

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: P1436709

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

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436709
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)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 5
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

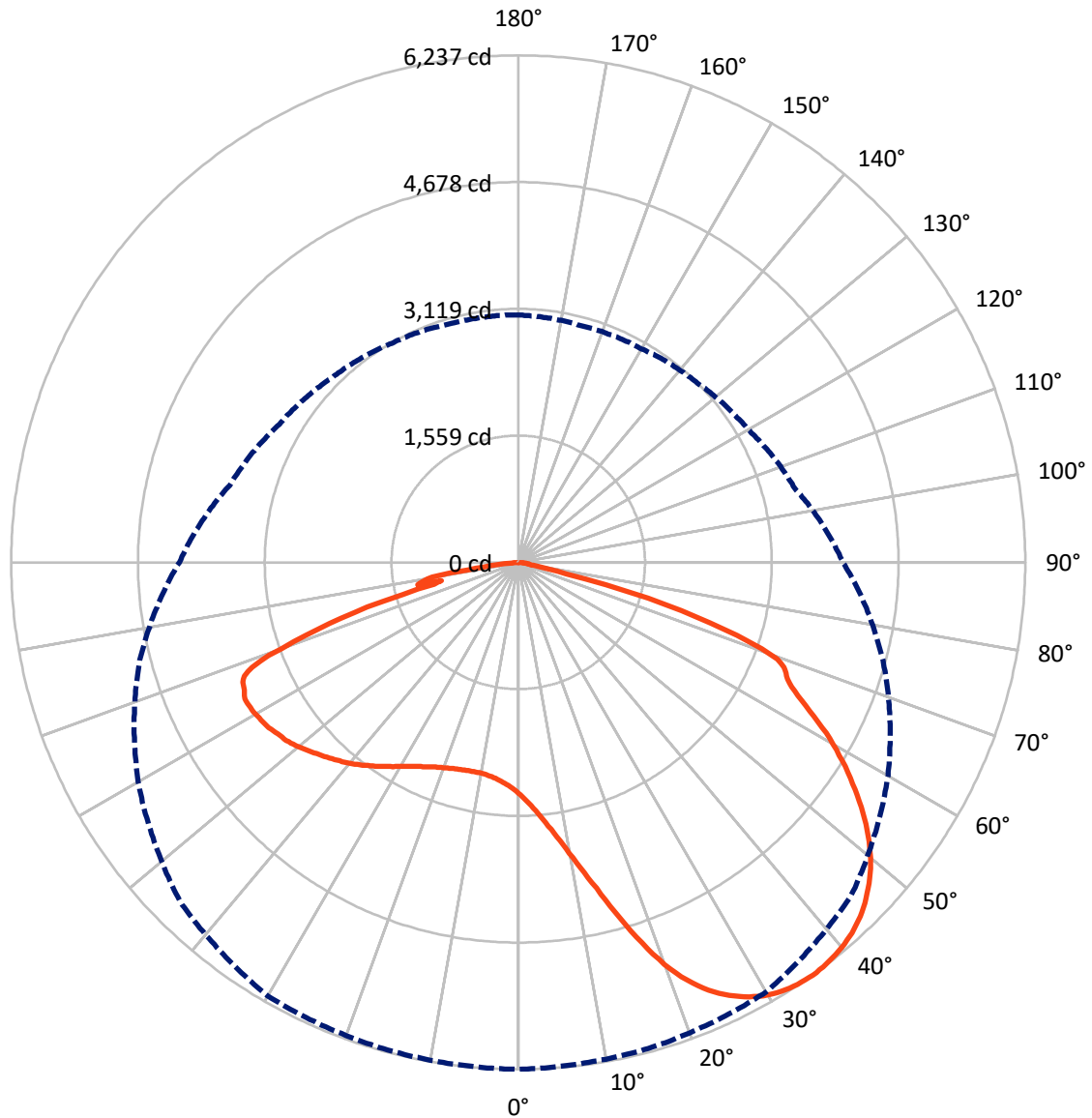
Summary

Lumens per Lamp: 28628 (1 lamp)
Luminaire Lumens: 21405.1 lumens
Efficiency: 74.8%
Efficacy: 146.7 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

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

Luminous Intensity Polar Plot



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

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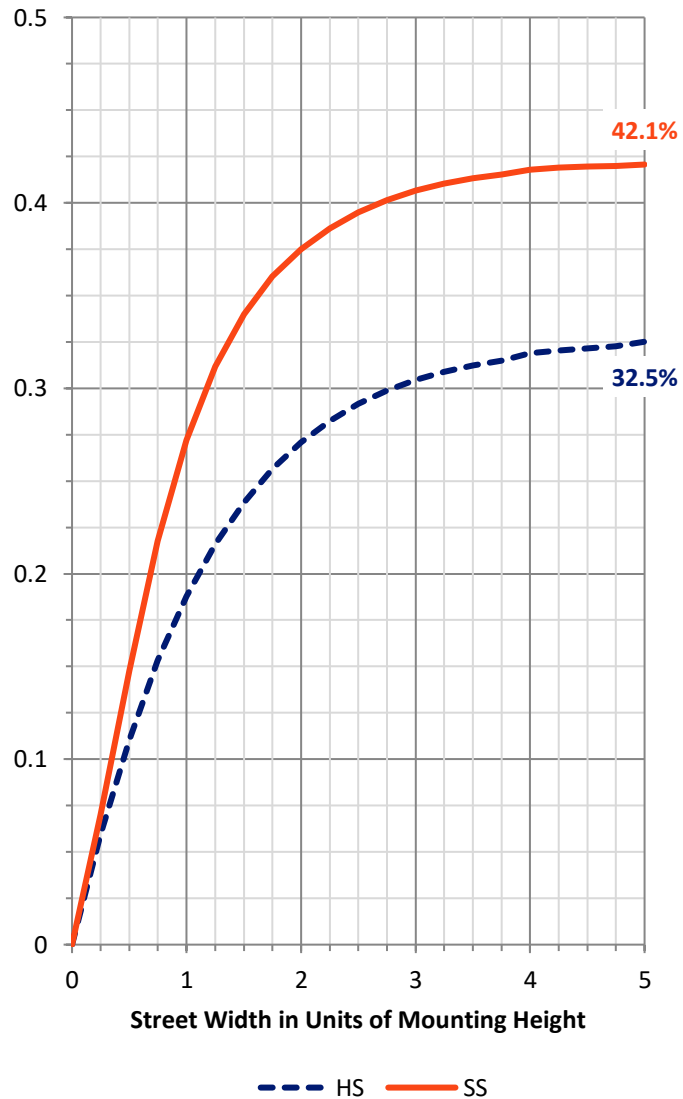
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9370.8	0.0	9370.8
	% Lamp	32.7	0.0	32.7
Street Side	Lumens	12034.3	0.0	12034.3
	% Lamp	42.0	0.0	42.0
Total	Lumens	21405.1	0.0	21405.1
	% Lamp	74.8	0.0	74.8

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	283.6	1.3	1.0
10°-20°	962.4	4.5	3.4
20°-30°	1847.4	8.6	6.5
30°-40°	2782.8	13.0	9.7
40°-50°	3639.3	17.0	12.7
50°-60°	4280.0	20.0	15.0
60°-70°	4465.4	20.9	15.6
70°-80°	2858.9	13.4	10.0
80°-90°	285.3	1.3	1.0
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°	21405.1	100.0	74.8
0°-180°	21405.1	100.0	74.8

Coefficient of Utilization



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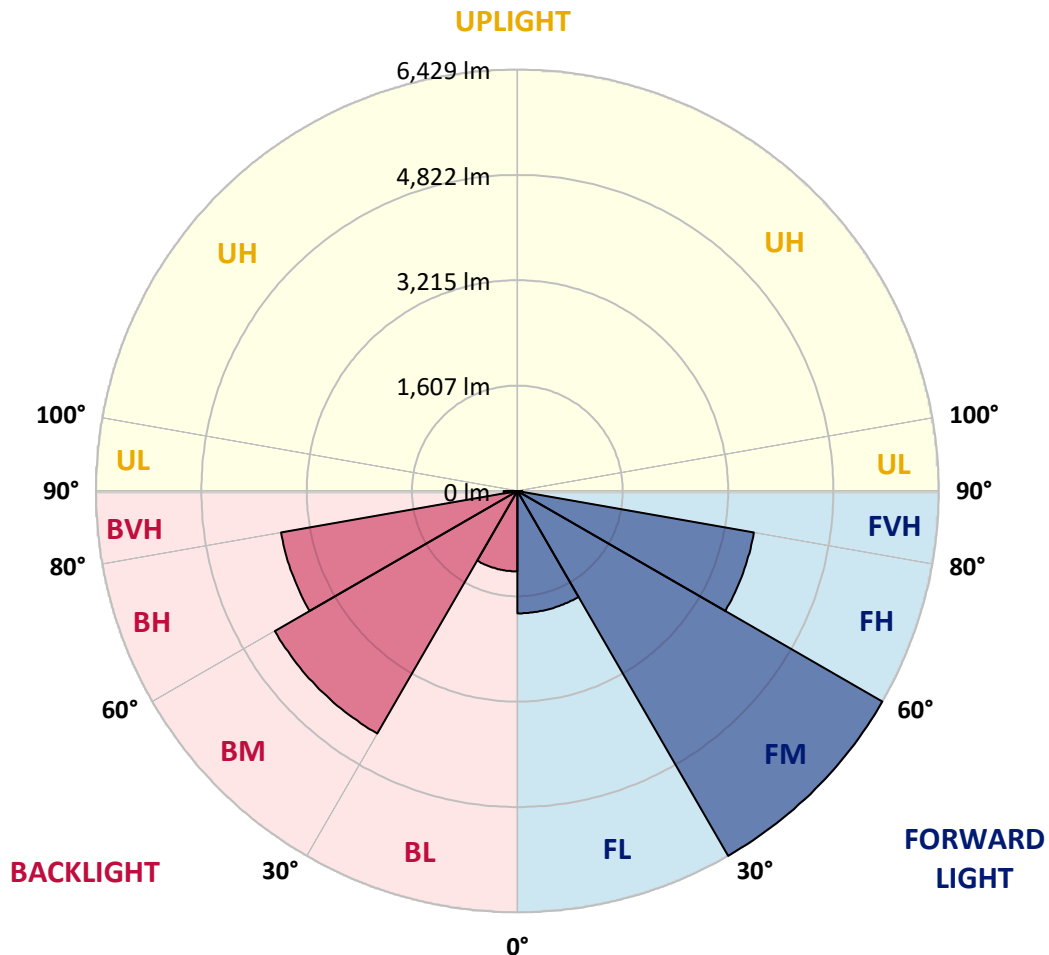
CATALOG NUMBER: XAS180-SFPM (3000K-144W-T5)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1866.7	6.5			
FM (30°-60°)	6429.2	22.5			
FH (60°-80°)	3663.2	12.8			G2/5000
FVH (80°-90°)	75.2	0.3			G1/100
BL (0°-30°)	1226.6	4.3	B3/2500		
BM (30°-60°)	4273.0	14.9	B3/5000		
BH (60°-80°)	3661.1	12.8	B4/5000		G4/5000
BVH (80°-90°)	210.2	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	7222.9	25.2			

BUG Rating: B4-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8
1°	2907.3	2906.5	2902.6	2895.7	2886.0	2875.8	2853.7	2842.1	2832.8	2824.8	2819.8
2°	2963.5	2960.9	2951.0	2934.2	2912.0	2888.8	2854.5	2832.6	2813.2	2797.3	2787.2
3°	3026.8	3021.7	3004.0	2977.0	2943.7	2906.7	2859.6	2826.2	2797.3	2774.5	2758.4
4°	3097.2	3088.6	3063.2	3025.2	2978.3	2927.1	2866.3	2822.5	2784.8	2755.7	2735.0
5°	3176.5	3164.5	3130.0	3078.0	3017.1	2951.1	2875.6	2820.5	2775.0	2739.8	2714.9
6°	3263.9	3247.1	3204.0	3137.2	3059.2	2976.8	2886.6	2821.3	2768.0	2727.4	2698.2
7°	3359.0	3338.3	3284.6	3203.4	3105.2	3005.9	2901.7	2825.1	2763.3	2717.7	2685.6
8°	3463.2	3437.0	3372.3	3272.9	3155.0	3039.2	2919.4	2832.0	2761.8	2709.7	2675.2
9°	3575.5	3546.8	3466.6	3348.3	3211.2	3073.9	2939.2	2840.0	2763.1	2705.2	2667.2
10°	3697.0	3659.9	3568.2	3430.6	3271.5	3112.0	2961.8	2851.3	2766.4	2704.2	2661.9
11°	3829.2	3787.3	3677.8	3519.2	3334.7	3153.2	2986.0	2865.2	2771.8	2705.4	2659.7
12°	3971.6	3919.9	3793.9	3610.6	3399.8	3198.3	3012.6	2879.9	2779.3	2708.2	2661.3
13°	4122.6	4065.2	3920.1	3708.9	3470.2	3246.0	3040.5	2896.3	2788.2	2713.5	2664.6
14°	4289.5	4222.4	4054.8	3813.8	3544.9	3293.7	3068.8	2912.6	2798.0	2720.3	2668.4
15°	4467.3	4391.0	4196.9	3924.2	3621.7	3343.3	3099.2	2930.3	2809.7	2728.5	2674.3
16°	4650.6	4562.6	4345.3	4042.8	3704.4	3396.2	3131.9	2950.5	2821.9	2737.7	2682.0
17°	4833.4	4736.3	4493.1	4164.3	3790.6	3451.1	3165.8	2970.7	2836.2	2747.4	2690.7
18°	5013.6	4906.1	4641.5	4286.7	3880.7	3507.2	3201.2	2993.7	2851.6	2759.5	2698.9
19°	5182.9	5069.1	4787.8	4405.5	3973.8	3565.7	3238.1	3017.6	2867.1	2772.2	2709.3
20°	5338.8	5223.1	4926.5	4523.9	4068.6	3626.8	3277.1	3043.1	2883.9	2785.7	2721.0
21°	5479.3	5365.8	5061.1	4638.9	4162.3	3690.3	3316.5	3069.7	2901.6	2798.6	2733.7
22°	5600.4	5487.9	5187.2	4750.8	4256.8	3755.4	3358.0	3097.2	2921.8	2813.8	2747.9
23°	5710.3	5605.5	5304.4	4858.1	4350.2	3823.6	3400.9	3125.5	2943.9	2830.0	2763.6
24°	5806.7	5706.8	5413.1	4958.8	4441.7	3893.6	3444.5	3155.3	2966.5	2848.4	2780.5
25°	5889.6	5797.4	5513.8	5057.4	4531.3	3964.6	3490.7	3186.1	2989.7	2868.2	2797.7
26°	5961.1	5877.5	5608.1	5149.6	4617.6	4034.8	3537.6	3218.1	3014.0	2888.5	2816.7
27°	6025.4	5945.6	5691.4	5238.1	4701.6	4106.6	3584.6	3250.4	3038.6	2910.0	2836.4
28°	6079.6	6003.6	5766.7	5323.0	4780.9	4177.7	3633.4	3281.8	3064.6	2933.5	2857.3
29°	6124.6	6054.3	5835.4	5403.6	4856.2	4248.5	3683.2	3314.7	3090.0	2958.8	2879.2
30°	6160.1	6094.8	5897.0	5481.5	4930.8	4317.1	3734.7	3348.3	3117.6	2984.0	2901.9
31°	6189.2	6127.3	5950.8	5553.1	5000.0	4385.2	3786.2	3381.1	3146.1	3009.5	2925.6
32°	6210.3	6153.9	5998.4	5620.0	5066.3	4452.1	3838.2	3415.6	3174.4	3036.2	2951.1
33°	6226.3	6173.1	6039.9	5683.5	5130.2	4517.2	3890.0	3451.3	3204.2	3062.5	2977.5
34°	6233.6	6184.5	6073.1	5740.4	5191.1	4580.7	3942.3	3485.3	3234.4	3089.9	3004.5
35°	6237.0	6190.0	6101.0	5793.0	5251.2	4642.0	3994.4	3520.0	3265.2	3118.2	3033.2
36°	6235.1	6191.6	6123.2	5841.5	5306.4	4701.4	4046.3	3554.7	3296.6	3147.0	3063.1
37°	6226.5	6186.7	6138.9	5885.5	5360.1	4758.7	4097.1	3590.6	3328.4	3177.0	3093.9
38°	6213.6	6177.9	6149.3	5925.1	5411.6	4814.9	4149.5	3627.3	3360.1	3208.4	3125.1
39°	6197.8	6167.0	6153.1	5958.5	5461.3	4870.0	4201.9	3663.8	3392.7	3239.8	3156.0
40°	6176.8	6151.3	6152.9	5988.9	5508.1	4923.4	4255.2	3702.8	3426.1	3272.1	3187.3
41°	6148.0	6130.0	6146.2	6014.5	5551.6	4974.7	4305.7	3743.6	3460.5	3304.8	3219.3
42°	6116.3	6103.5	6135.0	6036.6	5594.8	5025.2	4354.8	3784.7	3495.2	3338.9	3251.9
43°	6077.5	6074.5	6119.7	6052.8	5633.9	5075.3	4403.2	3824.5	3529.9	3374.6	3284.8
44°	6032.2	6041.0	6098.8	6062.2	5670.9	5123.1	4447.4	3866.2	3565.7	3410.0	3319.1



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

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	5979.6	5999.5	6070.3	6069.2	5707.1	5170.9	4492.8	3910.1	3603.9	3446.1	3353.6
46°	5917.8	5955.5	6041.2	6070.4	5741.4	5218.2	4537.0	3955.6	3643.2	3483.3	3389.1
47°	5851.4	5901.6	6005.5	6066.3	5774.6	5266.1	4579.8	4001.4	3683.1	3520.7	3426.0
48°	5780.4	5842.8	5964.1	6055.1	5804.1	5309.8	4620.0	4047.9	3724.7	3558.8	3463.3
49°	5699.6	5776.1	5918.9	6042.0	5830.0	5352.2	4658.5	4094.7	3767.5	3599.2	3501.6
50°	5612.3	5701.1	5864.2	6020.4	5852.9	5393.9	4695.7	4141.2	3810.6	3639.8	3541.8
51°	5514.0	5619.0	5804.3	5994.5	5872.7	5432.1	4733.1	4188.2	3855.9	3683.6	3582.0
52°	5409.6	5526.0	5735.8	5960.2	5888.5	5467.1	4768.1	4237.2	3902.2	3728.9	3625.8
53°	5298.4	5426.8	5662.9	5919.4	5900.0	5499.0	4801.2	4283.5	3949.2	3773.9	3667.4
54°	5183.4	5317.4	5581.7	5874.2	5904.4	5527.1	4832.7	4328.8	3999.1	3820.6	3712.1
55°	5062.0	5200.9	5491.7	5820.9	5902.0	5549.9	4860.2	4369.5	4049.4	3870.0	3757.9
56°	4932.8	5082.2	5393.7	5760.6	5894.2	5567.2	4885.2	4408.9	4099.8	3920.5	3804.9
57°	4807.4	4957.8	5294.1	5695.2	5876.3	5578.2	4907.4	4445.0	4150.6	3973.8	3853.2
58°	4674.5	4831.4	5187.3	5622.6	5849.2	5580.0	4922.4	4477.6	4201.6	4029.3	3898.6
59°	4543.3	4702.8	5080.2	5541.9	5813.2	5572.3	4931.2	4506.9	4252.7	4087.7	3943.5
60°	4402.3	4573.2	4967.4	5455.1	5767.3	5554.9	4935.5	4531.9	4303.8	4146.9	3987.8
61°	4256.0	4436.8	4854.7	5365.1	5710.9	5529.4	4930.6	4552.0	4355.1	4206.8	4032.5
62°	4103.0	4297.9	4742.9	5268.2	5647.2	5490.3	4916.7	4566.2	4404.4	4266.3	4076.3
63°	3952.3	4158.0	4632.4	5166.9	5576.1	5436.6	4891.0	4574.2	4453.0	4324.7	4118.8
64°	3810.5	4022.2	4522.7	5064.0	5492.5	5368.8	4853.1	4576.0	4500.5	4383.1	4159.3
65°	3695.9	3898.2	4415.9	4958.8	5402.1	5288.3	4805.6	4568.4	4546.0	4442.3	4197.7
66°	3611.7	3796.1	4313.3	4854.0	5300.0	5191.5	4740.8	4549.5	4585.6	4507.6	4232.5
67°	3564.0	3721.5	4220.4	4750.9	5184.0	5082.7	4657.5	4518.1	4618.9	4569.1	4264.8
68°	3514.5	3670.4	4139.4	4648.9	5055.4	4954.9	4511.5	4463.4	4643.6	4627.2	4263.6
69°	3401.1	3620.9	4073.6	4547.3	4912.2	4786.8	4277.4	4355.0	4652.8	4679.3	4246.1
70°	3177.5	3529.6	4021.5	4444.8	4762.0	4551.9	3953.1	4174.7	4646.8	4721.7	4249.1
71°	2838.7	3349.2	3974.5	4347.5	4582.8	4246.7	3558.0	3914.0	4602.9	4748.6	4224.5
72°	2472.8	3055.3	3918.6	4246.8	4363.5	3884.9	3184.3	3612.1	4495.9	4737.8	4174.6
73°	2095.0	2674.9	3829.7	4138.9	4108.6	3515.3	2870.1	3312.7	4327.0	4680.1	4106.4
74°	1659.2	2265.2	3656.7	4009.1	3822.5	3155.4	2495.5	3028.6	4109.8	4573.0	3972.0
75°	1112.8	1823.2	3351.8	3821.0	3497.7	2759.3	1897.8	2695.7	3865.8	4406.0	3770.7
76°	605.7	1293.8	2940.9	3546.9	3158.9	2218.3	1300.1	2086.9	3624.7	4135.2	3497.8
77°	396.1	722.1	2499.9	3155.0	2789.2	1503.5	707.3	1478.0	3352.3	3738.3	3174.8
78°	188.3	531.9	1969.9	2614.1	2320.8	824.1	343.3	872.7	2947.9	3198.4	2778.1
79°	150.0	345.0	1299.0	1980.6	1717.9	611.6	213.9	425.3	2234.4	2608.9	2331.9
80°	129.3	158.1	686.9	1306.6	1052.3	412.4	185.0	236.8	1521.0	2082.5	1917.1
81°	111.2	133.6	438.8	684.0	751.3	213.1	156.1	198.2	810.1	1646.5	1739.1
82°	94.9	113.6	195.6	440.5	462.6	179.9	127.3	159.6	388.9	1213.4	1470.5
83°	80.0	95.2	157.1	199.9	173.9	148.0	107.2	121.1	255.9	908.8	1201.8
84°	66.4	78.3	127.2	156.6	139.5	114.6	88.2	97.9	205.3	639.7	930.4
85°	52.8	64.2	97.3	129.2	107.4	88.0	69.9	78.0	168.1	412.6	575.3
86°	39.2	50.1	72.9	103.6	79.0	69.2	52.8	60.6	131.0	296.4	406.5
87°	26.8	36.0	52.8	75.5	58.3	50.6	36.8	44.9	95.7	180.2	237.6
88°	15.5	23.5	32.7	60.7	37.7	32.0	25.5	34.3	63.2	66.6	70.7
89°	6.6	10.2	13.7	46.1	17.0	16.1	14.3	23.6	43.0	45.2	47.9



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

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: P1436709

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

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: P1436709

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

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: P1436709

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8	2858.8
1°	2817.3	2816.9	2819.2	2826.7	2834.1	2844.7	2855.9	2858.4	2869.4	2881.4	2890.9
2°	2781.5	2780.1	2785.5	2796.1	2810.7	2828.4	2850.7	2864.1	2888.6	2912.1	2932.5
3°	2750.4	2748.4	2755.2	2769.5	2790.2	2816.9	2848.5	2873.7	2909.6	2946.6	2979.5
4°	2724.4	2722.0	2730.2	2747.7	2774.2	2808.1	2849.0	2885.4	2934.2	2984.7	3031.1
5°	2702.4	2699.0	2708.8	2729.9	2760.8	2802.4	2851.8	2899.6	2963.0	3027.5	3086.3
6°	2683.9	2680.0	2691.3	2714.8	2751.5	2799.3	2857.2	2917.0	2993.4	3073.6	3149.7
7°	2668.0	2664.5	2676.1	2702.8	2744.0	2799.1	2866.4	2937.7	3028.2	3125.4	3218.4
8°	2656.5	2652.1	2665.3	2694.5	2739.5	2801.1	2877.6	2959.7	3065.1	3181.7	3292.5
9°	2646.7	2642.4	2656.6	2689.1	2737.8	2805.4	2890.4	2984.1	3105.7	3241.7	3371.7
10°	2640.4	2635.7	2651.4	2686.2	2738.6	2811.2	2904.9	3011.1	3148.8	3305.3	3457.5
11°	2637.5	2632.2	2649.2	2686.8	2743.0	2819.7	2922.6	3041.3	3197.1	3373.8	3550.6
12°	2636.4	2631.5	2649.4	2689.9	2749.3	2831.1	2942.3	3072.9	3246.6	3446.9	3647.2
13°	2638.8	2632.5	2651.3	2694.8	2757.5	2843.8	2963.8	3106.8	3298.8	3524.0	3752.8
14°	2641.3	2636.0	2656.2	2701.8	2768.5	2858.3	2985.9	3141.6	3353.3	3604.9	3863.8
15°	2646.2	2640.3	2662.3	2710.2	2781.2	2875.2	3009.2	3177.7	3409.8	3690.7	3983.4
16°	2652.0	2646.0	2668.9	2718.9	2793.9	2893.2	3034.2	3216.5	3469.1	3781.8	4108.3
17°	2658.6	2652.7	2677.0	2729.6	2808.6	2912.7	3060.9	3256.6	3531.6	3876.3	4235.9
18°	2666.8	2660.6	2686.9	2740.5	2824.3	2932.0	3087.8	3297.5	3594.4	3975.3	4366.0
19°	2675.8	2670.3	2696.9	2753.2	2839.8	2953.7	3116.6	3339.7	3659.9	4076.2	4494.5
20°	2687.5	2681.4	2709.3	2767.4	2856.5	2975.2	3146.5	3383.6	3730.1	4177.8	4617.4
21°	2700.1	2694.8	2722.8	2782.8	2873.2	2998.1	3178.4	3429.4	3799.5	4283.8	4737.0
22°	2714.1	2708.5	2738.2	2799.6	2891.9	3022.3	3210.9	3476.5	3874.7	4385.6	4851.7
23°	2729.6	2725.0	2754.9	2817.5	2912.0	3047.7	3243.3	3525.2	3952.5	4486.6	4960.9
24°	2746.2	2743.3	2773.3	2837.1	2932.8	3072.8	3276.8	3575.1	4029.2	4582.7	5062.6
25°	2764.4	2762.0	2793.1	2857.7	2955.8	3099.5	3311.8	3624.6	4107.4	4676.9	5159.5
26°	2784.3	2783.1	2814.2	2878.7	2979.3	3126.3	3346.6	3676.4	4186.4	4764.4	5253.2
27°	2804.4	2805.7	2836.4	2900.7	3003.8	3152.6	3382.1	3728.9	4265.7	4849.0	5339.9
28°	2825.8	2831.3	2859.3	2924.5	3029.2	3181.3	3417.8	3783.9	4344.2	4930.4	5424.2
29°	2848.9	2857.8	2883.7	2948.6	3055.6	3209.8	3454.3	3837.3	4420.0	5007.3	5504.6
30°	2873.8	2886.5	2910.0	2973.3	3081.0	3239.5	3490.3	3891.8	4495.7	5080.1	5579.5
31°	2900.0	2915.6	2937.5	2998.7	3108.5	3269.1	3526.1	3946.5	4567.7	5148.5	5649.9
32°	2927.2	2947.0	2965.1	3026.5	3137.1	3300.2	3563.0	4001.9	4636.9	5213.7	5716.1
33°	2955.7	2978.7	2993.4	3053.9	3165.5	3331.0	3599.3	4057.7	4704.7	5278.5	5779.4
34°	2983.9	3010.6	3021.7	3082.6	3195.4	3362.4	3636.0	4113.2	4767.3	5338.8	5838.2
35°	3012.2	3043.3	3050.1	3112.4	3225.1	3395.0	3672.9	4169.4	4829.9	5398.8	5890.7
36°	3041.5	3076.7	3078.5	3143.0	3255.2	3427.6	3712.2	4226.6	4890.5	5452.8	5939.4
37°	3068.5	3109.3	3107.6	3173.4	3286.3	3461.4	3751.6	4281.5	4947.9	5506.2	5983.3
38°	3098.4	3143.5	3138.1	3206.1	3318.0	3494.3	3792.3	4337.6	5005.1	5556.6	6024.2
39°	3128.2	3176.7	3168.6	3238.2	3350.3	3530.0	3833.1	4391.3	5058.0	5604.6	6058.7
40°	3158.9	3208.9	3200.6	3271.1	3384.1	3564.3	3874.6	4443.8	5109.1	5650.2	6088.8
41°	3190.9	3239.5	3232.4	3304.7	3418.5	3599.7	3916.5	4495.8	5158.2	5692.9	6111.4
42°	3222.7	3270.3	3265.5	3337.5	3454.7	3637.1	3959.3	4545.1	5208.0	5735.6	6129.1
43°	3254.9	3300.1	3299.8	3373.7	3490.1	3675.4	4004.6	4593.6	5256.6	5773.5	6144.1
44°	3288.9	3331.3	3334.9	3409.4	3526.9	3716.2	4050.2	4641.4	5304.4	5808.1	6151.6



REPORT NUMBER: P1436709

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3323.8	3362.3	3370.2	3446.4	3565.4	3755.0	4096.4	4688.2	5349.7	5841.6	6155.4
46°	3359.4	3391.3	3406.4	3482.8	3603.7	3796.8	4142.1	4731.2	5393.5	5871.5	6152.2
47°	3396.8	3419.8	3444.7	3519.8	3643.7	3837.3	4188.7	4770.7	5435.6	5899.4	6144.2
48°	3434.9	3450.2	3483.9	3558.0	3684.0	3879.9	4235.2	4810.1	5474.2	5922.4	6131.6
49°	3474.5	3481.8	3523.0	3595.6	3724.9	3923.4	4279.9	4847.2	5510.6	5942.8	6113.1
50°	3514.8	3512.1	3564.0	3635.0	3767.8	3969.0	4325.0	4882.4	5542.3	5961.2	6090.2
51°	3557.9	3543.8	3605.2	3675.1	3809.7	4013.5	4369.0	4914.1	5572.0	5973.2	6060.2
52°	3599.7	3574.3	3646.6	3717.1	3855.9	4058.3	4412.0	4943.4	5596.0	5980.9	6022.6
53°	3638.4	3598.6	3684.1	3758.9	3901.6	4104.2	4451.1	4969.7	5614.2	5982.3	5979.5
54°	3671.9	3615.8	3719.0	3802.8	3950.1	4149.5	4488.4	4989.9	5628.4	5980.9	5931.3
55°	3702.2	3634.2	3749.4	3847.6	3998.3	4195.4	4522.6	5006.8	5635.7	5969.9	5878.5
56°	3733.6	3656.5	3779.1	3893.6	4050.4	4242.0	4551.7	5019.8	5635.1	5952.6	5817.4
57°	3763.4	3680.2	3809.5	3938.8	4101.3	4289.1	4579.1	5026.7	5625.4	5925.3	5749.6
58°	3792.7	3697.3	3838.5	3987.8	4155.0	4334.1	4601.1	5029.7	5607.4	5890.6	5673.9
59°	3816.6	3710.0	3862.1	4033.4	4211.3	4377.2	4618.6	5027.3	5580.6	5846.8	5592.3
60°	3837.1	3725.2	3882.7	4079.4	4268.7	4419.8	4633.6	5017.5	5545.4	5793.9	5503.1
61°	3858.2	3739.7	3904.0	4122.7	4327.3	4462.9	4643.2	4996.5	5502.1	5730.5	5408.4
62°	3878.8	3749.1	3924.4	4168.2	4383.0	4506.7	4646.4	4965.4	5447.5	5657.3	5308.8
63°	3894.8	3756.4	3942.4	4211.5	4436.7	4546.7	4643.8	4925.4	5379.0	5574.0	5205.4
64°	3908.6	3759.5	3958.4	4252.5	4490.6	4584.0	4635.8	4873.8	5300.4	5484.3	5101.0
65°	3909.8	3731.1	3959.6	4290.7	4544.8	4617.2	4615.6	4806.6	5206.9	5382.0	4991.6
66°	3872.8	3706.7	3919.4	4322.4	4598.2	4643.0	4585.6	4722.3	5099.3	5268.2	4880.7
67°	3851.8	3694.3	3897.7	4346.9	4645.6	4663.7	4537.5	4598.7	4978.2	5144.1	4772.7
68°	3843.2	3648.1	3882.5	4337.1	4690.6	4674.8	4447.7	4388.6	4821.7	5009.5	4662.9
69°	3788.0	3516.6	3822.4	4312.7	4727.8	4666.9	4285.7	4080.4	4597.8	4856.4	4554.0
70°	3679.4	3277.8	3715.0	4309.8	4756.3	4633.8	4031.1	3683.1	4299.5	4680.6	4444.6
71°	3506.6	2925.6	3543.2	4279.3	4761.2	4550.2	3710.9	3274.1	3927.2	4467.8	4327.5
72°	3229.7	2597.6	3268.4	4228.7	4728.0	4401.1	3373.6	2913.5	3531.1	4209.4	4205.5
73°	2887.8	2286.4	2915.9	4150.1	4640.8	4185.7	3053.4	2558.3	3148.6	3910.4	4065.4
74°	2552.5	1938.9	2592.3	4009.3	4498.6	3942.8	2725.6	2108.1	2760.0	3570.5	3901.2
75°	2199.8	1476.5	2248.2	3792.6	4284.3	3674.8	2283.9	1465.7	2291.5	3197.1	3669.0
76°	1775.6	1066.6	1821.1	3506.7	3953.6	3388.9	1642.5	829.9	1651.4	2806.3	3349.7
77°	1366.6	971.6	1443.4	3177.9	3504.9	3044.1	1005.4	608.0	965.9	2376.8	2909.5
78°	1285.7	1267.1	1401.5	2770.9	2954.5	2504.0	496.2	398.1	714.7	1845.2	2326.3
79°	1584.4	1205.2	1687.2	2299.8	2413.7	1741.0	264.1	188.1	474.6	1222.0	1680.1
80°	1851.6	1143.3	1442.0	1835.5	1959.2	983.5	219.5	160.3	234.6	690.2	1033.8
81°	1445.1	1075.6	1196.8	1665.8	1504.7	472.3	174.9	137.3	194.6	448.5	746.6
82°	1038.6	617.4	947.8	1377.2	1050.2	279.4	130.3	116.3	165.5	208.2	467.4
83°	591.8	439.0	536.9	1088.5	726.6	216.0	108.3	97.0	135.2	158.5	188.2
84°	333.8	260.5	324.3	798.6	440.3	177.2	88.3	78.6	105.4	126.9	149.0
85°	221.5	84.4	260.5	447.9	321.1	138.5	70.3	62.4	80.6	96.0	122.8
86°	109.9	57.1	196.8	358.6	201.9	100.0	54.0	46.2	62.5	69.7	98.1
87°	76.4	29.9	133.1	269.2	84.2	70.5	39.5	30.1	44.6	50.1	68.7
88°	42.8	2.7	69.3	179.9	57.1	48.0	27.2	17.0	26.7	30.5	40.2
89°	9.5	1.8	6.3	90.6	30.1	25.5	14.9	6.4	11.5	12.2	11.7



REPORT NUMBER: P1436709

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

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: P1436709

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

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: P1436709

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

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: P1436709

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2858.8	2858.8	2858.8
1°	2899.2	2904.9	2907.3
2°	2949.9	2961.3	2963.5
3°	3005.1	3021.7	3026.8
4°	3066.8	3091.5	3097.2
5°	3136.0	3168.0	3176.5
6°	3212.7	3252.4	3263.9
7°	3294.6	3345.5	3359.0
8°	3383.3	3445.1	3463.2
9°	3481.3	3552.1	3575.5
10°	3585.3	3670.3	3697.0
11°	3698.5	3800.7	3829.2
12°	3821.4	3936.6	3971.6
13°	3953.1	4084.4	4122.6
14°	4092.6	4243.8	4289.5
15°	4238.4	4408.9	4467.3
16°	4388.0	4581.1	4650.6
17°	4542.8	4756.8	4833.4
18°	4694.7	4931.2	5013.6
19°	4842.4	5096.2	5182.9
20°	4985.0	5253.1	5338.8
21°	5118.4	5395.2	5479.3
22°	5243.5	5522.2	5600.4
23°	5362.8	5635.3	5710.3
24°	5473.3	5736.8	5806.7
25°	5577.3	5824.4	5889.6
26°	5670.5	5902.3	5961.1
27°	5757.3	5968.3	6025.4
28°	5834.0	6025.8	6079.6
29°	5903.6	6074.3	6124.6
30°	5962.7	6115.8	6160.1
31°	6016.9	6147.2	6189.2
32°	6062.7	6174.0	6210.3
33°	6102.0	6192.5	6226.3
34°	6133.8	6204.8	6233.6
35°	6160.8	6209.7	6237.0
36°	6181.2	6209.4	6235.1
37°	6194.3	6205.2	6226.5
38°	6202.8	6195.7	6213.6
39°	6205.5	6183.0	6197.8
40°	6203.6	6165.8	6176.8
41°	6195.8	6144.9	6148.0
42°	6183.4	6119.9	6116.3
43°	6166.1	6092.1	6077.5
44°	6142.9	6057.6	6032.2



REPORT NUMBER: P1436709

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	6116.8	6019.0	5979.6
46°	6084.9	5973.5	5917.8
47°	6048.9	5921.4	5851.4
48°	6007.9	5864.2	5780.4
49°	5961.8	5797.8	5699.6
50°	5909.2	5726.9	5612.3
51°	5849.0	5647.3	5514.0
52°	5781.2	5556.4	5409.6
53°	5705.6	5459.4	5298.4
54°	5626.2	5355.3	5183.4
55°	5540.0	5241.3	5062.0
56°	5445.0	5123.4	4932.8
57°	5344.4	5001.2	4807.4
58°	5237.1	4872.6	4674.5
59°	5128.9	4744.3	4543.3
60°	5019.5	4612.4	4402.3
61°	4906.0	4476.7	4256.0
62°	4795.5	4339.2	4103.0
63°	4686.1	4200.5	3952.3
64°	4580.3	4072.2	3810.5
65°	4478.8	3950.1	3695.9
66°	4382.7	3850.5	3611.7
67°	4291.3	3777.1	3564.0
68°	4209.1	3726.7	3514.5
69°	4137.7	3674.5	3401.1
70°	4083.1	3587.3	3177.5
71°	4027.0	3419.6	2838.7
72°	3955.5	3124.4	2472.8
73°	3845.5	2737.8	2095.0
74°	3645.2	2309.1	1659.2
75°	3329.6	1858.5	1112.8
76°	2917.2	1344.7	605.7
77°	2456.0	772.6	396.1
78°	1878.9	570.4	188.3
79°	1204.9	368.4	150.0
80°	642.7	166.3	129.3
81°	421.4	137.8	111.2
82°	202.9	116.9	94.9
83°	156.7	98.2	80.0
84°	125.8	81.1	66.4
85°	95.6	66.3	52.8
86°	71.1	51.6	39.2
87°	50.8	36.9	26.8
88°	30.6	23.4	15.5
89°	12.0	9.9	6.6



REPORT NUMBER: P1436709

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

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: P1436709

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

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: P1436709

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)