

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: P1436704

Luminaire Tested: XAS180-SFPM (3000K-108W-T5-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436704
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 (3000K-108W-T5-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 60% (108W)
OPTICS - TYPE 5 WITH HOUSE SIDE SHIELD
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 23809 (1 lamp)
Luminaire Lumens: 14185 lumens
Efficiency: 59.6%
Efficacy: 129.3 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

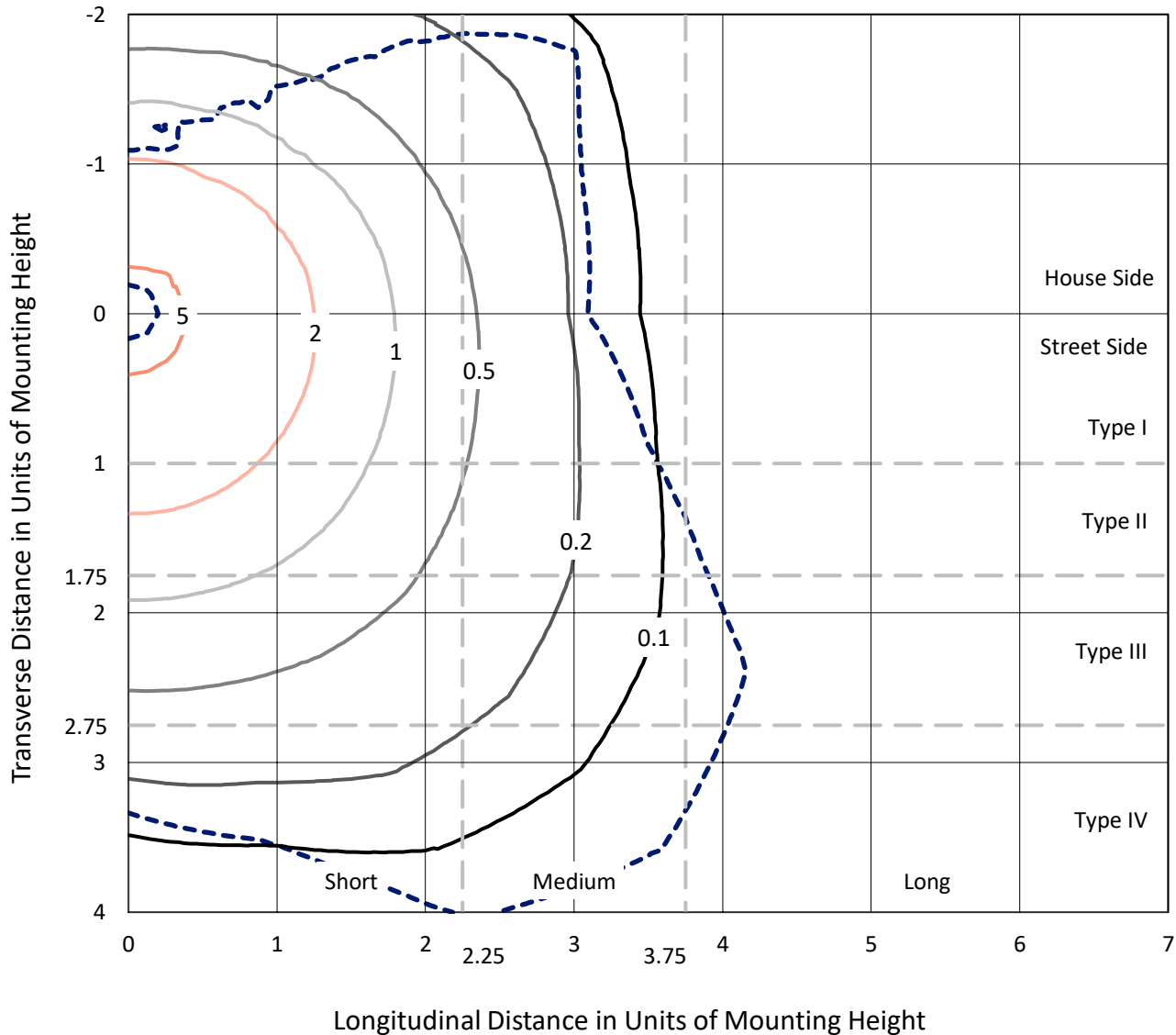
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

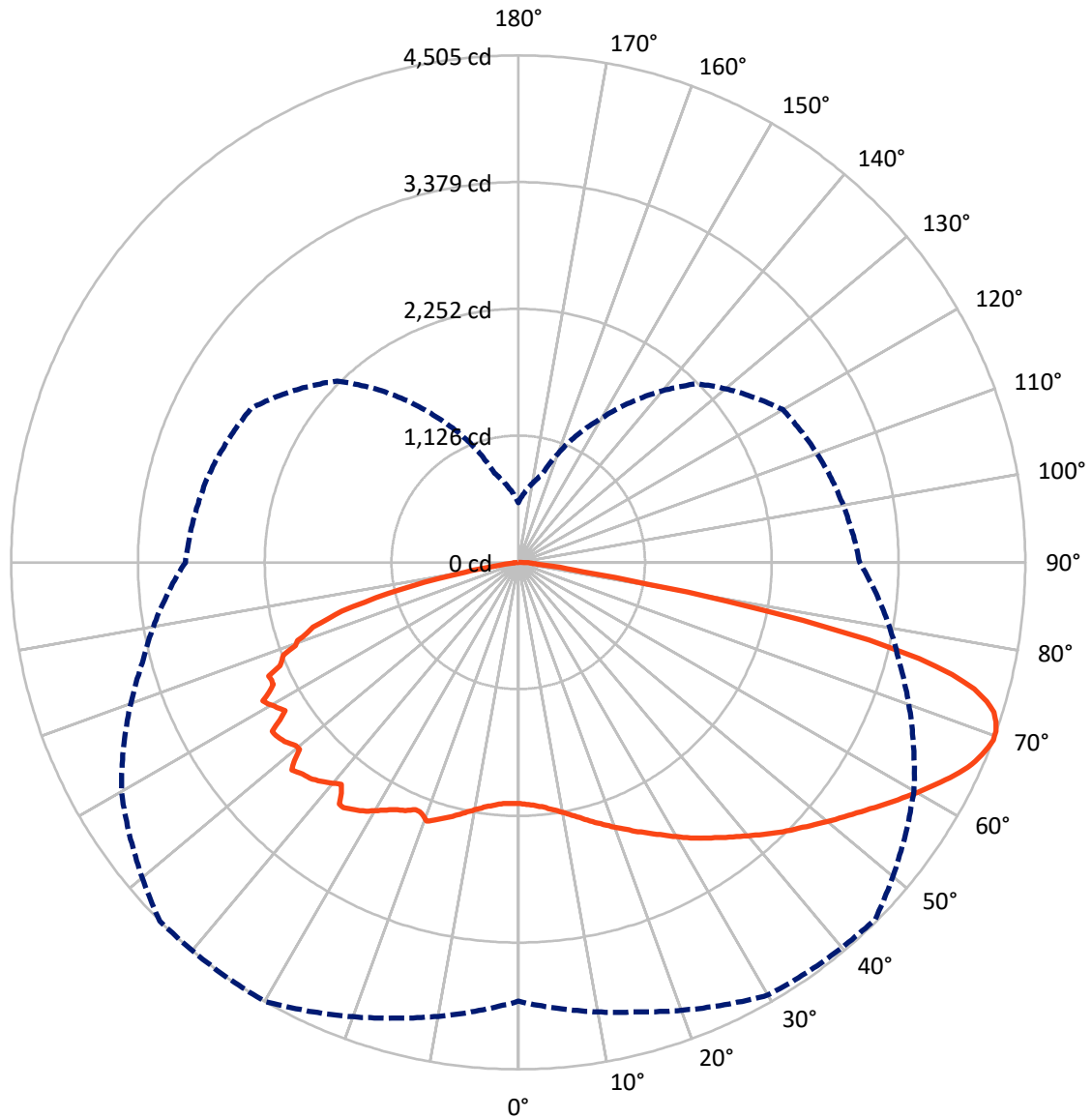
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 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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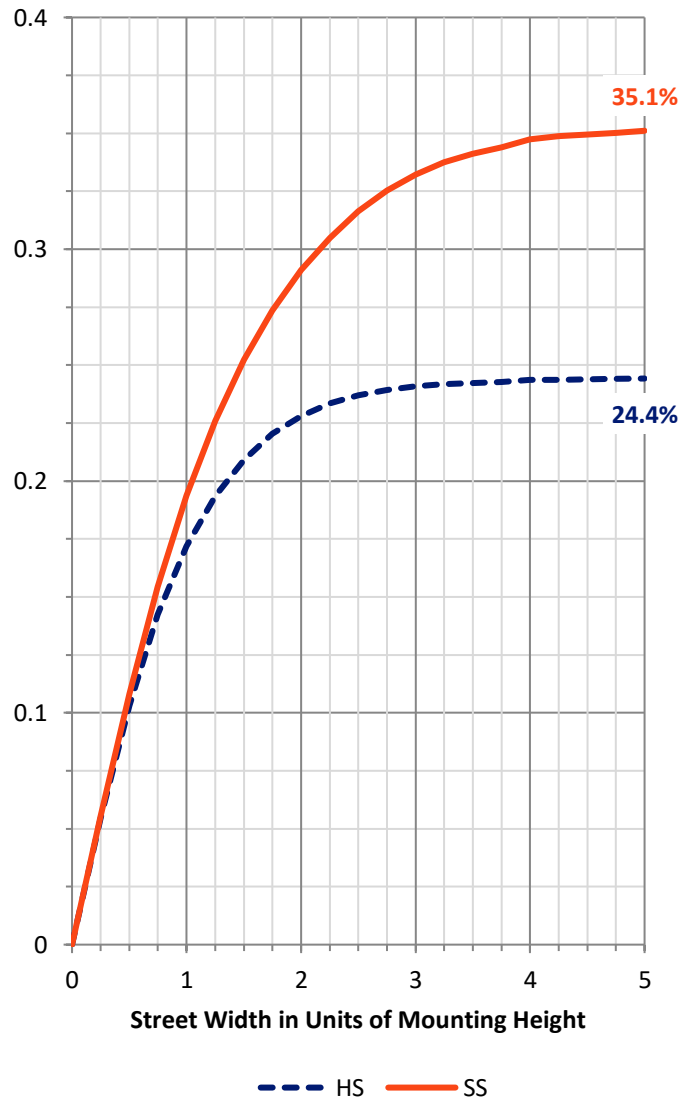
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5825.6	0.0	5825.6
	% Lamp	24.5	0.0	24.5
Street Side	Lumens	8359.4	0.0	8359.4
	% Lamp	35.1	0.0	35.1
Total	Lumens	14185.0	0.0	14185.0
	% Lamp	59.6	0.0	59.6

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	209.5	1.5	0.9
10°-20°	666.6	4.7	2.8
20°-30°	1188.3	8.4	5.0
30°-40°	1759.3	12.4	7.4
40°-50°	2347.3	16.5	9.9
50°-60°	2878.8	20.3	12.1
60°-70°	3135.9	22.1	13.2
70°-80°	1891.7	13.3	7.9
80°-90°	107.5	0.8	0.5
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°	14185.0	100.0	59.6
0°-180°	14185.0	100.0	59.6

Coefficient of Utilization



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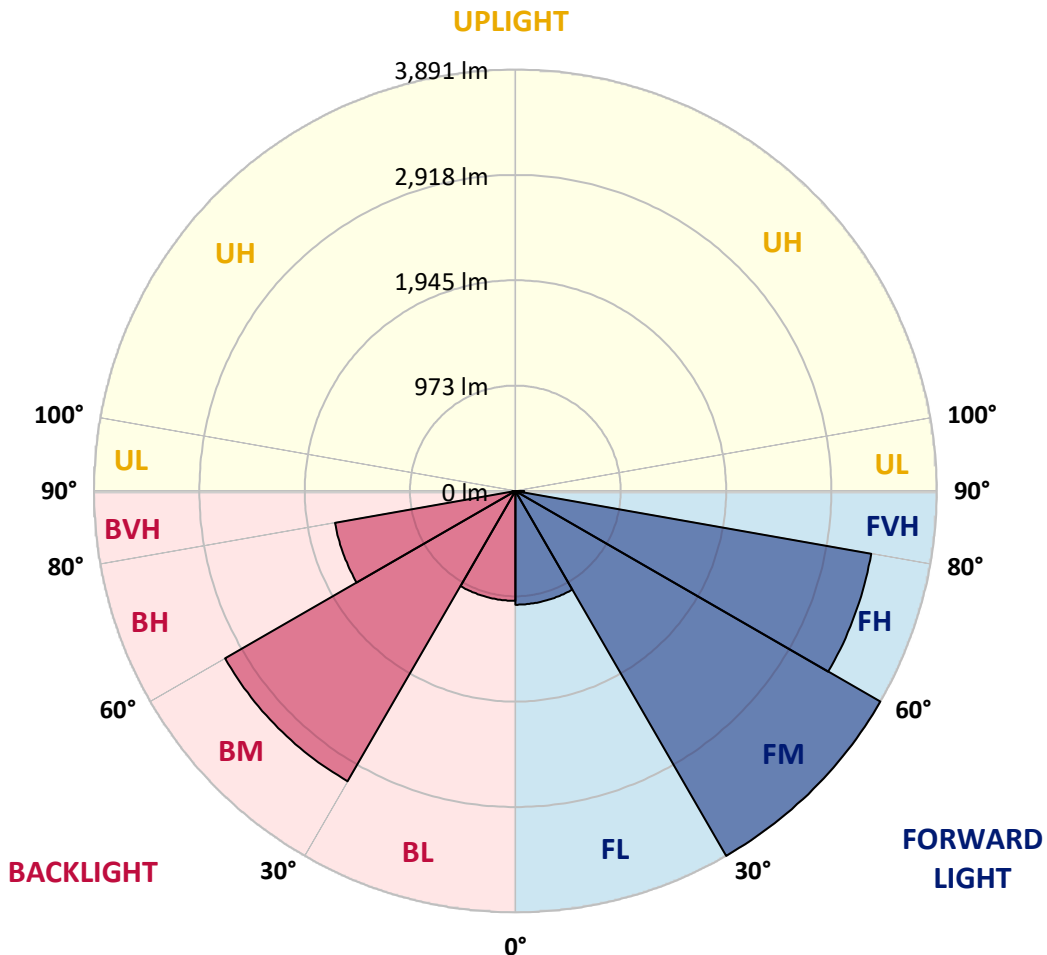
CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1050.5	4.4			
FM (30°-60°)	3890.6	16.3			
FH (60°-80°)	3336.5	14.0			G2/5000
FVH (80°-90°)	81.8	0.3			G1/100
BL (0°-30°)	1013.9	4.3	B3/2500		
BM (30°-60°)	3094.9	13.0	B3/5000		
BH (60°-80°)	1691.1	7.1	B3/2500		G3/2500
BVH (80°-90°)	25.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	9624.0	40.4			

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°	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9
1°	2148.0	2148.0	2147.8	2147.1	2146.6	2145.4	2144.0	2143.5	2142.9	2142.7	2142.7
2°	2153.6	2152.9	2152.4	2151.0	2149.5	2147.2	2145.1	2143.9	2142.9	2142.3	2142.7
3°	2161.0	2159.9	2158.5	2156.2	2154.5	2151.7	2148.9	2147.1	2145.1	2144.1	2144.3
4°	2170.6	2168.9	2166.9	2164.0	2161.6	2158.1	2154.7	2152.3	2149.6	2148.5	2148.3
5°	2181.6	2179.3	2177.2	2173.5	2170.0	2165.9	2161.8	2158.9	2156.5	2155.0	2156.4
6°	2193.8	2190.9	2188.9	2185.2	2180.5	2174.9	2170.4	2166.7	2164.1	2165.5	2167.3
7°	2206.4	2204.1	2202.1	2198.1	2193.1	2186.5	2181.0	2176.6	2173.5	2177.3	2180.1
8°	2220.5	2218.2	2216.2	2212.5	2206.7	2199.7	2194.0	2189.2	2186.8	2190.8	2194.6
9°	2236.5	2234.0	2231.4	2228.0	2222.3	2214.2	2207.6	2202.8	2202.8	2205.9	2210.1
10°	2253.7	2251.2	2249.1	2245.3	2240.0	2230.2	2223.2	2217.6	2219.6	2223.8	2226.9
11°	2272.2	2269.0	2268.0	2264.5	2258.5	2248.4	2240.1	2234.7	2238.0	2243.5	2245.8
12°	2290.6	2287.0	2287.2	2284.6	2277.6	2267.4	2257.7	2252.8	2257.2	2263.5	2265.3
13°	2309.4	2305.5	2307.4	2306.4	2298.3	2287.4	2276.3	2271.5	2278.3	2284.4	2286.0
14°	2328.8	2324.5	2327.3	2327.9	2320.5	2307.8	2295.5	2290.5	2299.2	2307.0	2306.9
15°	2349.2	2345.3	2348.8	2350.6	2342.5	2328.9	2316.1	2310.7	2320.9	2329.1	2327.6
16°	2369.5	2367.0	2370.6	2373.5	2365.4	2351.2	2337.6	2332.0	2344.0	2351.3	2348.8
17°	2391.8	2389.1	2393.2	2396.8	2389.5	2374.0	2359.3	2354.0	2367.7	2373.2	2342.8
18°	2415.2	2411.6	2416.8	2420.1	2413.8	2397.0	2379.4	2371.5	2391.3	2395.9	2304.5
19°	2439.1	2435.4	2441.0	2444.3	2438.7	2421.9	2393.5	2388.4	2408.2	2418.7	2285.2
20°	2464.4	2460.5	2465.6	2468.8	2463.9	2442.9	2412.8	2406.8	2425.4	2438.3	2304.4
21°	2491.6	2486.8	2490.9	2494.0	2490.5	2461.1	2435.8	2433.7	2444.2	2404.2	2325.1
22°	2519.8	2514.5	2517.7	2520.8	2518.2	2484.1	2462.4	2460.2	2469.7	2381.9	2346.9
23°	2549.5	2543.7	2544.8	2547.7	2547.1	2508.1	2490.3	2482.5	2493.4	2378.0	2369.9
24°	2580.5	2574.0	2573.1	2575.4	2570.0	2536.9	2514.5	2504.4	2511.1	2400.6	2393.7
25°	2612.1	2604.8	2602.0	2605.1	2593.2	2566.6	2537.3	2528.9	2532.5	2422.7	2417.2
26°	2645.5	2636.7	2631.8	2635.4	2621.1	2596.7	2564.8	2556.5	2555.7	2438.4	2442.3
27°	2680.0	2668.9	2662.9	2665.6	2645.5	2622.8	2590.9	2586.9	2582.5	2456.6	2466.9
28°	2715.4	2702.5	2694.5	2697.6	2673.6	2647.1	2622.8	2617.0	2596.7	2478.1	2491.3
29°	2752.2	2735.8	2727.1	2730.9	2704.1	2674.3	2655.9	2648.2	2580.3	2505.8	2516.1
30°	2789.9	2770.1	2761.3	2764.8	2735.5	2702.0	2691.0	2679.5	2581.8	2534.3	2536.8
31°	2827.8	2804.1	2795.5	2798.2	2767.8	2728.4	2726.7	2709.7	2574.3	2563.4	2548.0
32°	2865.3	2838.3	2830.3	2827.6	2799.9	2761.0	2761.7	2730.4	2595.6	2591.3	2457.0
33°	2903.5	2873.4	2865.6	2857.2	2828.6	2793.4	2797.3	2746.1	2616.7	2614.4	2389.4
34°	2942.0	2908.4	2901.9	2887.8	2856.0	2825.2	2827.0	2763.2	2639.1	2634.3	2399.4
35°	2981.7	2944.4	2938.9	2921.8	2885.2	2857.1	2847.9	2788.7	2663.7	2654.1	2424.5
36°	3021.7	2980.9	2976.1	2954.3	2917.4	2889.8	2871.4	2814.9	2691.0	2676.1	2445.7
37°	3061.4	3016.8	3014.3	2987.8	2949.0	2921.6	2896.9	2841.7	2716.1	2672.0	2463.2
38°	3101.4	3054.0	3052.6	3023.3	2980.4	2955.5	2927.6	2869.5	2732.9	2585.2	2478.4
39°	3140.7	3092.1	3089.7	3060.7	3013.0	2988.1	2960.9	2892.5	2753.1	2522.7	2500.5
40°	3180.7	3131.2	3128.1	3098.4	3048.5	3012.1	2994.4	2914.1	2783.1	2547.2	2526.0
41°	3219.0	3172.4	3167.6	3136.2	3085.7	3039.1	3026.1	2936.6	2813.7	2574.1	2551.1
42°	3259.2	3212.6	3207.2	3176.1	3122.9	3065.3	3056.9	2953.3	2844.9	2602.2	2573.5
43°	3297.2	3254.6	3247.9	3215.6	3162.1	3094.7	3082.1	2975.4	2875.8	2631.2	2499.6
44°	3335.0	3298.5	3288.3	3255.1	3200.0	3128.6	3102.7	3010.7	2907.0	2655.8	2404.9

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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	3374.2	3342.7	3331.5	3291.9	3240.2	3166.5	3127.1	3046.9	2929.5	2672.0	2403.3
46°	3413.3	3389.1	3375.3	3330.1	3281.5	3206.4	3143.6	3084.4	2934.6	2686.7	2424.9
47°	3452.3	3437.0	3420.6	3369.3	3324.0	3247.0	3161.2	3116.0	2939.2	2708.7	2442.0
48°	3493.3	3485.8	3466.4	3409.2	3365.4	3286.4	3182.0	3128.2	2875.3	2728.6	2456.0
49°	3534.6	3535.0	3513.1	3452.1	3403.9	3328.0	3210.1	3135.2	2825.8	2657.2	2474.8
50°	3577.5	3585.6	3560.0	3496.9	3437.5	3369.1	3240.8	3138.2	2819.7	2556.8	2498.6
51°	3620.5	3636.7	3608.4	3542.5	3474.6	3405.1	3271.2	3132.5	2847.4	2559.9	2431.3
52°	3664.1	3688.3	3655.7	3588.8	3514.1	3438.6	3303.4	3155.5	2869.6	2587.4	2284.4
53°	3708.9	3738.6	3703.7	3634.5	3549.2	3473.5	3334.3	3184.7	2880.9	2613.8	2284.0
54°	3752.2	3787.9	3754.2	3684.1	3588.5	3502.6	3363.4	3213.4	2895.4	2631.5	2310.4
55°	3795.4	3834.6	3805.1	3735.4	3630.0	3521.8	3385.0	3231.7	2925.5	2647.8	2338.0
56°	3834.8	3880.1	3859.5	3788.9	3673.8	3546.5	3397.3	3238.3	2950.7	2650.7	2365.5
57°	3872.5	3923.3	3914.3	3846.8	3718.3	3571.2	3407.0	3250.1	2961.5	2539.8	2388.9
58°	3908.4	3963.4	3969.2	3904.2	3762.1	3597.1	3413.8	3261.1	2977.8	2455.2	2245.1
59°	3940.4	4001.2	4022.6	3961.3	3806.0	3619.7	3424.8	3256.8	2904.1	2485.0	2167.6
60°	3968.4	4034.8	4075.1	4021.9	3847.3	3639.1	3433.2	3235.8	2831.6	2517.6	2178.0
61°	3991.4	4064.9	4127.3	4082.0	3886.5	3656.5	3436.8	3232.5	2843.1	2552.1	2188.9
62°	4009.3	4090.3	4178.1	4143.8	3923.7	3667.5	3435.9	3228.9	2850.5	2582.4	2081.6
63°	4024.8	4112.7	4229.8	4205.8	3959.6	3671.6	3424.2	3201.6	2856.0	2495.5	1961.0
64°	4038.6	4131.0	4277.8	4267.5	3990.5	3670.3	3399.2	3179.6	2849.6	2431.4	1946.7
65°	4051.5	4146.6	4321.9	4325.1	4020.5	3663.2	3372.1	3138.4	2809.5	2428.0	1910.0
66°	4059.0	4161.0	4361.4	4376.0	4046.6	3643.5	3344.8	3092.9	2696.5	2436.2	1730.4
67°	4057.9	4169.8	4395.1	4421.1	4063.1	3616.8	3309.0	3016.8	2690.4	2307.4	1723.7
68°	4020.0	4165.9	4423.9	4458.3	4062.9	3583.4	3212.6	2951.2	2706.1	2270.3	1621.2
69°	3900.3	4133.7	4439.6	4485.5	4059.2	3510.0	3032.7	2879.8	2713.9	2243.3	1479.0
70°	3652.1	4038.9	4443.1	4500.7	4055.0	3376.7	2773.3	2761.9	2704.3	2115.9	1335.2
71°	3262.1	3834.9	4426.5	4497.8	4018.3	3178.0	2507.4	2583.1	2606.4	2079.7	1191.4
72°	2849.0	3502.4	4385.5	4470.7	3946.7	2924.1	2261.7	2359.4	2506.8	1976.2	1048.2
73°	2413.1	3068.7	4293.6	4414.7	3826.8	2666.0	2044.7	2128.6	2395.9	1912.8	934.8
74°	1907.1	2596.0	4096.5	4309.4	3653.8	2427.7	1793.9	1919.6	2257.8	1755.0	778.2
75°	1273.0	2082.4	3743.8	4129.0	3429.6	2161.0	1364.6	1703.8	2065.7	1626.0	670.4
76°	694.0	1470.7	3281.6	3844.5	3165.8	1758.8	935.2	1338.3	1884.0	1409.9	575.5
77°	517.3	817.8	2787.8	3431.5	2841.7	1159.1	512.0	973.0	1674.7	1193.8	470.1
78°	346.4	599.9	2181.7	2833.9	2395.6	604.4	372.5	613.7	1335.8	977.3	343.5
79°	175.5	390.9	1418.6	2137.2	1770.9	436.3	232.9	435.4	996.8	726.3	243.2
80°	155.7	181.8	733.9	1388.6	1079.9	280.3	96.1	257.1	662.2	485.2	142.9
81°	138.6	158.5	545.5	705.7	541.7	124.3	82.1	81.6	465.0	338.2	44.1
82°	123.2	139.5	361.0	522.1	355.4	105.7	69.7	68.5	267.7	191.2	22.6
83°	109.1	122.2	176.5	346.5	172.7	89.3	58.5	56.8	73.1	48.8	18.3
84°	95.7	106.3	145.1	171.0	139.4	75.0	48.0	46.5	56.6	37.1	15.2
85°	82.8	91.6	117.5	141.9	110.2	62.3	38.5	37.7	44.1	30.9	12.1
86°	70.6	78.5	96.0	118.5	84.1	51.5	29.7	29.6	32.6	25.3	9.0
87°	58.9	66.2	76.9	92.6	65.2	40.7	21.9	22.2	24.0	19.7	7.1
88°	50.9	55.5	59.4	63.6	49.2	30.0	14.2	15.7	17.2	14.1	5.4
89°	42.8	44.7	48.8	49.8	33.3	19.4	6.5	9.3	10.3	8.5	3.9



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CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9	2144.9
1°	2143.0	2142.9	2143.9	2144.3	2145.2	2146.1	2146.7	2146.4	2147.2	2147.6	2147.9
2°	2143.3	2142.7	2144.5	2145.7	2147.3	2148.7	2150.1	2150.7	2152.3	2153.1	2153.9
3°	2145.1	2144.9	2147.0	2148.9	2151.1	2153.1	2155.6	2156.7	2158.9	2160.4	2161.5
4°	2149.6	2150.7	2152.7	2154.4	2157.3	2160.2	2163.6	2165.5	2168.1	2169.5	2170.7
5°	2158.9	2160.0	2162.3	2163.9	2166.0	2169.4	2173.0	2175.5	2178.5	2180.7	2182.1
6°	2170.0	2171.3	2174.6	2176.3	2178.4	2180.1	2184.6	2187.4	2191.3	2193.9	2195.4
7°	2183.5	2184.7	2188.2	2190.5	2192.6	2193.7	2198.7	2202.1	2205.9	2209.1	2210.7
8°	2197.8	2199.2	2203.4	2207.0	2209.2	2210.1	2214.6	2217.7	2222.4	2226.0	2227.0
9°	2213.4	2215.1	2219.4	2224.3	2227.7	2228.9	2230.9	2234.3	2240.0	2244.6	2245.7
10°	2229.7	2232.2	2237.8	2243.9	2248.2	2248.7	2249.7	2252.9	2259.0	2264.5	2265.2
11°	2248.0	2250.1	2257.0	2265.6	2269.8	2270.5	2270.0	2274.2	2281.2	2286.8	2286.2
12°	2265.9	2268.6	2276.1	2287.7	2293.3	2293.5	2291.9	2296.3	2303.8	2309.8	2308.9
13°	2285.5	2287.5	2296.2	2310.2	2318.4	2318.3	2314.7	2319.6	2328.2	2333.8	2332.9
14°	2304.4	2305.3	2317.0	2332.6	2344.9	2343.7	2338.4	2343.6	2353.6	2360.2	2358.6
15°	2316.7	2281.4	2330.0	2356.4	2370.5	2370.7	2364.4	2368.1	2379.5	2387.9	2383.3
16°	2270.0	2238.5	2285.4	2379.2	2395.7	2398.6	2390.6	2394.2	2405.7	2415.2	2409.8
17°	2240.7	2241.3	2258.2	2377.6	2422.1	2426.9	2418.0	2421.4	2432.9	2442.7	2436.1
18°	2259.4	2261.0	2276.4	2339.9	2448.7	2454.5	2442.8	2448.6	2461.3	2470.2	2462.9
19°	2278.5	2281.2	2296.8	2324.0	2474.7	2475.6	2461.6	2469.1	2490.5	2499.4	2489.7
20°	2299.3	2302.8	2318.2	2344.9	2497.4	2497.0	2483.6	2491.1	2520.2	2529.0	2517.6
21°	2320.9	2324.5	2340.8	2368.5	2477.1	2519.9	2513.7	2516.0	2543.3	2559.7	2545.4
22°	2344.0	2347.8	2364.8	2392.5	2450.2	2549.6	2544.8	2546.2	2570.1	2589.7	2574.2
23°	2367.0	2372.0	2390.4	2417.6	2447.9	2580.4	2575.2	2578.8	2596.9	2620.6	2604.2
24°	2391.5	2397.0	2416.2	2443.6	2473.9	2605.3	2600.0	2610.8	2628.4	2651.4	2633.7
25°	2415.2	2420.4	2441.5	2470.0	2501.2	2627.7	2626.7	2638.6	2661.6	2677.6	2664.3
26°	2439.0	2445.4	2466.5	2498.3	2522.1	2651.1	2653.3	2666.3	2695.0	2703.7	2695.9
27°	2462.8	2469.5	2491.8	2525.9	2542.4	2678.5	2684.4	2696.9	2727.9	2733.2	2727.9
28°	2484.2	2451.7	2514.9	2553.7	2564.4	2697.4	2717.3	2728.7	2756.7	2761.8	2762.0
29°	2432.0	2354.9	2473.2	2581.0	2594.0	2693.3	2750.5	2764.7	2784.1	2794.5	2797.1
30°	2343.0	2325.3	2381.9	2602.8	2624.0	2688.8	2784.6	2801.3	2815.2	2827.8	2833.3
31°	2328.9	2351.0	2364.5	2617.9	2654.2	2691.0	2816.9	2837.9	2843.1	2861.1	2869.0
32°	2352.5	2378.2	2388.4	2542.3	2684.1	2704.9	2842.3	2875.5	2873.6	2895.1	2904.7
33°	2376.3	2406.3	2413.1	2476.5	2712.0	2728.3	2859.7	2912.2	2907.5	2928.0	2938.3
34°	2400.6	2433.6	2437.4	2475.7	2734.2	2753.5	2879.2	2949.0	2940.7	2959.2	2970.9
35°	2424.3	2463.3	2462.1	2502.1	2756.7	2778.4	2906.8	2974.7	2975.3	2990.6	3005.5
36°	2449.6	2491.2	2488.8	2527.7	2777.7	2804.4	2934.9	3001.0	3010.8	3023.7	3042.6
37°	2472.3	2518.9	2514.4	2546.5	2785.6	2832.3	2964.4	3027.0	3046.1	3058.9	3077.7
38°	2496.8	2542.4	2539.7	2563.3	2702.1	2851.0	2995.7	3060.4	3082.2	3092.0	3113.3
39°	2517.1	2425.9	2562.4	2583.6	2639.3	2871.1	3026.7	3092.5	3118.5	3127.8	3151.5
40°	2396.9	2331.2	2455.0	2610.3	2657.0	2900.7	3050.2	3124.5	3147.5	3166.7	3191.4
41°	2308.0	2346.5	2361.7	2637.1	2685.3	2932.7	3073.2	3156.0	3174.2	3207.0	3231.7
42°	2323.7	2367.3	2370.8	2661.5	2714.6	2966.9	3089.2	3188.0	3203.7	3246.2	3272.8
43°	2348.3	2388.6	2396.0	2606.7	2744.2	3001.2	3114.0	3218.6	3234.4	3286.3	3313.1
44°	2374.5	2409.2	2423.0	2504.8	2771.5	3035.2	3150.2	3243.7	3271.3	3326.2	3354.9



REPORT NUMBER: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2400.6	2428.8	2448.5	2489.7	2790.5	3061.4	3189.5	3268.9	3310.8	3367.5	3393.7
46°	2426.8	2443.4	2475.3	2512.7	2805.4	3069.1	3228.3	3288.5	3352.9	3410.7	3433.3
47°	2449.1	2317.0	2498.6	2529.1	2827.3	3082.1	3267.6	3303.0	3393.9	3453.4	3473.4
48°	2336.9	2180.3	2402.8	2543.1	2849.3	3043.5	3294.0	3324.2	3434.3	3495.9	3515.6
49°	2195.8	2190.3	2256.9	2562.1	2800.4	2992.6	3293.6	3353.7	3475.0	3535.4	3559.1
50°	2212.5	2209.2	2262.4	2585.1	2696.0	2957.9	3293.2	3385.5	3513.8	3570.8	3605.0
51°	2239.2	2228.6	2287.4	2536.2	2679.8	2982.2	3286.6	3415.0	3547.4	3604.7	3650.3
52°	2265.9	2247.6	2311.6	2386.8	2708.8	3001.2	3287.6	3444.9	3577.2	3641.9	3695.1
53°	2289.6	2261.0	2334.3	2371.7	2735.4	3012.1	3307.7	3472.1	3607.9	3675.0	3742.0
54°	2306.2	2073.7	2352.7	2396.8	2751.7	3024.3	3330.0	3497.5	3632.2	3713.0	3792.3
55°	2134.1	1982.8	2177.9	2423.6	2766.0	3047.8	3346.1	3513.5	3645.5	3754.3	3844.9
56°	2035.4	1996.2	2076.3	2449.8	2769.0	3070.9	3346.0	3516.8	3663.5	3795.7	3899.0
57°	2040.6	2004.2	2079.6	2472.3	2681.3	3076.2	3346.6	3515.4	3678.3	3835.1	3952.6
58°	2048.7	1976.4	2087.9	2334.3	2579.1	3083.9	3347.8	3514.6	3694.5	3871.8	4007.6
59°	1986.0	1714.6	2036.2	2243.7	2602.4	3028.3	3339.8	3518.0	3709.3	3908.0	4062.1
60°	1767.9	1687.5	1806.9	2252.3	2631.3	2936.8	3314.9	3519.4	3721.0	3943.4	4117.5
61°	1762.3	1686.4	1798.2	2264.6	2661.9	2930.5	3301.9	3514.1	3731.5	3979.2	4173.5
62°	1753.6	1501.4	1788.0	2166.6	2689.4	2932.8	3295.5	3508.4	3738.4	4011.0	4229.7
63°	1571.5	1360.9	1594.8	2029.4	2606.3	2931.5	3265.5	3494.5	3737.6	4037.2	4286.5
64°	1448.0	1244.5	1470.0	2014.8	2518.3	2921.0	3239.6	3464.9	3732.0	4058.6	4340.6
65°	1435.9	1128.1	1458.4	1988.6	2503.6	2881.9	3189.6	3430.9	3711.7	4076.9	4388.7
66°	1279.2	1012.8	1295.4	1788.8	2499.2	2767.2	3137.9	3393.6	3681.1	4092.3	4428.4
67°	1122.5	976.7	1133.5	1772.7	2363.8	2735.5	3062.2	3331.6	3644.8	4094.3	4460.9
68°	986.2	648.2	1005.2	1673.3	2317.2	2742.9	2970.9	3192.4	3579.8	4085.8	4485.9
69°	802.7	529.2	819.8	1512.0	2277.8	2738.9	2863.4	2958.0	3458.6	4072.0	4504.9
70°	615.3	360.7	626.3	1376.6	2141.7	2714.0	2698.2	2646.2	3267.8	4037.5	4502.3
71°	434.0	192.2	429.2	1229.7	2091.7	2588.3	2470.2	2370.9	2999.3	3967.8	4475.8
72°	212.7	25.8	183.0	1082.7	1981.0	2451.1	2211.4	2125.1	2713.7	3854.6	4429.9
73°	176.9	0.4	153.5	934.4	1885.5	2304.3	1965.3	1880.8	2436.5	3681.9	4342.3
74°	143.5	0.3	124.0	744.6	1710.7	2135.9	1738.4	1572.4	2164.9	3453.8	4204.2
75°	110.2	0.3	94.5	621.2	1548.7	1917.2	1404.3	1135.1	1825.9	3172.4	3983.7
76°	77.9	0.4	67.1	524.0	1313.8	1697.0	1070.3	664.2	1334.0	2844.7	3663.3
77°	43.8	0.4	39.2	420.5	1078.9	1401.8	738.8	312.5	772.1	2465.8	3194.7
78°	31.2	0.5	28.1	306.3	843.9	1106.7	522.8	239.4	563.9	1966.6	2580.4
79°	18.6	0.5	16.9	217.9	605.5	811.0	306.9	167.9	356.8	1335.8	1888.1
80°	6.0	0.6	5.8	129.6	366.8	442.7	94.3	96.5	149.8	761.6	1168.7
81°	5.1	0.7	4.9	43.1	216.1	316.7	77.2	80.9	119.9	556.5	584.6
82°	4.4	0.8	4.3	24.4	69.5	190.8	65.0	68.1	101.6	359.6	440.2
83°	3.9	1.0	3.8	18.9	46.1	67.1	54.0	56.9	86.0	162.7	304.1
84°	3.4	1.1	3.3	15.6	37.8	54.0	44.3	46.9	72.3	133.2	167.9
85°	3.1	1.2	3.0	12.3	31.6	41.5	35.8	37.0	59.8	104.5	141.0
86°	2.8	1.3	2.7	9.1	26.0	30.6	28.1	28.0	49.4	80.3	117.7
87°	2.5	1.5	2.5	6.9	19.5	23.0	20.9	19.4	39.1	62.4	90.9
88°	2.3	1.6	2.3	5.1	13.0	16.3	14.8	11.7	28.8	47.4	63.4
89°	2.2	1.7	2.2	3.6	6.5	9.7	8.6	5.3	18.6	32.5	49.6



REPORT NUMBER: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2144.9	2144.9	2144.9
1°	2148.6	2148.8	2148.0
2°	2154.4	2154.9	2153.6
3°	2162.3	2162.8	2161.0
4°	2172.3	2172.5	2170.6
5°	2183.1	2183.4	2181.6
6°	2195.8	2195.9	2193.8
7°	2210.1	2209.1	2206.4
8°	2225.7	2223.9	2220.5
9°	2243.3	2240.3	2236.5
10°	2262.5	2258.4	2253.7
11°	2282.6	2277.7	2272.2
12°	2304.0	2297.5	2290.6
13°	2326.5	2317.0	2309.4
14°	2349.9	2337.7	2328.8
15°	2372.6	2359.3	2349.2
16°	2395.9	2381.5	2369.5
17°	2420.1	2404.1	2391.8
18°	2444.6	2428.1	2415.2
19°	2470.3	2452.3	2439.1
20°	2496.2	2477.5	2464.4
21°	2522.9	2504.0	2491.6
22°	2551.3	2531.7	2519.8
23°	2580.3	2560.6	2549.5
24°	2608.9	2589.8	2580.5
25°	2639.4	2620.9	2612.1
26°	2671.1	2652.9	2645.5
27°	2704.1	2685.7	2680.0
28°	2737.7	2718.4	2715.4
29°	2772.9	2752.2	2752.2
30°	2807.9	2787.1	2789.9
31°	2844.3	2822.5	2827.8
32°	2880.2	2857.8	2865.3
33°	2916.9	2894.3	2903.5
34°	2954.5	2930.1	2942.0
35°	2992.5	2966.0	2981.7
36°	3031.2	3002.1	3021.7
37°	3070.1	3039.5	3061.4
38°	3109.6	3077.6	3101.4
39°	3149.3	3116.4	3140.7
40°	3190.5	3156.8	3180.7
41°	3230.9	3198.4	3219.0
42°	3271.7	3240.9	3259.2
43°	3313.7	3283.3	3297.2
44°	3356.5	3327.6	3335.0

REPORT NUMBER: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	3400.2	3374.6	3374.2
46°	3444.0	3421.1	3413.3
47°	3489.4	3469.5	3452.3
48°	3536.1	3518.9	3493.3
49°	3584.3	3571.3	3534.6
50°	3632.9	3622.5	3577.5
51°	3681.2	3675.2	3620.5
52°	3729.7	3727.6	3664.1
53°	3779.1	3780.5	3708.9
54°	3828.4	3831.8	3752.2
55°	3880.3	3881.9	3795.4
56°	3934.4	3929.4	3834.8
57°	3989.6	3973.4	3872.5
58°	4042.2	4013.5	3908.4
59°	4093.1	4050.7	3940.4
60°	4145.8	4083.2	3968.4
61°	4197.9	4111.4	3991.4
62°	4248.8	4136.4	4009.3
63°	4300.8	4158.6	4024.8
64°	4352.1	4179.3	4038.6
65°	4399.0	4197.4	4051.5
66°	4440.4	4214.4	4059.0
67°	4473.2	4225.1	4057.9
68°	4495.9	4222.2	4020.0
69°	4503.9	4193.1	3900.3
70°	4499.2	4110.2	3652.1
71°	4474.4	3925.2	3262.1
72°	4420.5	3600.0	2849.0
73°	4313.4	3165.2	2413.1
74°	4100.7	2673.9	1907.1
75°	3751.1	2153.5	1273.0
76°	3288.3	1570.7	694.0
77°	2774.0	909.0	517.3
78°	2137.4	668.9	346.4
79°	1388.3	432.5	175.5
80°	749.7	196.1	155.7
81°	548.0	165.1	138.6
82°	362.4	145.0	123.2
83°	176.7	126.6	109.1
84°	147.3	109.9	95.7
85°	119.9	94.7	82.8
86°	97.7	80.9	70.6
87°	78.4	68.1	58.9
88°	60.4	56.8	50.9
89°	49.6	45.5	42.8



REPORT NUMBER: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-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: P1436704

CATALOG NUMBER: XAS180-SFPM (3000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)