

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: P1436706

Luminaire Tested: XAS180-SFPM (3000K-144W-T3-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436706
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-144W-T3-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 3 WITH HOUSE SIDE SHIELD
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 24748 (1 lamp)
Luminaire Lumens: 18617.1 lumens
Efficiency: 75.2%
Efficacy: 127.4 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

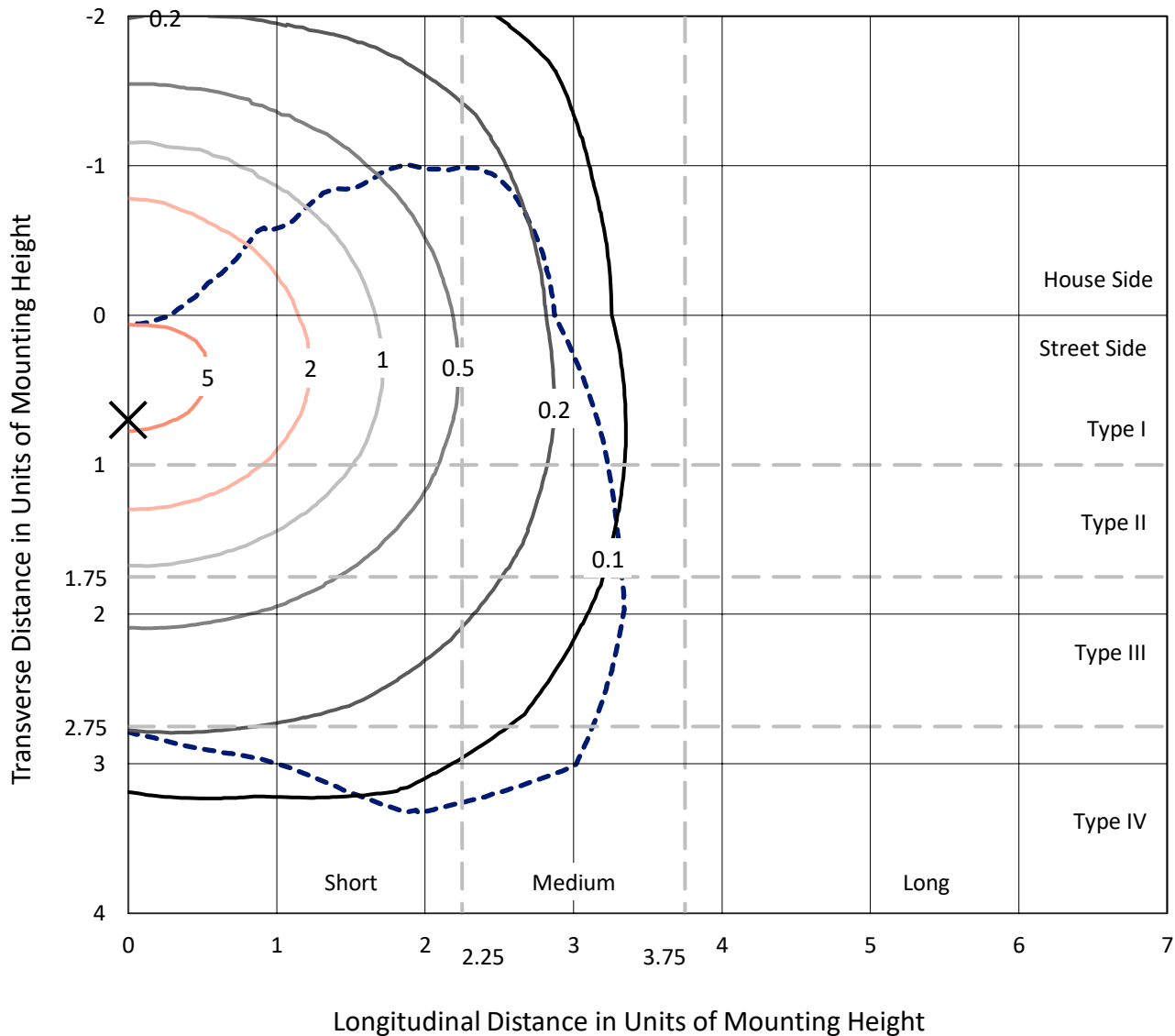
Input Watts (W): 146.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

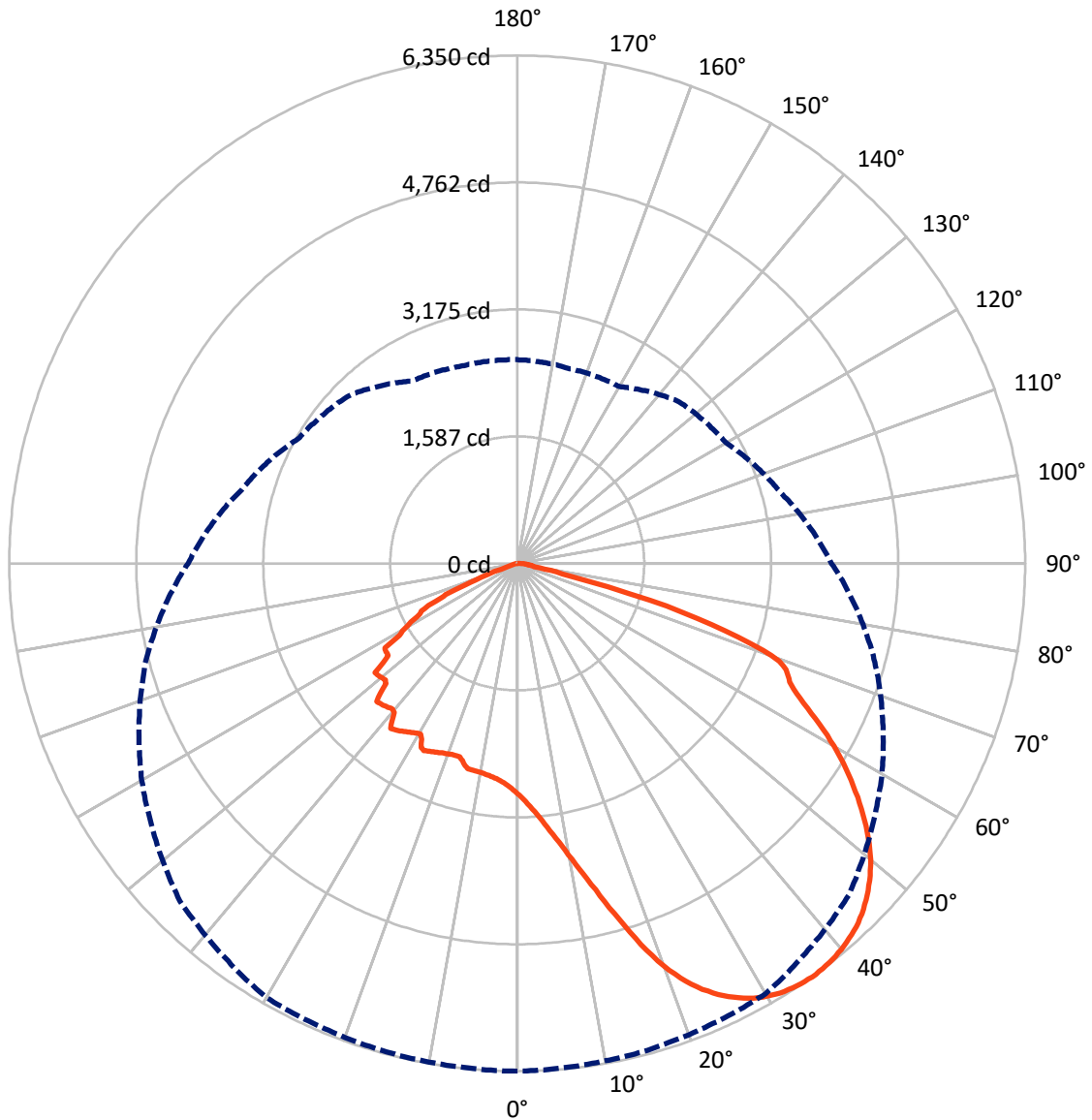
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 35-Deg Vertical

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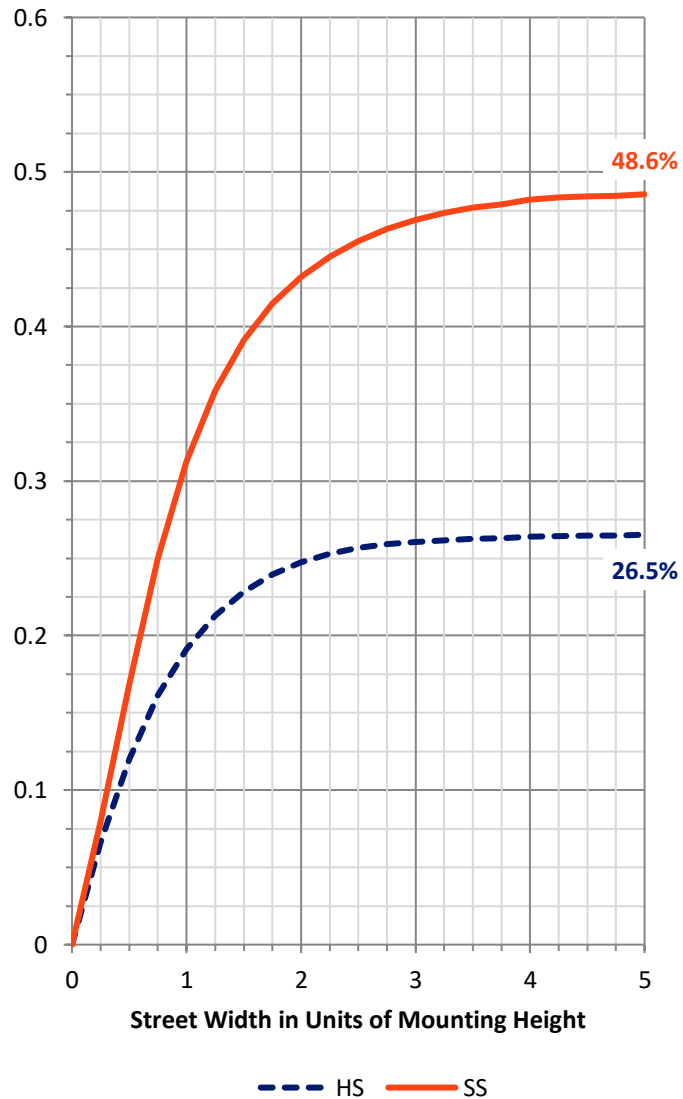
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6595.4	0.0	6595.4
	% Lamp	26.7	0.0	26.7
Street Side	Lumens	12021.7	0.0	12021.7
	% Lamp	48.6	0.0	48.6
Total	Lumens	18617.1	0.0	18617.1
	% Lamp	75.2	0.0	75.2

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	287.4	1.5	1.2
10°-20°	971.1	5.2	3.9
20°-30°	1836.3	9.9	7.4
30°-40°	2699.6	14.5	10.9
40°-50°	3410.1	18.3	13.8
50°-60°	3776.0	20.3	15.3
60°-70°	3552.7	19.1	14.4
70°-80°	1936.2	10.4	7.8
80°-90°	147.7	0.8	0.6
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°	18617.1	100.0	75.2
0°-180°	18617.1	100.0	75.2

Coefficient of Utilization



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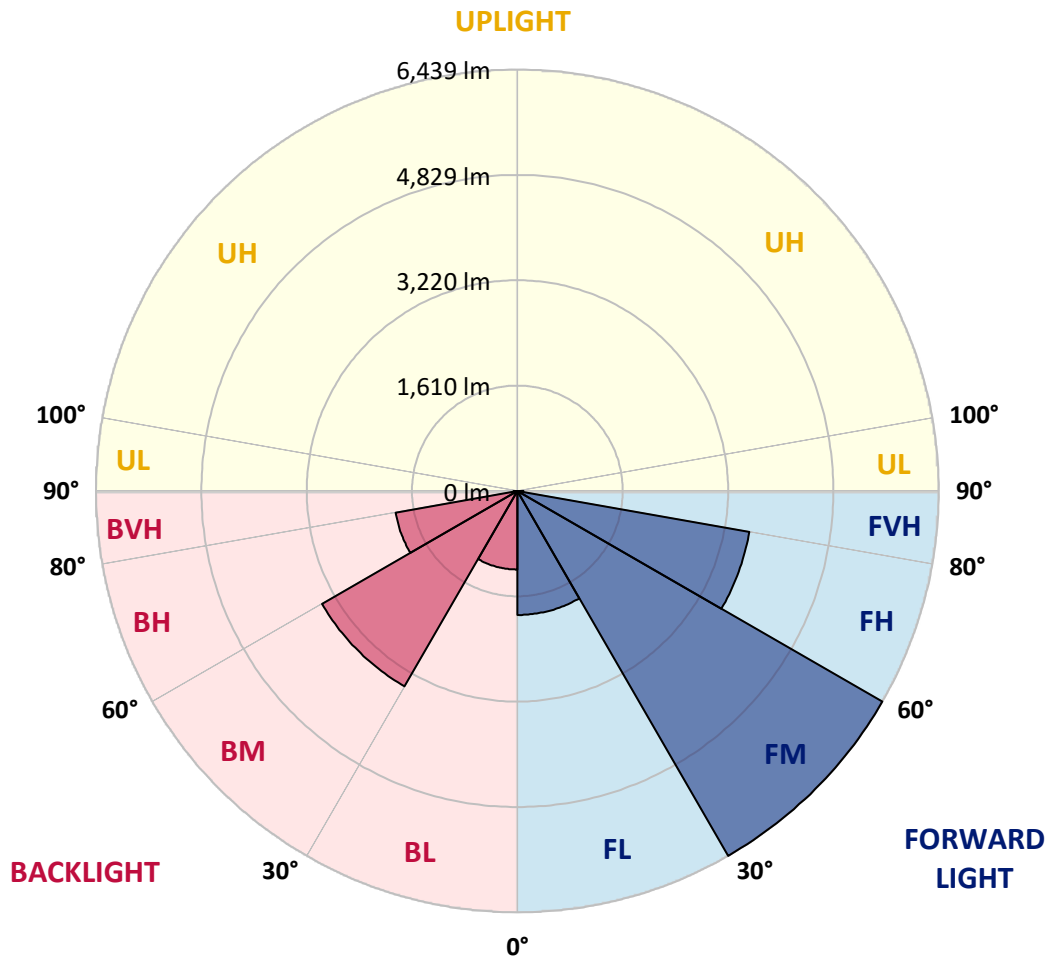
CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1894.2	7.7			
FM (30°-60°)	6439.2	26.0			
FH (60°-80°)	3599.0	14.5			G2/5000
FVH (80°-90°)	89.3	0.4			G1/100
BL (0°-30°)	1200.6	4.9	B3/2500		
BM (30°-60°)	3446.5	13.9	B3/5000		
BH (60°-80°)	1889.9	7.6	B3/2500		G3/2500
BVH (80°-90°)	58.4	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	6130.9	24.8			

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°	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6
1°	2949.6	2948.4	2945.0	2937.6	2926.2	2914.4	2890.3	2879.2	2870.2	2861.6	2855.9
2°	3009.4	3006.0	2996.1	2978.4	2954.7	2928.9	2891.7	2868.6	2848.2	2832.0	2820.2
3°	3074.8	3070.0	3051.6	3022.8	2987.2	2948.0	2897.3	2861.5	2830.9	2806.8	2788.8
4°	3148.1	3139.3	3112.4	3073.0	3023.8	2970.7	2904.6	2857.8	2817.2	2785.3	2762.5
5°	3231.2	3218.3	3182.4	3128.1	3064.0	2995.1	2914.3	2855.6	2806.7	2767.9	2742.1
6°	3320.8	3304.1	3258.8	3190.3	3108.2	3022.1	2926.1	2855.7	2798.2	2755.2	2725.1
7°	3418.0	3396.9	3342.8	3258.9	3156.6	3053.3	2941.0	2859.3	2792.5	2745.2	2711.8
8°	3524.0	3498.5	3431.4	3331.2	3209.1	3086.8	2960.1	2866.0	2791.0	2737.4	2701.2
9°	3638.8	3607.2	3528.1	3408.9	3267.5	3123.5	2980.9	2874.1	2791.9	2732.4	2692.5
10°	3763.3	3726.0	3632.7	3492.9	3328.8	3162.9	3003.1	2884.5	2795.6	2731.2	2686.0
11°	3897.8	3854.1	3744.1	3582.3	3393.6	3206.8	3028.4	2897.5	2800.7	2732.0	2682.6
12°	4042.1	3990.9	3862.9	3676.5	3461.6	3251.9	3055.4	2911.9	2808.4	2734.5	2682.0
13°	4197.5	4138.0	3989.8	3779.2	3533.9	3300.6	3083.7	2927.6	2817.1	2738.5	2683.5
14°	4364.8	4298.8	4127.7	3885.6	3609.4	3350.5	3112.6	2943.5	2825.9	2744.1	2684.7
15°	4544.1	4465.4	4273.9	4000.4	3688.6	3400.0	3142.8	2961.6	2837.2	2750.6	2688.4
16°	4728.9	4643.7	4423.5	4119.3	3773.0	3453.9	3175.8	2980.2	2849.5	2757.2	2692.2
17°	4916.9	4820.0	4574.2	4242.0	3860.5	3509.3	3209.4	3000.5	2862.7	2765.2	2677.8
18°	5097.5	4990.3	4723.5	4365.1	3953.1	3567.0	3242.8	3017.1	2876.6	2774.9	2631.0
19°	5270.4	5155.6	4872.3	4486.8	4047.4	3624.9	3265.9	3029.1	2884.0	2785.0	2597.9
20°	5429.7	5312.3	5014.2	4606.9	4141.4	3680.1	3295.1	3044.2	2888.7	2792.6	2579.3
21°	5570.2	5452.8	5150.7	4724.2	4238.2	3730.8	3327.6	3069.9	2896.4	2756.7	2587.0
22°	5692.8	5583.7	5277.9	4837.2	4333.3	3789.1	3368.6	3095.0	2914.3	2727.4	2596.2
23°	5806.1	5699.4	5397.2	4944.4	4427.7	3849.6	3409.9	3117.2	2931.0	2710.0	2607.1
24°	5904.4	5803.1	5509.1	5048.2	4509.6	3917.0	3448.1	3135.5	2942.4	2698.4	2620.0
25°	5990.3	5895.8	5611.3	5147.1	4587.6	3988.5	3482.4	3157.7	2954.7	2710.6	2633.1
26°	6063.5	5976.0	5704.8	5241.8	4667.6	4058.6	3519.4	3182.1	2969.1	2717.1	2648.3
27°	6127.9	6046.8	5790.3	5334.0	4744.2	4126.3	3559.2	3211.7	2990.2	2725.0	2663.0
28°	6182.6	6106.9	5869.6	5420.0	4818.6	4185.3	3602.7	3242.6	3002.7	2736.4	2677.2
29°	6228.8	6158.2	5939.0	5500.2	4891.7	4245.8	3650.7	3272.9	2986.3	2756.2	2693.0
30°	6267.1	6200.7	6003.1	5579.0	4965.3	4307.3	3699.7	3304.3	2987.3	2776.0	2705.8
31°	6297.3	6236.1	6058.1	5650.5	5034.7	4368.1	3749.9	3335.2	2978.7	2796.8	2709.8
32°	6319.0	6262.0	6104.7	5710.0	5100.6	4430.4	3800.4	3358.5	2985.7	2816.8	2629.9
33°	6335.4	6281.5	6147.4	5766.1	5160.5	4493.9	3850.2	3371.0	2979.6	2833.0	2563.5
34°	6346.0	6294.2	6181.3	5815.8	5213.9	4556.4	3896.6	3385.9	2996.1	2846.9	2537.6
35°	6349.9	6300.5	6211.3	5862.3	5264.0	4618.0	3929.8	3410.3	3013.6	2859.4	2551.9
36°	6348.2	6303.4	6232.9	5906.8	5313.5	4676.1	3959.6	3436.2	3034.3	2873.9	2566.6
37°	6340.1	6299.0	6249.7	5946.9	5360.6	4732.6	3995.6	3463.1	3054.8	2870.6	2578.1
38°	6327.7	6291.7	6260.5	5981.8	5406.3	4788.2	4039.6	3492.8	3069.2	2791.9	2587.8
39°	6311.5	6279.4	6266.6	6012.5	5450.3	4840.4	4081.2	3518.6	3082.4	2729.8	2602.6
40°	6290.2	6264.2	6264.5	6038.8	5492.7	4881.9	4123.2	3541.9	3105.5	2713.4	2621.7
41°	6262.0	6243.2	6259.8	6063.3	5533.8	4916.3	4165.3	3563.6	3133.9	2733.9	2640.5
42°	6230.4	6218.5	6247.8	6084.8	5573.9	4947.9	4207.5	3580.1	3161.9	2755.8	2656.7
43°	6190.8	6189.3	6232.0	6101.3	5614.1	4984.6	4243.0	3597.3	3190.3	2778.9	2600.5
44°	6144.3	6154.4	6211.4	6110.6	5652.0	5023.0	4275.6	3629.3	3219.9	2800.2	2510.2



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	6092.1	6115.1	6184.1	6113.4	5686.5	5063.6	4303.8	3667.7	3242.7	2814.2	2472.8
46°	6031.3	6069.0	6153.3	6109.5	5721.0	5103.2	4325.1	3706.8	3250.0	2823.5	2486.5
47°	5963.0	6015.0	6118.9	6099.2	5753.9	5141.8	4343.9	3742.9	3250.5	2839.0	2498.0
48°	5891.3	5954.6	6077.4	6083.5	5781.8	5177.5	4361.2	3762.8	3198.2	2857.4	2507.3
49°	5811.0	5886.6	6028.6	6064.5	5803.5	5215.4	4389.7	3775.8	3154.7	2800.2	2520.3
50°	5721.2	5810.6	5973.3	6039.3	5817.2	5247.9	4424.0	3784.0	3139.3	2711.5	2534.3
51°	5623.8	5726.2	5907.2	6008.2	5825.0	5275.0	4458.0	3778.9	3127.8	2673.5	2485.3
52°	5516.3	5633.9	5835.3	5969.4	5828.4	5298.0	4490.3	3804.8	3149.8	2693.9	2350.7
53°	5404.9	5532.0	5756.1	5924.7	5824.6	5318.6	4521.2	3819.8	3163.3	2715.2	2308.0
54°	5286.8	5421.2	5668.2	5875.8	5819.1	5328.6	4548.9	3828.5	3178.2	2730.6	2327.7
55°	5163.4	5305.3	5572.3	5818.4	5805.4	5329.2	4567.7	3846.6	3202.6	2744.6	2349.8
56°	5037.1	5184.2	5474.3	5754.2	5789.1	5325.9	4576.6	3857.3	3229.4	2748.8	2371.4
57°	4909.8	5060.9	5368.8	5686.9	5766.9	5313.0	4575.2	3862.6	3243.2	2654.1	2389.5
58°	4778.7	4931.3	5260.0	5612.5	5736.8	5304.3	4566.8	3872.6	3254.0	2568.1	2268.3
59°	4644.5	4805.1	5148.4	5531.9	5698.5	5294.0	4562.5	3872.5	3200.2	2565.3	2173.8
60°	4502.4	4673.5	5033.1	5446.8	5648.2	5276.1	4554.0	3855.8	3133.1	2595.8	2179.7
61°	4356.3	4537.3	4915.1	5356.0	5588.3	5249.5	4536.0	3834.4	3113.5	2629.0	2187.2
62°	4203.8	4398.6	4800.6	5259.1	5518.7	5211.6	4513.9	3823.2	3122.6	2661.2	2099.0
63°	4055.2	4258.1	4688.1	5159.7	5442.1	5159.5	4475.7	3793.4	3130.8	2596.5	1974.6
64°	3912.8	4122.8	4580.1	5056.8	5352.0	5091.2	4424.0	3758.2	3129.2	2515.5	1949.3
65°	3799.5	3998.3	4473.5	4949.6	5253.9	5009.8	4360.7	3705.9	3095.3	2514.5	1925.5
66°	3714.8	3898.9	4371.4	4842.7	5144.5	4908.4	4285.1	3636.7	2987.1	2530.1	1759.2
67°	3667.1	3824.5	4280.0	4734.2	5020.7	4793.4	4198.1	3547.2	2942.4	2426.6	1732.3
68°	3614.0	3774.1	4198.6	4625.1	4878.3	4661.8	4050.3	3451.5	2959.5	2369.3	1622.9
69°	3494.9	3719.5	4131.5	4518.3	4725.1	4483.0	3809.0	3339.8	2967.8	2361.6	1513.6
70°	3265.0	3621.2	4077.4	4411.1	4570.5	4243.7	3471.5	3177.0	2961.1	2246.9	1403.6
71°	2910.9	3431.6	4026.6	4304.2	4384.9	3941.9	3098.1	2954.7	2865.3	2210.6	1227.6
72°	2548.3	3125.6	3964.5	4191.3	4170.5	3597.8	2760.7	2692.9	2747.6	2126.5	1100.0
73°	2161.5	2737.8	3865.4	4079.6	3923.3	3244.6	2452.6	2436.6	2616.4	2059.6	980.9
74°	1722.6	2321.6	3678.3	3945.3	3644.5	2905.0	2092.0	2209.5	2464.0	1941.5	828.9
75°	1171.8	1869.8	3357.3	3757.0	3331.1	2516.5	1592.6	1961.4	2268.9	1822.9	739.8
76°	649.6	1326.7	2942.6	3481.8	3002.8	1990.6	1093.2	1574.4	2094.1	1615.8	662.0
77°	502.1	758.1	2499.1	3087.5	2638.3	1314.1	594.2	1184.5	1921.5	1408.7	583.4
78°	357.9	577.7	1962.8	2546.9	2186.1	731.1	286.1	683.5	1589.2	1200.8	501.8
79°	213.7	398.6	1287.8	1914.2	1594.0	484.5	215.2	495.8	1257.0	947.6	416.3
80°	189.2	219.4	701.6	1259.7	982.5	247.4	144.6	308.0	923.4	721.7	351.9
81°	169.1	190.3	532.1	658.0	715.1	205.0	122.7	120.8	497.0	530.8	316.5
82°	150.9	168.2	368.3	436.3	452.4	175.1	104.0	96.3	365.2	423.7	312.5
83°	134.0	148.2	204.4	228.4	189.7	143.5	86.7	76.2	233.4	335.9	256.8
84°	118.0	129.3	170.5	186.9	153.8	111.8	70.8	60.6	105.2	258.3	197.5
85°	102.6	112.1	138.6	158.5	122.0	87.5	55.3	47.7	90.2	180.7	138.2
86°	87.8	96.3	113.0	132.0	93.9	70.5	41.2	36.7	71.1	103.7	79.3
87°	73.3	81.2	90.9	102.9	72.4	53.5	28.6	27.0	52.5	58.7	49.4
88°	63.3	68.2	70.6	71.2	52.6	36.6	20.1	19.1	36.4	40.2	33.9
89°	53.4	55.3	54.4	50.7	32.9	22.3	11.6	11.3	20.4	21.8	18.4



REPORT NUMBER: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6	2897.6
1°	2852.9	2853.2	2856.4	2862.7	2871.5	2880.5	2893.3	2895.3	2908.1	2920.9	2932.2
2°	2813.7	2813.4	2818.3	2829.9	2844.7	2864.5	2887.2	2901.5	2927.7	2952.6	2975.6
3°	2779.5	2778.2	2784.7	2799.2	2821.9	2849.7	2883.7	2910.9	2949.2	2988.9	3023.9
4°	2750.2	2748.8	2757.0	2775.0	2803.0	2839.8	2883.6	2922.4	2975.4	3029.0	3077.4
5°	2728.4	2726.0	2734.5	2755.8	2787.7	2831.9	2885.7	2937.3	3004.3	3072.8	3135.9
6°	2709.3	2705.7	2716.3	2740.9	2776.7	2826.4	2890.5	2954.9	3036.5	3121.1	3198.9
7°	2693.0	2689.1	2700.6	2728.0	2769.9	2825.5	2898.5	2975.9	3071.8	3174.0	3270.8
8°	2680.6	2676.0	2688.1	2719.1	2765.3	2827.3	2909.2	2998.1	3110.2	3232.3	3346.7
9°	2669.4	2665.1	2678.5	2712.7	2763.4	2831.1	2920.9	3022.1	3151.8	3293.9	3428.9
10°	2661.5	2655.9	2671.2	2709.3	2763.7	2836.6	2934.6	3049.6	3196.1	3359.4	3516.2
11°	2655.3	2649.5	2666.8	2707.8	2766.7	2845.4	2951.2	3080.6	3245.8	3429.0	3609.4
12°	2651.5	2645.7	2663.8	2708.8	2772.4	2855.8	2970.5	3111.8	3295.5	3503.4	3708.7
13°	2651.0	2644.2	2663.6	2711.2	2780.3	2868.5	2990.7	3145.4	3349.0	3581.9	3815.8
14°	2651.2	2643.3	2665.3	2716.2	2789.9	2882.4	3012.4	3180.3	3403.4	3664.0	3928.6
15°	2648.3	2611.0	2662.9	2722.0	2800.0	2898.5	3035.0	3218.3	3460.9	3752.5	4049.1
16°	2592.1	2557.6	2611.3	2728.1	2810.8	2916.1	3059.2	3255.4	3521.2	3842.3	4176.0
17°	2550.5	2526.2	2571.2	2717.8	2822.7	2934.0	3085.7	3295.2	3582.9	3938.8	4306.1
18°	2528.7	2520.6	2549.8	2672.1	2836.9	2952.9	3109.0	3334.9	3647.8	4039.3	4437.2
19°	2531.9	2524.4	2552.8	2642.5	2849.6	2966.8	3125.3	3368.3	3714.2	4141.1	4567.9
20°	2537.6	2529.9	2559.2	2627.4	2861.1	2976.2	3144.8	3401.4	3782.5	4245.0	4694.2
21°	2545.1	2538.5	2567.6	2634.0	2837.5	2988.2	3172.7	3439.3	3844.5	4351.2	4816.5
22°	2555.7	2548.1	2578.7	2645.6	2803.2	3010.2	3203.7	3483.3	3907.7	4453.8	4932.1
23°	2566.9	2560.9	2592.4	2658.6	2787.4	3033.1	3235.3	3531.1	3977.6	4556.1	5042.5
24°	2579.0	2573.1	2606.7	2673.4	2782.6	3052.2	3260.9	3579.0	4051.2	4653.4	5147.2
25°	2591.8	2584.8	2620.3	2689.3	2795.4	3067.0	3285.1	3622.6	4128.9	4739.5	5244.8
26°	2605.1	2598.8	2634.9	2707.6	2807.3	3082.3	3311.5	3663.6	4208.0	4818.2	5338.5
27°	2618.3	2613.1	2649.2	2724.5	2816.7	3101.4	3340.3	3707.5	4286.2	4896.5	5428.8
28°	2632.2	2598.6	2663.8	2741.9	2828.6	3117.4	3374.2	3755.0	4359.4	4971.7	5515.1
29°	2590.4	2506.2	2631.6	2759.0	2848.1	3112.4	3408.8	3805.2	4424.0	5044.6	5596.8
30°	2503.5	2456.6	2543.1	2773.3	2869.9	3108.5	3443.3	3858.0	4491.9	5117.7	5673.0
31°	2461.2	2462.8	2500.1	2779.0	2892.1	3108.2	3477.4	3912.6	4558.3	5186.6	5745.9
32°	2469.6	2482.1	2506.9	2714.7	2915.2	3109.2	3504.8	3967.1	4621.4	5252.4	5812.0
33°	2487.0	2502.3	2524.2	2649.2	2936.1	3108.6	3522.3	4020.5	4686.7	5315.9	5869.9
34°	2504.1	2523.2	2542.0	2620.4	2952.9	3125.2	3540.0	4073.6	4749.2	5371.3	5919.6
35°	2521.7	2546.3	2559.9	2631.6	2969.4	3143.6	3567.2	4116.3	4812.5	5420.0	5966.9
36°	2540.9	2567.3	2579.1	2649.5	2982.5	3164.3	3596.3	4151.5	4871.8	5468.2	6011.9
37°	2557.9	2587.2	2598.0	2662.9	2990.1	3187.4	3626.0	4191.3	4929.0	5514.3	6053.8
38°	2574.5	2603.1	2616.0	2674.1	2913.7	3205.3	3659.8	4236.2	4984.2	5560.9	6089.0
39°	2586.6	2507.9	2630.4	2686.5	2854.0	3221.0	3692.9	4280.7	5036.6	5604.9	6119.4
40°	2488.5	2416.6	2543.3	2705.8	2836.2	3243.8	3720.9	4324.7	5081.3	5646.1	6145.6
41°	2399.9	2397.3	2450.3	2726.5	2853.9	3273.9	3745.6	4369.1	5115.8	5687.3	6168.4
42°	2379.4	2410.9	2424.5	2745.3	2876.3	3305.5	3763.1	4413.0	5146.9	5728.2	6185.9
43°	2395.6	2426.0	2440.9	2708.5	2900.1	3336.7	3782.3	4454.1	5180.2	5766.9	6200.0
44°	2413.3	2440.1	2459.7	2611.8	2923.2	3368.9	3818.9	4491.5	5214.5	5802.0	6208.4



REPORT NUMBER: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2431.4	2454.3	2477.9	2566.2	2939.7	3394.7	3859.8	4524.6	5251.3	5834.9	6208.4
46°	2449.9	2462.8	2496.6	2576.3	2950.7	3404.6	3900.9	4546.4	5289.8	5864.2	6200.9
47°	2467.5	2363.5	2511.8	2587.3	2965.0	3411.2	3941.3	4564.3	5325.6	5891.9	6185.9
48°	2373.2	2227.7	2432.7	2596.7	2984.1	3383.7	3972.5	4579.7	5359.2	5915.8	6168.1
49°	2240.6	2201.4	2297.5	2609.4	2948.0	3338.0	3981.3	4606.2	5389.4	5932.0	6144.9
50°	2217.4	2212.3	2265.1	2622.0	2855.8	3305.7	3987.7	4637.9	5416.4	5939.1	6116.4
51°	2235.6	2224.5	2283.3	2587.9	2804.1	3291.4	3982.2	4666.3	5435.6	5937.5	6083.5
52°	2254.9	2236.6	2300.3	2451.6	2819.9	3307.8	3983.5	4693.1	5450.3	5931.2	6042.2
53°	2272.1	2242.1	2316.7	2399.0	2842.0	3321.2	3999.4	4715.5	5458.4	5918.1	5996.9
54°	2280.7	2080.7	2326.2	2417.4	2856.5	3333.6	4003.5	4733.8	5454.9	5904.1	5943.5
55°	2134.5	1981.2	2180.7	2438.9	2870.0	3349.8	4006.3	4742.7	5442.8	5883.2	5886.9
56°	2026.1	1974.2	2071.0	2461.3	2874.5	3374.6	4006.7	4737.9	5422.2	5859.7	5824.6
57°	2018.9	1977.7	2059.4	2477.3	2804.4	3384.2	4001.5	4721.7	5395.1	5829.6	5754.8
58°	2022.1	1961.1	2061.8	2362.4	2703.9	3389.0	3999.3	4700.8	5366.6	5787.6	5680.3
59°	1984.2	1728.5	2030.6	2259.6	2693.8	3351.6	3993.4	4680.0	5337.6	5740.3	5599.5
60°	1779.4	1664.8	1824.0	2260.2	2723.1	3268.7	3965.5	4655.5	5301.3	5685.1	5510.8
61°	1739.8	1567.0	1779.2	2266.7	2754.6	3228.6	3932.2	4624.3	5257.1	5619.5	5416.3
62°	1734.6	1469.2	1768.1	2191.4	2782.4	3227.6	3913.0	4585.3	5203.3	5542.7	5318.0
63°	1633.6	1372.5	1664.4	2053.9	2725.3	3226.6	3878.7	4533.4	5137.3	5452.9	5215.2
64°	1532.7	1344.7	1560.7	2026.7	2627.9	3217.7	3833.5	4465.6	5057.5	5356.0	5111.1
65°	1431.5	1228.6	1456.2	2009.7	2613.6	3180.6	3770.0	4381.6	4959.0	5249.7	4998.7
66°	1273.4	1027.4	1301.8	1831.2	2614.3	3073.1	3690.5	4281.4	4841.9	5134.6	4880.5
67°	1112.6	979.6	1135.5	1792.6	2506.5	3002.7	3595.7	4160.4	4714.2	5002.3	4762.9
68°	1000.9	684.0	1027.0	1722.3	2446.1	3005.6	3466.3	3951.3	4551.1	4855.9	4646.3
69°	815.5	564.8	837.9	1571.9	2423.1	2999.5	3310.3	3642.8	4325.2	4694.8	4533.7
70°	653.1	389.2	671.8	1421.3	2300.3	2975.6	3094.3	3238.8	4041.2	4517.1	4413.6
71°	449.1	213.5	448.7	1271.2	2245.4	2854.8	2823.4	2865.3	3685.1	4306.8	4287.8
72°	248.1	39.1	232.0	1142.7	2151.1	2699.1	2534.7	2522.9	3307.2	4068.3	4161.7
73°	209.0	0.5	188.2	1008.2	2055.0	2538.5	2254.8	2181.9	2937.3	3780.3	4020.7
74°	169.8	0.3	144.7	829.1	1912.6	2362.0	1995.0	1776.2	2570.8	3453.2	3855.8
75°	130.7	0.4	125.6	727.6	1753.6	2154.9	1602.8	1244.4	2133.9	3090.7	3625.8
76°	99.4	0.4	100.1	646.8	1529.0	1948.9	1210.7	720.9	1544.3	2708.1	3317.2
77°	70.0	0.4	79.2	570.2	1304.3	1651.6	818.4	463.2	919.9	2301.1	2886.6
78°	52.3	0.5	64.1	494.1	1079.8	1354.4	421.3	211.6	688.3	1802.6	2328.2
79°	51.5	0.6	63.7	410.8	863.7	1055.0	275.1	161.5	460.2	1219.0	1687.8
80°	69.1	0.6	76.9	355.7	670.9	603.3	130.6	137.0	232.1	712.3	1050.2
81°	84.5	0.7	79.5	330.5	504.1	437.5	104.7	116.5	197.3	472.8	769.6
82°	74.6	0.8	49.6	308.0	391.1	271.8	86.1	98.0	168.6	236.9	496.0
83°	46.5	0.9	35.2	233.5	293.6	107.0	70.3	81.5	139.1	180.9	222.4
84°	34.1	1.0	20.9	159.1	196.1	89.1	56.5	66.7	110.1	149.0	185.0
85°	21.7	1.1	7.0	85.3	99.7	70.3	44.9	52.0	85.9	117.0	157.1
86°	9.6	1.3	6.2	43.4	55.5	52.3	34.6	37.3	69.0	90.7	130.9
87°	7.1	1.4	6.1	30.6	31.6	37.6	25.4	25.0	52.2	70.0	101.6
88°	5.2	1.5	5.4	17.8	22.1	26.3	18.0	14.6	35.4	50.9	70.6
89°	4.0	1.7	3.4	5.1	12.5	14.9	10.5	6.2	21.7	31.8	50.4



REPORT NUMBER: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

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

REPORT NUMBER: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2897.6	2897.6	2897.6
1°	2940.7	2946.8	2949.6
2°	2993.2	3005.1	3009.4
3°	3050.9	3068.7	3074.8
4°	3115.6	3140.6	3148.1
5°	3186.1	3220.4	3231.2
6°	3263.8	3307.9	3320.8
7°	3349.4	3401.1	3418.0
8°	3441.7	3503.4	3524.0
9°	3541.3	3615.1	3638.8
10°	3645.7	3735.9	3763.3
11°	3762.4	3864.7	3897.8
12°	3886.0	4005.9	4042.1
13°	4019.3	4154.6	4197.5
14°	4161.8	4315.1	4364.8
15°	4311.1	4484.9	4544.1
16°	4463.0	4658.3	4728.9
17°	4617.5	4836.6	4916.9
18°	4772.9	5013.3	5097.5
19°	4923.1	5183.5	5270.4
20°	5068.3	5341.4	5429.7
21°	5204.4	5485.2	5570.2
22°	5331.3	5616.5	5692.8
23°	5453.1	5731.0	5806.1
24°	5566.1	5833.3	5904.4
25°	5670.6	5923.2	5990.3
26°	5766.0	6002.3	6063.5
27°	5855.8	6070.7	6127.9
28°	5933.3	6130.2	6182.6
29°	6004.3	6179.5	6228.8
30°	6065.8	6220.2	6267.1
31°	6121.3	6254.8	6297.3
32°	6169.2	6282.5	6319.0
33°	6210.1	6302.1	6335.4
34°	6242.6	6315.5	6346.0
35°	6269.4	6322.5	6349.9
36°	6290.2	6321.8	6348.2
37°	6305.9	6317.8	6340.1
38°	6315.4	6310.1	6327.7
39°	6318.7	6296.4	6311.5
40°	6316.7	6279.9	6290.2
41°	6310.3	6260.2	6262.0
42°	6298.2	6235.5	6230.4
43°	6280.4	6206.9	6190.8
44°	6258.8	6173.2	6144.3



REPORT NUMBER: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	6231.7	6134.1	6092.1
46°	6201.2	6089.6	6031.3
47°	6164.9	6036.4	5963.0
48°	6125.7	5978.1	5891.3
49°	6078.8	5912.3	5811.0
50°	6023.5	5840.2	5721.2
51°	5960.3	5759.0	5623.8
52°	5886.9	5667.1	5516.3
53°	5807.5	5570.6	5404.9
54°	5720.6	5463.2	5286.8
55°	5630.5	5352.3	5163.4
56°	5532.4	5231.2	5037.1
57°	5429.6	5108.1	4909.8
58°	5320.5	4980.9	4778.7
59°	5207.4	4852.0	4644.5
60°	5093.2	4718.9	4502.4
61°	4979.1	4583.6	4356.3
62°	4864.7	4443.8	4203.8
63°	4754.4	4308.9	4055.2
64°	4650.7	4178.3	3912.8
65°	4550.1	4057.9	3799.5
66°	4452.5	3956.7	3714.8
67°	4359.7	3883.3	3667.1
68°	4274.3	3832.2	3614.0
69°	4198.4	3777.5	3494.9
70°	4138.6	3688.0	3265.0
71°	4077.5	3513.2	2910.9
72°	4002.2	3211.8	2548.3
73°	3891.1	2821.0	2161.5
74°	3687.9	2389.8	1722.6
75°	3364.1	1934.6	1171.8
76°	2951.8	1415.7	649.6
77°	2484.2	844.4	502.1
78°	1924.6	633.8	357.9
79°	1265.0	429.5	213.7
80°	710.2	225.1	189.2
81°	534.7	196.2	169.1
82°	371.9	173.4	150.9
83°	209.1	152.6	134.0
84°	173.1	133.1	118.0
85°	140.4	115.1	102.6
86°	114.7	98.7	87.8
87°	92.0	83.0	73.3
88°	70.4	69.5	63.3
89°	54.4	56.1	53.4



REPORT NUMBER: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-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: P1436706

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)