 2507.0 | 2512.2 | 2532.3 | 2522.9 | 2522.7 | 2489.0 | 2515.1 | 2508.9 | 2510.3 |
| 52° | 2508.4 | 2488.3 | 2540.5 | 2544.9 | 2565.7 | 2553.0 | 2550.1 | 2511.2 | 2543.2 | 2540.2 | 2544.3 |
| 53° | 2539.7 | 2510.3 | 2571.7 | 2578.8 | 2599.9 | 2583.0 | 2575.6 | 2531.8 | 2568.3 | 2570.6 | 2578.5 |
| 54° | 2566.8 | 2526.5 | 2600.0 | 2613.2 | 2634.6 | 2614.0 | 2599.1 | 2550.2 | 2592.3 | 2602.9 | 2614.5 |
| 55° | 2591.5 | 2543.2 | 2624.4 | 2647.9 | 2670.2 | 2643.9 | 2621.2 | 2567.7 | 2614.1 | 2633.7 | 2651.8 |
| 56° | 2616.6 | 2562.2 | 2648.3 | 2684.3 | 2706.2 | 2673.0 | 2640.9 | 2583.6 | 2633.8 | 2664.2 | 2690.3 |
| 57° | 2640.4 | 2581.9 | 2671.8 | 2719.6 | 2742.4 | 2702.4 | 2658.3 | 2596.8 | 2650.5 | 2693.6 | 2727.4 |
| 58° | 2662.8 | 2595.8 | 2694.4 | 2756.0 | 2779.1 | 2731.3 | 2673.1 | 2609.6 | 2664.4 | 2723.0 | 2766.4 |
| 59° | 2680.0 | 2605.5 | 2711.2 | 2790.2 | 2817.6 | 2758.8 | 2685.5 | 2620.3 | 2676.0 | 2751.2 | 2805.1 |
| 60° | 2694.2 | 2617.5 | 2725.3 | 2822.4 | 2855.3 | 2785.4 | 2696.8 | 2628.4 | 2685.7 | 2779.3 | 2844.6 |
| 61° | 2707.8 | 2629.3 | 2738.9 | 2855.3 | 2893.5 | 2812.2 | 2705.8 | 2631.7 | 2695.1 | 2806.4 | 2884.4 |
| 62° | 2720.8 | 2639.0 | 2751.4 | 2886.4 | 2928.3 | 2839.6 | 2711.8 | 2632.6 | 2700.5 | 2832.4 | 2924.8 |
| 63° | 2732.6 | 2646.9 | 2763.2 | 2915.0 | 2959.9 | 2864.4 | 2714.3 | 2631.8 | 2701.8 | 2856.5 | 2964.7 |
| 64° | 2743.1 | 2648.5 | 2773.2 | 2941.2 | 2989.8 | 2888.2 | 2715.7 | 2625.2 | 2700.2 | 2878.6 | 3004.8 |
| 65° | 2741.6 | 2623.6 | 2769.4 | 2964.3 | 3018.9 | 2909.0 | 2711.6 | 2613.7 | 2694.2 | 2897.2 | 3042.5 |
| 66° | 2707.8 | 2601.6 | 2732.3 | 2982.4 | 3046.6 | 2925.5 | 2704.6 | 2597.1 | 2684.8 | 2913.0 | 3078.3 |
| 67° | 2686.1 | 2588.1 | 2709.1 | 2992.6 | 3068.2 | 2939.3 | 2690.7 | 2557.0 | 2668.3 | 2924.5 | 3109.0 |
| 68° | 2673.1 | 2544.1 | 2689.2 | 2972.2 | 3085.1 | 2948.3 | 2656.5 | 2461.6 | 2629.4 | 2931.1 | 3134.5 |
| 69° | 2620.6 | 2428.8 | 2631.2 | 2937.8 | 3096.3 | 2945.5 | 2582.2 | 2300.1 | 2545.8 | 2926.9 | 3152.2 |
| 70° | 2521.9 | 2227.2 | 2535.4 | 2915.1 | 3097.9 | 2926.1 | 2447.2 | 2086.9 | 2404.8 | 2908.4 | 3157.9 |
| 71° | 2371.3 | 1937.5 | 2384.0 | 2865.5 | 3082.9 | 2877.3 | 2262.5 | 1873.8 | 2212.1 | 2857.8 | 3147.1 |
| 72° | 2141.1 | 1675.0 | 2150.0 | 2794.0 | 3035.8 | 2786.5 | 2053.0 | 1695.8 | 2001.9 | 2773.8 | 3117.6 |
| 73° | 1859.7 | 1406.6 | 1864.8 | 2696.1 | 2949.9 | 2649.5 | 1850.4 | 1522.9 | 1802.0 | 2645.7 | 3057.0 |
| 74° | 1568.1 | 1054.3 | 1574.1 | 2545.6 | 2826.9 | 2482.4 | 1658.0 | 1286.9 | 1607.3 | 2480.5 | 2957.3 |
| 75° | 1193.5 | 701.9  | 1201.0 | 2318.0 | 2662.8 | 2279.6 | 1417.3 | 917.8  | 1355.5 | 2276.9 | 2796.1 |
| 76° | 819.0  | 355.1  | 827.9  | 2014.8 | 2420.9 | 2058.4 | 1041.4 | 520.3  | 981.3  | 2042.9 | 2564.4 |
| 77° | 447.7  | 260.4  | 458.0  | 1663.2 | 2091.6 | 1791.5 | 665.4  | 373.5  | 548.6  | 1761.0 | 2231.4 |
| 78° | 188.9  | 165.7  | 198.0  | 1245.2 | 1662.6 | 1419.2 | 294.7  | 231.8  | 397.6  | 1382.7 | 1785.7 |
| 79° | 147.2  | 73.3   | 153.6  | 827.3  | 1213.8 | 1030.7 | 136.7  | 90.1   | 246.6  | 916.6  | 1282.3 |
| 80° | 105.6  | 60.4   | 109.2  | 412.5  | 764.9  | 642.3  | 114.2  | 75.4   | 95.7   | 503.2  | 776.3  |
| 81° | 64.0   | 50.3   | 65.4   | 185.4  | 323.4  | 254.7  | 91.7   | 64.4   | 78.7   | 363.6  | 365.7  |
| 82° | 52.3   | 41.3   | 53.4   | 143.7  | 139.3  | 134.7  | 69.3   | 54.7   | 66.8   | 232.5  | 236.2  |
| 83° | 41.7   | 32.8   | 42.7   | 101.9  | 115.1  | 109.3  | 58.4   | 45.9   | 56.2   | 101.4  | 114.5  |
| 84° | 32.2   | 25.4   | 32.9   | 60.5   | 90.8   | 84.0   | 48.6   | 38.1   | 46.4   | 78.4   | 92.4   |
| 85° | 23.4   | 18.1   | 23.9   | 43.1   | 66.6   | 58.7   | 39.3   | 30.3   | 38.1   | 58.7   | 76.7   |
| 86° | 16.6   | 12.5   | 16.8   | 28.5   | 51.9   | 42.2   | 30.8   | 22.5   | 29.8   | 42.9   | 61.4   |
| 87° | 9.8    | 6.9    | 9.7    | 20.5   | 36.4   | 30.5   | 23.0   | 15.4   | 21.6   | 31.0   | 43.3   |
| 88° | 2.9    | 1.4    | 2.7    | 12.6   | 24.9   | 21.0   | 15.9   | 9.0    | 14.4   | 19.2   | 34.8   |
| 89° | 2.1    | 1.2    | 2.0    | 4.6    | 13.3   | 11.5   | 8.7    | 3.6    | 6.5    | 7.4    | 26.4   |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 90°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 91°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 92°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 93°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 94°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 95°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 96°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 97°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 98°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 99°  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 100° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 101° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 102° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 103° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 104° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 105° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 106° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 107° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 108° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 109° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 110° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 111° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 112° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 113° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 114° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 115° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 116° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 117° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 118° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 119° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 120° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 121° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 122° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 123° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 124° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 125° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 126° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 127° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 128° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 129° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 130° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 131° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 132° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 133° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 134° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 135° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 136° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 137° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 138° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 139° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 140° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 141° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 143° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 144° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 145° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 146° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 147° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 148° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 149° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 150° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 151° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 152° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 153° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 154° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 155° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 156° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 157° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 158° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 159° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 160° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 161° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 162° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 163° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 164° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 166° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 168° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 169° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 171° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 173° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 174° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 176° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 178° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 179° | 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):

|      | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 180° | 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: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|     | 330°   | 345°   | 360°   |
|-----|--------|--------|--------|
| 0°  | 1466.0 | 1466.0 | 1466.0 |
| 1°  | 1467.1 | 1466.7 | 1466.7 |
| 2°  | 1469.8 | 1469.5 | 1469.0 |
| 3°  | 1474.1 | 1473.7 | 1472.8 |
| 4°  | 1479.8 | 1479.1 | 1478.3 |
| 5°  | 1486.4 | 1485.5 | 1484.5 |
| 6°  | 1494.1 | 1493.2 | 1491.6 |
| 7°  | 1502.7 | 1501.4 | 1499.4 |
| 8°  | 1512.5 | 1510.4 | 1508.4 |
| 9°  | 1523.7 | 1520.9 | 1518.3 |
| 10° | 1535.9 | 1532.4 | 1529.1 |
| 11° | 1549.0 | 1544.8 | 1540.9 |
| 12° | 1563.1 | 1557.6 | 1553.0 |
| 13° | 1578.0 | 1570.6 | 1564.6 |
| 14° | 1592.8 | 1583.9 | 1577.6 |
| 15° | 1607.6 | 1597.6 | 1590.3 |
| 16° | 1623.5 | 1612.1 | 1604.1 |
| 17° | 1639.3 | 1627.6 | 1619.0 |
| 18° | 1656.0 | 1643.4 | 1634.5 |
| 19° | 1673.1 | 1659.5 | 1650.4 |
| 20° | 1689.7 | 1675.8 | 1667.6 |
| 21° | 1707.5 | 1693.6 | 1685.2 |
| 22° | 1726.1 | 1712.0 | 1703.8 |
| 23° | 1745.6 | 1731.1 | 1723.5 |
| 24° | 1765.5 | 1750.9 | 1744.2 |
| 25° | 1785.5 | 1771.8 | 1765.9 |
| 26° | 1807.1 | 1793.2 | 1788.4 |
| 27° | 1829.4 | 1815.2 | 1811.6 |
| 28° | 1851.7 | 1837.3 | 1835.8 |
| 29° | 1875.4 | 1860.1 | 1860.5 |
| 30° | 1899.6 | 1883.1 | 1885.7 |
| 31° | 1923.9 | 1907.3 | 1911.4 |
| 32° | 1948.2 | 1931.4 | 1936.9 |
| 33° | 1972.9 | 1955.8 | 1962.3 |
| 34° | 1997.7 | 1979.5 | 1987.9 |
| 35° | 2023.5 | 2003.8 | 2015.0 |
| 36° | 2050.2 | 2028.0 | 2041.7 |
| 37° | 2076.1 | 2053.4 | 2068.5 |
| 38° | 2103.1 | 2079.3 | 2095.7 |
| 39° | 2129.5 | 2105.1 | 2122.3 |
| 40° | 2157.3 | 2132.3 | 2148.7 |
| 41° | 2184.7 | 2159.9 | 2174.7 |
| 42° | 2213.0 | 2188.9 | 2201.8 |
| 43° | 2241.6 | 2218.4 | 2228.1 |
| 44° | 2270.3 | 2247.6 | 2253.8 |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|     | 330°   | 345°   | 360°   |
|-----|--------|--------|--------|
| 45° | 2299.7 | 2279.3 | 2279.6 |
| 46° | 2329.9 | 2310.6 | 2305.5 |
| 47° | 2360.6 | 2343.8 | 2332.3 |
| 48° | 2392.4 | 2377.5 | 2359.5 |
| 49° | 2425.1 | 2412.8 | 2387.6 |
| 50° | 2458.6 | 2447.9 | 2416.3 |
| 51° | 2492.9 | 2484.2 | 2445.8 |
| 52° | 2528.3 | 2519.8 | 2476.0 |
| 53° | 2565.0 | 2555.6 | 2506.3 |
| 54° | 2600.9 | 2590.7 | 2536.6 |
| 55° | 2638.5 | 2625.4 | 2565.7 |
| 56° | 2677.1 | 2657.8 | 2593.0 |
| 57° | 2715.0 | 2687.6 | 2618.9 |
| 58° | 2754.2 | 2715.0 | 2643.2 |
| 59° | 2792.3 | 2740.3 | 2665.0 |
| 60° | 2830.4 | 2763.4 | 2684.7 |
| 61° | 2868.5 | 2783.0 | 2700.7 |
| 62° | 2905.6 | 2800.6 | 2713.3 |
| 63° | 2941.3 | 2815.4 | 2724.3 |
| 64° | 2976.9 | 2829.6 | 2734.1 |
| 65° | 3009.7 | 2842.4 | 2743.8 |
| 66° | 3040.3 | 2854.4 | 2749.3 |
| 67° | 3065.1 | 2862.2 | 2749.3 |
| 68° | 3084.0 | 2861.3 | 2724.0 |
| 69° | 3093.2 | 2841.5 | 2642.8 |
| 70° | 3093.0 | 2783.6 | 2471.7 |
| 71° | 3078.6 | 2656.7 | 2201.0 |
| 72° | 3042.7 | 2429.9 | 1919.0 |
| 73° | 2967.4 | 2129.5 | 1620.1 |
| 74° | 2818.3 | 1791.4 | 1274.6 |
| 75° | 2572.0 | 1437.4 | 843.9  |
| 76° | 2255.5 | 1029.9 | 436.4  |
| 77° | 1890.8 | 570.9  | 315.8  |
| 78° | 1438.9 | 411.7  | 201.8  |
| 79° | 909.4  | 253.5  | 87.9   |
| 80° | 467.6  | 95.3   | 73.0   |
| 81° | 335.5  | 80.1   | 62.4   |
| 82° | 214.7  | 67.7   | 53.2   |
| 83° | 93.8   | 56.3   | 44.6   |
| 84° | 74.2   | 46.2   | 36.9   |
| 85° | 56.2   | 37.7   | 29.1   |
| 86° | 42.2   | 29.2   | 21.4   |
| 87° | 30.4   | 20.8   | 14.4   |
| 88° | 18.6   | 13.2   | 8.3    |
| 89° | 6.9    | 5.4    | 3.3    |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 330° | 345° | 360° |
|------|------|------|------|
| 90°  | 0.0  | 0.0  | 0.0  |
| 91°  | 0.0  | 0.0  | 0.0  |
| 92°  | 0.0  | 0.0  | 0.0  |
| 93°  | 0.0  | 0.0  | 0.0  |
| 94°  | 0.0  | 0.0  | 0.0  |
| 95°  | 0.0  | 0.0  | 0.0  |
| 96°  | 0.0  | 0.0  | 0.0  |
| 97°  | 0.0  | 0.0  | 0.0  |
| 98°  | 0.0  | 0.0  | 0.0  |
| 99°  | 0.0  | 0.0  | 0.0  |
| 100° | 0.0  | 0.0  | 0.0  |
| 101° | 0.0  | 0.0  | 0.0  |
| 102° | 0.0  | 0.0  | 0.0  |
| 103° | 0.0  | 0.0  | 0.0  |
| 104° | 0.0  | 0.0  | 0.0  |
| 105° | 0.0  | 0.0  | 0.0  |
| 106° | 0.0  | 0.0  | 0.0  |
| 107° | 0.0  | 0.0  | 0.0  |
| 108° | 0.0  | 0.0  | 0.0  |
| 109° | 0.0  | 0.0  | 0.0  |
| 110° | 0.0  | 0.0  | 0.0  |
| 111° | 0.0  | 0.0  | 0.0  |
| 112° | 0.0  | 0.0  | 0.0  |
| 113° | 0.0  | 0.0  | 0.0  |
| 114° | 0.0  | 0.0  | 0.0  |
| 115° | 0.0  | 0.0  | 0.0  |
| 116° | 0.0  | 0.0  | 0.0  |
| 117° | 0.0  | 0.0  | 0.0  |
| 118° | 0.0  | 0.0  | 0.0  |
| 119° | 0.0  | 0.0  | 0.0  |
| 120° | 0.0  | 0.0  | 0.0  |
| 121° | 0.0  | 0.0  | 0.0  |
| 122° | 0.0  | 0.0  | 0.0  |
| 123° | 0.0  | 0.0  | 0.0  |
| 124° | 0.0  | 0.0  | 0.0  |
| 125° | 0.0  | 0.0  | 0.0  |
| 126° | 0.0  | 0.0  | 0.0  |
| 127° | 0.0  | 0.0  | 0.0  |
| 128° | 0.0  | 0.0  | 0.0  |
| 129° | 0.0  | 0.0  | 0.0  |
| 130° | 0.0  | 0.0  | 0.0  |
| 131° | 0.0  | 0.0  | 0.0  |
| 132° | 0.0  | 0.0  | 0.0  |
| 133° | 0.0  | 0.0  | 0.0  |
| 134° | 0.0  | 0.0  | 0.0  |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 330° | 345° | 360° |
|------|------|------|------|
| 135° | 0.0  | 0.0  | 0.0  |
| 136° | 0.0  | 0.0  | 0.0  |
| 137° | 0.0  | 0.0  | 0.0  |
| 138° | 0.0  | 0.0  | 0.0  |
| 139° | 0.0  | 0.0  | 0.0  |
| 140° | 0.0  | 0.0  | 0.0  |
| 141° | 0.0  | 0.0  | 0.0  |
| 142° | 0.0  | 0.0  | 0.0  |
| 143° | 0.0  | 0.0  | 0.0  |
| 144° | 0.0  | 0.0  | 0.0  |
| 145° | 0.0  | 0.0  | 0.0  |
| 146° | 0.0  | 0.0  | 0.0  |
| 147° | 0.0  | 0.0  | 0.0  |
| 148° | 0.0  | 0.0  | 0.0  |
| 149° | 0.0  | 0.0  | 0.0  |
| 150° | 0.0  | 0.0  | 0.0  |
| 151° | 0.0  | 0.0  | 0.0  |
| 152° | 0.0  | 0.0  | 0.0  |
| 153° | 0.0  | 0.0  | 0.0  |
| 154° | 0.0  | 0.0  | 0.0  |
| 155° | 0.0  | 0.0  | 0.0  |
| 156° | 0.0  | 0.0  | 0.0  |
| 157° | 0.0  | 0.0  | 0.0  |
| 158° | 0.0  | 0.0  | 0.0  |
| 159° | 0.0  | 0.0  | 0.0  |
| 160° | 0.0  | 0.0  | 0.0  |
| 161° | 0.0  | 0.0  | 0.0  |
| 162° | 0.0  | 0.0  | 0.0  |
| 163° | 0.0  | 0.0  | 0.0  |
| 164° | 0.0  | 0.0  | 0.0  |
| 165° | 0.0  | 0.0  | 0.0  |
| 166° | 0.0  | 0.0  | 0.0  |
| 167° | 0.0  | 0.0  | 0.0  |
| 168° | 0.0  | 0.0  | 0.0  |
| 169° | 0.0  | 0.0  | 0.0  |
| 170° | 0.0  | 0.0  | 0.0  |
| 171° | 0.0  | 0.0  | 0.0  |
| 172° | 0.0  | 0.0  | 0.0  |
| 173° | 0.0  | 0.0  | 0.0  |
| 174° | 0.0  | 0.0  | 0.0  |
| 175° | 0.0  | 0.0  | 0.0  |
| 176° | 0.0  | 0.0  | 0.0  |
| 177° | 0.0  | 0.0  | 0.0  |
| 178° | 0.0  | 0.0  | 0.0  |
| 179° | 0.0  | 0.0  | 0.0  |

REPORT NUMBER: P1444988

CATALOG NUMBER: XAS180-SFPM (3000K-72W-T5)

**CANDELA DISTRIBUTION (continued):**

|      | 330° | 345° | 360° |
|------|------|------|------|
| 180° | 0.0  | 0.0  | 0.0  |

(END OF REPORT)