

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: P1436734

Luminaire Tested: XAS180-SFPM (4000K-144W-T5-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436734
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA ()
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 3/25/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: LUMARK
Catalog Number: XAS180-SFPM (4000K-144W-T5-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 5 WITH HOUSE SIDE SHIELD
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 23809 (1 lamp)
Luminaire Lumens: 19464.1 lumens
Efficiency: 81.8%
Efficacy: 137.7 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

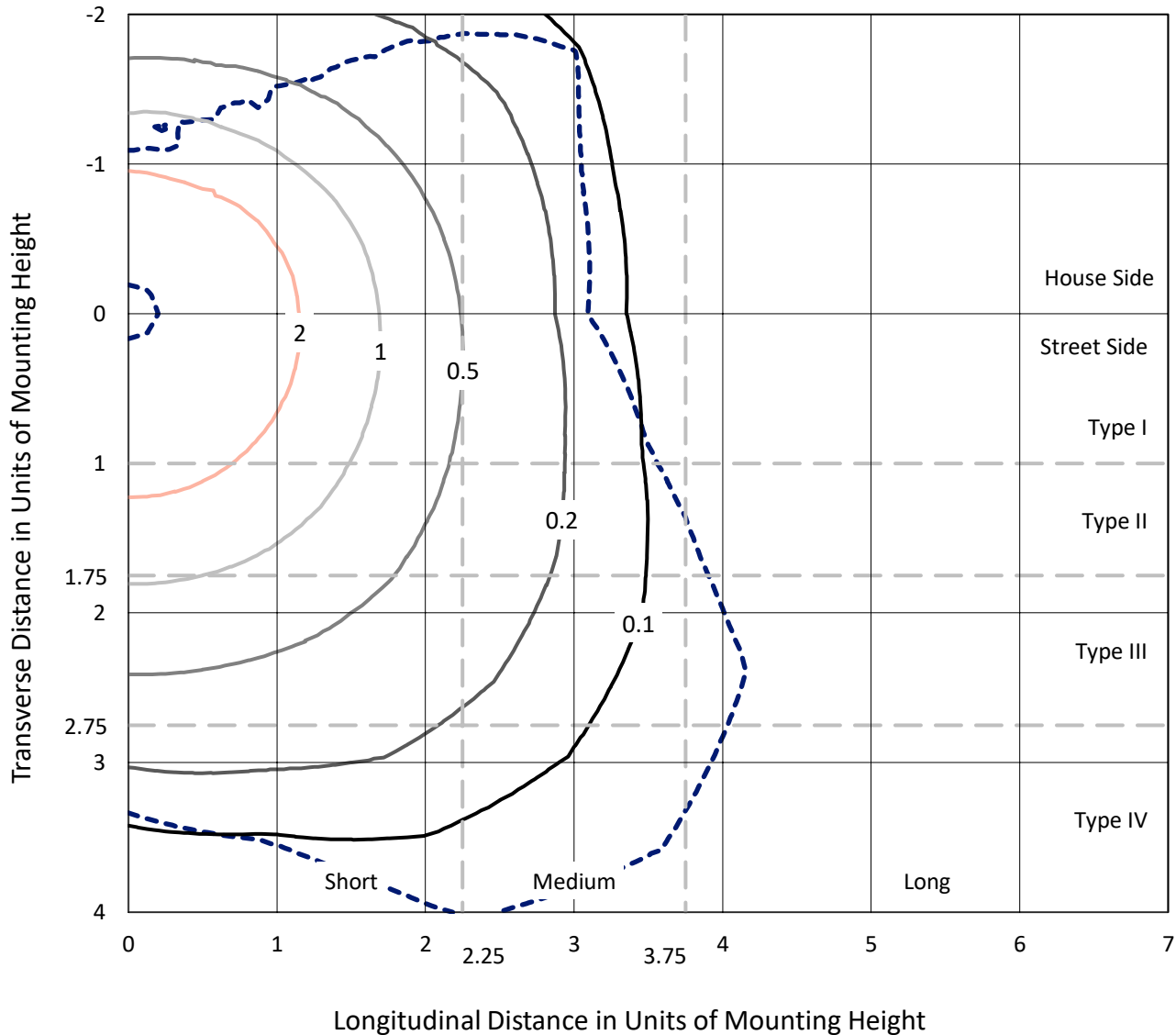
Input Watts (W): 141.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

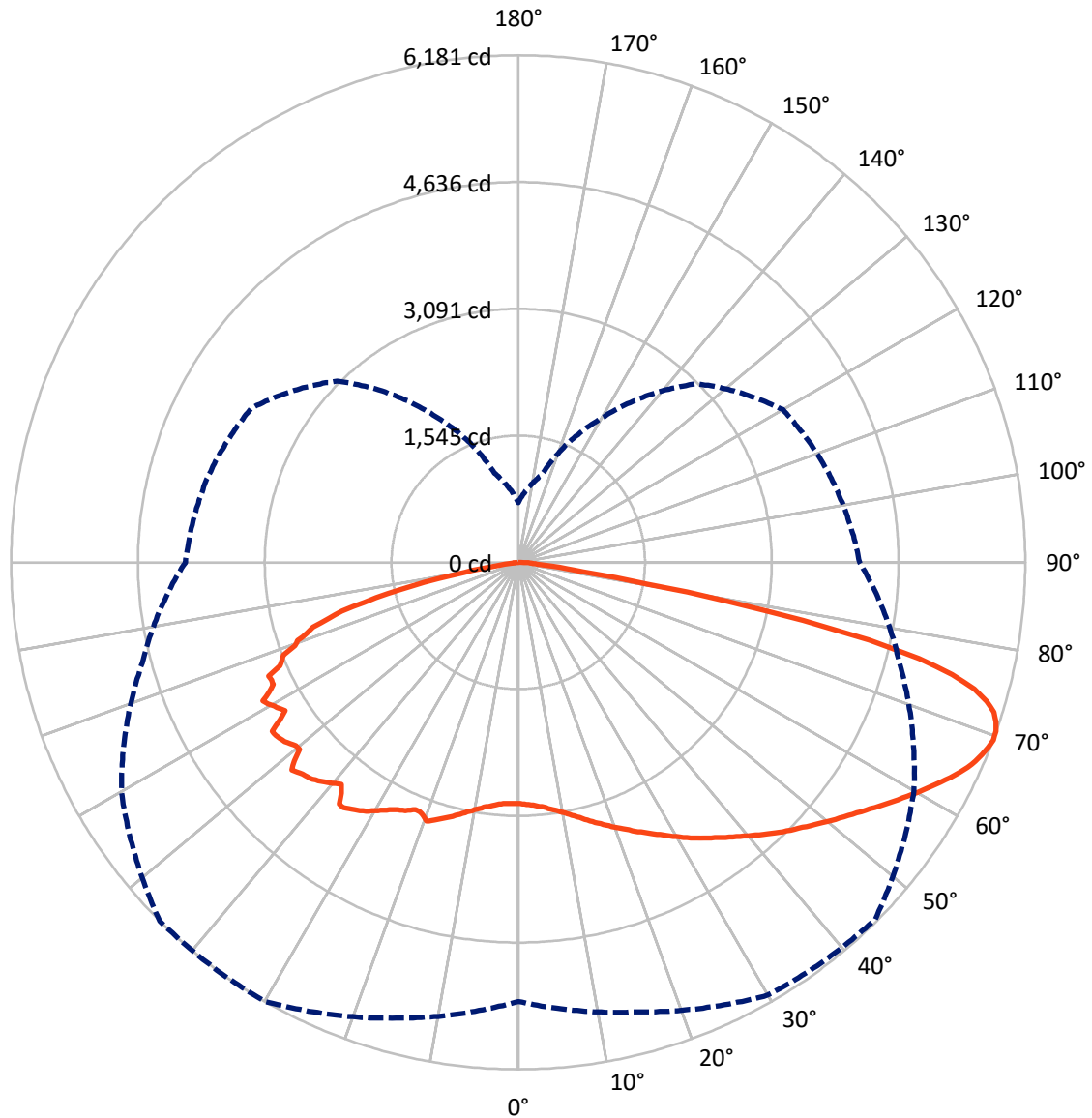
× Max cd
 - - - 1/2 Max cd



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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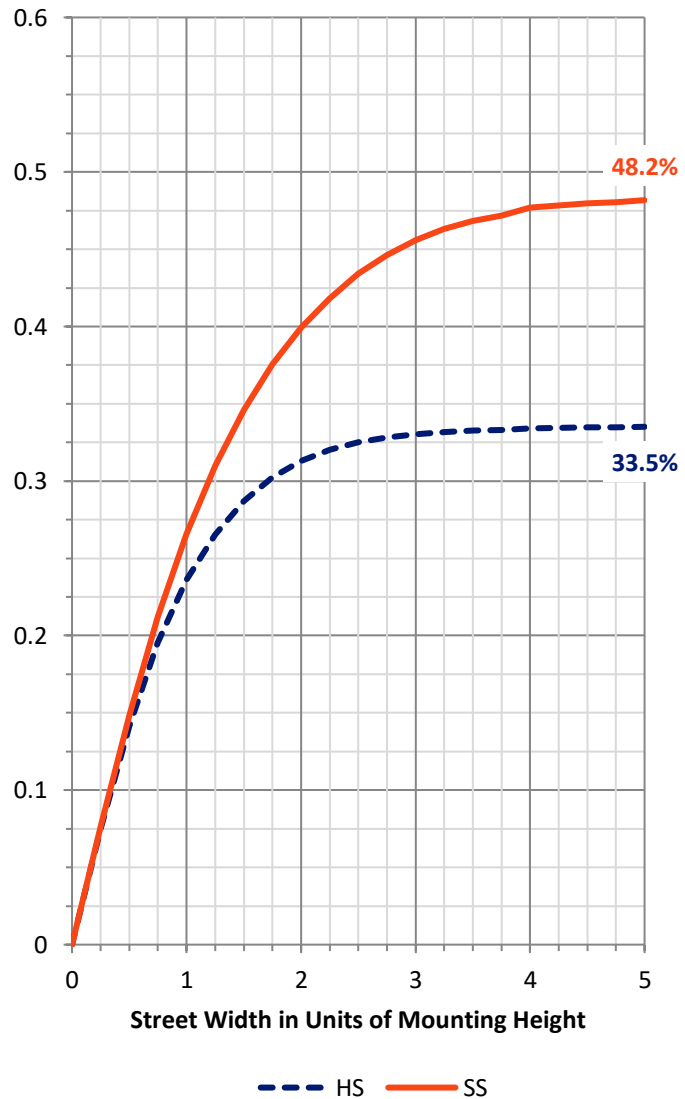
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7993.7	0.0	7993.7
	% Lamp	33.6	0.0	33.6
Street Side	Lumens	11470.4	0.0	11470.4
	% Lamp	48.2	0.0	48.2
Total	Lumens	19464.1	0.0	19464.1
	% Lamp	81.8	0.0	81.8

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	287.4	1.5	1.2
10°-20°	914.7	4.7	3.8
20°-30°	1630.5	8.4	6.8
30°-40°	2414.1	12.4	10.1
40°-50°	3220.9	16.5	13.5
50°-60°	3950.2	20.3	16.6
60°-70°	4302.9	22.1	18.1
70°-80°	2595.7	13.3	10.9
80°-90°	147.6	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°	19464.1	100.0	81.8
0°-180°	19464.1	100.0	81.8

Coefficient of Utilization



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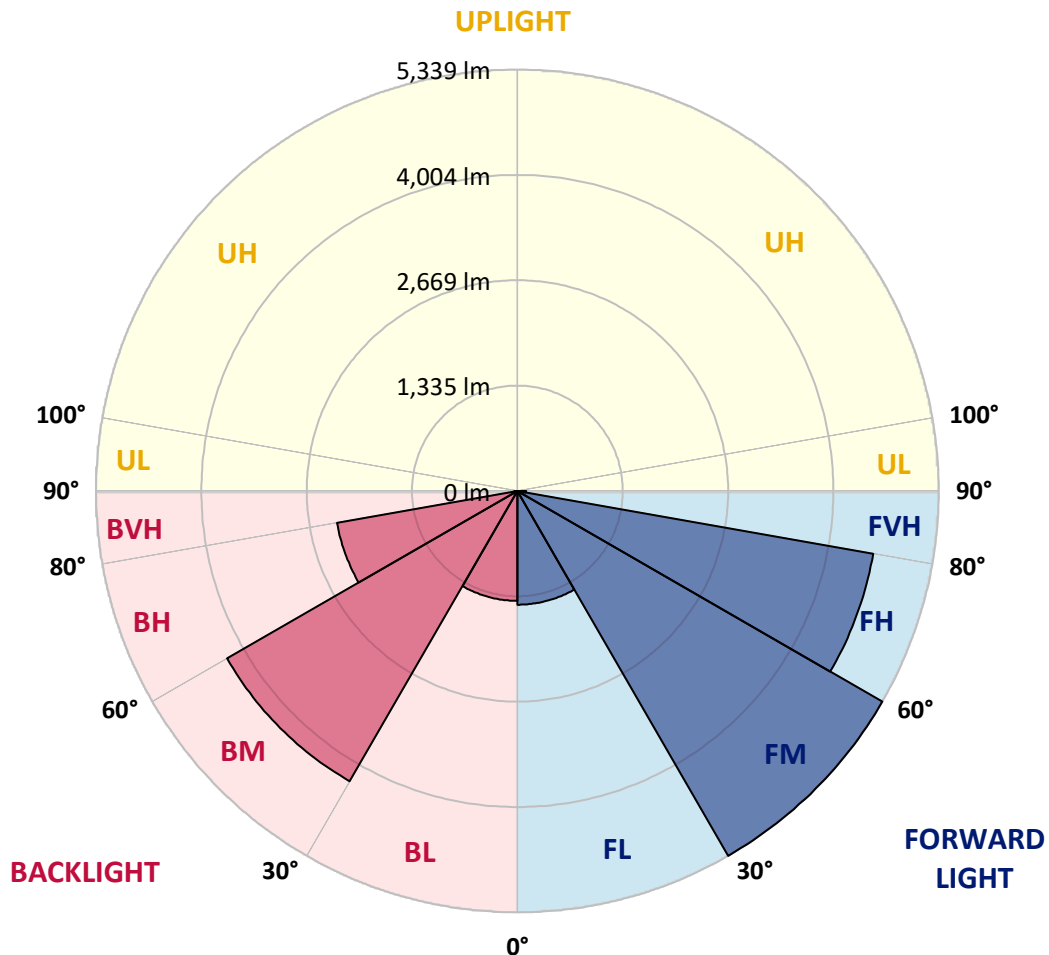
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1441.4	6.1			
FM (30°-60°)	5338.5	22.4			
FH (60°-80°)	4578.2	19.2			G2/5000
FVH (80°-90°)	112.2	0.5			G2/225
BL (0°-30°)	1391.3	5.8	B3/2500		
BM (30°-60°)	4246.6	17.8	B3/5000		
BH (60°-80°)	2320.5	9.7	B3/2500		G3/2500
BVH (80°-90°)	35.3	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	4344.9	18.2			

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°	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1
1°	2947.4	2947.4	2947.1	2946.2	2945.5	2943.9	2942.0	2941.2	2940.3	2940.1	2940.1
2°	2955.1	2954.2	2953.5	2951.5	2949.5	2946.3	2943.4	2941.7	2940.3	2939.5	2940.1
3°	2965.3	2963.7	2961.8	2958.6	2956.4	2952.4	2948.6	2946.1	2943.4	2942.1	2942.3
4°	2978.4	2976.1	2973.3	2969.4	2966.1	2961.3	2956.5	2953.3	2949.7	2948.0	2947.9
5°	2993.6	2990.4	2987.4	2982.4	2977.6	2972.0	2966.3	2962.3	2959.1	2957.0	2958.9
6°	3010.3	3006.3	3003.5	2998.4	2992.0	2984.3	2978.2	2973.1	2969.5	2971.4	2973.9
7°	3027.5	3024.4	3021.7	3016.2	3009.2	3000.2	2992.7	2986.7	2982.4	2987.7	2991.4
8°	3046.8	3043.7	3041.0	3035.9	3028.0	3018.3	3010.5	3003.9	3000.6	3006.1	3011.4
9°	3068.8	3065.4	3061.8	3057.1	3049.4	3038.3	3029.2	3022.7	3022.6	3026.8	3032.6
10°	3092.5	3088.9	3086.2	3080.9	3073.7	3060.3	3050.5	3042.9	3045.7	3051.3	3055.7
11°	3117.8	3113.4	3112.0	3107.3	3099.1	3085.2	3073.7	3066.3	3070.9	3078.5	3081.6
12°	3143.1	3138.2	3138.4	3134.8	3125.2	3111.3	3097.9	3091.2	3097.3	3105.9	3108.3
13°	3168.8	3163.6	3166.1	3164.7	3153.7	3138.6	3123.4	3116.8	3126.2	3134.6	3136.8
14°	3195.5	3189.6	3193.4	3194.2	3184.1	3166.7	3149.8	3142.9	3154.8	3165.6	3165.5
15°	3223.5	3218.1	3222.9	3225.5	3214.3	3195.6	3178.1	3170.7	3184.7	3195.9	3193.9
16°	3251.4	3247.9	3252.8	3256.8	3245.7	3226.3	3207.6	3199.9	3216.3	3226.4	3222.9
17°	3281.9	3278.3	3283.8	3288.8	3278.7	3257.5	3237.4	3230.0	3248.8	3256.4	3214.7
18°	3314.0	3309.2	3316.2	3320.8	3312.1	3289.1	3264.9	3254.1	3281.3	3287.6	3162.1
19°	3346.8	3341.8	3349.5	3354.0	3346.3	3323.2	3284.2	3277.3	3304.4	3318.8	3135.6
20°	3381.6	3376.2	3383.1	3387.6	3380.9	3352.0	3310.7	3302.5	3328.0	3345.8	3162.0
21°	3418.9	3412.2	3417.9	3422.2	3417.4	3377.0	3342.3	3339.5	3353.8	3298.9	3190.5
22°	3457.5	3450.2	3454.7	3459.0	3455.3	3408.6	3378.8	3375.8	3388.8	3268.3	3220.4
23°	3498.3	3490.4	3491.9	3495.9	3495.0	3441.6	3417.1	3406.4	3421.3	3263.0	3251.9
24°	3540.9	3531.9	3530.7	3533.9	3526.4	3481.0	3450.3	3436.4	3445.6	3294.0	3284.5
25°	3584.2	3574.2	3570.4	3574.6	3558.2	3521.8	3481.6	3470.1	3474.9	3324.3	3316.8
26°	3630.0	3618.0	3611.2	3616.2	3596.6	3563.1	3519.3	3507.9	3506.8	3345.9	3351.2
27°	3677.3	3662.2	3653.9	3657.6	3630.1	3598.9	3555.1	3549.6	3543.6	3370.9	3384.9
28°	3726.0	3708.3	3697.3	3701.6	3668.7	3632.2	3598.9	3591.0	3563.0	3400.3	3418.4
29°	3776.5	3753.9	3742.0	3747.2	3710.4	3669.6	3644.4	3633.8	3540.6	3438.4	3452.5
30°	3828.2	3801.1	3788.9	3793.8	3753.6	3707.6	3692.4	3676.8	3542.6	3477.5	3480.9
31°	3880.2	3847.7	3835.8	3839.6	3797.8	3743.9	3741.4	3718.2	3532.3	3517.4	3496.3
32°	3931.7	3894.6	3883.6	3879.9	3841.9	3788.5	3789.5	3746.6	3561.6	3555.6	3371.4
33°	3984.0	3942.8	3932.0	3920.6	3881.3	3833.0	3838.3	3768.1	3590.5	3587.3	3278.7
34°	4036.8	3990.8	3981.9	3962.5	3918.9	3876.6	3879.1	3791.5	3621.2	3614.6	3292.4
35°	4091.4	4040.2	4032.7	4009.2	3958.9	3920.3	3907.8	3826.6	3655.0	3641.8	3326.8
36°	4146.2	4090.2	4083.7	4053.7	4003.1	3965.2	3940.0	3862.5	3692.5	3672.1	3355.9
37°	4200.7	4139.5	4136.1	4099.7	4046.6	4008.9	3975.0	3899.3	3726.9	3666.4	3379.9
38°	4255.6	4190.6	4188.7	4148.5	4089.5	4055.5	4017.1	3937.3	3750.0	3547.4	3400.8
39°	4309.6	4242.9	4239.6	4199.7	4134.3	4100.1	4062.8	3969.0	3777.7	3461.5	3431.1
40°	4364.4	4296.5	4292.2	4251.6	4183.1	4133.0	4108.8	3998.6	3818.9	3495.1	3466.0
41°	4416.9	4353.1	4346.5	4303.3	4234.1	4170.1	4152.2	4029.5	3860.8	3532.1	3500.5
42°	4472.1	4408.2	4400.7	4358.2	4285.1	4206.0	4194.6	4052.4	3903.7	3570.6	3531.2
43°	4524.3	4465.9	4456.6	4412.3	4338.9	4246.4	4229.1	4082.8	3946.0	3610.4	3429.9
44°	4576.2	4526.1	4512.1	4466.5	4390.9	4292.9	4257.4	4131.2	3988.9	3644.2	3299.8



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	4629.9	4586.7	4571.3	4517.1	4446.0	4344.9	4290.9	4180.8	4019.7	3666.4	3297.7
46°	4683.6	4650.4	4631.5	4569.5	4502.7	4399.7	4313.5	4232.3	4026.7	3686.6	3327.4
47°	4737.1	4716.1	4693.6	4623.2	4561.0	4455.3	4337.6	4275.6	4033.1	3716.7	3350.8
48°	4793.3	4783.0	4756.5	4678.0	4617.9	4509.5	4366.2	4292.3	3945.4	3744.0	3370.1
49°	4850.1	4850.6	4820.6	4736.9	4670.7	4566.5	4404.7	4302.0	3877.4	3646.1	3395.8
50°	4908.8	4920.0	4884.9	4798.3	4716.8	4623.0	4446.8	4306.1	3869.1	3508.3	3428.5
51°	4967.9	4990.1	4951.4	4860.9	4767.8	4672.3	4488.6	4298.2	3907.1	3512.6	3336.1
52°	5027.8	5060.9	5016.3	4924.4	4822.0	4718.3	4532.8	4329.8	3937.5	3550.4	3134.6
53°	5089.2	5130.0	5082.1	4987.2	4870.1	4766.2	4575.2	4369.9	3953.0	3586.6	3134.0
54°	5148.7	5197.6	5151.4	5055.2	4924.0	4806.1	4615.1	4409.3	3972.9	3610.9	3170.3
55°	5207.9	5261.6	5221.3	5125.5	4980.9	4832.4	4644.7	4434.4	4014.3	3633.2	3208.0
56°	5262.0	5324.1	5295.8	5199.0	5041.1	4866.3	4661.6	4443.5	4048.8	3637.2	3245.8
57°	5313.6	5383.4	5371.1	5278.4	5102.2	4900.3	4675.0	4459.6	4063.6	3485.1	3277.9
58°	5363.0	5438.5	5446.4	5357.1	5162.2	4935.8	4684.3	4474.7	4086.0	3368.9	3080.7
59°	5406.8	5490.3	5519.7	5435.5	5222.4	4966.8	4699.4	4468.9	3984.8	3409.8	2974.3
60°	5445.2	5536.4	5591.6	5518.7	5279.1	4993.4	4710.9	4440.0	3885.4	3454.5	2988.6
61°	5476.8	5577.7	5663.3	5601.1	5332.9	5017.3	4715.8	4435.5	3901.2	3501.8	3003.5
62°	5501.4	5612.5	5733.0	5685.9	5383.9	5032.4	4714.5	4430.6	3911.3	3543.5	2856.3
63°	5522.6	5643.3	5804.0	5771.0	5433.1	5038.0	4698.6	4393.1	3919.0	3424.2	2690.9
64°	5541.6	5668.4	5869.8	5855.7	5475.6	5036.3	4664.3	4363.0	3910.0	3336.3	2671.2
65°	5559.3	5689.7	5930.4	5934.7	5516.8	5026.5	4627.1	4306.3	3855.0	3331.6	2620.8
66°	5569.6	5709.5	5984.5	6004.5	5552.6	4999.4	4589.6	4244.0	3700.0	3342.8	2374.4
67°	5568.1	5721.6	6030.8	6066.5	5575.2	4962.9	4540.5	4139.5	3691.6	3166.1	2365.2
68°	5516.1	5716.2	6070.2	6117.5	5575.0	4917.0	4408.2	4049.5	3713.2	3115.3	2224.6
69°	5351.9	5672.2	6091.8	6154.8	5569.9	4816.3	4161.4	3951.5	3723.9	3078.2	2029.5
70°	5011.3	5542.0	6096.6	6175.7	5564.1	4633.4	3805.4	3789.8	3710.8	2903.4	1832.2
71°	4476.2	5262.1	6073.9	6171.7	5513.7	4360.7	3440.5	3544.4	3576.5	2853.7	1634.8
72°	3909.3	4805.9	6017.6	6134.5	5415.6	4012.3	3103.4	3237.5	3439.8	2711.7	1438.3
73°	3311.1	4210.7	5891.5	6057.6	5250.9	3658.1	2805.6	2920.8	3287.5	2624.7	1282.7
74°	2616.9	3562.1	5621.1	5913.1	5013.6	3331.1	2461.6	2634.0	3098.1	2408.2	1067.8
75°	1746.7	2857.5	5137.1	5665.6	4706.0	2965.3	1872.4	2337.8	2834.4	2231.1	919.8
76°	952.3	2018.0	4502.9	5275.3	4343.9	2413.3	1283.2	1836.4	2585.2	1934.6	789.7
77°	709.8	1122.2	3825.3	4708.6	3899.3	1590.5	702.6	1335.1	2298.0	1638.0	645.1
78°	475.3	823.2	2993.6	3888.5	3287.2	829.3	511.1	842.1	1832.9	1341.1	471.3
79°	240.9	536.3	1946.6	2932.6	2429.9	598.6	319.6	597.4	1367.8	996.6	333.7
80°	213.7	249.4	1007.1	1905.3	1481.7	384.6	131.9	352.8	908.6	665.8	196.0
81°	190.2	217.5	748.5	968.3	743.3	170.5	112.7	112.0	638.0	464.0	60.5
82°	169.0	191.4	495.3	716.4	487.6	145.0	95.6	94.0	367.3	262.3	31.0
83°	149.8	167.7	242.2	475.5	237.0	122.6	80.2	78.0	100.3	66.9	25.2
84°	131.3	145.8	199.0	234.6	191.3	102.9	65.9	63.8	77.6	50.9	20.9
85°	113.6	125.7	161.2	194.7	151.2	85.5	52.8	51.7	60.5	42.4	16.7
86°	96.8	107.8	131.7	162.6	115.4	70.7	40.7	40.6	44.7	34.7	12.4
87°	80.9	90.9	105.5	127.0	89.5	55.9	30.1	30.4	33.0	27.0	9.7
88°	69.8	76.1	81.4	87.2	67.5	41.1	19.5	21.6	23.6	19.4	7.4
89°	58.8	61.4	66.9	68.3	45.7	26.7	9.0	12.7	14.1	11.7	5.4



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CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1	2943.1
1°	2940.6	2940.3	2941.7	2942.3	2943.6	2944.8	2945.6	2945.2	2946.3	2946.8	2947.3
2°	2940.9	2940.1	2942.5	2944.2	2946.4	2948.3	2950.3	2951.1	2953.3	2954.4	2955.5
3°	2943.4	2943.1	2946.0	2948.6	2951.7	2954.4	2957.8	2959.4	2962.4	2964.4	2965.9
4°	2949.6	2951.0	2953.9	2956.2	2960.1	2964.1	2968.9	2971.4	2975.0	2977.0	2978.5
5°	2962.3	2963.9	2967.0	2969.2	2972.1	2976.8	2981.7	2985.1	2989.3	2992.3	2994.2
6°	2977.5	2979.4	2983.9	2986.3	2989.1	2991.4	2997.6	3001.5	3006.8	3010.4	3012.4
7°	2996.2	2997.8	3002.6	3005.6	3008.6	3010.1	3016.9	3021.7	3026.9	3031.2	3033.4
8°	3015.7	3017.6	3023.4	3028.4	3031.3	3032.6	3038.8	3043.1	3049.5	3054.4	3055.8
9°	3037.1	3039.4	3045.4	3052.2	3056.7	3058.4	3061.2	3065.8	3073.7	3080.0	3081.4
10°	3059.4	3062.9	3070.6	3079.1	3084.9	3085.6	3086.9	3091.4	3099.7	3107.3	3108.2
11°	3084.6	3087.5	3097.0	3108.8	3114.5	3115.4	3114.8	3120.5	3130.1	3137.9	3137.0
12°	3109.2	3112.8	3123.1	3139.1	3146.8	3147.1	3144.9	3150.8	3161.1	3169.4	3168.2
13°	3136.0	3138.8	3150.7	3170.0	3181.2	3181.1	3176.2	3182.9	3194.6	3202.4	3201.1
14°	3161.9	3163.2	3179.3	3200.7	3217.5	3215.9	3208.6	3215.8	3229.5	3238.6	3236.3
15°	3178.9	3130.4	3197.2	3233.4	3252.7	3252.9	3244.3	3249.4	3265.1	3276.5	3270.3
16°	3114.8	3071.5	3135.9	3264.6	3287.2	3291.3	3280.2	3285.3	3301.1	3314.0	3306.6
17°	3074.6	3075.5	3098.7	3262.4	3323.5	3330.1	3317.9	3322.5	3338.3	3351.8	3342.7
18°	3100.3	3102.4	3123.5	3210.7	3360.0	3367.9	3351.9	3359.9	3377.2	3389.5	3379.5
19°	3126.5	3130.1	3151.6	3188.9	3395.6	3396.9	3377.7	3388.0	3417.3	3429.6	3416.2
20°	3155.0	3159.8	3181.0	3217.5	3426.8	3426.3	3407.9	3418.2	3458.1	3470.2	3454.5
21°	3184.6	3189.6	3211.9	3249.9	3399.0	3457.8	3449.2	3452.3	3489.8	3512.4	3492.7
22°	3216.4	3221.6	3244.9	3282.9	3362.0	3498.5	3491.8	3493.7	3526.6	3553.5	3532.2
23°	3247.9	3254.7	3280.0	3317.3	3358.9	3540.6	3533.6	3538.5	3563.4	3595.9	3573.4
24°	3281.5	3289.1	3315.5	3353.0	3394.6	3574.8	3567.6	3582.4	3606.5	3638.1	3613.9
25°	3314.0	3321.2	3350.2	3389.3	3432.0	3605.6	3604.2	3620.5	3652.1	3674.1	3655.9
26°	3346.7	3355.4	3384.4	3428.1	3460.8	3637.7	3640.7	3658.5	3697.9	3709.9	3699.1
27°	3379.4	3388.6	3419.2	3465.9	3488.6	3675.3	3683.4	3700.5	3743.0	3750.3	3743.0
28°	3408.7	3364.1	3450.8	3504.1	3518.8	3701.3	3728.6	3744.3	3782.6	3789.6	3789.9
29°	3337.0	3231.3	3393.7	3541.5	3559.4	3695.6	3774.1	3793.6	3820.3	3834.5	3838.1
30°	3214.9	3190.7	3268.3	3571.5	3600.6	3689.5	3820.9	3843.8	3863.0	3880.1	3887.7
31°	3195.6	3225.9	3244.4	3592.2	3642.0	3692.4	3865.2	3894.0	3901.2	3925.9	3936.8
32°	3228.0	3263.3	3277.3	3488.5	3683.0	3711.6	3900.1	3945.6	3943.1	3972.5	3985.7
33°	3260.7	3301.9	3311.2	3398.2	3721.3	3743.7	3924.0	3996.0	3989.6	4017.6	4031.8
34°	3294.0	3339.2	3344.5	3397.0	3751.8	3778.2	3950.7	4046.5	4035.1	4060.4	4076.5
35°	3326.6	3380.0	3378.4	3433.2	3782.6	3812.4	3988.6	4081.7	4082.5	4103.5	4124.0
36°	3361.2	3418.3	3415.1	3468.5	3811.4	3848.1	4027.1	4117.9	4131.3	4149.1	4174.9
37°	3392.4	3456.3	3450.2	3494.2	3822.3	3886.3	4067.6	4153.5	4179.7	4197.3	4223.0
38°	3426.0	3488.6	3484.8	3517.2	3707.6	3912.0	4110.6	4199.3	4229.3	4242.6	4271.9
39°	3453.9	3328.8	3516.0	3545.1	3621.6	3939.6	4153.1	4243.4	4279.0	4291.9	4324.3
40°	3289.0	3198.7	3368.6	3581.8	3645.9	3980.2	4185.3	4287.3	4318.8	4345.2	4379.1
41°	3166.9	3219.7	3240.6	3618.5	3684.7	4024.1	4217.0	4330.5	4355.5	4400.5	4434.4
42°	3188.5	3248.3	3253.1	3652.1	3724.8	4071.0	4238.9	4374.4	4396.0	4454.4	4490.7
43°	3222.2	3277.6	3287.7	3576.8	3765.5	4118.1	4272.9	4416.4	4438.1	4509.4	4546.2
44°	3258.1	3305.8	3324.8	3437.0	3802.9	4164.7	4322.6	4450.9	4488.8	4564.1	4603.5



REPORT NUMBER: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3294.0	3332.7	3359.8	3416.2	3829.0	4200.7	4376.5	4485.4	4543.0	4620.8	4656.7
46°	3330.0	3352.7	3396.5	3447.8	3849.4	4211.3	4429.7	4512.4	4600.7	4680.1	4711.0
47°	3360.6	3179.3	3428.5	3470.3	3879.5	4229.2	4483.7	4532.2	4657.0	4738.6	4766.0
48°	3206.7	2991.8	3297.1	3489.5	3909.7	4176.2	4519.9	4561.4	4712.3	4796.9	4823.9
49°	3013.0	3005.5	3096.9	3515.6	3842.6	4106.3	4519.3	4601.8	4768.2	4851.1	4883.7
50°	3035.9	3031.4	3104.3	3547.2	3699.4	4058.6	4518.9	4645.4	4821.5	4899.7	4946.7
51°	3072.5	3058.0	3138.6	3480.1	3677.2	4092.1	4509.8	4685.9	4867.6	4946.3	5008.7
52°	3109.1	3084.1	3171.8	3275.1	3717.0	4118.2	4511.1	4726.9	4908.5	4997.2	5070.2
53°	3141.7	3102.5	3203.0	3254.4	3753.3	4133.1	4538.7	4764.3	4950.6	5042.7	5134.6
54°	3164.5	2845.4	3228.3	3288.8	3775.8	4149.9	4569.3	4799.1	4984.0	5094.8	5203.6
55°	2928.3	2720.7	2988.5	3325.5	3795.4	4182.1	4591.4	4821.1	5002.2	5151.5	5275.9
56°	2793.0	2739.1	2848.9	3361.6	3799.4	4213.8	4591.2	4825.6	5027.0	5208.3	5350.1
57°	2800.0	2750.0	2853.5	3392.5	3679.1	4221.1	4592.0	4823.7	5047.2	5262.3	5423.7
58°	2811.1	2711.9	2864.9	3203.0	3538.9	4231.6	4593.6	4822.6	5069.4	5312.7	5499.0
59°	2725.1	2352.7	2793.9	3078.7	3570.9	4155.3	4582.8	4827.2	5089.7	5362.4	5573.9
60°	2425.8	2315.5	2479.4	3090.5	3610.6	4029.8	4548.6	4829.1	5105.8	5411.0	5649.8
61°	2418.2	2314.0	2467.4	3107.4	3652.6	4021.1	4530.7	4821.9	5120.2	5460.0	5726.7
62°	2406.2	2060.1	2453.5	2973.0	3690.3	4024.3	4521.9	4814.1	5129.6	5503.8	5803.8
63°	2156.4	1867.3	2188.3	2784.6	3576.2	4022.5	4480.8	4795.0	5128.6	5539.6	5881.7
64°	1986.8	1707.7	2017.1	2764.6	3455.6	4008.0	4445.3	4754.4	5120.9	5569.1	5956.0
65°	1970.3	1547.9	2001.2	2728.7	3435.3	3954.4	4376.6	4707.7	5093.0	5594.2	6021.9
66°	1755.2	1389.8	1777.5	2454.5	3429.2	3797.0	4305.7	4656.5	5051.1	5615.3	6076.4
67°	1540.3	1340.2	1555.3	2432.5	3243.5	3753.5	4201.9	4571.4	5001.3	5618.0	6121.0
68°	1353.2	889.4	1379.3	2296.0	3179.6	3763.7	4076.5	4380.5	4912.1	5606.4	6155.4
69°	1101.4	726.1	1124.9	2074.7	3125.5	3758.2	3929.0	4058.8	4745.7	5587.5	6181.4
70°	844.3	494.9	859.4	1889.0	2938.7	3724.0	3702.3	3631.0	4484.0	5540.1	6177.9
71°	595.5	263.7	589.0	1687.3	2870.2	3551.6	3389.5	3253.2	4115.5	5444.5	6141.5
72°	291.8	35.4	251.1	1485.6	2718.2	3363.3	3034.4	2916.0	3723.7	5289.1	6078.5
73°	242.7	0.5	210.6	1282.1	2587.2	3161.9	2696.7	2580.8	3343.2	5052.1	5958.3
74°	197.0	0.4	170.1	1021.7	2347.3	2930.9	2385.3	2157.6	2970.6	4739.1	5768.8
75°	151.2	0.4	129.6	852.4	2125.1	2630.7	1927.0	1557.5	2505.5	4353.0	5466.2
76°	107.0	0.5	92.1	719.1	1802.7	2328.6	1468.7	911.4	1830.4	3903.3	5026.6
77°	60.1	0.6	53.8	577.0	1480.4	1923.6	1013.8	428.7	1059.5	3383.5	4383.7
78°	42.8	0.6	38.5	420.3	1158.0	1518.5	717.4	328.5	773.7	2698.5	3540.7
79°	25.5	0.7	23.2	299.0	830.8	1112.8	421.1	230.4	489.6	1833.0	2590.8
80°	8.2	0.9	8.0	177.8	503.3	607.5	129.3	132.4	205.5	1045.1	1603.6
81°	7.0	1.0	6.8	59.2	296.6	434.6	106.0	110.9	164.5	763.7	802.2
82°	6.1	1.2	5.9	33.5	95.3	261.8	89.3	93.4	139.4	493.5	604.0
83°	5.3	1.3	5.2	26.0	63.3	92.1	74.1	78.1	118.0	223.2	417.2
84°	4.7	1.5	4.6	21.5	51.8	74.1	60.8	64.4	99.1	182.8	230.4
85°	4.2	1.6	4.1	16.9	43.4	57.0	49.1	50.8	82.1	143.4	193.4
86°	3.8	1.8	3.8	12.4	35.6	41.9	38.6	38.4	67.8	110.2	161.4
87°	3.5	2.0	3.5	9.4	26.7	31.6	28.7	26.6	53.6	85.6	124.8
88°	3.2	2.2	3.2	7.0	17.8	22.4	20.3	16.1	39.5	65.1	86.9
89°	3.0	2.4	3.0	4.9	8.9	13.3	11.8	7.3	25.6	44.7	68.0



REPORT NUMBER: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2943.1	2943.1	2943.1
1°	2948.2	2948.4	2947.4
2°	2956.2	2956.8	2955.1
3°	2967.1	2967.7	2965.3
4°	2980.7	2981.0	2978.4
5°	2995.6	2995.9	2993.6
6°	3012.9	3013.2	3010.3
7°	3032.6	3031.2	3027.5
8°	3054.0	3051.5	3046.8
9°	3078.2	3074.1	3068.8
10°	3104.5	3098.9	3092.5
11°	3132.0	3125.3	3117.8
12°	3161.4	3152.5	3143.1
13°	3192.3	3179.4	3168.8
14°	3224.5	3207.6	3195.5
15°	3255.6	3237.3	3223.5
16°	3287.5	3267.8	3251.4
17°	3320.8	3298.9	3281.9
18°	3354.4	3331.7	3314.0
19°	3389.7	3364.9	3346.8
20°	3425.1	3399.5	3381.6
21°	3461.9	3435.9	3418.9
22°	3500.8	3473.9	3457.5
23°	3540.6	3513.6	3498.3
24°	3579.8	3553.6	3540.9
25°	3621.7	3596.2	3584.2
26°	3665.2	3640.2	3630.0
27°	3710.4	3685.2	3677.3
28°	3756.5	3730.0	3726.0
29°	3804.8	3776.5	3776.5
30°	3852.9	3824.3	3828.2
31°	3902.8	3872.8	3880.2
32°	3952.1	3921.3	3931.7
33°	4002.5	3971.4	3984.0
34°	4054.0	4020.6	4036.8
35°	4106.1	4069.8	4091.4
36°	4159.4	4119.3	4146.2
37°	4212.6	4170.6	4200.7
38°	4266.8	4222.9	4255.6
39°	4321.3	4276.2	4309.6
40°	4377.9	4331.6	4364.4
41°	4433.4	4388.7	4416.9
42°	4489.3	4447.0	4472.1
43°	4547.0	4505.2	4524.3
44°	4605.7	4565.9	4576.2



REPORT NUMBER: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	4665.6	4630.4	4629.9
46°	4725.7	4694.3	4683.6
47°	4787.9	4760.7	4737.1
48°	4852.1	4828.5	4793.3
49°	4918.2	4900.3	4850.1
50°	4984.9	4970.6	4908.8
51°	5051.2	5043.0	4967.9
52°	5117.7	5114.9	5027.8
53°	5185.5	5187.5	5089.2
54°	5253.1	5257.8	5148.7
55°	5324.4	5326.6	5207.9
56°	5398.6	5391.8	5262.0
57°	5474.4	5452.1	5313.6
58°	5546.6	5507.2	5363.0
59°	5616.4	5558.2	5406.8
60°	5688.7	5602.8	5445.2
61°	5760.2	5641.5	5476.8
62°	5830.1	5675.7	5501.4
63°	5901.4	5706.2	5522.6
64°	5971.7	5734.7	5541.6
65°	6036.1	5759.5	5559.3
66°	6092.9	5782.8	5569.6
67°	6138.0	5797.5	5568.1
68°	6169.1	5793.5	5516.1
69°	6180.0	5753.6	5351.9
70°	6173.6	5639.8	5011.3
71°	6139.6	5386.0	4476.2
72°	6065.6	4939.7	3909.3
73°	5918.7	4343.2	3311.1
74°	5626.9	3669.1	2616.9
75°	5147.0	2954.9	1746.7
76°	4512.1	2155.2	952.3
77°	3806.4	1247.3	709.8
78°	2932.9	917.9	475.3
79°	1904.9	593.5	240.9
80°	1028.6	269.1	213.7
81°	752.0	226.5	190.2
82°	497.2	198.9	169.0
83°	242.5	173.8	149.8
84°	202.1	150.8	131.3
85°	164.5	129.9	113.6
86°	134.0	111.0	96.8
87°	107.6	93.4	80.9
88°	82.9	77.9	69.8
89°	68.1	62.5	58.8



REPORT NUMBER: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436734

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)