

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: P1436710

Luminaire Tested: XAS180-SFPM (3000K-144W-T5-HSS)

Issue Date: 3/25/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1436710  
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-T5-HSS)  
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.  
LUMEN OUTPUT - 80% (144W)  
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: 18162.8 lumens  
Efficiency: 76.3%  
Efficacy: 124.5 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

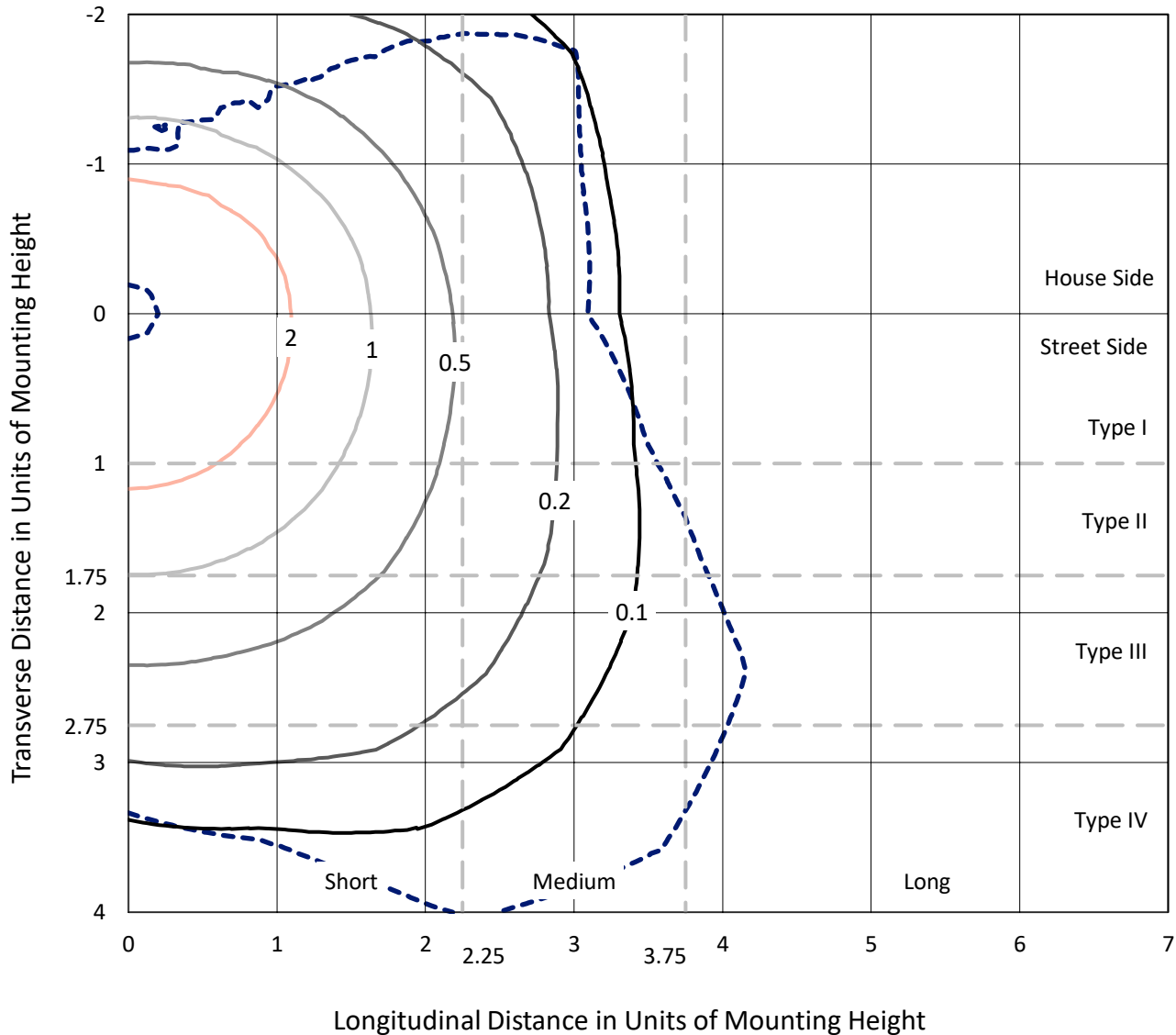
Input Watts (W): 145.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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### Iso-Footcandle Lines of Horizontal Illumination

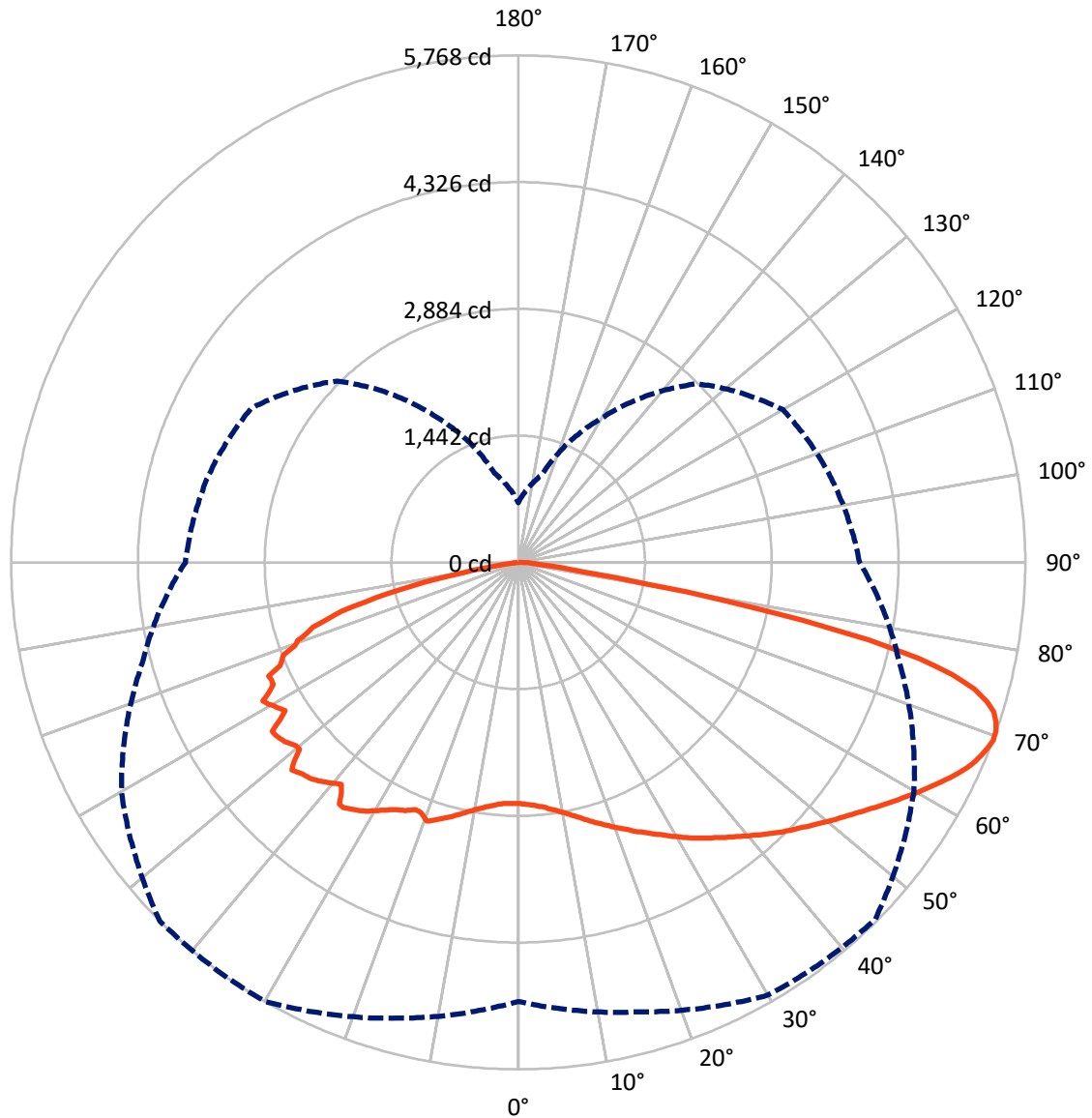
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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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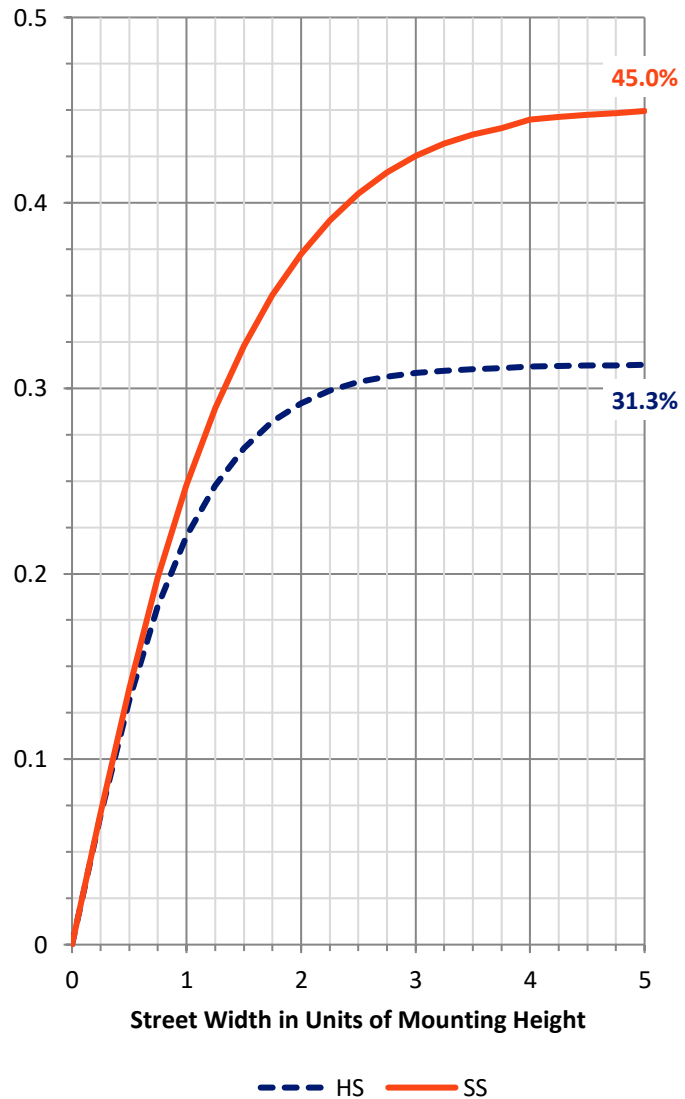
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7459.3	0.0	7459.3
	% Lamp	31.3	0.0	31.3
<b>Street Side</b>	Lumens	10703.5	0.0	10703.5
	% Lamp	45.0	0.0	45.0
<b>Total</b>	Lumens	18162.8	0.0	18162.8
	% Lamp	76.3	0.0	76.3

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	268.2	1.5	1.1
10°-20°	853.6	4.7	3.6
20°-30°	1521.5	8.4	6.4
30°-40°	2252.7	12.4	9.5
40°-50°	3005.6	16.5	12.6
50°-60°	3686.1	20.3	15.5
60°-70°	4015.2	22.1	16.9
70°-80°	2422.2	13.3	10.2
80°-90°	137.7	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°	18162.8	100.0	76.3
0°-180°	18162.8	100.0	76.3

**Coefficient of Utilization**



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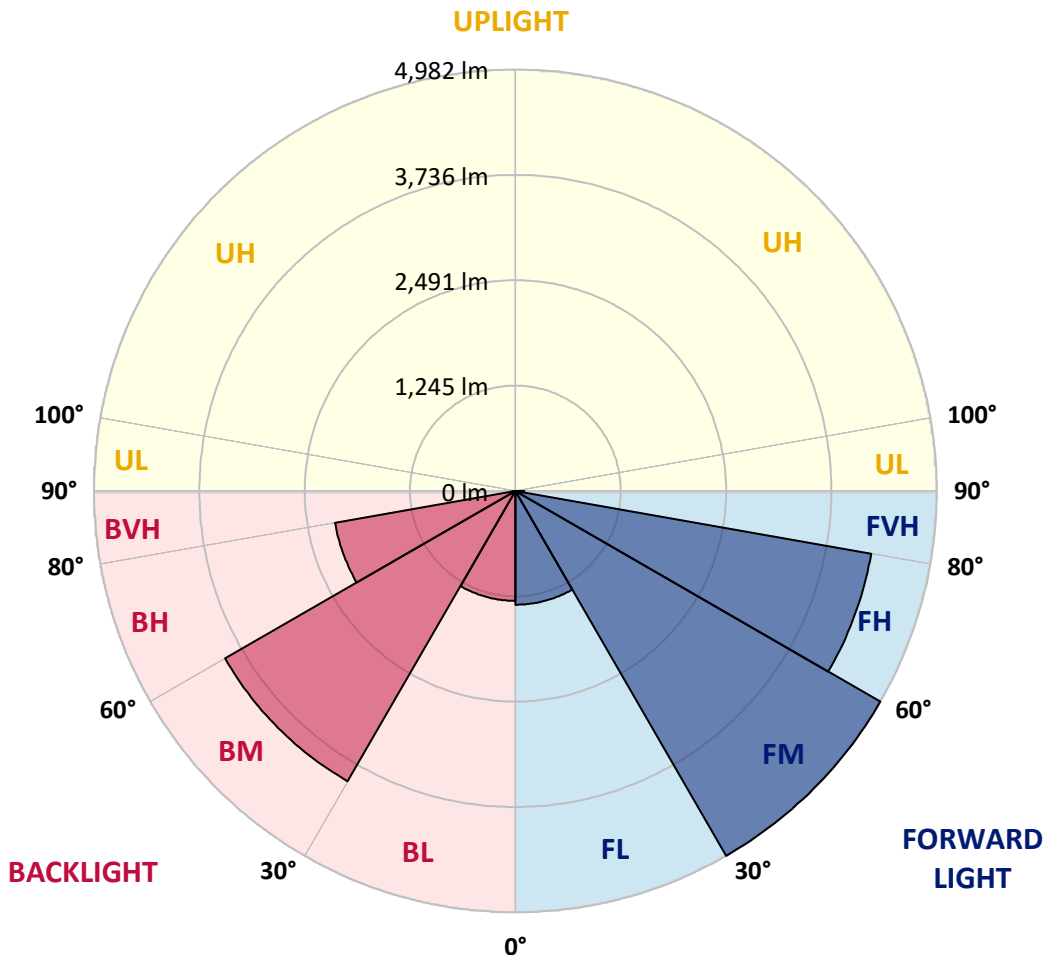
CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5-HSS)

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

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1345.0	5.6			
FM (30°-60°)	4981.6	20.9			
FH (60°-80°)	4272.1	17.9			G2/5000
FVH (80°-90°)	104.7	0.4			G2/225
BL (0°-30°)	1298.3	5.5	B3/2500		
BM (30°-60°)	3962.7	16.6	B3/5000		
BH (60°-80°)	2165.3	9.1	B3/2500		G3/2500
BVH (80°-90°)	33.0	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	5646.2	23.7			

**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°	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4
1°	2750.3	2750.3	2750.1	2749.2	2748.6	2747.0	2745.3	2744.5	2743.8	2743.5	2743.5
2°	2757.6	2756.6	2756.0	2754.1	2752.3	2749.3	2746.7	2745.1	2743.8	2743.0	2743.5
3°	2767.0	2765.6	2763.8	2760.8	2758.7	2755.0	2751.5	2749.2	2746.7	2745.4	2745.6
4°	2779.3	2777.2	2774.5	2770.8	2767.8	2763.3	2758.9	2755.8	2752.5	2750.9	2750.8
5°	2793.4	2790.4	2787.7	2783.0	2778.5	2773.3	2768.0	2764.3	2761.2	2759.3	2761.1
6°	2809.1	2805.3	2802.7	2797.9	2792.0	2784.8	2779.1	2774.3	2771.0	2772.7	2775.0
7°	2825.1	2822.2	2819.7	2814.5	2808.1	2799.6	2792.7	2787.0	2783.0	2787.9	2791.4
8°	2843.1	2840.2	2837.7	2832.9	2825.5	2816.5	2809.2	2803.1	2800.0	2805.2	2810.0
9°	2863.7	2860.5	2857.1	2852.8	2845.5	2835.1	2826.7	2820.6	2820.5	2824.5	2829.9
10°	2885.7	2882.4	2879.8	2875.0	2868.2	2855.7	2846.6	2839.5	2842.1	2847.3	2851.4
11°	2909.4	2905.2	2903.9	2899.5	2891.9	2878.9	2868.2	2861.3	2865.6	2872.7	2875.6
12°	2932.9	2928.3	2928.6	2925.2	2916.3	2903.3	2890.8	2884.5	2890.2	2898.2	2900.5
13°	2957.0	2952.1	2954.4	2953.1	2942.8	2928.8	2914.6	2908.4	2917.2	2925.0	2927.1
14°	2981.8	2976.3	2979.9	2980.7	2971.2	2955.0	2939.2	2932.8	2943.9	2954.0	2953.8
15°	3008.0	3002.9	3007.4	3009.8	2999.4	2982.0	2965.6	2958.7	2971.7	2982.2	2980.4
16°	3034.0	3030.7	3035.4	3039.0	3028.7	3010.6	2993.1	2985.9	3001.3	3010.7	3007.4
17°	3062.5	3059.1	3064.3	3068.9	3059.5	3039.7	3020.9	3014.1	3031.6	3038.7	2999.8
18°	3092.4	3087.9	3094.5	3098.8	3090.7	3069.2	3046.7	3036.5	3061.9	3067.8	2950.7
19°	3123.1	3118.4	3125.5	3129.8	3122.5	3101.0	3064.7	3058.2	3083.5	3096.9	2926.0
20°	3155.5	3150.5	3156.9	3161.1	3154.9	3127.9	3089.4	3081.7	3105.5	3122.1	2950.6
21°	3190.4	3184.1	3189.4	3193.4	3188.9	3151.2	3118.8	3116.2	3129.6	3078.4	2977.2
22°	3226.4	3219.6	3223.8	3227.7	3224.3	3180.7	3152.9	3150.1	3162.2	3049.8	3005.1
23°	3264.4	3257.0	3258.5	3262.1	3261.3	3211.5	3188.6	3178.7	3192.6	3044.8	3034.4
24°	3304.2	3295.8	3294.6	3297.6	3290.7	3248.3	3219.6	3206.7	3215.2	3073.8	3064.9
25°	3344.6	3335.3	3331.7	3335.6	3320.3	3286.4	3248.9	3238.1	3242.6	3102.0	3095.0
26°	3387.3	3376.1	3369.8	3374.4	3356.1	3324.9	3284.0	3273.3	3272.4	3122.2	3127.1
27°	3431.5	3417.4	3409.6	3413.1	3387.4	3358.2	3317.4	3312.3	3306.7	3145.5	3158.6
28°	3476.9	3460.4	3450.1	3454.1	3423.4	3389.4	3358.3	3350.9	3324.8	3173.0	3189.9
29°	3524.0	3502.9	3491.8	3496.7	3462.4	3424.2	3400.7	3390.8	3303.9	3208.5	3221.6
30°	3572.3	3547.0	3535.6	3540.2	3502.6	3459.7	3445.6	3430.9	3305.8	3245.0	3248.2
31°	3620.8	3590.4	3579.4	3582.9	3543.9	3493.6	3491.3	3469.6	3296.2	3282.2	3262.5
32°	3668.8	3634.2	3624.0	3620.5	3585.0	3535.2	3536.1	3496.1	3323.5	3317.9	3146.0
33°	3717.7	3679.2	3669.1	3658.5	3621.8	3576.7	3581.7	3516.1	3350.5	3347.5	3059.5
34°	3766.9	3724.0	3715.7	3697.6	3656.9	3617.4	3619.8	3538.0	3379.1	3373.0	3072.3
35°	3817.9	3770.1	3763.0	3741.2	3694.2	3658.2	3646.6	3570.8	3410.6	3398.4	3104.4
36°	3869.0	3816.7	3810.6	3782.7	3735.5	3700.1	3676.6	3604.3	3445.7	3426.6	3131.5
37°	3919.9	3862.7	3859.5	3825.6	3776.0	3740.8	3709.3	3638.6	3477.7	3421.2	3153.9
38°	3971.1	3910.4	3908.7	3871.1	3816.1	3784.3	3748.6	3674.1	3499.3	3310.2	3173.4
39°	4021.5	3959.2	3956.2	3919.0	3857.9	3826.0	3791.2	3703.6	3525.1	3230.1	3201.7
40°	4072.6	4009.3	4005.2	3967.3	3903.4	3856.7	3834.1	3731.2	3563.6	3261.4	3234.3
41°	4121.6	4062.1	4055.9	4015.6	3951.0	3891.3	3874.6	3760.1	3602.7	3295.9	3266.5
42°	4173.1	4113.5	4106.5	4066.8	3998.6	3924.8	3914.2	3781.5	3642.7	3331.9	3295.2
43°	4221.9	4167.3	4158.6	4117.4	4048.9	3962.5	3946.3	3809.8	3682.2	3369.0	3200.6
44°	4270.2	4223.5	4210.4	4167.8	4097.4	4005.9	3972.7	3855.0	3722.2	3400.6	3079.2



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	4320.4	4280.1	4265.7	4215.1	4148.8	4054.4	4004.0	3901.3	3751.0	3421.2	3077.2
46°	4370.5	4339.5	4321.9	4264.0	4201.6	4105.5	4025.1	3949.4	3757.5	3440.1	3104.9
47°	4420.4	4400.8	4379.8	4314.1	4256.1	4157.5	4047.6	3989.7	3763.4	3468.2	3126.7
48°	4472.9	4463.3	4438.5	4365.3	4309.2	4208.0	4074.3	4005.4	3681.7	3493.7	3144.7
49°	4525.8	4526.3	4498.3	4420.2	4358.5	4261.2	4110.3	4014.4	3618.2	3402.3	3168.8
50°	4580.7	4591.0	4558.3	4477.5	4401.4	4313.9	4149.5	4018.2	3610.4	3273.7	3199.3
51°	4635.7	4656.5	4620.3	4535.9	4449.0	4359.9	4188.5	4010.9	3645.9	3277.8	3113.1
52°	4691.6	4722.5	4680.9	4595.2	4499.6	4402.9	4229.7	4040.3	3674.3	3313.0	2925.0
53°	4748.9	4787.0	4742.3	4653.7	4544.5	4447.6	4269.3	4077.8	3688.8	3346.8	2924.5
54°	4804.5	4850.1	4807.0	4717.2	4594.8	4484.8	4306.6	4114.5	3707.3	3369.5	2958.3
55°	4859.8	4909.9	4872.2	4782.9	4647.9	4509.3	4334.2	4137.9	3745.9	3390.3	2993.6
56°	4910.2	4968.1	4941.8	4851.4	4704.1	4541.0	4349.9	4146.4	3778.1	3394.0	3028.8
57°	4958.4	5023.4	5012.0	4925.5	4761.1	4572.6	4362.4	4161.4	3792.0	3252.1	3058.8
58°	5004.5	5074.9	5082.3	4999.0	4817.0	4605.8	4371.1	4175.6	3812.9	3143.7	2874.7
59°	5045.3	5123.2	5150.7	5072.1	4873.3	4634.7	4385.2	4170.1	3718.4	3181.8	2775.5
60°	5081.2	5166.2	5217.8	5149.8	4926.1	4659.5	4395.9	4143.1	3625.7	3223.5	2788.8
61°	5110.6	5204.8	5284.7	5226.6	4976.4	4681.9	4400.5	4138.9	3640.4	3267.7	2802.7
62°	5133.6	5237.3	5349.8	5305.7	5024.0	4695.9	4399.3	4134.4	3649.9	3306.6	2665.3
63°	5153.4	5266.0	5416.0	5385.2	5069.9	4701.2	4384.5	4099.4	3656.9	3195.3	2511.0
64°	5171.1	5289.4	5477.4	5464.3	5109.6	4699.6	4352.4	4071.3	3648.6	3113.2	2492.6
65°	5187.6	5309.3	5533.9	5537.9	5147.9	4690.4	4317.7	4018.4	3597.3	3108.9	2445.6
66°	5197.2	5327.8	5584.4	5603.1	5181.3	4665.2	4282.8	3960.2	3452.6	3119.3	2215.7
67°	5195.8	5339.1	5627.6	5660.9	5202.5	4631.1	4237.0	3862.7	3444.8	2954.4	2207.1
68°	5147.3	5334.0	5664.4	5708.5	5202.2	4588.3	4113.5	3778.8	3465.0	2907.0	2075.9
69°	4994.1	5292.9	5684.5	5743.3	5197.5	4494.3	3883.2	3687.3	3474.9	2872.4	1893.8
70°	4676.2	5171.5	5689.0	5762.8	5192.1	4323.6	3551.0	3536.4	3462.7	2709.3	1709.7
71°	4176.9	4910.3	5667.8	5759.1	5145.1	4069.1	3210.5	3307.4	3337.3	2662.9	1525.5
72°	3647.9	4484.6	5615.3	5724.4	5053.5	3744.1	2895.9	3021.0	3209.8	2530.4	1342.2
73°	3089.7	3929.2	5497.7	5652.7	4899.9	3413.5	2618.1	2725.5	3067.7	2449.2	1196.9
74°	2441.9	3323.9	5245.3	5517.8	4678.4	3108.4	2297.0	2457.9	2891.0	2247.2	996.4
75°	1630.0	2666.4	4793.6	5286.8	4391.3	2767.0	1747.2	2181.5	2644.9	2082.0	858.3
76°	888.6	1883.1	4201.9	4922.6	4053.5	2252.0	1197.4	1713.6	2412.3	1805.2	736.9
77°	662.3	1047.1	3569.5	4393.8	3638.6	1484.2	655.6	1245.8	2144.4	1528.5	602.0
78°	443.5	768.2	2793.5	3628.6	3067.4	773.8	476.9	785.8	1710.4	1251.4	439.8
79°	224.7	500.5	1816.5	2736.5	2267.5	558.6	298.2	557.5	1276.3	930.0	311.4
80°	199.4	232.8	939.7	1777.9	1382.7	358.9	123.1	329.2	847.9	621.3	182.9
81°	177.5	203.0	698.4	903.6	693.6	159.1	105.2	104.5	595.3	433.0	56.5
82°	157.7	178.6	462.2	668.5	455.0	135.3	89.2	87.7	342.8	244.8	29.0
83°	139.8	156.5	226.0	443.7	221.1	114.4	74.9	72.8	93.6	62.4	23.5
84°	122.5	136.1	185.7	218.9	178.5	96.0	61.5	59.5	72.5	47.5	19.5
85°	106.0	117.3	150.4	181.6	141.1	79.8	49.2	48.2	56.4	39.5	15.6
86°	90.4	100.5	122.9	151.8	107.7	66.0	38.0	37.9	41.7	32.4	11.6
87°	75.5	84.8	98.5	118.5	83.5	52.2	28.1	28.4	30.8	25.2	9.0
88°	65.1	71.0	76.0	81.4	63.0	38.4	18.2	20.1	22.0	18.1	6.9
89°	54.9	57.3	62.5	63.8	42.6	24.9	8.4	11.9	13.2	10.9	5.0



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CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4	2746.4
1°	2744.0	2743.8	2745.1	2745.6	2746.8	2747.9	2748.6	2748.3	2749.3	2749.8	2750.2
2°	2744.3	2743.5	2745.8	2747.3	2749.4	2751.2	2753.1	2753.8	2755.8	2756.9	2757.9
3°	2746.7	2746.4	2749.0	2751.5	2754.4	2756.9	2760.1	2761.5	2764.4	2766.2	2767.6
4°	2752.4	2753.8	2756.4	2758.6	2762.2	2766.0	2770.4	2772.7	2776.1	2777.9	2779.4
5°	2764.3	2765.7	2768.6	2770.7	2773.4	2777.8	2782.4	2785.6	2789.4	2792.3	2794.0
6°	2778.5	2780.2	2784.4	2786.6	2789.2	2791.4	2797.2	2800.8	2805.8	2809.1	2811.0
7°	2795.9	2797.4	2801.9	2804.7	2807.4	2808.9	2815.2	2819.7	2824.5	2828.6	2830.6
8°	2814.1	2815.8	2821.3	2825.9	2828.7	2829.9	2835.6	2839.6	2845.7	2850.2	2851.5
9°	2834.1	2836.2	2841.8	2848.1	2852.4	2853.9	2856.5	2860.8	2868.2	2874.0	2875.4
10°	2854.9	2858.1	2865.3	2873.2	2878.6	2879.3	2880.5	2884.7	2892.5	2899.5	2900.4
11°	2878.4	2881.1	2889.9	2901.0	2906.3	2907.1	2906.5	2911.9	2920.9	2928.1	2927.3
12°	2901.3	2904.7	2914.3	2929.3	2936.4	2936.7	2934.6	2940.2	2949.8	2957.5	2956.3
13°	2926.4	2929.0	2940.1	2958.0	2968.5	2968.4	2963.8	2970.1	2981.1	2988.3	2987.1
14°	2950.5	2951.8	2966.7	2986.7	3002.4	3000.9	2994.1	3000.8	3013.5	3022.1	3020.0
15°	2966.4	2921.1	2983.4	3017.2	3035.2	3035.4	3027.4	3032.2	3046.8	3057.5	3051.7
16°	2906.5	2866.2	2926.2	3046.3	3067.5	3071.2	3060.9	3065.6	3080.4	3092.4	3085.6
17°	2869.0	2869.8	2891.5	3044.3	3101.3	3107.4	3096.1	3100.4	3115.2	3127.7	3119.2
18°	2893.0	2895.0	2914.7	2996.1	3135.4	3142.8	3127.8	3135.3	3151.5	3162.9	3153.5
19°	2917.4	2920.9	2940.9	2975.7	3168.6	3169.8	3151.9	3161.5	3188.8	3200.3	3187.8
20°	2944.1	2948.6	2968.3	3002.4	3197.7	3197.2	3180.1	3189.7	3226.9	3238.2	3223.5
21°	2971.7	2976.3	2997.1	3032.6	3171.7	3226.6	3218.6	3221.5	3256.5	3277.5	3259.2
22°	3001.3	3006.2	3028.0	3063.4	3137.3	3264.6	3258.4	3260.2	3290.8	3315.9	3296.1
23°	3030.7	3037.1	3060.7	3095.5	3134.3	3303.9	3297.4	3302.0	3325.1	3355.5	3334.5
24°	3062.1	3069.2	3093.8	3128.8	3167.6	3335.8	3329.1	3342.9	3365.4	3394.9	3372.3
25°	3092.4	3099.1	3126.2	3162.7	3202.6	3364.5	3363.3	3378.5	3408.0	3428.5	3411.5
26°	3122.9	3131.1	3158.2	3198.9	3229.4	3394.5	3397.3	3413.9	3450.7	3461.8	3451.8
27°	3153.4	3162.1	3190.6	3234.2	3255.3	3429.6	3437.1	3453.1	3492.8	3499.6	3492.8
28°	3180.8	3139.2	3220.1	3269.8	3283.6	3453.8	3479.3	3493.9	3529.7	3536.3	3536.5
29°	3113.9	3015.2	3166.8	3304.8	3321.4	3448.6	3521.8	3539.9	3564.9	3578.2	3581.5
30°	3000.0	2977.4	3049.8	3332.7	3359.8	3442.8	3565.4	3586.8	3604.7	3620.7	3627.8
31°	2982.0	3010.3	3027.5	3352.1	3398.5	3445.6	3606.8	3633.7	3640.4	3663.4	3673.6
32°	3012.2	3045.1	3058.2	3255.3	3436.7	3463.4	3639.3	3681.8	3679.4	3706.9	3719.2
33°	3042.7	3081.1	3089.8	3171.0	3472.5	3493.4	3661.7	3728.8	3722.8	3749.0	3762.2
34°	3073.7	3116.0	3120.9	3169.9	3501.0	3525.6	3686.6	3775.9	3765.3	3789.0	3804.0
35°	3104.2	3154.1	3152.5	3203.7	3529.7	3557.5	3721.9	3808.8	3809.6	3829.2	3848.2
36°	3136.5	3189.7	3186.8	3236.6	3556.6	3590.8	3757.9	3842.6	3855.1	3871.7	3895.8
37°	3165.6	3225.2	3219.5	3260.6	3566.8	3626.5	3795.7	3875.8	3900.3	3916.7	3940.7
38°	3196.9	3255.3	3251.8	3282.0	3459.8	3650.5	3835.8	3918.6	3946.6	3959.0	3986.3
39°	3223.0	3106.2	3281.0	3308.1	3379.4	3676.2	3875.4	3959.7	3992.9	4004.9	4035.2
40°	3069.1	2984.9	3143.4	3342.3	3402.1	3714.1	3905.5	4000.6	4030.1	4054.7	4086.3
41°	2955.2	3004.5	3023.9	3376.6	3438.3	3755.0	3935.1	4041.0	4064.3	4106.3	4137.9
42°	2975.3	3031.1	3035.6	3407.9	3475.8	3798.8	3955.5	4082.0	4102.1	4156.6	4190.5
43°	3006.8	3058.5	3067.9	3337.7	3513.8	3842.8	3987.2	4121.2	4141.4	4207.9	4242.2
44°	3040.3	3084.8	3102.5	3207.2	3548.6	3886.3	4033.6	4153.4	4188.7	4259.0	4295.7

REPORT NUMBER: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3073.7	3109.9	3135.1	3187.8	3573.0	3919.9	4083.9	4185.5	4239.2	4311.9	4345.3
46°	3107.4	3128.6	3169.4	3217.3	3592.0	3929.7	4133.5	4210.7	4293.1	4367.2	4396.1
47°	3135.9	2966.7	3199.3	3238.3	3620.1	3946.4	4183.9	4229.2	4345.6	4421.8	4447.4
48°	2992.3	2791.7	3076.6	3256.2	3648.3	3897.0	4217.7	4256.4	4397.3	4476.2	4501.4
49°	2811.6	2804.6	2889.8	3280.5	3585.7	3831.8	4217.2	4294.2	4449.5	4526.8	4557.2
50°	2832.9	2828.7	2896.8	3310.0	3452.1	3787.3	4216.7	4334.8	4499.1	4572.1	4616.0
51°	2867.1	2853.5	2928.8	3247.4	3431.3	3818.5	4208.3	4372.6	4542.2	4615.6	4673.9
52°	2901.3	2877.9	2959.8	3056.1	3468.5	3842.8	4209.5	4410.9	4580.4	4663.1	4731.2
53°	2931.7	2895.1	2988.8	3036.8	3502.4	3856.8	4235.3	4445.8	4619.6	4705.6	4791.3
54°	2952.9	2655.2	3012.5	3068.9	3523.4	3872.4	4263.8	4478.2	4650.8	4754.2	4855.7
55°	2732.5	2538.8	2788.7	3103.2	3541.6	3902.5	4284.5	4498.8	4667.8	4807.1	4923.1
56°	2606.2	2556.0	2658.5	3136.8	3545.4	3932.1	4284.2	4502.9	4690.9	4860.1	4992.4
57°	2612.8	2566.2	2662.8	3165.6	3433.1	3938.9	4285.0	4501.2	4709.8	4910.5	5061.1
58°	2623.2	2530.6	2673.4	2988.8	3302.3	3948.7	4286.5	4500.2	4730.5	4957.5	5131.4
59°	2542.9	2195.4	2607.1	2872.9	3332.2	3877.5	4276.4	4504.5	4749.5	5003.9	5201.2
60°	2263.6	2160.7	2313.6	2883.9	3369.2	3760.4	4244.5	4506.3	4764.4	5049.2	5272.1
61°	2256.5	2159.3	2302.4	2899.7	3408.4	3752.3	4227.8	4499.5	4777.9	5095.0	5343.8
62°	2245.4	1922.4	2289.5	2774.2	3443.6	3755.3	4219.6	4492.3	4786.7	5135.8	5415.7
63°	2012.2	1742.5	2042.0	2598.5	3337.1	3753.6	4181.2	4474.4	4785.7	5169.3	5488.5
64°	1854.0	1593.5	1882.2	2579.8	3224.5	3740.1	4148.1	4436.5	4778.5	5196.7	5557.8
65°	1838.6	1444.5	1867.4	2546.3	3205.6	3690.0	4084.0	4392.9	4752.5	5220.2	5619.3
66°	1637.9	1296.9	1658.6	2290.4	3200.0	3543.1	4017.8	4345.2	4713.4	5239.9	5670.2
67°	1437.3	1250.6	1451.3	2269.8	3026.7	3502.6	3920.9	4265.8	4666.9	5242.4	5711.8
68°	1262.8	830.0	1287.1	2142.5	2967.0	3512.1	3804.0	4087.6	4583.7	5231.6	5743.9
69°	1027.8	677.6	1049.7	1936.0	2916.5	3507.0	3666.3	3787.5	4428.4	5213.9	5768.1
70°	787.9	461.8	801.9	1762.7	2742.2	3475.0	3454.8	3388.2	4184.2	5169.7	5764.9
71°	555.6	246.1	549.6	1574.5	2678.3	3314.2	3162.9	3035.7	3840.3	5080.5	5730.9
72°	272.3	33.0	234.3	1386.3	2536.5	3138.4	2831.6	2721.0	3474.7	4935.5	5672.1
73°	226.5	0.5	196.5	1196.4	2414.2	2950.5	2516.5	2408.2	3119.7	4714.4	5560.0
74°	183.8	0.4	158.7	953.4	2190.4	2734.9	2225.8	2013.3	2772.0	4422.3	5383.1
75°	141.1	0.4	121.0	795.4	1983.0	2454.8	1798.2	1453.4	2338.0	4062.0	5100.8
76°	99.8	0.5	85.9	671.0	1682.2	2172.9	1370.5	850.5	1708.1	3642.4	4690.6
77°	56.1	0.5	50.2	538.4	1381.5	1794.9	946.0	400.1	988.6	3157.3	4090.6
78°	39.9	0.6	35.9	392.2	1080.5	1417.0	669.5	306.5	722.0	2518.1	3304.0
79°	23.8	0.7	21.6	279.0	775.3	1038.4	392.9	215.0	456.9	1710.4	2417.6
80°	7.7	0.8	7.5	165.9	469.6	566.8	120.7	123.6	191.7	975.2	1496.4
81°	6.5	0.9	6.3	55.2	276.7	405.6	98.9	103.5	153.5	712.6	748.5
82°	5.7	1.1	5.5	31.3	88.9	244.3	83.3	87.2	130.1	460.5	563.6
83°	5.0	1.2	4.8	24.2	59.1	85.9	69.2	72.8	110.1	208.3	389.3
84°	4.4	1.4	4.3	20.0	48.4	69.1	56.7	60.1	92.5	170.6	215.0
85°	3.9	1.5	3.8	15.8	40.5	53.1	45.8	47.4	76.6	133.9	180.5
86°	3.5	1.7	3.5	11.6	33.2	39.1	36.0	35.9	63.3	102.8	150.6
87°	3.2	1.9	3.2	8.8	24.9	29.4	26.8	24.8	50.1	79.9	116.4
88°	3.0	2.0	3.0	6.5	16.6	20.9	18.9	15.0	36.8	60.7	81.1
89°	2.8	2.2	2.8	4.6	8.4	12.4	11.0	6.8	23.9	41.7	63.5



REPORT NUMBER: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	2746.4	2746.4	2746.4
1°	2751.1	2751.3	2750.3
2°	2758.6	2759.2	2757.6
3°	2768.7	2769.3	2767.0
4°	2781.4	2781.7	2779.3
5°	2795.3	2795.6	2793.4
6°	2811.5	2811.7	2809.1
7°	2829.9	2828.6	2825.1
8°	2849.8	2847.5	2843.1
9°	2872.4	2868.5	2863.7
10°	2896.9	2891.7	2885.7
11°	2922.6	2916.4	2909.4
12°	2950.1	2941.8	2932.9
13°	2978.8	2966.8	2957.0
14°	3008.9	2993.2	2981.8
15°	3038.0	3020.9	3008.0
16°	3067.7	3049.3	3034.0
17°	3098.8	3078.3	3062.5
18°	3130.2	3109.0	3092.4
19°	3163.1	3139.9	3123.1
20°	3196.2	3172.2	3155.5
21°	3230.4	3206.2	3190.4
22°	3266.7	3241.6	3226.4
23°	3303.9	3278.7	3264.4
24°	3340.5	3316.0	3304.2
25°	3379.6	3355.8	3344.6
26°	3420.2	3396.8	3387.3
27°	3462.4	3438.8	3431.5
28°	3505.4	3480.7	3476.9
29°	3550.5	3524.0	3524.0
30°	3595.3	3568.6	3572.3
31°	3641.8	3613.9	3620.8
32°	3687.8	3659.2	3668.8
33°	3734.9	3705.9	3717.7
34°	3783.0	3751.8	3766.9
35°	3831.6	3797.8	3817.9
36°	3881.3	3843.9	3869.0
37°	3931.0	3891.8	3919.9
38°	3981.6	3940.6	3971.1
39°	4032.4	3990.4	4021.5
40°	4085.2	4042.0	4072.6
41°	4137.0	4095.3	4121.6
42°	4189.1	4149.7	4173.1
43°	4243.0	4204.0	4221.9
44°	4297.7	4260.7	4270.2



REPORT NUMBER: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	4353.7	4320.9	4320.4
46°	4409.8	4380.4	4370.5
47°	4467.8	4442.4	4420.4
48°	4527.7	4505.7	4472.9
49°	4589.4	4572.7	4525.8
50°	4651.6	4638.3	4580.7
51°	4713.5	4705.8	4635.7
52°	4775.5	4773.0	4691.6
53°	4838.9	4840.7	4748.9
54°	4901.9	4906.3	4804.5
55°	4968.5	4970.5	4859.8
56°	5037.7	5031.3	4910.2
57°	5108.4	5087.6	4958.4
58°	5175.8	5139.0	5004.5
59°	5240.9	5186.6	5045.3
60°	5308.3	5228.2	5081.2
61°	5375.1	5264.3	5110.6
62°	5440.3	5296.3	5133.6
63°	5506.9	5324.7	5153.4
64°	5572.5	5351.3	5171.1
65°	5632.5	5374.5	5187.6
66°	5685.5	5396.2	5197.2
67°	5727.6	5409.9	5195.8
68°	5756.7	5406.2	5147.3
69°	5766.8	5368.9	4994.1
70°	5760.8	5262.7	4676.2
71°	5729.1	5025.9	4176.9
72°	5660.1	4609.5	3647.9
73°	5523.0	4052.8	3089.7
74°	5250.7	3423.8	2441.9
75°	4802.9	2757.3	1630.0
76°	4210.4	2011.1	888.6
77°	3551.9	1163.9	662.3
78°	2736.8	856.5	443.5
79°	1777.6	553.8	224.7
80°	959.9	251.1	199.4
81°	701.7	211.4	177.5
82°	464.0	185.6	157.7
83°	226.2	162.1	139.8
84°	188.6	140.7	122.5
85°	153.5	121.2	106.0
86°	125.1	103.6	90.4
87°	100.4	87.1	75.5
88°	77.3	72.7	65.1
89°	63.5	58.3	54.9



REPORT NUMBER: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436710

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5-HSS)

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)