

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: P1436728

Luminaire Tested: XAS180-SFPM (4000K-108W-T5-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436728
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-108W-T5-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 60% (108W)
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: 15031 lumens
Efficiency: 63.1%
Efficacy: 140.6 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

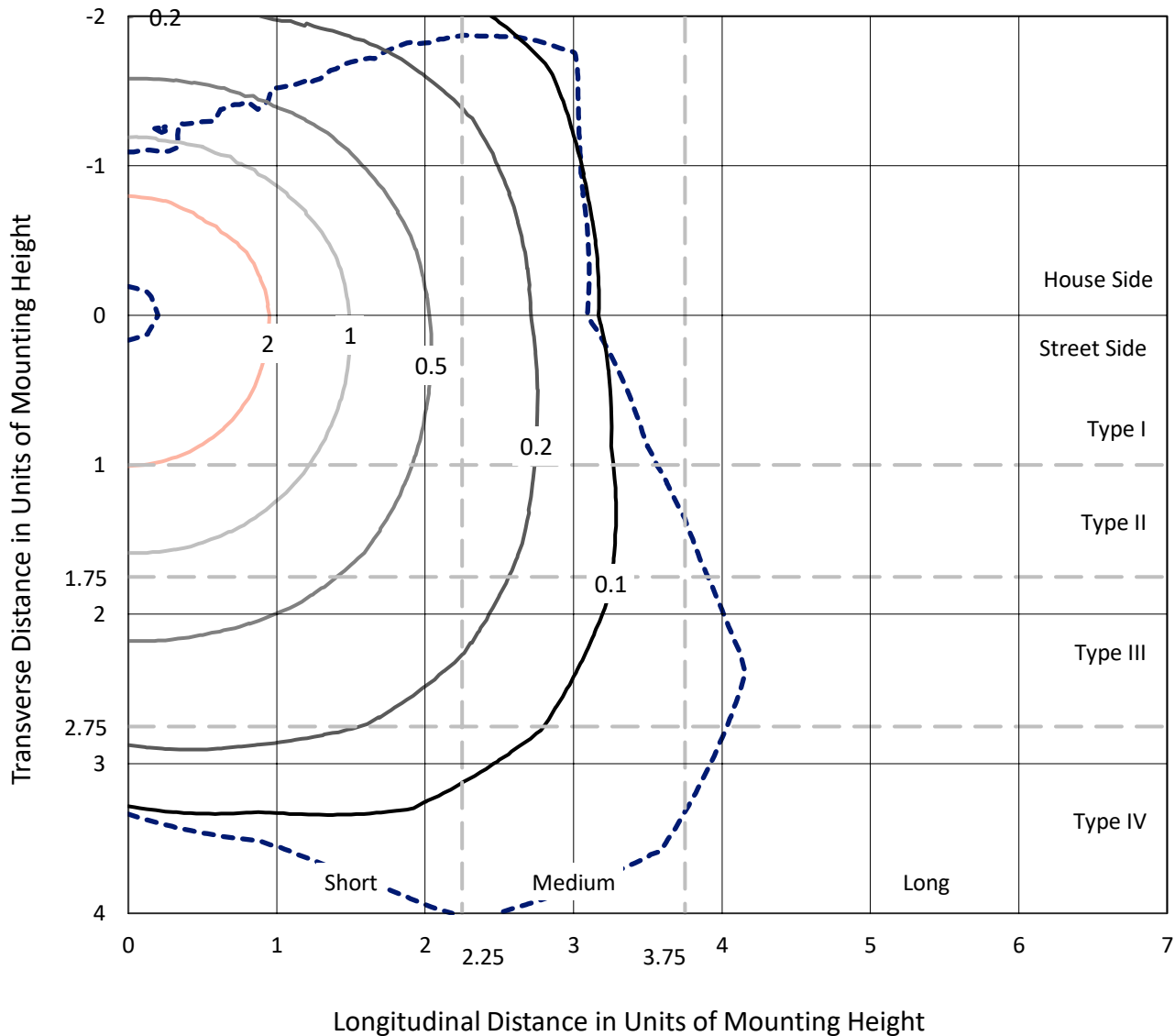
Input Watts (W): 106.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

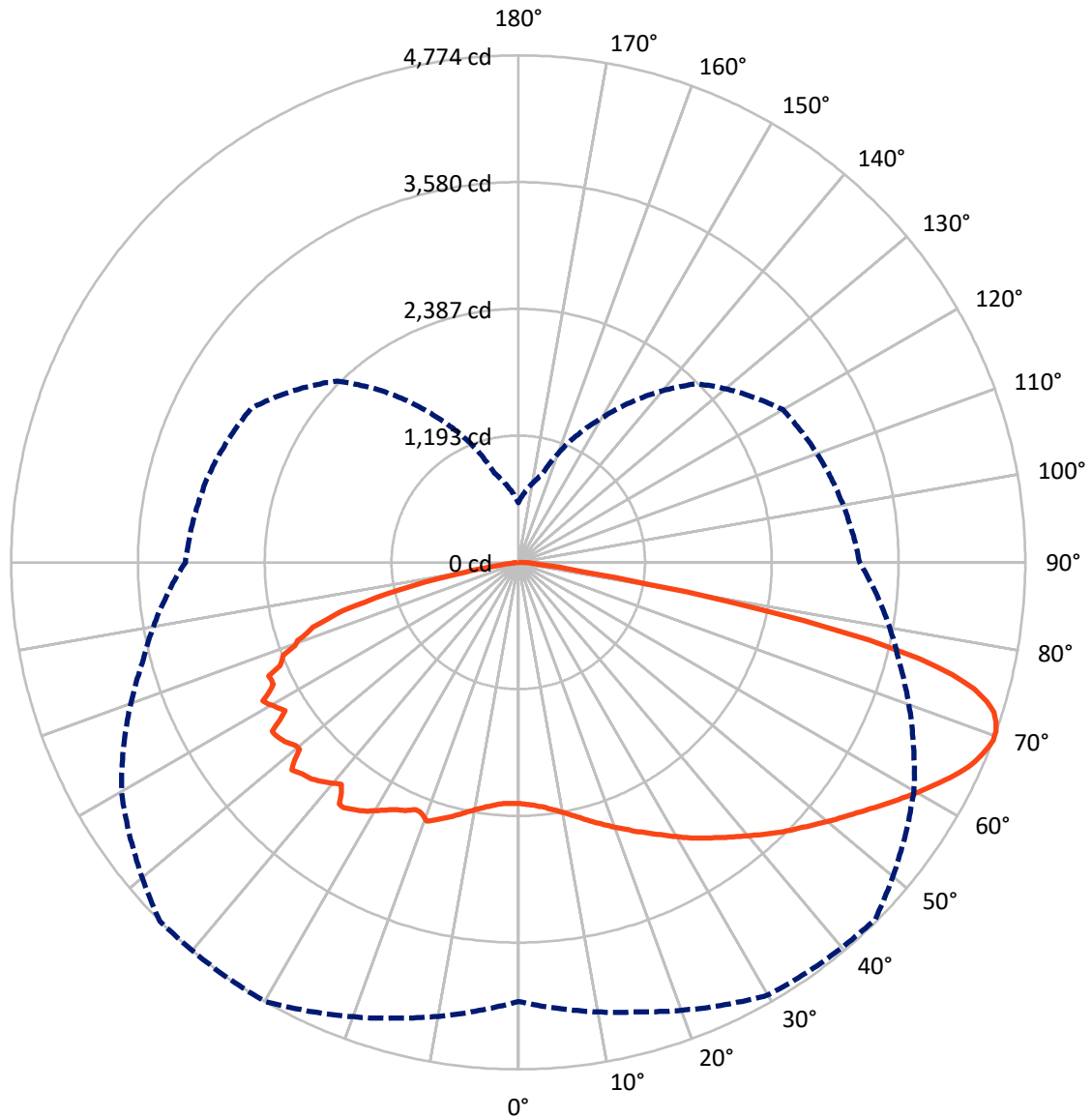
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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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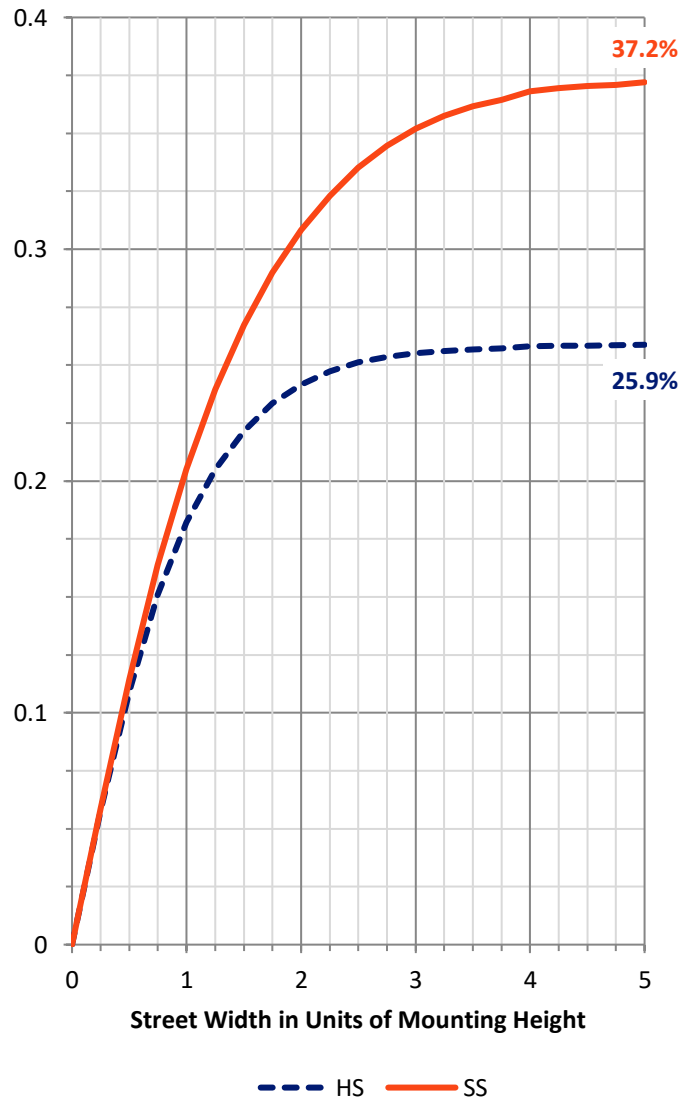
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6173.1	0.0	6173.1
	% Lamp	25.9	0.0	25.9
Street Side	Lumens	8857.9	0.0	8857.9
	% Lamp	37.2	0.0	37.2
Total	Lumens	15031.0	0.0	15031.0
	% Lamp	63.1	0.0	63.1

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	222.0	1.5	0.9
10°-20°	706.4	4.7	3.0
20°-30°	1259.2	8.4	5.3
30°-40°	1864.2	12.4	7.8
40°-50°	2487.3	16.5	10.4
50°-60°	3050.5	20.3	12.8
60°-70°	3322.9	22.1	14.0
70°-80°	2004.5	13.3	8.4
80°-90°	114.0	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°	15031.0	100.0	63.1
0°-180°	15031.0	100.0	63.1

Coefficient of Utilization



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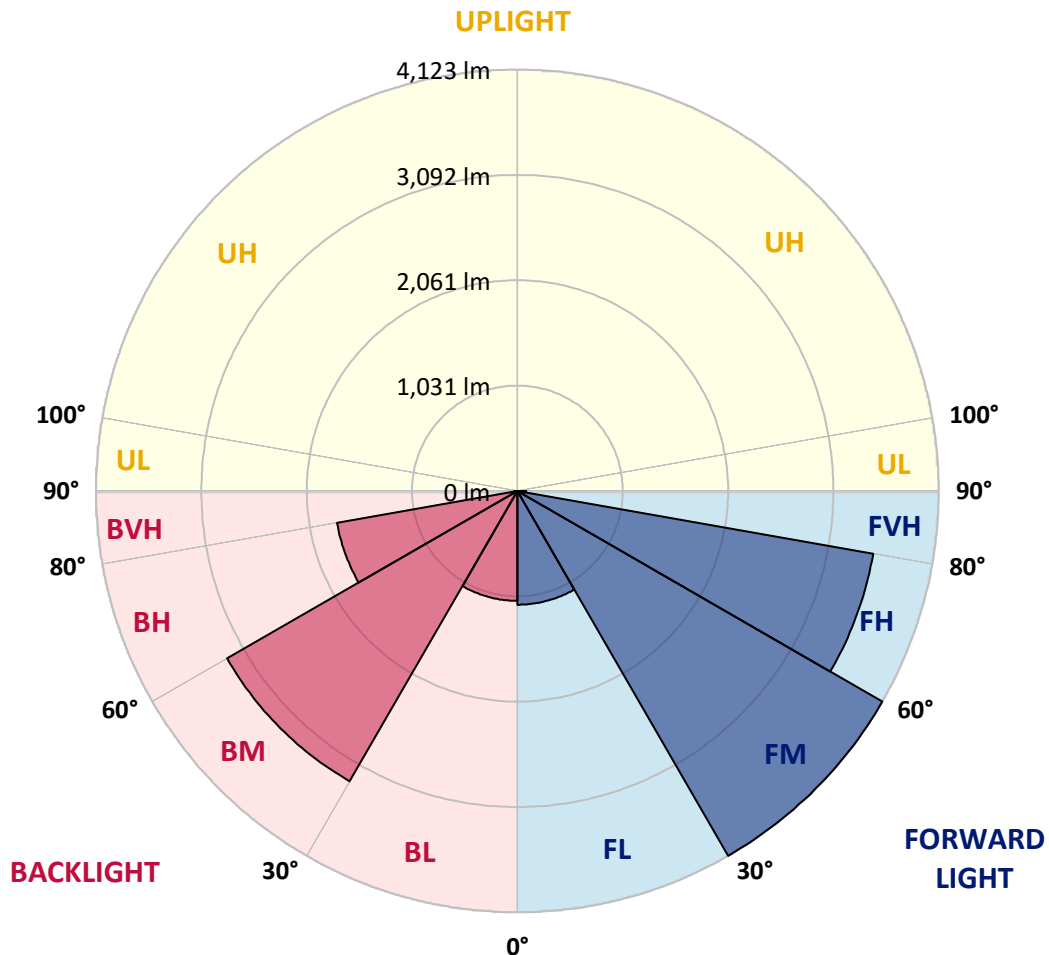
CATALOG NUMBER: XAS180-SFPM (4000K-108W-T5-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1113.1	4.7			
FM (30°-60°)	4122.7	17.3			
FH (60°-80°)	3535.5	14.8			G2/5000
FVH (80°-90°)	86.7	0.4			G1/100
BL (0°-30°)	1074.4	4.5	B3/2500		
BM (30°-60°)	3279.4	13.8	B3/5000		
BH (60°-80°)	1792.0	7.5	B3/2500		G3/2500
BVH (80°-90°)	27.3	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	8778.0	36.9			

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°	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8
1°	2276.1	2276.1	2275.9	2275.2	2274.6	2273.4	2271.9	2271.3	2270.7	2270.5	2270.5
2°	2282.1	2281.3	2280.8	2279.2	2277.7	2275.3	2273.1	2271.7	2270.7	2270.0	2270.5
3°	2289.9	2288.7	2287.3	2284.8	2283.0	2280.0	2277.0	2275.1	2273.1	2272.0	2272.2
4°	2300.1	2298.3	2296.1	2293.1	2290.5	2286.8	2283.2	2280.6	2277.9	2276.6	2276.5
5°	2311.8	2309.3	2307.0	2303.1	2299.4	2295.1	2290.7	2287.6	2285.1	2283.5	2285.0
6°	2324.7	2321.6	2319.5	2315.5	2310.6	2304.6	2299.9	2296.0	2293.2	2294.6	2296.5
7°	2337.9	2335.5	2333.5	2329.2	2323.9	2316.9	2311.1	2306.4	2303.2	2307.2	2310.1
8°	2352.9	2350.4	2348.4	2344.4	2338.3	2330.9	2324.8	2319.8	2317.2	2321.5	2325.5
9°	2369.9	2367.2	2364.5	2360.9	2354.9	2346.3	2339.3	2334.2	2334.2	2337.4	2341.9
10°	2388.1	2385.4	2383.3	2379.2	2373.6	2363.3	2355.7	2349.9	2352.0	2356.4	2359.7
11°	2407.7	2404.3	2403.2	2399.6	2393.2	2382.5	2373.7	2367.9	2371.5	2377.3	2379.7
12°	2427.2	2423.4	2423.6	2420.8	2413.4	2402.6	2392.4	2387.1	2391.9	2398.5	2400.4
13°	2447.1	2443.0	2445.0	2443.9	2435.4	2423.8	2412.1	2406.9	2414.2	2420.6	2422.3
14°	2467.7	2463.1	2466.1	2466.7	2458.9	2445.4	2432.4	2427.1	2436.3	2444.6	2444.5
15°	2489.3	2485.2	2488.9	2490.8	2482.2	2467.8	2454.3	2448.5	2459.3	2468.0	2466.5
16°	2510.8	2508.1	2512.0	2515.0	2506.5	2491.5	2477.0	2471.1	2483.8	2491.5	2488.9
17°	2534.5	2531.6	2535.9	2539.8	2532.0	2515.6	2500.1	2494.4	2508.9	2514.8	2482.6
18°	2559.2	2555.5	2560.9	2564.4	2557.7	2540.0	2521.3	2512.9	2533.9	2538.8	2441.9
19°	2584.6	2580.7	2586.6	2590.1	2584.1	2566.3	2536.2	2530.9	2551.8	2562.9	2421.5
20°	2611.4	2607.2	2612.6	2616.1	2610.9	2588.6	2556.7	2550.4	2570.1	2583.8	2441.9
21°	2640.3	2635.1	2639.4	2642.8	2639.1	2607.9	2581.0	2578.9	2589.9	2547.6	2463.8
22°	2670.0	2664.4	2667.9	2671.2	2668.3	2632.2	2609.3	2606.9	2617.0	2523.9	2486.9
23°	2701.5	2695.4	2696.6	2699.7	2699.0	2657.7	2638.8	2630.6	2642.1	2519.8	2511.2
24°	2734.4	2727.5	2726.5	2729.0	2723.3	2688.2	2664.5	2653.8	2660.8	2543.8	2536.4
25°	2767.9	2760.2	2757.2	2760.4	2747.8	2719.7	2688.7	2679.8	2683.5	2567.2	2561.3
26°	2803.2	2794.0	2788.7	2792.6	2777.4	2751.6	2717.8	2708.9	2708.1	2583.8	2587.9
27°	2839.8	2828.1	2821.7	2824.6	2803.3	2779.2	2745.4	2741.2	2736.5	2603.1	2614.0
28°	2877.3	2863.7	2855.2	2858.5	2833.1	2804.9	2779.3	2773.1	2751.5	2625.9	2639.9
29°	2916.4	2898.9	2889.7	2893.8	2865.4	2833.8	2814.3	2806.1	2734.2	2655.3	2666.1
30°	2956.3	2935.4	2926.0	2929.7	2898.7	2863.1	2851.5	2839.3	2735.8	2685.4	2688.1
31°	2996.5	2971.3	2962.2	2965.1	2932.8	2891.2	2889.3	2871.3	2727.8	2716.3	2700.0
32°	3036.2	3007.6	2999.1	2996.2	2966.9	2925.6	2926.4	2893.3	2750.4	2745.8	2603.5
33°	3076.6	3044.8	3036.5	3027.6	2997.3	2960.0	2964.1	2909.9	2772.7	2770.3	2531.9
34°	3117.4	3081.9	3075.0	3060.0	3026.3	2993.7	2995.6	2928.0	2796.5	2791.4	2542.5
35°	3159.6	3120.0	3114.2	3096.1	3057.3	3027.5	3017.8	2955.1	2822.6	2812.4	2569.1
36°	3201.9	3158.6	3153.6	3130.5	3091.4	3062.1	3042.7	2982.8	2851.5	2835.7	2591.6
37°	3244.0	3196.7	3194.0	3166.0	3124.9	3095.8	3069.7	3011.2	2878.0	2831.3	2610.1
38°	3286.4	3236.1	3234.7	3203.6	3158.1	3131.8	3102.2	3040.6	2895.9	2739.4	2626.2
39°	3328.1	3276.5	3274.0	3243.2	3192.7	3166.3	3137.5	3065.0	2917.3	2673.1	2649.7
40°	3370.4	3318.0	3314.6	3283.2	3230.3	3191.7	3173.0	3087.9	2949.1	2699.1	2676.6
41°	3410.9	3361.6	3356.5	3323.2	3269.7	3220.4	3206.5	3111.7	2981.5	2727.6	2703.2
42°	3453.5	3404.2	3398.4	3365.6	3309.1	3248.1	3239.2	3129.5	3014.6	2757.3	2727.0
43°	3493.9	3448.8	3441.6	3407.4	3350.7	3279.3	3265.9	3152.9	3047.3	2788.1	2648.7
44°	3533.9	3495.3	3484.4	3449.2	3390.9	3315.2	3287.7	3190.3	3080.4	2814.2	2548.3



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	3575.4	3542.0	3530.2	3488.3	3433.4	3355.3	3313.6	3228.6	3104.2	2831.3	2546.6
46°	3616.9	3591.2	3576.6	3528.7	3477.2	3397.6	3331.1	3268.4	3109.6	2846.9	2569.6
47°	3658.2	3642.0	3624.6	3570.2	3522.2	3440.6	3349.7	3301.8	3114.5	2870.2	2587.6
48°	3701.6	3693.7	3673.2	3612.6	3566.2	3482.4	3371.8	3314.7	3046.8	2891.3	2602.5
49°	3745.4	3745.8	3722.6	3658.0	3606.9	3526.5	3401.5	3322.2	2994.3	2815.7	2622.4
50°	3790.8	3799.4	3772.3	3705.5	3642.5	3570.1	3434.0	3325.3	2987.9	2709.2	2647.6
51°	3836.4	3853.6	3823.6	3753.8	3681.9	3608.1	3466.3	3319.3	3017.2	2712.6	2576.3
52°	3882.7	3908.2	3873.8	3802.8	3723.7	3643.7	3500.4	3343.6	3040.7	2741.8	2420.6
53°	3930.1	3961.6	3924.6	3851.3	3760.9	3680.7	3533.1	3374.6	3052.7	2769.7	2420.2
54°	3976.0	4013.8	3978.1	3903.8	3802.5	3711.5	3564.0	3405.1	3068.0	2788.5	2448.2
55°	4021.8	4063.3	4032.1	3958.2	3846.5	3731.8	3586.9	3424.4	3100.0	2805.7	2477.4
56°	4063.5	4111.5	4089.7	4014.9	3893.0	3758.0	3599.9	3431.5	3126.7	2808.8	2506.6
57°	4103.4	4157.3	4147.8	4076.2	3940.1	3784.2	3610.2	3443.9	3138.1	2691.3	2531.4
58°	4141.5	4199.8	4205.9	4137.0	3986.4	3811.7	3617.4	3455.6	3155.4	2601.6	2379.0
59°	4175.4	4239.8	4262.6	4197.5	4033.0	3835.6	3629.1	3451.1	3077.3	2633.2	2296.9
60°	4205.0	4275.4	4318.1	4261.8	4076.7	3856.1	3637.9	3428.7	3000.5	2667.7	2307.9
61°	4229.4	4307.4	4373.5	4325.4	4118.3	3874.6	3641.7	3425.3	3012.7	2704.3	2319.5
62°	4248.4	4334.2	4427.3	4390.9	4157.7	3886.2	3640.8	3421.5	3020.5	2736.5	2205.8
63°	4264.8	4358.0	4482.1	4456.6	4195.7	3890.6	3628.5	3392.6	3026.4	2644.4	2078.0
64°	4279.5	4377.4	4532.9	4522.1	4228.5	3889.2	3602.0	3369.3	3019.5	2576.4	2062.8
65°	4293.1	4393.9	4579.7	4583.0	4260.3	3881.7	3573.2	3325.5	2977.0	2572.8	2023.9
66°	4301.1	4409.1	4621.5	4636.9	4287.9	3860.8	3544.3	3277.4	2857.3	2581.5	1833.6
67°	4299.9	4418.5	4657.3	4684.8	4305.4	3832.5	3506.4	3196.7	2850.8	2445.0	1826.5
68°	4259.8	4414.3	4687.7	4724.2	4305.2	3797.1	3404.2	3127.2	2867.5	2405.7	1717.9
69°	4133.0	4380.3	4704.4	4753.0	4301.3	3719.4	3213.6	3051.5	2875.8	2377.1	1567.3
70°	3869.9	4279.8	4708.1	4769.1	4296.8	3578.1	2938.7	2926.6	2865.6	2242.1	1414.9
71°	3456.7	4063.6	4690.5	4766.0	4257.9	3367.5	2656.9	2737.1	2761.9	2203.7	1262.4
72°	3018.9	3711.3	4647.0	4737.3	4182.1	3098.5	2396.6	2500.1	2656.3	2094.1	1110.7
73°	2557.0	3251.7	4549.7	4678.0	4055.0	2825.0	2166.6	2255.6	2538.7	2026.9	990.6
74°	2020.9	2750.8	4340.8	4566.4	3871.7	2572.5	1900.9	2034.1	2392.5	1859.7	824.6
75°	1348.9	2206.6	3967.1	4375.2	3634.1	2289.9	1445.9	1805.4	2188.8	1723.0	710.3
76°	735.4	1558.4	3477.3	4073.8	3354.6	1863.7	990.9	1418.2	1996.4	1494.0	609.9
77°	548.1	866.6	2954.0	3636.2	3011.2	1228.3	542.5	1031.0	1774.6	1265.0	498.2
78°	367.1	635.7	2311.8	3002.9	2538.5	640.4	394.7	650.3	1415.4	1035.6	364.0
79°	186.0	414.2	1503.2	2264.7	1876.5	462.3	246.8	461.4	1056.3	769.6	257.7
80°	165.0	192.6	777.7	1471.4	1144.3	297.0	101.9	272.4	701.7	514.1	151.4
81°	146.9	168.0	578.0	747.8	574.0	131.7	87.0	86.5	492.7	358.4	46.7
82°	130.5	147.8	382.5	553.2	376.6	112.0	73.8	72.6	283.7	202.6	24.0
83°	115.7	129.5	187.0	367.2	183.0	94.7	62.0	60.2	77.5	51.7	19.4
84°	101.4	112.6	153.7	181.2	147.8	79.5	50.9	49.2	60.0	39.3	16.2
85°	87.7	97.1	124.5	150.3	116.8	66.1	40.7	39.9	46.7	32.7	12.9
86°	74.8	83.2	101.7	125.6	89.1	54.6	31.4	31.4	34.5	26.8	9.6
87°	62.5	70.2	81.5	98.1	69.1	43.2	23.2	23.5	25.5	20.9	7.5
88°	53.9	58.8	62.9	67.4	52.2	31.7	15.0	16.7	18.2	15.0	5.7
89°	45.4	47.4	51.7	52.8	35.3	20.6	6.9	9.8	10.9	9.0	4.2



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CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8	2272.8
1°	2270.8	2270.7	2271.7	2272.2	2273.2	2274.1	2274.7	2274.4	2275.3	2275.6	2276.0
2°	2271.1	2270.5	2272.4	2273.6	2275.3	2276.8	2278.4	2279.0	2280.6	2281.5	2282.4
3°	2273.1	2272.8	2275.0	2277.0	2279.4	2281.5	2284.2	2285.4	2287.7	2289.2	2290.4
4°	2277.8	2278.9	2281.1	2282.9	2285.9	2289.0	2292.7	2294.6	2297.4	2298.9	2300.1
5°	2287.6	2288.8	2291.2	2292.9	2295.1	2298.8	2302.6	2305.2	2308.5	2310.8	2312.3
6°	2299.4	2300.8	2304.3	2306.1	2308.3	2310.1	2314.8	2317.9	2322.0	2324.8	2326.3
7°	2313.8	2315.0	2318.8	2321.1	2323.4	2324.6	2329.8	2333.5	2337.5	2340.9	2342.6
8°	2328.9	2330.3	2334.8	2338.6	2340.9	2341.9	2346.7	2350.0	2355.0	2358.8	2359.9
9°	2345.4	2347.2	2351.8	2357.0	2360.5	2361.8	2364.0	2367.6	2373.6	2378.5	2379.6
10°	2362.6	2365.3	2371.2	2377.8	2382.3	2382.8	2383.8	2387.3	2393.7	2399.6	2400.3
11°	2382.1	2384.3	2391.6	2400.8	2405.2	2405.9	2405.4	2409.8	2417.2	2423.2	2422.5
12°	2401.1	2403.8	2411.8	2424.2	2430.1	2430.3	2428.6	2433.2	2441.2	2447.5	2446.6
13°	2421.8	2423.9	2433.1	2448.0	2456.7	2456.6	2452.8	2457.9	2467.0	2473.0	2472.0
14°	2441.8	2442.8	2455.2	2471.7	2484.7	2483.4	2477.8	2483.4	2493.9	2501.0	2499.2
15°	2454.9	2417.4	2469.0	2497.0	2511.9	2512.0	2505.4	2509.3	2521.5	2530.3	2525.5
16°	2405.4	2372.0	2421.7	2521.1	2538.6	2541.7	2533.1	2537.0	2549.2	2559.2	2553.5
17°	2374.3	2375.0	2392.9	2519.4	2566.5	2571.6	2562.2	2565.8	2578.0	2588.4	2581.4
18°	2394.2	2395.8	2412.1	2479.5	2594.7	2600.9	2588.5	2594.7	2608.1	2617.5	2609.8
19°	2414.4	2417.2	2433.8	2462.6	2622.3	2623.3	2608.4	2616.3	2639.0	2648.5	2638.2
20°	2436.4	2440.1	2456.5	2484.7	2646.3	2645.9	2631.7	2639.7	2670.5	2679.8	2667.7
21°	2459.3	2463.1	2480.4	2509.7	2624.8	2670.2	2663.6	2666.0	2695.0	2712.4	2697.3
22°	2483.8	2487.9	2505.9	2535.2	2596.3	2701.7	2696.6	2698.0	2723.4	2744.2	2727.7
23°	2508.1	2513.4	2532.9	2561.8	2593.9	2734.2	2728.8	2732.6	2751.8	2776.9	2759.6
24°	2534.1	2540.0	2560.3	2589.3	2621.4	2760.6	2755.1	2766.5	2785.1	2809.5	2790.8
25°	2559.2	2564.8	2587.2	2617.3	2650.4	2784.4	2783.4	2795.9	2820.3	2837.3	2823.2
26°	2584.4	2591.2	2613.6	2647.3	2672.6	2809.2	2811.5	2825.3	2855.7	2864.9	2856.6
27°	2609.7	2616.8	2640.4	2676.5	2694.0	2838.2	2844.5	2857.7	2890.5	2896.2	2890.5
28°	2632.4	2597.9	2664.9	2706.0	2717.4	2858.3	2879.4	2891.5	2921.1	2926.5	2926.7
29°	2577.0	2495.3	2620.7	2734.9	2748.7	2853.9	2914.5	2929.6	2950.2	2961.2	2964.0
30°	2482.7	2464.0	2523.9	2758.0	2780.5	2849.2	2950.6	2968.4	2983.1	2996.4	3002.3
31°	2467.8	2491.2	2505.5	2774.1	2812.5	2851.5	2984.8	3007.1	3012.7	3031.7	3040.1
32°	2492.8	2520.1	2530.9	2694.0	2844.1	2866.2	3011.8	3047.0	3045.0	3067.7	3077.9
33°	2518.0	2549.9	2557.1	2624.2	2873.7	2891.0	3030.3	3085.8	3080.9	3102.6	3113.5
34°	2543.7	2578.7	2582.7	2623.3	2897.3	2917.7	3050.9	3124.9	3116.1	3135.7	3148.1
35°	2568.9	2610.2	2608.9	2651.3	2921.1	2944.1	3080.2	3152.1	3152.7	3168.9	3184.7
36°	2595.7	2639.7	2637.3	2678.5	2943.3	2971.7	3109.9	3180.0	3190.4	3204.1	3224.0
37°	2619.7	2669.1	2664.4	2698.4	2951.8	3001.2	3141.2	3207.5	3227.8	3241.3	3261.2
38°	2645.7	2694.0	2691.1	2716.1	2863.2	3021.0	3174.4	3242.9	3266.1	3276.4	3299.0
39°	2667.3	2570.6	2715.2	2737.7	2796.7	3042.4	3207.2	3276.9	3304.4	3314.4	3339.4
40°	2539.9	2470.2	2601.4	2766.0	2815.5	3073.7	3232.1	3310.8	3335.2	3355.6	3381.7
41°	2445.6	2486.4	2502.5	2794.4	2845.5	3107.6	3256.5	3344.2	3363.5	3398.3	3424.4
42°	2462.3	2508.4	2512.2	2820.3	2876.5	3143.8	3273.5	3378.1	3394.8	3439.9	3467.9
43°	2488.3	2531.1	2538.9	2762.1	2907.9	3180.2	3299.7	3410.6	3427.3	3482.3	3510.7
44°	2516.1	2552.9	2567.5	2654.2	2936.7	3216.2	3338.1	3437.2	3466.4	3524.6	3555.0

REPORT NUMBER: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2543.7	2573.7	2594.5	2638.2	2956.9	3244.0	3379.7	3463.8	3508.3	3568.4	3596.1
46°	2571.6	2589.1	2622.9	2662.5	2972.7	3252.1	3420.8	3484.7	3552.8	3614.1	3638.1
47°	2595.2	2455.2	2647.6	2679.9	2995.9	3265.9	3462.5	3499.9	3596.3	3659.3	3680.5
48°	2476.3	2310.4	2546.1	2694.7	3019.3	3225.0	3490.5	3522.5	3639.1	3704.4	3725.2
49°	2326.8	2321.0	2391.5	2714.9	2967.4	3171.1	3490.0	3553.7	3682.2	3746.3	3771.4
50°	2344.4	2341.0	2397.3	2739.3	2856.8	3134.3	3489.7	3587.4	3723.3	3783.8	3820.1
51°	2372.7	2361.5	2423.8	2687.5	2839.7	3160.1	3482.6	3618.6	3759.0	3819.7	3868.0
52°	2401.0	2381.7	2449.4	2529.2	2870.4	3180.2	3483.7	3650.3	3790.6	3859.1	3915.4
53°	2426.2	2395.9	2473.5	2513.2	2898.5	3191.8	3505.0	3679.2	3823.1	3894.2	3965.2
54°	2443.7	2197.4	2493.0	2539.8	2915.9	3204.7	3528.6	3706.0	3848.8	3934.4	4018.5
55°	2261.4	2101.0	2307.8	2568.1	2930.9	3229.6	3545.7	3723.1	3862.9	3978.2	4074.3
56°	2156.8	2115.2	2200.1	2595.9	2934.1	3254.1	3545.5	3726.5	3882.0	4022.1	4131.6
57°	2162.3	2123.7	2203.6	2619.8	2841.2	3259.7	3546.2	3725.0	3897.7	4063.8	4188.4
58°	2170.9	2094.2	2212.4	2473.5	2732.9	3267.8	3547.4	3724.2	3914.8	4102.7	4246.6
59°	2104.4	1816.9	2157.6	2377.5	2757.6	3208.9	3539.0	3727.8	3930.5	4141.1	4304.4
60°	1873.3	1788.1	1914.7	2386.6	2788.3	3112.0	3512.6	3729.3	3942.9	4178.6	4363.0
61°	1867.4	1787.0	1905.4	2399.7	2820.7	3105.3	3498.8	3723.7	3954.1	4216.5	4422.4
62°	1858.2	1590.9	1894.7	2295.8	2849.8	3107.8	3492.0	3717.7	3961.3	4250.2	4481.9
63°	1665.2	1442.0	1689.9	2150.4	2761.7	3106.4	3460.2	3702.9	3960.5	4278.0	4542.1
64°	1534.3	1318.7	1557.7	2134.9	2668.5	3095.2	3432.8	3671.5	3954.6	4300.7	4599.5
65°	1521.6	1195.4	1545.4	2107.2	2652.9	3053.8	3379.8	3635.5	3933.0	4320.1	4650.4
66°	1355.5	1073.2	1372.6	1895.5	2648.2	2932.2	3325.0	3596.0	3900.7	4336.4	4692.5
67°	1189.5	1034.9	1201.1	1878.5	2504.8	2898.6	3244.9	3530.2	3862.2	4338.5	4726.9
68°	1045.0	686.9	1065.2	1773.1	2455.4	2906.5	3148.1	3382.8	3793.3	4329.5	4753.5
69°	850.5	560.8	868.7	1602.2	2413.6	2902.3	3034.1	3134.4	3664.8	4314.9	4773.5
70°	652.0	382.2	663.6	1458.7	2269.4	2875.8	2859.1	2804.0	3462.7	4278.3	4770.8
71°	459.8	203.7	454.8	1303.0	2216.5	2742.7	2617.5	2512.3	3178.1	4204.5	4742.7
72°	225.4	27.3	193.9	1147.2	2099.1	2597.3	2343.3	2251.8	2875.6	4084.5	4694.1
73°	187.4	0.4	162.6	990.1	1998.0	2441.7	2082.5	1993.0	2581.8	3901.5	4601.3
74°	152.1	0.3	131.3	789.0	1812.7	2263.3	1842.0	1666.2	2294.0	3659.8	4454.9
75°	116.8	0.3	100.1	658.3	1641.1	2031.5	1488.1	1202.8	1934.8	3361.6	4221.3
76°	82.6	0.4	71.1	555.3	1392.2	1798.2	1134.2	703.8	1413.5	3014.3	3881.8
77°	46.4	0.4	41.6	445.6	1143.3	1485.4	782.9	331.1	818.2	2612.9	3385.2
78°	33.0	0.5	29.7	324.6	894.2	1172.7	554.0	253.6	597.5	2083.9	2734.3
79°	19.7	0.6	17.9	230.9	641.6	859.4	325.2	177.9	378.1	1415.5	2000.7
80°	6.4	0.7	6.2	137.3	388.6	469.1	99.9	102.2	158.7	807.0	1238.4
81°	5.4	0.8	5.2	45.7	229.0	335.6	81.8	85.7	127.0	589.7	619.5
82°	4.7	0.9	4.5	25.9	73.6	202.2	68.9	72.2	107.7	381.1	466.5
83°	4.1	1.0	4.0	20.1	48.9	71.1	57.2	60.3	91.1	172.4	322.2
84°	3.6	1.1	3.5	16.6	40.0	57.2	46.9	49.7	76.6	141.2	177.9
85°	3.2	1.3	3.2	13.1	33.5	44.0	37.9	39.2	63.4	110.8	149.4
86°	2.9	1.4	2.9	9.6	27.5	32.4	29.8	29.7	52.4	85.1	124.7
87°	2.7	1.5	2.7	7.3	20.6	24.4	22.2	20.6	41.4	66.1	96.3
88°	2.5	1.7	2.5	5.4	13.7	17.3	15.6	12.4	30.5	50.2	67.1
89°	2.3	1.8	2.3	3.8	6.9	10.3	9.1	5.6	19.8	34.5	52.5



REPORT NUMBER: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2272.8	2272.8	2272.8
1°	2276.7	2276.9	2276.1
2°	2282.9	2283.4	2282.1
3°	2291.3	2291.8	2289.9
4°	2301.8	2302.0	2300.1
5°	2313.3	2313.6	2311.8
6°	2326.7	2326.9	2324.7
7°	2341.9	2340.9	2337.9
8°	2358.4	2356.5	2352.9
9°	2377.1	2373.9	2369.9
10°	2397.4	2393.1	2388.1
11°	2418.7	2413.5	2407.7
12°	2441.4	2434.5	2427.2
13°	2465.2	2455.2	2447.1
14°	2490.1	2477.1	2467.7
15°	2514.1	2500.0	2489.3
16°	2538.7	2523.5	2510.8
17°	2564.4	2547.5	2534.5
18°	2590.4	2572.9	2559.2
19°	2617.7	2598.5	2584.6
20°	2645.0	2625.2	2611.4
21°	2673.4	2653.4	2640.3
22°	2703.4	2682.7	2670.0
23°	2734.2	2713.3	2701.5
24°	2764.5	2744.2	2734.4
25°	2796.9	2777.2	2767.9
26°	2830.4	2811.1	2803.2
27°	2865.4	2845.8	2839.8
28°	2901.0	2880.5	2877.3
29°	2938.3	2916.4	2916.4
30°	2975.4	2953.3	2956.3
31°	3013.9	2990.8	2996.5
32°	3051.9	3028.2	3036.2
33°	3090.9	3066.9	3076.6
34°	3130.7	3104.8	3117.4
35°	3170.9	3142.9	3159.6
36°	3212.0	3181.1	3201.9
37°	3253.2	3220.7	3244.0
38°	3295.0	3261.1	3286.4
39°	3337.1	3302.3	3328.1
40°	3380.8	3345.0	3370.4
41°	3423.6	3389.2	3410.9
42°	3466.8	3434.2	3453.5
43°	3511.4	3479.1	3493.9
44°	3556.7	3526.0	3533.9



REPORT NUMBER: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	3603.0	3575.8	3575.4
46°	3649.4	3625.1	3616.9
47°	3697.5	3676.4	3658.2
48°	3747.0	3728.8	3701.6
49°	3798.0	3784.3	3745.4
50°	3849.5	3838.5	3790.8
51°	3900.7	3894.4	3836.4
52°	3952.1	3950.0	3882.7
53°	4004.5	4006.0	3930.1
54°	4056.7	4060.3	3976.0
55°	4111.7	4113.5	4021.8
56°	4169.1	4163.8	4063.5
57°	4227.6	4210.3	4103.4
58°	4283.3	4252.9	4141.5
59°	4337.2	4292.3	4175.4
60°	4393.0	4326.7	4205.0
61°	4448.3	4356.6	4229.4
62°	4502.2	4383.1	4248.4
63°	4557.3	4406.6	4264.8
64°	4611.6	4428.6	4279.5
65°	4661.3	4447.8	4293.1
66°	4705.2	4465.8	4301.1
67°	4740.0	4477.1	4299.9
68°	4764.1	4474.0	4259.8
69°	4772.5	4443.2	4133.0
70°	4767.5	4355.3	3869.9
71°	4741.2	4159.3	3456.7
72°	4684.1	3814.7	3018.9
73°	4570.7	3354.0	2557.0
74°	4345.3	2833.4	2020.9
75°	3974.8	2281.9	1348.9
76°	3484.4	1664.3	735.4
77°	2939.5	963.2	548.1
78°	2264.9	708.8	367.1
79°	1471.1	458.3	186.0
80°	794.4	207.8	165.0
81°	580.7	174.9	146.9
82°	384.0	153.6	130.5
83°	187.2	134.2	115.7
84°	156.1	116.5	101.4
85°	127.0	100.3	87.7
86°	103.5	85.7	74.8
87°	83.1	72.1	62.5
88°	64.0	60.2	53.9
89°	52.6	48.3	45.4



REPORT NUMBER: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436728

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)