

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: P1436746

Luminaire Tested: XAS180-SFPM (4000K-72W-T5-HSS)

Issue Date: 3/25/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1436746  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA ( )  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 3/25/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: LUMARK  
Catalog Number: XAS180-SFPM (4000K-72W-T5-HSS)  
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.  
LUMEN OUTPUT - 40% (72W)  
OPTICS - TYPE 5 WITH HOUSE SIDE SHIELD  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

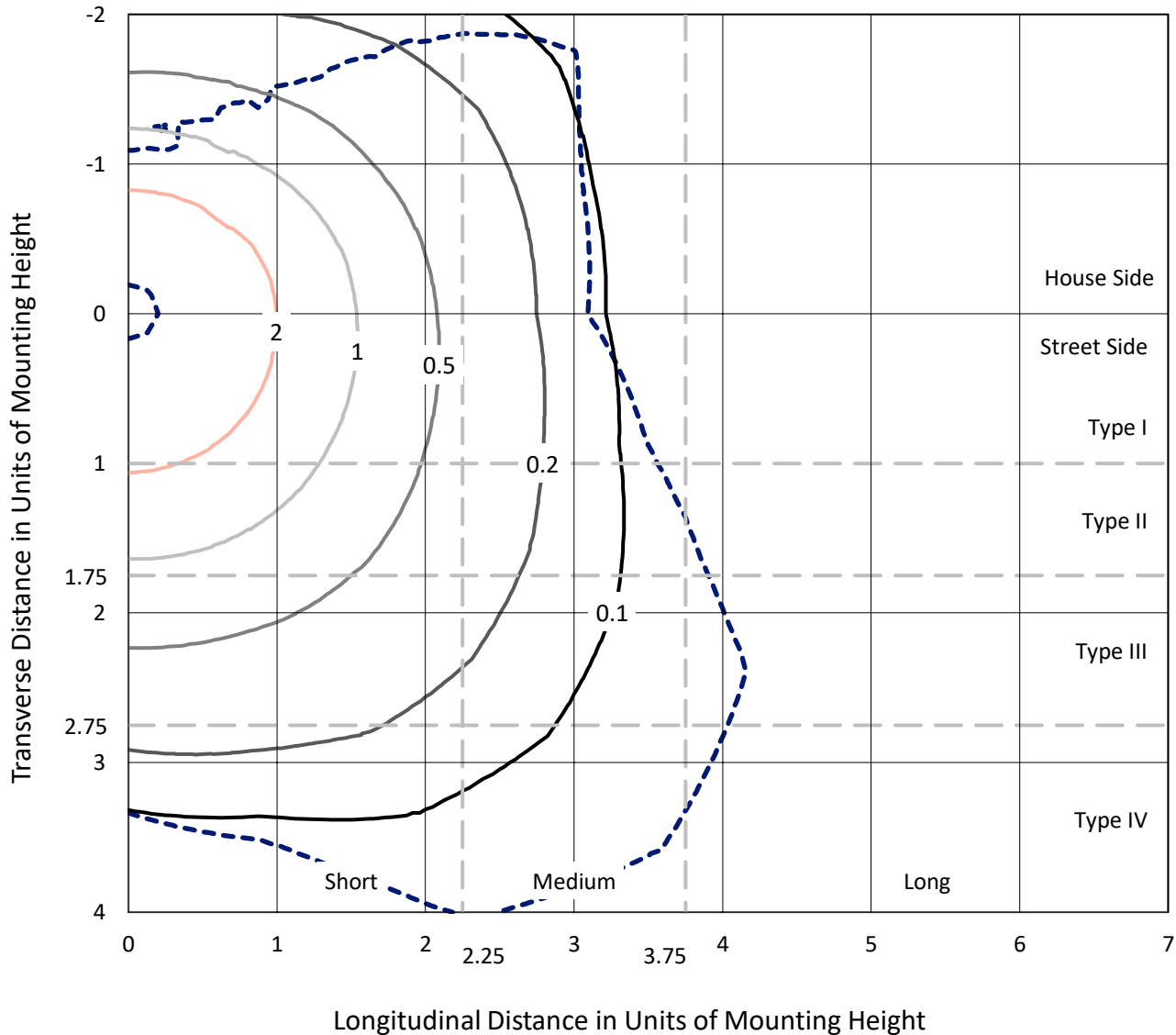
**Summary**

Lumens per Lamp: 23809 (1 lamp)  
Luminaire Lumens: 10229.2 lumens  
Efficiency: 43.0%  
Efficacy: 142.9 lumens/watt  
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)  
IES Classification: Type IV - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 71.6  
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: 28.75 FT

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### Iso-Footcandle Lines of Horizontal Illumination

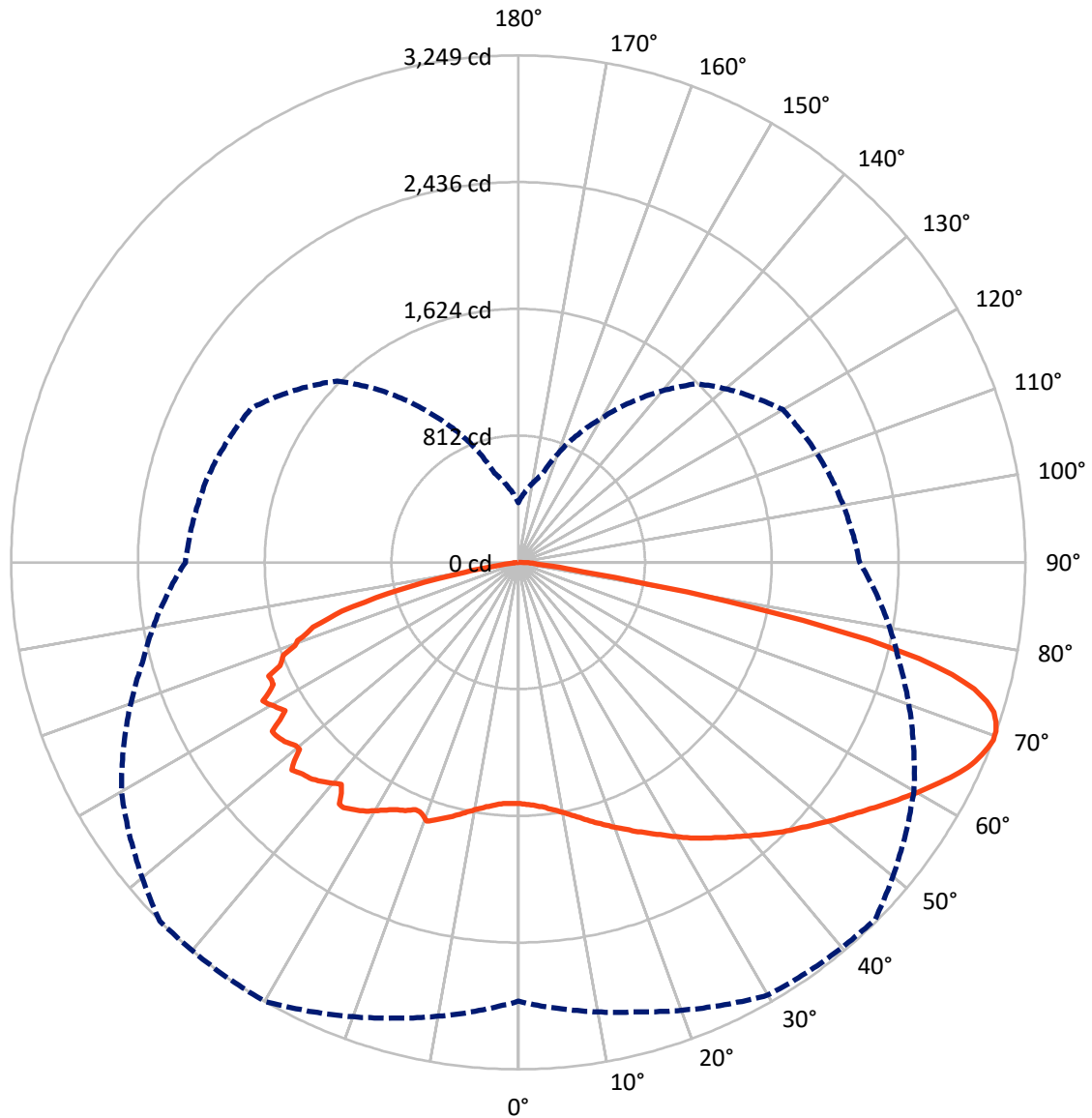
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.9 fc  
 Type IV - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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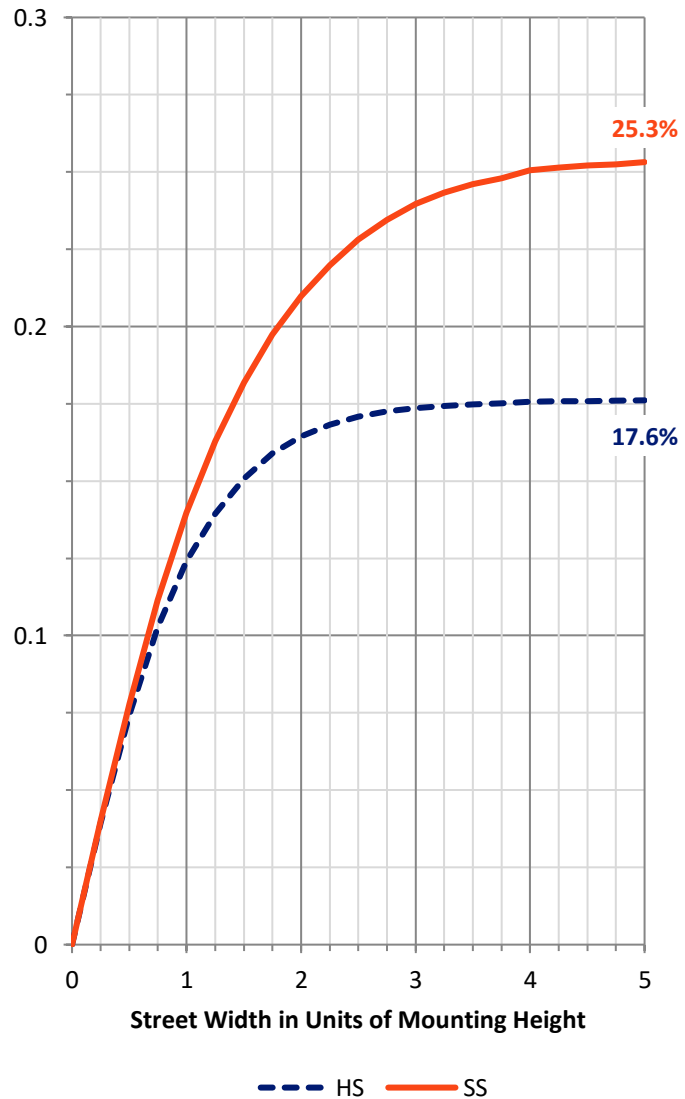
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4201.0	0.0	4201.0
	% Lamp	17.6	0.0	17.6
<b>Street Side</b>	Lumens	6028.2	0.0	6028.2
	% Lamp	25.3	0.0	25.3
<b>Total</b>	Lumens	10229.2	0.0	10229.2
	% Lamp	43.0	0.0	43.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	151.1	1.5	0.6
10°-20°	480.7	4.7	2.0
20°-30°	856.9	8.4	3.6
30°-40°	1268.7	12.4	5.3
40°-50°	1692.7	16.5	7.1
50°-60°	2076.0	20.3	8.7
60°-70°	2261.4	22.1	9.5
70°-80°	1364.2	13.3	5.7
80°-90°	77.6	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°	10229.2	100.0	43.0
0°-180°	10229.2	100.0	43.0

**Coefficient of Utilization**



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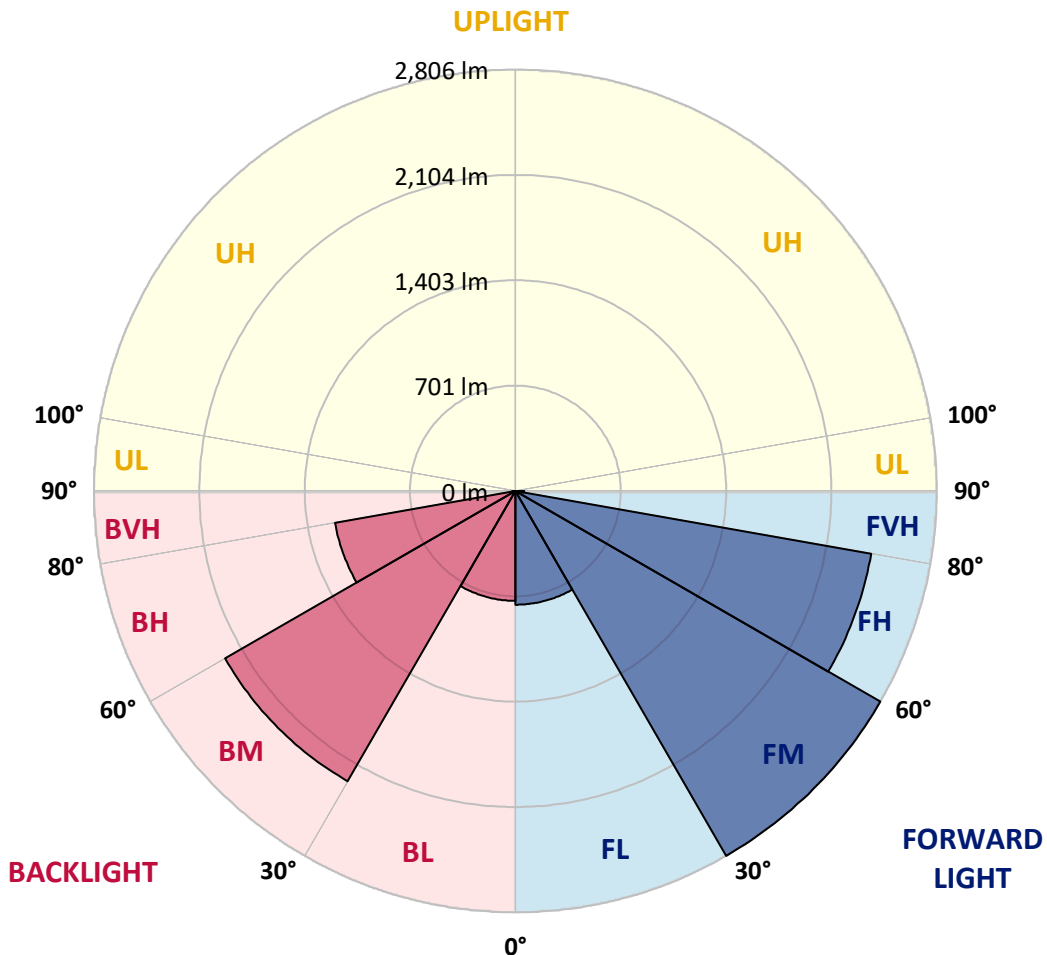
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	757.5	3.2			
FM (30°-60°)	2805.6	11.8			
FH (60°-80°)	2406.0	10.1			G2/5000
FVH (80°-90°)	59.0	0.2			G1/100
BL (0°-30°)	731.2	3.1	B2/1000		
BM (30°-60°)	2231.8	9.4	B2/2500		
BH (60°-80°)	1219.5	5.1	B3/2500		G3/2500
BVH (80°-90°)	18.6	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	13579.8	57.0			

**BUG Rating: B3-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7
1°	1549.0	1549.0	1548.8	1548.4	1548.0	1547.1	1546.1	1545.7	1545.3	1545.1	1545.1
2°	1553.1	1552.5	1552.2	1551.1	1550.1	1548.4	1546.9	1546.0	1545.3	1544.8	1545.1
3°	1558.4	1557.6	1556.6	1554.9	1553.7	1551.6	1549.6	1548.3	1546.9	1546.2	1546.3
4°	1565.3	1564.1	1562.6	1560.5	1558.8	1556.3	1553.8	1552.1	1550.2	1549.3	1549.2
5°	1573.2	1571.6	1570.0	1567.4	1564.9	1561.9	1558.9	1556.8	1555.1	1554.0	1555.0
6°	1582.0	1579.9	1578.5	1575.8	1572.4	1568.4	1565.2	1562.5	1560.6	1561.6	1562.9
7°	1591.1	1589.4	1588.0	1585.1	1581.5	1576.7	1572.8	1569.6	1567.4	1570.1	1572.1
8°	1601.3	1599.6	1598.2	1595.5	1591.3	1586.3	1582.1	1578.7	1576.9	1579.9	1582.6
9°	1612.8	1611.0	1609.1	1606.7	1602.6	1596.7	1592.0	1588.5	1588.5	1590.7	1593.8
10°	1625.2	1623.4	1621.9	1619.2	1615.3	1608.3	1603.2	1599.2	1600.6	1603.6	1605.9
11°	1638.5	1636.2	1635.5	1633.0	1628.7	1621.4	1615.4	1611.5	1613.9	1617.9	1619.5
12°	1651.8	1649.2	1649.4	1647.5	1642.4	1635.1	1628.1	1624.5	1627.8	1632.3	1633.6
13°	1665.3	1662.6	1663.9	1663.2	1657.4	1649.5	1641.5	1638.0	1643.0	1647.3	1648.5
14°	1679.3	1676.3	1678.3	1678.7	1673.4	1664.2	1655.3	1651.7	1658.0	1663.7	1663.6
15°	1694.1	1691.2	1693.8	1695.1	1689.3	1679.4	1670.2	1666.3	1673.7	1679.6	1678.5
16°	1708.7	1706.9	1709.5	1711.6	1705.8	1695.5	1685.7	1681.7	1690.3	1695.6	1693.8
17°	1724.8	1722.9	1725.8	1728.4	1723.1	1712.0	1701.4	1697.5	1707.4	1711.4	1689.5
18°	1741.6	1739.1	1742.8	1745.2	1740.7	1728.6	1715.9	1710.2	1724.5	1727.8	1661.8
19°	1758.9	1756.2	1760.3	1762.7	1758.6	1746.5	1726.0	1722.4	1736.6	1744.2	1647.9
20°	1777.2	1774.3	1778.0	1780.3	1776.8	1761.6	1739.9	1735.6	1749.0	1758.4	1661.8
21°	1796.8	1793.3	1796.2	1798.5	1796.0	1774.8	1756.5	1755.0	1762.6	1733.7	1676.7
22°	1817.1	1813.3	1815.6	1817.8	1815.9	1791.3	1775.7	1774.1	1780.9	1717.6	1692.5
23°	1838.5	1834.3	1835.2	1837.2	1836.8	1808.7	1795.8	1790.2	1798.0	1714.8	1709.0
24°	1860.9	1856.2	1855.5	1857.2	1853.3	1829.4	1813.3	1806.0	1810.8	1731.2	1726.1
25°	1883.7	1878.4	1876.4	1878.6	1870.0	1850.9	1829.7	1823.7	1826.2	1747.1	1743.1
26°	1907.7	1901.4	1897.8	1900.5	1890.1	1872.6	1849.6	1843.5	1843.0	1758.4	1761.2
27°	1932.6	1924.6	1920.3	1922.2	1907.8	1891.4	1868.4	1865.5	1862.3	1771.5	1778.9
28°	1958.2	1948.9	1943.1	1945.4	1928.0	1908.9	1891.4	1887.2	1872.5	1787.0	1796.5
29°	1984.7	1972.8	1966.6	1969.3	1950.0	1928.5	1915.3	1909.7	1860.7	1807.0	1814.4
30°	2011.9	1997.6	1991.2	1993.8	1972.7	1948.5	1940.5	1932.3	1861.8	1827.6	1829.4
31°	2039.2	2022.1	2015.9	2017.9	1995.9	1967.6	1966.3	1954.1	1856.4	1848.5	1837.4
32°	2066.3	2046.8	2041.0	2039.0	2019.1	1991.0	1991.5	1969.0	1871.8	1868.6	1771.8
33°	2093.8	2072.1	2066.5	2060.4	2039.8	2014.4	2017.2	1980.3	1887.0	1885.3	1723.1
34°	2121.5	2097.3	2092.7	2082.5	2059.5	2037.3	2038.7	1992.6	1903.1	1899.6	1730.3
35°	2150.2	2123.3	2119.3	2107.0	2080.6	2060.3	2053.7	2011.0	1920.9	1913.9	1748.4
36°	2179.0	2149.6	2146.1	2130.4	2103.8	2083.9	2070.7	2029.9	1940.6	1929.8	1763.7
37°	2207.7	2175.5	2173.7	2154.6	2126.6	2106.8	2089.0	2049.2	1958.6	1926.8	1776.3
38°	2236.5	2202.3	2201.3	2180.2	2149.2	2131.3	2111.2	2069.2	1970.8	1864.3	1787.3
39°	2264.9	2229.8	2228.1	2207.1	2172.7	2154.8	2135.2	2085.9	1985.3	1819.2	1803.2
40°	2293.7	2258.0	2255.7	2234.4	2198.4	2172.1	2159.4	2101.4	2007.0	1836.8	1821.5
41°	2321.3	2287.7	2284.3	2261.6	2225.2	2191.6	2182.2	2117.7	2029.0	1856.3	1839.7
42°	2350.3	2316.7	2312.8	2290.4	2252.0	2210.5	2204.4	2129.7	2051.5	1876.5	1855.8
43°	2377.7	2347.0	2342.1	2318.9	2280.3	2231.7	2222.6	2145.7	2073.8	1897.4	1802.6
44°	2405.0	2378.7	2371.3	2347.3	2307.6	2256.1	2237.4	2171.1	2096.4	1915.2	1734.2

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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	2433.2	2410.5	2402.4	2373.9	2336.6	2283.4	2255.0	2197.2	2112.5	1926.8	1733.1
46°	2461.5	2444.0	2434.1	2401.4	2366.3	2312.2	2266.9	2224.3	2116.2	1937.4	1748.7
47°	2489.6	2478.5	2466.7	2429.7	2397.0	2341.5	2279.6	2247.0	2119.5	1953.3	1761.0
48°	2519.1	2513.7	2499.7	2458.5	2426.9	2369.9	2294.6	2255.8	2073.5	1967.6	1771.1
49°	2548.9	2549.2	2533.4	2489.4	2454.7	2399.9	2314.9	2260.9	2037.8	1916.2	1784.6
50°	2579.8	2585.7	2567.2	2521.7	2478.9	2429.6	2337.0	2263.0	2033.4	1843.8	1801.8
51°	2610.8	2622.5	2602.1	2554.6	2505.7	2455.5	2359.0	2258.9	2053.3	1846.0	1753.3
52°	2642.3	2659.7	2636.3	2588.0	2534.1	2479.7	2382.2	2275.5	2069.3	1865.9	1647.3
53°	2674.6	2696.0	2670.8	2621.0	2559.4	2504.8	2404.5	2296.6	2077.5	1884.9	1647.0
54°	2705.9	2731.6	2707.3	2656.7	2587.8	2525.8	2425.5	2317.3	2087.9	1897.7	1666.1
55°	2737.0	2765.2	2744.0	2693.7	2617.7	2539.6	2441.0	2330.5	2109.7	1909.4	1686.0
56°	2765.4	2798.0	2783.2	2732.3	2649.3	2557.5	2449.9	2335.2	2127.8	1911.5	1705.8
57°	2792.5	2829.2	2822.7	2774.0	2681.4	2575.3	2456.9	2343.7	2135.6	1831.6	1722.7
58°	2818.5	2858.1	2862.3	2815.4	2712.9	2594.0	2461.8	2351.7	2147.4	1770.5	1619.0
59°	2841.5	2885.4	2900.8	2856.6	2744.6	2610.3	2469.8	2348.6	2094.2	1792.0	1563.1
60°	2861.7	2909.6	2938.6	2900.3	2774.4	2624.2	2475.8	2333.4	2042.0	1815.5	1570.6
61°	2878.3	2931.3	2976.3	2943.6	2802.7	2636.8	2478.3	2331.0	2050.3	1840.4	1578.5
62°	2891.2	2949.6	3013.0	2988.2	2829.5	2644.7	2477.7	2328.5	2055.6	1862.3	1501.1
63°	2902.4	2965.8	3050.3	3032.9	2855.3	2647.7	2469.3	2308.8	2059.6	1799.6	1414.2
64°	2912.4	2979.0	3084.8	3077.4	2877.7	2646.8	2451.3	2292.9	2054.9	1753.4	1403.8
65°	2921.6	2990.2	3116.7	3118.9	2899.3	2641.6	2431.7	2263.2	2026.0	1750.9	1377.3
66°	2927.0	3000.6	3145.1	3155.6	2918.1	2627.4	2412.1	2230.4	1944.5	1756.8	1247.9
67°	2926.3	3007.0	3169.5	3188.2	2930.0	2608.2	2386.2	2175.5	1940.1	1663.9	1243.0
68°	2899.0	3004.1	3190.2	3215.0	2929.9	2584.1	2316.7	2128.2	1951.5	1637.2	1169.1
69°	2812.6	2981.0	3201.5	3234.6	2927.2	2531.2	2187.0	2076.7	1957.1	1617.7	1066.6
70°	2633.6	2912.6	3204.0	3245.6	2924.2	2435.0	1999.9	1991.7	1950.2	1525.9	962.9
71°	2352.4	2765.5	3192.1	3243.5	2897.7	2291.7	1808.1	1862.7	1879.6	1499.7	859.1
72°	2054.5	2525.7	3162.5	3223.9	2846.1	2108.6	1631.0	1701.4	1807.8	1425.1	755.9
73°	1740.1	2212.9	3096.3	3183.6	2759.6	1922.5	1474.5	1535.0	1727.7	1379.4	674.1
74°	1375.3	1872.0	2954.1	3107.6	2634.9	1750.7	1293.7	1384.3	1628.2	1265.6	561.2
75°	918.0	1501.7	2699.8	2977.5	2473.2	1558.4	984.0	1228.6	1489.6	1172.6	483.4
76°	500.5	1060.6	2366.5	2772.4	2282.9	1268.3	674.4	965.1	1358.6	1016.7	415.0
77°	373.0	589.7	2010.3	2474.6	2049.2	835.9	369.2	701.6	1207.7	860.9	339.0
78°	249.8	432.6	1573.3	2043.6	1727.5	435.8	268.6	442.6	963.3	704.8	247.7
79°	126.6	281.9	1023.0	1541.2	1277.0	314.6	168.0	314.0	718.8	523.8	175.4
80°	112.3	131.1	529.3	1001.3	778.7	202.1	69.3	185.4	477.5	349.9	103.0
81°	100.0	114.3	393.3	508.9	390.6	89.6	59.2	58.8	335.3	243.9	31.8
82°	88.8	100.6	260.3	376.5	256.3	76.2	50.3	49.4	193.0	137.9	16.3
83°	78.7	88.1	127.3	249.9	124.5	64.4	42.2	41.0	52.7	35.2	13.2
84°	69.0	76.6	104.6	123.3	100.6	54.1	34.6	33.5	40.8	26.8	11.0
85°	59.7	66.1	84.7	102.3	79.5	45.0	27.7	27.2	31.8	22.3	8.8
86°	50.9	56.6	69.2	85.5	60.7	37.2	21.4	21.4	23.5	18.2	6.5
87°	42.5	47.8	55.5	66.7	47.0	29.4	15.8	16.0	17.3	14.2	5.1
88°	36.7	40.0	42.8	45.8	35.5	21.6	10.2	11.3	12.4	10.2	3.9
89°	30.9	32.3	35.2	35.9	24.0	14.0	4.7	6.7	7.4	6.1	2.8



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**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: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**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: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**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: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7	1546.7
1°	1545.4	1545.3	1546.0	1546.3	1547.0	1547.6	1548.0	1547.9	1548.4	1548.7	1548.9
2°	1545.6	1545.1	1546.4	1547.3	1548.5	1549.5	1550.5	1550.9	1552.1	1552.7	1553.3
3°	1546.9	1546.7	1548.2	1549.6	1551.2	1552.7	1554.5	1555.3	1556.9	1557.9	1558.7
4°	1550.1	1550.9	1552.4	1553.6	1555.7	1557.8	1560.3	1561.6	1563.5	1564.5	1565.3
5°	1556.8	1557.6	1559.3	1560.4	1561.9	1564.4	1567.0	1568.8	1571.0	1572.6	1573.6
6°	1564.8	1565.8	1568.2	1569.4	1570.9	1572.1	1575.3	1577.4	1580.2	1582.1	1583.2
7°	1574.6	1575.5	1578.0	1579.6	1581.1	1582.0	1585.5	1588.0	1590.8	1593.0	1594.2
8°	1584.9	1585.9	1588.9	1591.5	1593.1	1593.8	1597.0	1599.3	1602.7	1605.2	1606.0
9°	1596.1	1597.3	1600.5	1604.0	1606.4	1607.3	1608.8	1611.2	1615.3	1618.6	1619.4
10°	1607.9	1609.7	1613.7	1618.2	1621.2	1621.6	1622.3	1624.7	1629.0	1633.0	1633.5
11°	1621.1	1622.6	1627.6	1633.8	1636.8	1637.3	1636.9	1640.0	1645.0	1649.1	1648.6
12°	1634.0	1635.9	1641.3	1649.8	1653.8	1653.9	1652.8	1655.9	1661.3	1665.6	1665.0
13°	1648.1	1649.6	1655.9	1665.9	1671.9	1671.8	1669.2	1672.7	1678.9	1683.0	1682.3
14°	1661.7	1662.4	1670.8	1682.1	1690.9	1690.1	1686.3	1690.0	1697.2	1702.0	1700.8
15°	1670.7	1645.2	1680.3	1699.3	1709.4	1709.5	1705.0	1707.7	1716.0	1722.0	1718.7
16°	1636.9	1614.2	1648.0	1715.7	1727.6	1729.7	1723.9	1726.6	1734.9	1741.6	1737.8
17°	1615.8	1616.3	1628.5	1714.5	1746.6	1750.1	1743.7	1746.1	1754.4	1761.5	1756.7
18°	1629.3	1630.5	1641.5	1687.4	1765.8	1770.0	1761.6	1765.8	1774.9	1781.3	1776.0
19°	1643.1	1645.0	1656.3	1675.9	1784.6	1785.2	1775.1	1780.5	1795.9	1802.4	1795.4
20°	1658.1	1660.6	1671.7	1690.9	1800.9	1800.7	1791.0	1796.4	1817.4	1823.7	1815.5
21°	1673.6	1676.3	1688.0	1708.0	1786.3	1817.2	1812.7	1814.3	1834.0	1845.9	1835.6
22°	1690.3	1693.1	1705.3	1725.3	1766.9	1838.6	1835.1	1836.1	1853.4	1867.5	1856.3
23°	1706.9	1710.5	1723.8	1743.4	1765.2	1860.8	1857.1	1859.6	1872.7	1889.8	1878.0
24°	1724.6	1728.6	1742.4	1762.1	1784.0	1878.7	1874.9	1882.7	1895.4	1912.0	1899.3
25°	1741.6	1745.4	1760.7	1781.2	1803.7	1894.9	1894.2	1902.7	1919.4	1930.9	1921.3
26°	1758.8	1763.4	1778.7	1801.6	1818.8	1911.8	1913.3	1922.7	1943.4	1949.7	1944.1
27°	1776.0	1780.9	1796.9	1821.5	1833.4	1931.5	1935.8	1944.8	1967.1	1971.0	1967.1
28°	1791.4	1768.0	1813.6	1841.6	1849.3	1945.2	1959.5	1967.8	1987.9	1991.6	1991.7
29°	1753.8	1698.2	1783.5	1861.2	1870.6	1942.2	1983.5	1993.7	2007.7	2015.2	2017.1
30°	1689.6	1676.9	1717.6	1877.0	1892.3	1939.0	2008.0	2020.1	2030.2	2039.2	2043.2
31°	1679.4	1695.4	1705.1	1887.9	1914.0	1940.5	2031.3	2046.5	2050.3	2063.2	2068.9
32°	1696.4	1715.0	1722.4	1833.4	1935.6	1950.6	2049.7	2073.6	2072.3	2087.7	2094.6
33°	1713.6	1735.3	1740.2	1785.9	1955.7	1967.5	2062.2	2100.0	2096.7	2111.4	2118.9
34°	1731.1	1754.9	1757.7	1785.3	1971.7	1985.6	2076.3	2126.6	2120.6	2133.9	2142.4
35°	1748.3	1776.4	1775.5	1804.3	1987.9	2003.6	2096.2	2145.1	2145.5	2156.6	2167.3
36°	1766.5	1796.5	1794.8	1822.8	2003.0	2022.3	2116.4	2164.1	2171.2	2180.5	2194.1
37°	1782.8	1816.4	1813.2	1836.4	2008.8	2042.4	2137.7	2182.8	2196.6	2205.9	2219.4
38°	1800.5	1833.4	1831.4	1848.4	1948.5	2055.9	2160.3	2206.9	2222.7	2229.7	2245.1
39°	1815.2	1749.4	1847.8	1863.1	1903.3	2070.4	2182.6	2230.1	2248.8	2255.6	2272.6
40°	1728.5	1681.1	1770.3	1882.4	1916.1	2091.8	2199.6	2253.2	2269.7	2283.6	2301.4
41°	1664.4	1692.1	1703.1	1901.7	1936.5	2114.8	2216.2	2275.9	2289.0	2312.6	2330.5
42°	1675.7	1707.1	1709.6	1919.3	1957.6	2139.5	2227.7	2298.9	2310.3	2341.0	2360.1
43°	1693.4	1722.5	1727.9	1879.8	1978.9	2164.2	2245.6	2321.0	2332.4	2369.9	2389.2
44°	1712.3	1737.3	1747.3	1806.3	1998.6	2188.8	2271.7	2339.2	2359.0	2398.7	2419.3

REPORT NUMBER: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1731.1	1751.5	1765.7	1795.4	2012.3	2207.7	2300.0	2357.3	2387.5	2428.4	2447.3
46°	1750.1	1762.0	1785.0	1812.0	2023.0	2213.2	2328.0	2371.5	2417.9	2459.6	2475.9
47°	1766.1	1670.8	1801.8	1823.8	2038.8	2222.6	2356.4	2381.9	2447.5	2490.3	2504.8
48°	1685.2	1572.3	1732.7	1833.9	2054.7	2194.8	2375.4	2397.2	2476.5	2521.0	2535.2
49°	1583.5	1579.5	1627.5	1847.6	2019.5	2158.0	2375.1	2418.5	2505.9	2549.5	2566.6
50°	1595.5	1593.1	1631.5	1864.2	1944.2	2133.0	2374.9	2441.4	2533.9	2575.0	2599.7
51°	1614.7	1607.1	1649.5	1828.9	1932.5	2150.6	2370.1	2462.6	2558.2	2599.5	2632.3
52°	1634.0	1620.8	1666.9	1721.2	1953.4	2164.3	2370.8	2484.2	2579.6	2626.2	2664.6
53°	1651.1	1630.5	1683.3	1710.3	1972.5	2172.1	2385.3	2503.9	2601.8	2650.2	2698.5
54°	1663.1	1495.4	1696.6	1728.4	1984.4	2180.9	2401.4	2522.1	2619.3	2677.5	2734.7
55°	1539.0	1429.8	1570.6	1747.7	1994.6	2197.9	2413.0	2533.7	2628.9	2707.4	2772.7
56°	1467.8	1439.5	1497.2	1766.6	1996.8	2214.5	2412.9	2536.0	2641.9	2737.2	2811.7
57°	1471.5	1445.3	1499.7	1782.9	1933.5	2218.4	2413.3	2535.0	2652.5	2765.6	2850.4
58°	1477.4	1425.2	1505.6	1683.3	1859.9	2223.9	2414.2	2534.5	2664.2	2792.1	2890.0
59°	1432.2	1236.4	1468.3	1618.0	1876.7	2183.8	2408.4	2536.9	2674.9	2818.2	2929.3
60°	1274.8	1216.9	1303.0	1624.2	1897.5	2117.8	2390.5	2537.9	2683.3	2843.7	2969.2
61°	1270.9	1216.1	1296.7	1633.1	1919.6	2113.3	2381.1	2534.1	2690.9	2869.5	3009.6
62°	1264.6	1082.7	1289.4	1562.4	1939.4	2115.0	2376.4	2530.0	2695.8	2892.5	3050.1
63°	1133.3	981.4	1150.1	1463.4	1879.5	2114.0	2354.8	2520.0	2695.3	2911.3	3091.1
64°	1044.2	897.5	1060.1	1452.9	1816.0	2106.4	2336.2	2498.6	2691.2	2926.8	3130.2
65°	1035.5	813.5	1051.7	1434.1	1805.4	2078.2	2300.1	2474.1	2676.6	2940.0	3164.8
66°	922.5	730.4	934.1	1290.0	1802.2	1995.5	2262.8	2447.2	2654.6	2951.1	3193.4
67°	809.5	704.3	817.4	1278.4	1704.6	1972.6	2208.3	2402.5	2628.4	2952.5	3216.8
68°	711.2	467.4	724.9	1206.7	1671.0	1978.0	2142.4	2302.1	2581.5	2946.4	3234.9
69°	578.8	381.6	591.2	1090.3	1642.6	1975.1	2064.9	2133.1	2494.1	2936.5	3248.6
70°	443.7	260.1	451.6	992.7	1544.4	1957.1	1945.7	1908.2	2356.5	2911.6	3246.7
71°	312.9	138.6	309.5	886.8	1508.4	1866.5	1781.3	1709.7	2162.9	2861.3	3227.6
72°	153.4	18.6	131.9	780.7	1428.6	1767.5	1594.7	1532.5	1956.9	2779.7	3194.5
73°	127.5	0.3	110.7	673.8	1359.7	1661.7	1417.3	1356.3	1757.0	2655.1	3131.4
74°	103.5	0.2	89.4	536.9	1233.6	1540.3	1253.6	1133.9	1561.2	2490.6	3031.7
75°	79.5	0.2	68.1	448.0	1116.8	1382.5	1012.7	818.5	1316.7	2287.7	2872.7
76°	56.2	0.3	48.4	377.9	947.4	1223.8	771.8	479.0	962.0	2051.4	2641.7
77°	31.6	0.3	28.3	303.3	778.0	1010.9	532.8	225.3	556.8	1778.2	2303.8
78°	22.5	0.3	20.2	220.9	608.6	798.0	377.0	172.6	406.6	1418.2	1860.8
79°	13.4	0.4	12.2	157.2	436.6	584.8	221.3	121.1	257.3	963.3	1361.6
80°	4.3	0.5	4.2	93.4	264.5	319.2	68.0	69.6	108.0	549.2	842.8
81°	3.7	0.5	3.5	31.1	155.9	228.4	55.7	58.3	86.5	401.3	421.6
82°	3.2	0.6	3.1	17.6	50.1	137.6	46.9	49.1	73.3	259.3	317.4
83°	2.8	0.7	2.7	13.7	33.3	48.4	38.9	41.0	62.0	117.3	219.3
84°	2.5	0.8	2.4	11.3	27.2	38.9	31.9	33.8	52.1	96.1	121.1
85°	2.2	0.9	2.2	8.9	22.8	29.9	25.8	26.7	43.1	75.4	101.6
86°	2.0	1.0	2.0	6.5	18.7	22.0	20.3	20.2	35.6	57.9	84.8
87°	1.8	1.1	1.8	5.0	14.0	16.6	15.1	14.0	28.2	45.0	65.6
88°	1.7	1.2	1.7	3.7	9.4	11.8	10.6	8.5	20.7	34.2	45.7
89°	1.6	1.3	1.6	2.6	4.7	7.0	6.2	3.8	13.4	23.5	35.8



REPORT NUMBER: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**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: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**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



REPORT NUMBER: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

180°	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	1546.7	1546.7	1546.7
1°	1549.4	1549.5	1549.0
2°	1553.6	1554.0	1553.1
3°	1559.3	1559.7	1558.4
4°	1566.5	1566.6	1565.3
5°	1574.3	1574.5	1573.2
6°	1583.4	1583.6	1582.0
7°	1593.8	1593.0	1591.1
8°	1605.0	1603.7	1601.3
9°	1617.7	1615.6	1612.8
10°	1631.5	1628.6	1625.2
11°	1646.0	1642.5	1638.5
12°	1661.5	1656.8	1651.8
13°	1677.7	1670.9	1665.3
14°	1694.6	1685.8	1679.3
15°	1711.0	1701.3	1694.1
16°	1727.7	1717.4	1708.7
17°	1745.2	1733.7	1724.8
18°	1762.9	1751.0	1741.6
19°	1781.4	1768.4	1758.9
20°	1800.1	1786.6	1777.2
21°	1819.4	1805.7	1796.8
22°	1839.8	1825.7	1817.1
23°	1860.7	1846.5	1838.5
24°	1881.3	1867.6	1860.9
25°	1903.4	1890.0	1883.7
26°	1926.2	1913.1	1907.7
27°	1950.0	1936.7	1932.6
28°	1974.2	1960.3	1958.2
29°	1999.6	1984.7	1984.7
30°	2024.9	2009.8	2011.9
31°	2051.1	2035.3	2039.2
32°	2077.0	2060.8	2066.3
33°	2103.5	2087.2	2093.8
34°	2130.5	2113.0	2121.5
35°	2158.0	2138.9	2150.2
36°	2185.9	2164.9	2179.0
37°	2213.9	2191.8	2207.7
38°	2242.4	2219.3	2236.5
39°	2271.0	2247.4	2264.9
40°	2300.8	2276.4	2293.7
41°	2329.9	2306.5	2321.3
42°	2359.3	2337.1	2350.3
43°	2389.6	2367.7	2377.7
44°	2420.5	2399.6	2405.0



REPORT NUMBER: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	2452.0	2433.5	2433.2
46°	2483.6	2467.0	2461.5
47°	2516.3	2502.0	2489.6
48°	2550.0	2537.6	2519.1
49°	2584.7	2575.3	2548.9
50°	2619.8	2612.3	2579.8
51°	2654.6	2650.3	2610.8
52°	2689.6	2688.1	2642.3
53°	2725.2	2726.3	2674.6
54°	2760.8	2763.2	2705.9
55°	2798.2	2799.4	2737.0
56°	2837.2	2833.6	2765.4
57°	2877.0	2865.3	2792.5
58°	2915.0	2894.3	2818.5
59°	2951.7	2921.1	2841.5
60°	2989.6	2944.5	2861.7
61°	3027.2	2964.9	2878.3
62°	3064.0	2982.9	2891.2
63°	3101.5	2998.9	2902.4
64°	3138.4	3013.8	2912.4
65°	3172.2	3026.9	2921.6
66°	3202.1	3039.1	2927.0
67°	3225.8	3046.8	2926.3
68°	3242.2	3044.8	2899.0
69°	3247.9	3023.7	2812.6
70°	3244.5	2963.9	2633.6
71°	3226.6	2830.6	2352.4
72°	3187.7	2596.0	2054.5
73°	3110.5	2282.5	1740.1
74°	2957.2	1928.3	1375.3
75°	2705.0	1552.9	918.0
76°	2371.3	1132.7	500.5
77°	2000.4	655.5	373.0
78°	1541.4	482.4	249.8
79°	1001.1	311.9	126.6
80°	540.6	141.4	112.3
81°	395.2	119.1	100.0
82°	261.3	104.6	88.8
83°	127.4	91.3	78.7
84°	106.2	79.3	69.0
85°	86.4	68.3	59.7
86°	70.4	58.3	50.9
87°	56.6	49.1	42.5
88°	43.5	40.9	36.7
89°	35.8	32.8	30.9



REPORT NUMBER: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**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: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**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: P1436746

CATALOG NUMBER: XAS180-SFPM (4000K-72W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)