

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: P1436758

Luminaire Tested: XAS180-SFPM (5000K-144W-T5-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436758
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 (5000K-144W-T5-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 5 WITH HOUSE SIDE SHIELD
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 23809 (1 lamp)
Luminaire Lumens: 19239.6 lumens
Efficiency: 80.8%
Efficacy: 131.9 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

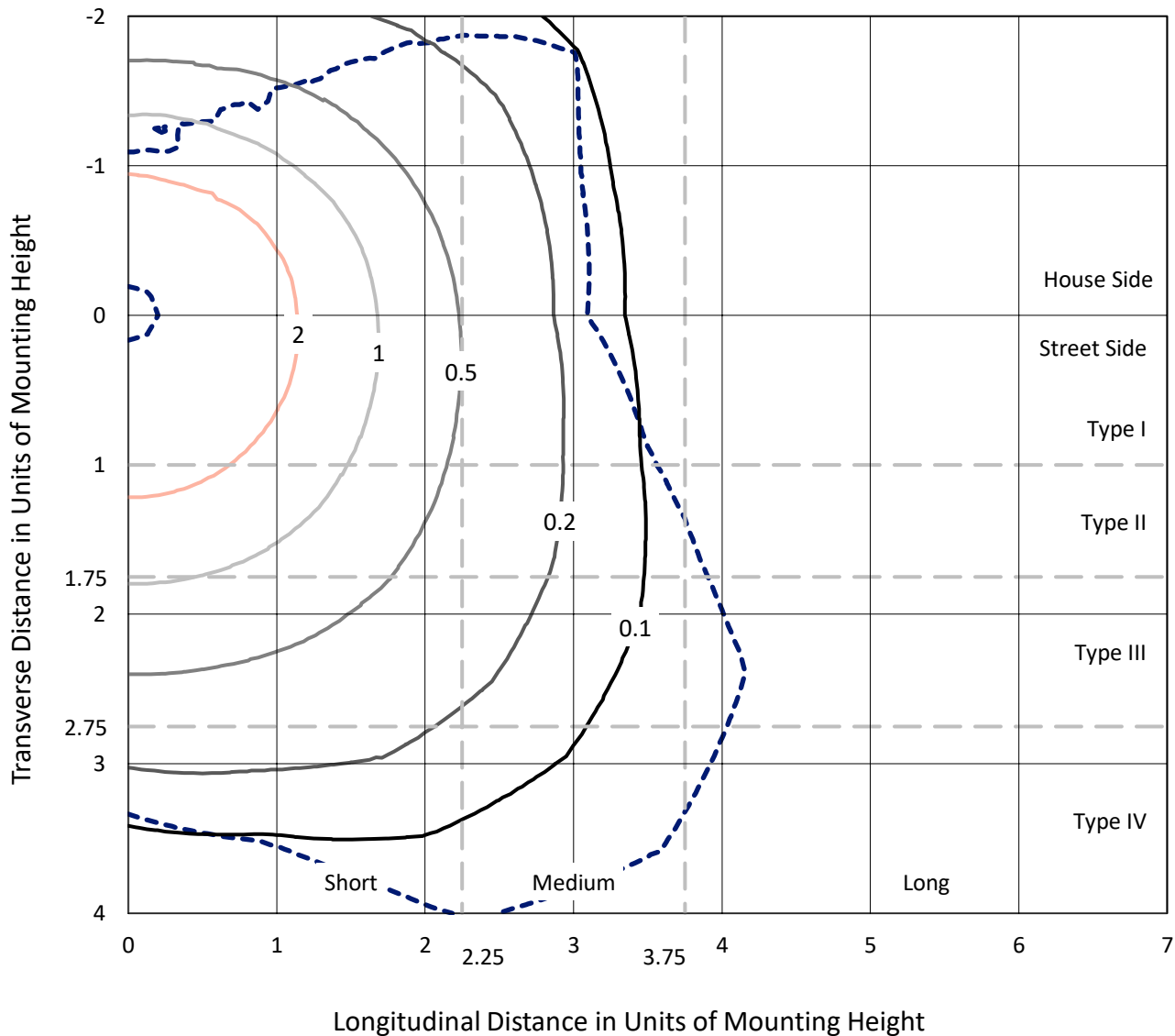
Input Watts (W): 145.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

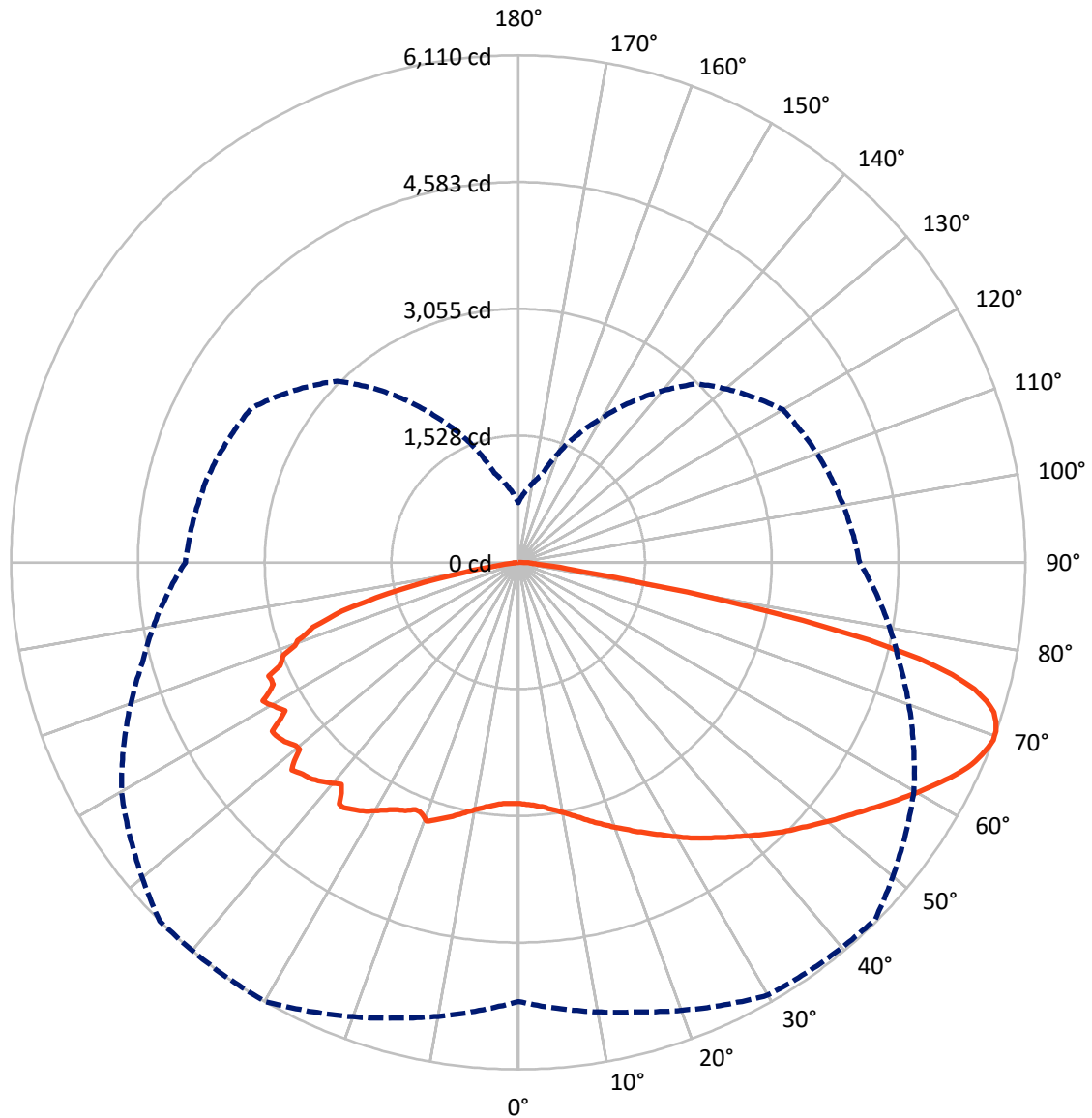
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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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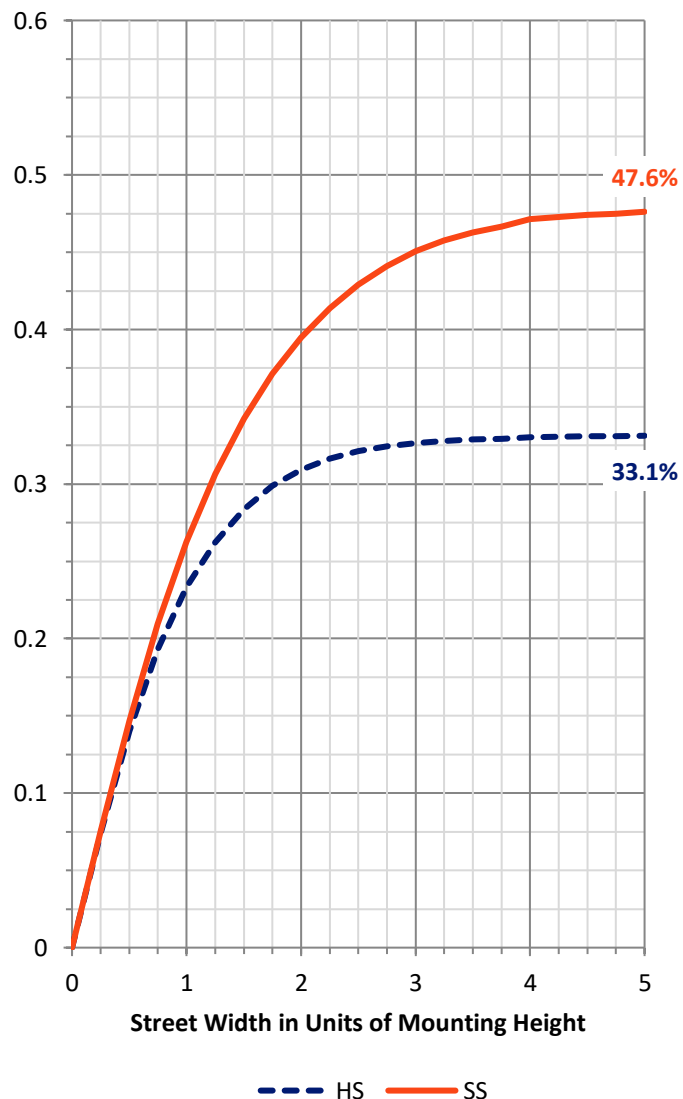
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7901.5	0.0	7901.5
	% Lamp	33.2	0.0	33.2
Street Side	Lumens	11338.1	0.0	11338.1
	% Lamp	47.6	0.0	47.6
Total	Lumens	19239.6	0.0	19239.6
	% Lamp	80.8	0.0	80.8

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	284.1	1.5	1.2
10°-20°	904.2	4.7	3.8
20°-30°	1611.7	8.4	6.8
30°-40°	2386.2	12.4	10.0
40°-50°	3183.8	16.5	13.4
50°-60°	3904.6	20.3	16.4
60°-70°	4253.3	22.1	17.9
70°-80°	2565.8	13.3	10.8
80°-90°	145.9	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°	19239.6	100.0	80.8
0°-180°	19239.6	100.0	80.8

Coefficient of Utilization



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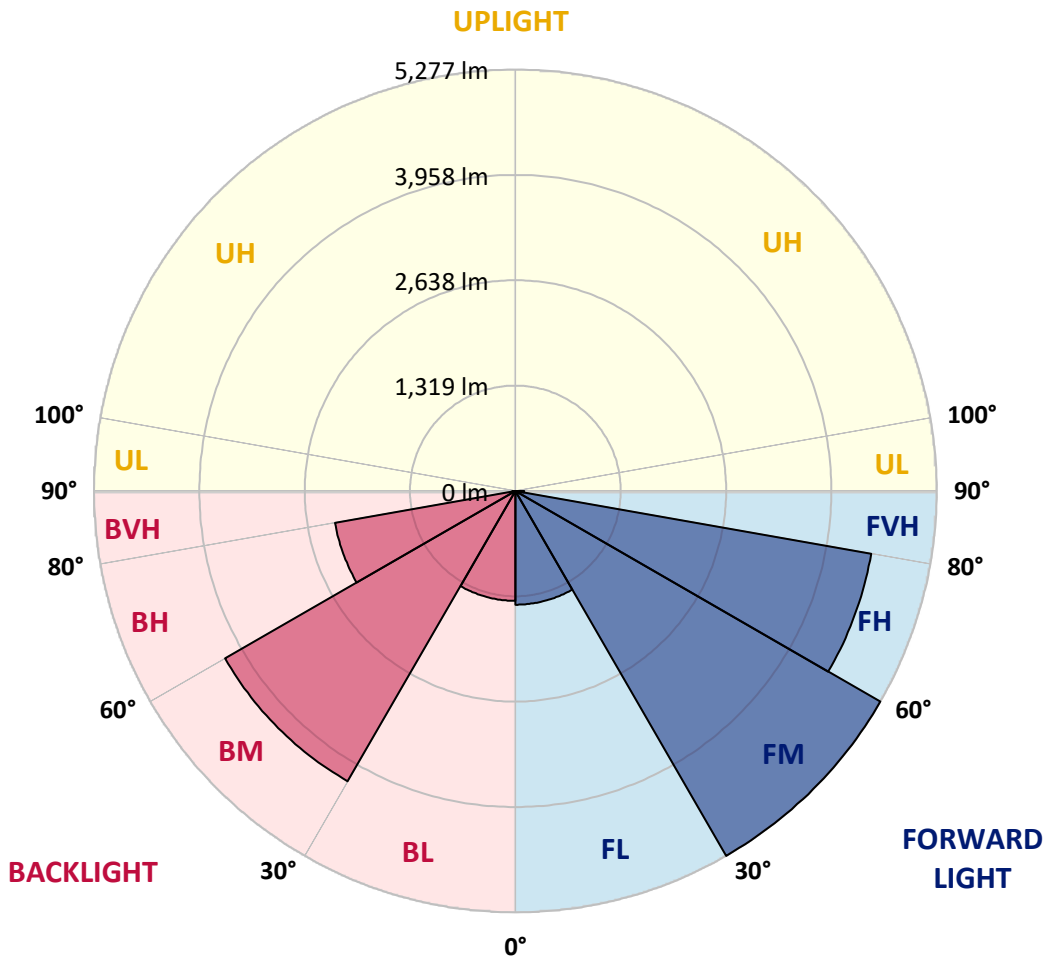
CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1424.8	6.0			
FM (30°-60°)	5277.0	22.2			
FH (60°-80°)	4525.4	19.0			G2/5000
FVH (80°-90°)	110.9	0.5			G2/225
BL (0°-30°)	1375.2	5.8	B3/2500		
BM (30°-60°)	4197.7	17.6	B3/5000		
BH (60°-80°)	2293.7	9.6	B3/2500		G3/2500
BVH (80°-90°)	34.9	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	4569.4	19.2			

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°	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2
1°	2913.4	2913.4	2913.1	2912.3	2911.5	2909.9	2908.1	2907.2	2906.4	2906.2	2906.2
2°	2921.1	2920.1	2919.4	2917.4	2915.5	2912.3	2909.5	2907.8	2906.4	2905.6	2906.2
3°	2931.1	2929.5	2927.7	2924.5	2922.3	2918.4	2914.6	2912.2	2909.5	2908.1	2908.4
4°	2944.1	2941.8	2939.0	2935.1	2931.9	2927.1	2922.4	2919.2	2915.6	2914.0	2913.9
5°	2959.0	2955.9	2953.0	2948.0	2943.3	2937.7	2932.1	2928.2	2924.9	2922.9	2924.8
6°	2975.6	2971.6	2968.9	2963.8	2957.5	2949.9	2943.8	2938.8	2935.3	2937.1	2939.6
7°	2992.6	2989.5	2986.8	2981.4	2974.6	2965.6	2958.2	2952.2	2948.0	2953.2	2956.9
8°	3011.7	3008.6	3005.9	3000.9	2993.1	2983.5	2975.8	2969.3	2966.0	2971.5	2976.7
9°	3033.5	3030.1	3026.5	3021.9	3014.2	3003.2	2994.3	2987.8	2987.7	2991.9	2997.7
10°	3056.8	3053.3	3050.6	3045.4	3038.2	3025.0	3015.4	3007.8	3010.6	3016.2	3020.4
11°	3081.9	3077.5	3076.1	3071.4	3063.3	3049.6	3038.3	3030.9	3035.5	3043.0	3046.1
12°	3106.8	3102.0	3102.2	3098.7	3089.2	3075.4	3062.2	3055.5	3061.6	3070.1	3072.5
13°	3132.3	3127.1	3129.6	3128.2	3117.3	3102.5	3087.4	3080.9	3090.2	3098.4	3100.6
14°	3158.6	3152.8	3156.6	3157.4	3147.4	3130.2	3113.4	3106.7	3118.5	3129.1	3129.0
15°	3186.3	3181.0	3185.8	3188.3	3177.3	3158.8	3141.5	3134.1	3147.9	3159.0	3157.1
16°	3213.9	3210.4	3215.3	3219.2	3208.3	3189.1	3170.6	3163.0	3179.2	3189.2	3185.8
17°	3244.1	3240.5	3246.0	3250.9	3240.9	3219.9	3200.1	3192.8	3211.4	3218.9	3177.7
18°	3275.8	3271.0	3278.0	3282.5	3273.9	3251.2	3227.3	3216.5	3243.5	3249.7	3125.6
19°	3308.3	3303.2	3310.8	3315.4	3307.7	3284.9	3246.4	3239.5	3266.3	3280.5	3099.5
20°	3342.6	3337.3	3344.1	3348.6	3341.9	3313.3	3272.5	3264.5	3289.7	3307.2	3125.6
21°	3379.5	3372.9	3378.5	3382.7	3378.0	3338.1	3303.7	3301.0	3315.1	3260.9	3153.7
22°	3417.7	3410.5	3414.9	3419.1	3415.5	3369.3	3339.8	3336.9	3349.7	3230.6	3183.3
23°	3458.0	3450.1	3451.7	3455.5	3454.7	3401.9	3377.7	3367.2	3381.9	3225.4	3214.4
24°	3500.1	3491.2	3490.0	3493.1	3485.8	3440.8	3410.5	3396.8	3405.9	3256.1	3246.6
25°	3542.9	3533.0	3529.2	3533.4	3517.2	3481.2	3441.5	3430.1	3434.9	3286.0	3278.5
26°	3588.1	3576.3	3569.6	3574.5	3555.1	3522.0	3478.7	3467.4	3466.4	3307.3	3312.5
27°	3634.9	3620.0	3611.7	3615.5	3588.2	3557.4	3514.1	3508.7	3502.7	3332.0	3345.9
28°	3683.0	3665.5	3654.6	3658.9	3626.4	3590.3	3557.4	3549.6	3522.0	3361.1	3379.0
29°	3732.9	3710.6	3698.8	3704.0	3667.6	3627.2	3602.4	3591.9	3499.7	3398.7	3412.6
30°	3784.1	3757.3	3745.2	3750.1	3710.3	3664.8	3649.9	3634.4	3501.8	3437.4	3440.8
31°	3835.5	3803.3	3791.6	3795.3	3754.0	3700.7	3698.3	3675.3	3491.6	3476.8	3456.0
32°	3886.4	3849.7	3838.9	3835.1	3797.6	3744.8	3745.8	3703.4	3520.5	3514.6	3332.5
33°	3938.1	3897.4	3886.7	3875.4	3836.5	3788.8	3794.0	3724.6	3549.1	3546.0	3240.9
34°	3990.3	3944.8	3936.0	3916.8	3873.7	3831.9	3834.4	3747.8	3579.5	3573.0	3254.4
35°	4044.3	3993.6	3986.2	3963.0	3913.3	3875.1	3862.8	3782.5	3612.9	3599.9	3288.5
36°	4098.4	4043.0	4036.6	4007.0	3957.0	3919.5	3894.6	3818.0	3650.0	3629.8	3317.2
37°	4152.3	4091.8	4088.4	4052.4	3999.9	3962.6	3929.2	3854.3	3683.9	3624.1	3340.9
38°	4206.6	4142.3	4140.4	4100.7	4042.4	4008.7	3970.8	3891.9	3706.8	3506.5	3361.6
39°	4259.9	4194.0	4190.7	4151.3	4086.6	4052.8	4016.0	3923.2	3734.1	3421.6	3391.6
40°	4314.0	4247.0	4242.7	4202.5	4134.8	4085.4	4061.5	3952.5	3774.9	3454.8	3426.1
41°	4366.0	4302.9	4296.3	4253.7	4185.2	4122.1	4104.4	3983.0	3816.3	3491.3	3460.2
42°	4420.5	4357.4	4350.0	4307.9	4235.7	4157.5	4146.2	4005.7	3858.7	3529.4	3490.5
43°	4472.2	4414.4	4405.2	4361.5	4288.9	4197.4	4180.3	4035.7	3900.5	3568.7	3390.3
44°	4523.4	4473.9	4460.0	4415.0	4340.3	4243.4	4208.3	4083.5	3942.9	3602.2	3261.8



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CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	4576.6	4533.8	4518.6	4465.0	4394.8	4294.8	4241.4	4132.6	3973.4	3624.1	3259.7
46°	4629.6	4596.8	4578.1	4516.8	4450.8	4348.9	4263.8	4183.6	3980.3	3644.1	3289.0
47°	4682.5	4661.7	4639.5	4569.9	4508.4	4404.0	4287.6	4226.3	3986.6	3673.9	3312.1
48°	4738.1	4727.9	4701.6	4624.1	4564.7	4457.5	4315.9	4242.9	3899.9	3700.9	3331.2
49°	4794.2	4794.6	4765.0	4682.2	4616.9	4513.9	4354.0	4252.4	3832.7	3604.1	3356.7
50°	4852.2	4863.2	4828.6	4743.0	4662.4	4569.7	4395.6	4256.4	3824.5	3467.8	3389.0
51°	4910.6	4932.6	4894.3	4804.8	4712.8	4618.4	4436.9	4248.7	3862.1	3472.1	3297.7
52°	4969.8	5002.5	4958.4	4867.6	4766.4	4663.9	4480.5	4279.9	3892.1	3509.4	3098.4
53°	5030.5	5070.8	5023.5	4929.7	4813.9	4711.3	4522.4	4319.5	3907.5	3545.2	3097.9
54°	5089.3	5137.7	5092.0	4996.9	4867.2	4750.7	4561.9	4358.5	3927.1	3569.2	3133.7
55°	5147.9	5201.0	5161.1	5066.4	4923.5	4776.7	4591.2	4383.3	3968.0	3591.3	3171.1
56°	5201.3	5262.7	5234.8	5139.1	4983.0	4810.2	4607.8	4392.3	4002.2	3595.3	3208.4
57°	5252.4	5321.3	5309.2	5217.5	5043.3	4843.8	4621.1	4408.2	4016.8	3444.9	3240.1
58°	5301.2	5375.7	5383.6	5295.4	5102.6	4878.9	4630.3	4423.1	4038.9	3330.1	3045.2
59°	5344.5	5427.0	5456.1	5372.8	5162.2	4909.5	4645.2	4417.4	3938.9	3370.5	2940.0
60°	5382.5	5472.5	5527.2	5455.1	5218.2	4935.8	4656.6	4388.8	3840.6	3414.7	2954.1
61°	5413.6	5513.4	5598.0	5536.5	5271.4	4959.5	4661.4	4384.3	3856.2	3461.4	2968.9
62°	5438.0	5547.8	5666.9	5620.3	5321.9	4974.3	4660.2	4379.5	3866.3	3502.7	2823.4
63°	5459.0	5578.2	5737.1	5704.4	5370.5	4979.9	4644.4	4342.5	3873.8	3384.8	2659.8
64°	5477.7	5603.0	5802.1	5788.2	5412.5	4978.2	4610.5	4312.7	3865.0	3297.8	2640.4
65°	5495.2	5624.1	5862.0	5866.3	5453.2	4968.5	4573.7	4256.7	3810.6	3293.2	2590.6
66°	5505.3	5643.7	5915.5	5935.3	5488.5	4941.8	4536.7	4195.0	3657.3	3304.3	2347.1
67°	5503.9	5655.6	5961.3	5996.5	5510.9	4905.7	4488.2	4091.8	3649.1	3129.6	2337.9
68°	5452.5	5650.3	6000.2	6046.9	5510.7	4860.3	4357.4	4002.8	3670.4	3079.3	2199.0
69°	5290.2	5606.8	6021.6	6083.9	5505.7	4760.8	4113.4	3905.9	3681.0	3042.7	2006.1
70°	4953.5	5478.1	6026.3	6104.5	5499.9	4580.0	3761.5	3746.1	3668.0	2869.9	1811.0
71°	4424.6	5201.5	6003.9	6100.5	5450.2	4310.4	3400.8	3503.5	3535.2	2820.8	1615.9
72°	3864.2	4750.4	5948.2	6063.8	5353.1	3966.0	3067.6	3200.1	3400.1	2680.4	1421.7
73°	3272.9	4162.1	5823.6	5987.8	5190.4	3615.9	2773.3	2887.1	3249.6	2594.4	1267.9
74°	2586.7	3521.0	5556.3	5844.9	4955.8	3292.7	2433.2	2603.6	3062.4	2380.4	1055.5
75°	1726.6	2824.5	5077.8	5600.3	4651.7	2931.1	1850.8	2310.9	2801.7	2205.4	909.2
76°	941.3	1994.8	4451.0	5214.5	4293.8	2385.5	1268.4	1815.2	2555.4	1912.3	780.6
77°	701.6	1109.2	3781.2	4654.3	3854.3	1572.2	694.5	1319.7	2271.5	1619.1	637.7
78°	469.8	813.7	2959.1	3843.7	3249.3	819.7	505.2	832.4	1811.8	1325.6	465.9
79°	238.1	530.2	1924.2	2898.8	2401.9	591.7	315.9	590.5	1352.0	985.1	329.8
80°	211.2	246.6	995.4	1883.4	1464.7	380.2	130.4	348.7	898.2	658.1	193.8
81°	188.0	215.0	739.8	957.2	734.7	168.6	111.4	110.7	630.6	458.7	59.8
82°	167.1	189.2	489.6	708.1	482.0	143.3	94.5	92.9	363.1	259.3	30.7
83°	148.0	165.7	239.4	470.0	234.2	121.2	79.3	77.1	99.2	66.1	24.9
84°	129.8	144.1	196.7	231.9	189.1	101.7	65.1	63.0	76.8	50.3	20.7
85°	112.3	124.3	159.4	192.4	149.5	84.6	52.2	51.1	59.8	41.9	16.5
86°	95.7	106.5	130.2	160.8	114.1	69.9	40.2	40.2	44.2	34.3	12.3
87°	79.9	89.8	104.3	125.5	88.4	55.3	29.7	30.1	32.6	26.7	9.6
88°	69.0	75.2	80.5	86.2	66.8	40.6	19.2	21.3	23.3	19.1	7.3
89°	58.1	60.7	66.2	67.5	45.1	26.4	8.9	12.6	14.0	11.6	5.3



REPORT NUMBER: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2	2909.2
1°	2906.7	2906.4	2907.8	2908.4	2909.7	2910.8	2911.6	2911.3	2912.3	2912.8	2913.3
2°	2907.0	2906.2	2908.6	2910.2	2912.4	2914.4	2916.3	2917.1	2919.2	2920.3	2921.5
3°	2909.5	2909.2	2912.0	2914.6	2917.7	2920.3	2923.7	2925.3	2928.3	2930.2	2931.7
4°	2915.6	2917.0	2919.8	2922.1	2926.0	2929.9	2934.6	2937.1	2940.7	2942.6	2944.2
5°	2928.2	2929.7	2932.8	2935.0	2937.8	2942.5	2947.3	2950.7	2954.8	2957.8	2959.7
6°	2943.2	2945.1	2949.5	2951.8	2954.6	2956.9	2963.0	2966.9	2972.1	2975.7	2977.7
7°	2961.6	2963.2	2968.0	2971.0	2973.9	2975.4	2982.1	2986.8	2992.0	2996.3	2998.5
8°	2980.9	2982.8	2988.5	2993.5	2996.4	2997.7	3003.7	3008.0	3014.4	3019.2	3020.6
9°	3002.1	3004.4	3010.3	3017.0	3021.5	3023.1	3025.9	3030.5	3038.2	3044.4	3045.9
10°	3024.2	3027.6	3035.1	3043.6	3049.3	3050.0	3051.3	3055.8	3064.0	3071.4	3072.3
11°	3049.0	3051.9	3061.2	3073.0	3078.6	3079.5	3078.9	3084.5	3094.1	3101.7	3100.8
12°	3073.4	3076.9	3087.1	3102.9	3110.5	3110.8	3108.6	3114.5	3124.7	3132.8	3131.6
13°	3099.9	3102.6	3114.4	3133.4	3144.6	3144.4	3139.5	3146.2	3157.8	3165.5	3164.2
14°	3125.5	3126.8	3142.6	3163.8	3180.4	3178.8	3171.6	3178.7	3192.2	3201.3	3199.0
15°	3142.3	3094.3	3160.3	3196.1	3215.2	3215.4	3206.9	3211.9	3227.5	3238.8	3232.6
16°	3078.9	3036.1	3099.7	3227.0	3249.3	3253.3	3242.4	3247.4	3263.0	3275.8	3268.5
17°	3039.1	3040.0	3062.9	3224.8	3285.1	3291.7	3279.6	3284.2	3299.8	3313.2	3304.1
18°	3064.6	3066.7	3087.5	3173.7	3321.3	3329.1	3313.3	3321.2	3338.3	3350.4	3340.5
19°	3090.4	3094.1	3115.2	3152.1	3356.5	3357.8	3338.8	3348.9	3377.9	3390.0	3376.9
20°	3118.6	3123.4	3144.3	3180.4	3387.3	3386.8	3368.6	3378.8	3418.2	3430.2	3414.7
21°	3147.9	3152.8	3174.9	3212.4	3359.8	3417.9	3409.4	3412.5	3449.6	3471.9	3452.5
22°	3179.3	3184.5	3207.5	3245.1	3323.3	3458.1	3451.6	3453.4	3485.9	3512.5	3491.5
23°	3210.4	3217.2	3242.2	3279.1	3320.1	3499.8	3492.9	3497.7	3522.3	3554.4	3532.2
24°	3243.7	3251.2	3277.2	3314.3	3355.4	3533.6	3526.5	3541.1	3565.0	3596.1	3572.2
25°	3275.8	3282.9	3311.6	3350.2	3392.4	3564.0	3562.7	3578.8	3610.0	3631.8	3613.8
26°	3308.1	3316.7	3345.4	3388.6	3420.9	3595.7	3598.7	3616.3	3655.3	3667.1	3656.5
27°	3340.4	3349.5	3379.8	3426.0	3448.4	3632.9	3640.9	3657.9	3699.9	3707.1	3699.9
28°	3369.4	3325.3	3411.0	3463.7	3478.3	3658.6	3685.6	3701.1	3739.0	3745.9	3746.2
29°	3298.6	3194.0	3354.5	3500.7	3518.3	3653.0	3730.6	3749.8	3776.2	3790.3	3793.9
30°	3177.8	3153.9	3230.6	3530.3	3559.1	3647.0	3776.8	3799.5	3818.4	3835.4	3842.9
31°	3158.8	3188.7	3207.0	3550.8	3600.0	3649.9	3820.6	3849.1	3856.2	3880.6	3891.4
32°	3190.8	3225.7	3239.5	3448.3	3640.5	3668.8	3855.1	3900.1	3897.6	3926.7	3939.7
33°	3223.1	3263.8	3273.0	3359.0	3678.4	3700.5	3878.8	3949.9	3943.6	3971.3	3985.3
34°	3256.0	3300.7	3305.9	3357.9	3708.5	3734.6	3905.2	3999.8	3988.6	4013.6	4029.5
35°	3288.2	3341.1	3339.4	3393.7	3739.0	3768.4	3942.6	4034.6	4035.4	4056.2	4076.4
36°	3322.5	3378.9	3375.7	3428.5	3767.4	3803.7	3980.7	4070.4	4083.7	4101.2	4126.8
37°	3353.3	3416.4	3410.4	3453.9	3778.3	3841.5	4020.7	4105.6	4131.5	4148.9	4174.3
38°	3386.5	3448.4	3444.6	3476.6	3664.9	3866.9	4063.2	4150.9	4180.6	4193.7	4222.7
39°	3414.1	3290.4	3475.5	3504.2	3579.8	3894.2	4105.2	4194.5	4229.7	4242.4	4274.5
40°	3251.0	3161.8	3329.7	3540.5	3603.8	3934.3	4137.1	4237.8	4269.0	4295.1	4328.6
41°	3130.4	3182.6	3203.2	3576.8	3642.2	3977.7	4168.4	4280.6	4305.2	4349.8	4383.3
42°	3151.7	3210.8	3215.6	3610.0	3681.9	4024.1	4190.0	4324.0	4345.3	4403.0	4439.0
43°	3185.0	3239.8	3249.8	3535.5	3722.1	4070.6	4223.6	4365.5	4386.9	4457.4	4493.7
44°	3220.6	3267.7	3286.4	3397.4	3759.0	4116.7	4272.8	4399.6	4437.0	4511.5	4550.4

REPORT NUMBER: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3256.0	3294.3	3321.0	3376.9	3784.9	4152.3	4326.0	4433.7	4490.6	4567.5	4603.0
46°	3291.6	3314.1	3357.3	3408.0	3805.0	4162.7	4378.6	4460.4	4547.6	4626.1	4656.7
47°	3321.8	3142.6	3389.0	3430.3	3834.7	4180.4	4432.0	4479.9	4603.3	4683.9	4711.1
48°	3169.7	2957.3	3259.0	3449.2	3864.6	4128.0	4467.8	4508.8	4658.0	4741.6	4768.3
49°	2978.3	2970.8	3061.2	3475.0	3798.3	4059.0	4467.2	4548.8	4713.3	4795.2	4827.4
50°	3000.9	2996.4	3068.5	3506.3	3656.7	4011.9	4466.8	4591.8	4765.9	4843.2	4889.7
51°	3037.1	3022.7	3102.5	3440.0	3634.8	4044.9	4457.8	4631.8	4811.5	4889.3	4951.0
52°	3073.3	3048.6	3135.3	3237.3	3674.1	4070.7	4459.1	4672.4	4851.9	4939.6	5011.7
53°	3105.5	3066.7	3166.0	3216.9	3710.1	4085.5	4486.4	4709.4	4893.5	4984.6	5075.4
54°	3128.0	2812.6	3191.1	3250.9	3732.3	4102.0	4516.6	4743.7	4926.5	5036.1	5143.6
55°	2894.6	2689.3	2954.0	3287.2	3751.6	4133.9	4538.5	4765.6	4944.5	5092.1	5215.0
56°	2760.8	2707.5	2816.1	3322.8	3755.6	4165.2	4538.3	4769.9	4969.0	5148.3	5288.4
57°	2767.7	2718.3	2820.6	3353.3	3636.7	4172.4	4539.1	4768.1	4989.0	5201.6	5361.1
58°	2778.7	2680.6	2831.9	3166.0	3498.1	4182.8	4540.7	4767.0	5010.9	5251.5	5435.6
59°	2693.7	2325.6	2761.7	3043.2	3529.7	4107.4	4529.9	4771.5	5031.1	5300.6	5509.6
60°	2397.8	2288.8	2450.8	3054.9	3569.0	3983.3	4496.2	4773.5	5046.9	5348.6	5584.7
61°	2390.3	2287.4	2438.9	3071.6	3610.4	3974.8	4478.5	4766.3	5061.2	5397.1	5660.6
62°	2378.5	2036.4	2425.2	2938.7	3647.8	3977.9	4469.7	4758.6	5070.5	5440.3	5736.8
63°	2131.5	1845.8	2163.1	2752.5	3535.0	3976.1	4429.1	4739.7	5069.4	5475.8	5813.9
64°	1963.9	1688.0	1993.8	2732.7	3415.7	3961.8	4394.0	4699.5	5061.8	5504.9	5887.4
65°	1947.6	1530.1	1978.1	2697.2	3395.7	3908.8	4326.2	4653.4	5034.3	5529.7	5952.5
66°	1735.0	1373.8	1757.0	2426.2	3389.7	3753.2	4256.0	4602.8	4992.8	5550.6	6006.4
67°	1522.5	1324.7	1537.4	2404.4	3206.1	3710.2	4153.4	4518.7	4943.6	5553.3	6050.4
68°	1337.6	879.2	1363.4	2269.6	3142.9	3720.3	4029.5	4330.0	4855.5	5541.8	6084.4
69°	1088.7	717.8	1112.0	2050.8	3089.4	3714.9	3883.7	4012.0	4691.0	5523.0	6110.1
70°	834.6	489.2	849.4	1867.2	2904.8	3681.1	3659.6	3589.1	4432.3	5476.3	6106.7
71°	588.6	260.7	582.2	1667.9	2837.1	3510.7	3350.4	3215.7	4068.0	5381.7	6070.7
72°	288.5	35.0	248.2	1468.4	2686.9	3324.5	2999.4	2882.4	3680.7	5228.1	6008.4
73°	239.9	0.5	208.1	1267.3	2557.4	3125.4	2665.7	2551.0	3304.7	4993.9	5889.6
74°	194.7	0.4	168.1	1009.9	2320.2	2897.1	2357.8	2132.7	2936.3	4684.5	5702.3
75°	149.5	0.4	128.1	842.6	2100.6	2600.4	1904.8	1539.6	2476.6	4302.8	5403.2
76°	105.7	0.5	91.0	710.8	1782.0	2301.7	1451.7	900.9	1809.3	3858.3	4968.7
77°	59.4	0.5	53.2	570.4	1463.4	1901.4	1002.1	423.8	1047.2	3344.5	4333.1
78°	42.3	0.6	38.1	415.4	1144.6	1501.0	709.2	324.7	764.8	2667.4	3499.9
79°	25.2	0.7	22.9	295.6	821.2	1100.0	416.2	227.8	484.0	1811.8	2560.9
80°	8.1	0.9	7.9	175.7	497.5	600.5	127.8	130.9	203.1	1033.0	1585.1
81°	6.9	1.0	6.7	58.5	293.2	429.6	104.7	109.7	162.6	754.9	792.9
82°	6.0	1.1	5.8	33.1	94.2	258.8	88.2	92.4	137.8	487.8	597.1
83°	5.3	1.3	5.1	25.7	62.6	91.0	73.3	77.2	116.6	220.7	412.4
84°	4.7	1.5	4.5	21.2	51.3	73.2	60.1	63.7	98.0	180.7	227.8
85°	4.2	1.6	4.1	16.7	42.9	56.3	48.5	50.2	81.1	141.8	191.2
86°	3.7	1.8	3.7	12.3	35.2	41.4	38.1	38.0	67.0	108.9	159.6
87°	3.4	2.0	3.4	9.3	26.4	31.2	28.4	26.3	53.0	84.6	123.3
88°	3.2	2.2	3.2	6.9	17.6	22.2	20.0	15.9	39.0	64.3	85.9
89°	3.0	2.4	3.0	4.8	8.8	13.1	11.7	7.2	25.3	44.1	67.3



REPORT NUMBER: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2909.2	2909.2	2909.2
1°	2914.2	2914.4	2913.4
2°	2922.1	2922.8	2921.1
3°	2932.9	2933.5	2931.1
4°	2946.4	2946.6	2944.1
5°	2961.1	2961.4	2959.0
6°	2978.2	2978.4	2975.6
7°	2997.7	2996.3	2992.6
8°	3018.7	3016.3	3011.7
9°	3042.7	3038.6	3033.5
10°	3068.7	3063.2	3056.8
11°	3095.9	3089.3	3081.9
12°	3125.0	3116.2	3106.8
13°	3155.5	3142.7	3132.3
14°	3187.3	3170.7	3158.6
15°	3218.1	3200.0	3186.3
16°	3249.6	3230.1	3213.9
17°	3282.5	3260.8	3244.1
18°	3315.8	3293.3	3275.8
19°	3350.6	3326.1	3308.3
20°	3385.7	3360.3	3342.6
21°	3421.9	3396.3	3379.5
22°	3460.4	3433.8	3417.7
23°	3499.7	3473.1	3458.0
24°	3538.5	3512.6	3500.1
25°	3580.0	3554.8	3542.9
26°	3623.0	3598.2	3588.1
27°	3667.6	3642.7	3634.9
28°	3713.2	3687.0	3683.0
29°	3761.0	3732.9	3732.9
30°	3808.5	3780.2	3784.1
31°	3857.8	3828.2	3835.5
32°	3906.5	3876.1	3886.4
33°	3956.3	3925.6	3938.1
34°	4007.2	3974.2	3990.3
35°	4058.8	4022.9	4044.3
36°	4111.4	4071.8	4098.4
37°	4164.1	4122.5	4152.3
38°	4217.6	4174.3	4206.6
39°	4271.5	4226.9	4259.9
40°	4327.5	4281.6	4314.0
41°	4382.2	4338.1	4366.0
42°	4437.5	4395.7	4420.5
43°	4494.5	4453.3	4472.2
44°	4552.6	4513.3	4523.4

REPORT NUMBER: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	4611.8	4577.0	4576.6
46°	4671.3	4640.1	4629.6
47°	4732.7	4705.8	4682.5
48°	4796.2	4772.8	4738.1
49°	4861.5	4843.8	4794.2
50°	4927.4	4913.3	4852.2
51°	4992.9	4984.8	4910.6
52°	5058.7	5055.9	4969.8
53°	5125.8	5127.7	5030.5
54°	5192.6	5197.2	5089.3
55°	5263.0	5265.2	5147.9
56°	5336.4	5329.6	5201.3
57°	5411.3	5389.2	5252.4
58°	5482.6	5443.7	5301.2
59°	5551.6	5494.1	5344.5
60°	5623.1	5538.2	5382.5
61°	5693.8	5576.5	5413.6
62°	5762.9	5610.3	5438.0
63°	5833.4	5640.4	5459.0
64°	5902.9	5668.6	5477.7
65°	5966.5	5693.1	5495.2
66°	6022.6	5716.2	5505.3
67°	6067.2	5730.6	5503.9
68°	6098.0	5726.7	5452.5
69°	6108.8	5687.2	5290.2
70°	6102.4	5574.8	4953.5
71°	6068.8	5323.9	4424.6
72°	5995.6	4882.8	3864.2
73°	5850.4	4293.1	3272.9
74°	5562.0	3626.8	2586.7
75°	5087.7	2920.8	1726.6
76°	4460.0	2130.4	941.3
77°	3762.5	1232.9	701.6
78°	2899.1	907.3	469.8
79°	1882.9	586.6	238.1
80°	1016.8	266.0	211.2
81°	743.3	223.9	188.0
82°	491.5	196.6	167.1
83°	239.7	171.8	148.0
84°	199.8	149.1	129.8
85°	162.6	128.4	112.3
86°	132.5	109.7	95.7
87°	106.4	92.3	79.9
88°	81.9	77.0	69.0
89°	67.3	61.8	58.1



REPORT NUMBER: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-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: P1436758

CATALOG NUMBER: XAS180-SFPM (5000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)