

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: P1436716

Luminaire Tested: XAS180-SFPM (3000K-180W-T5-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436716
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-180W-T5-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 100% (180W)
OPTICS - TYPE 5 WITH HOUSE SIDE SHIELD
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 23809 (1 lamp)
Luminaire Lumens: 21644.8 lumens
Efficiency: 90.9%
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

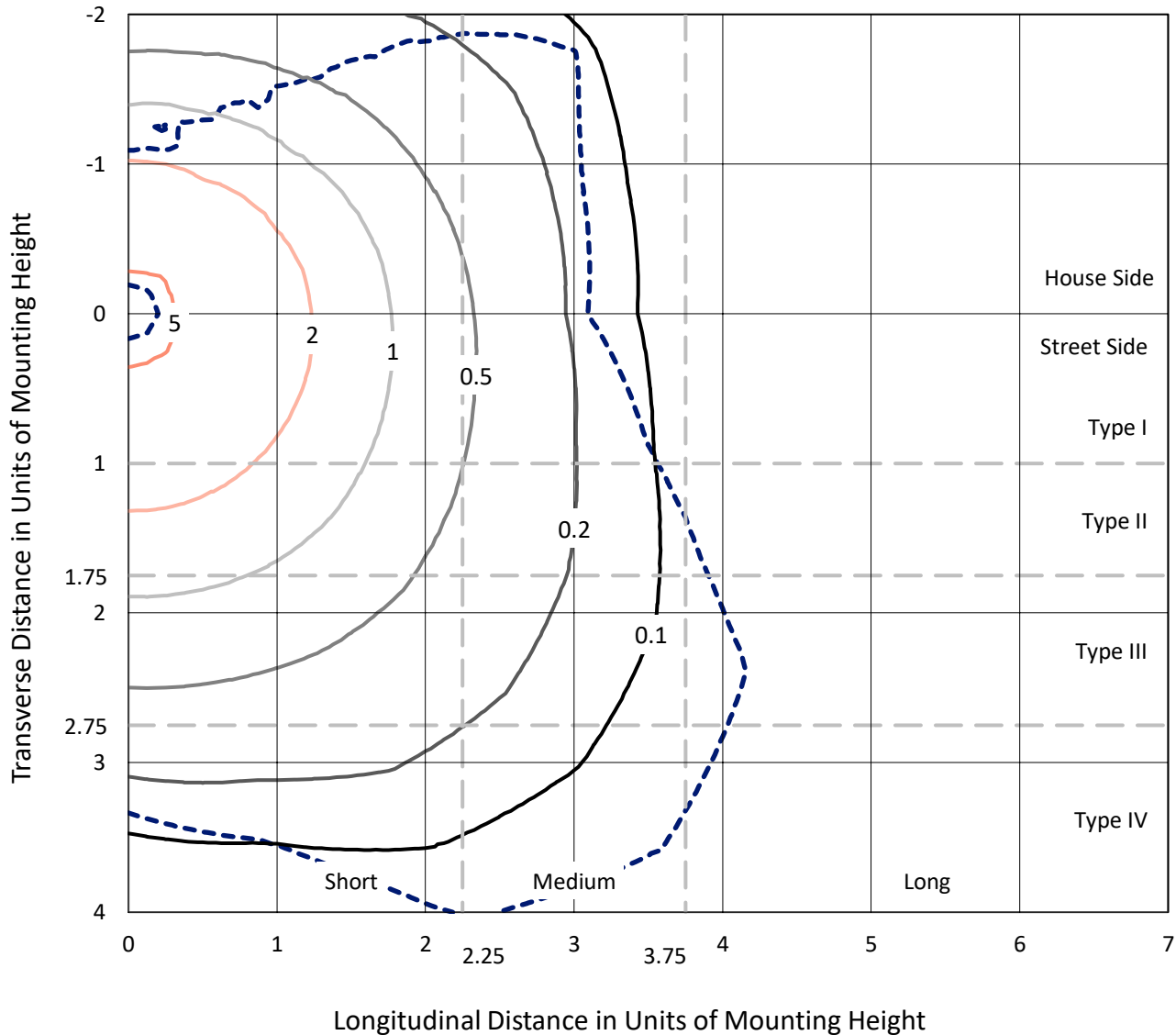
Input Watts (W): 180.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

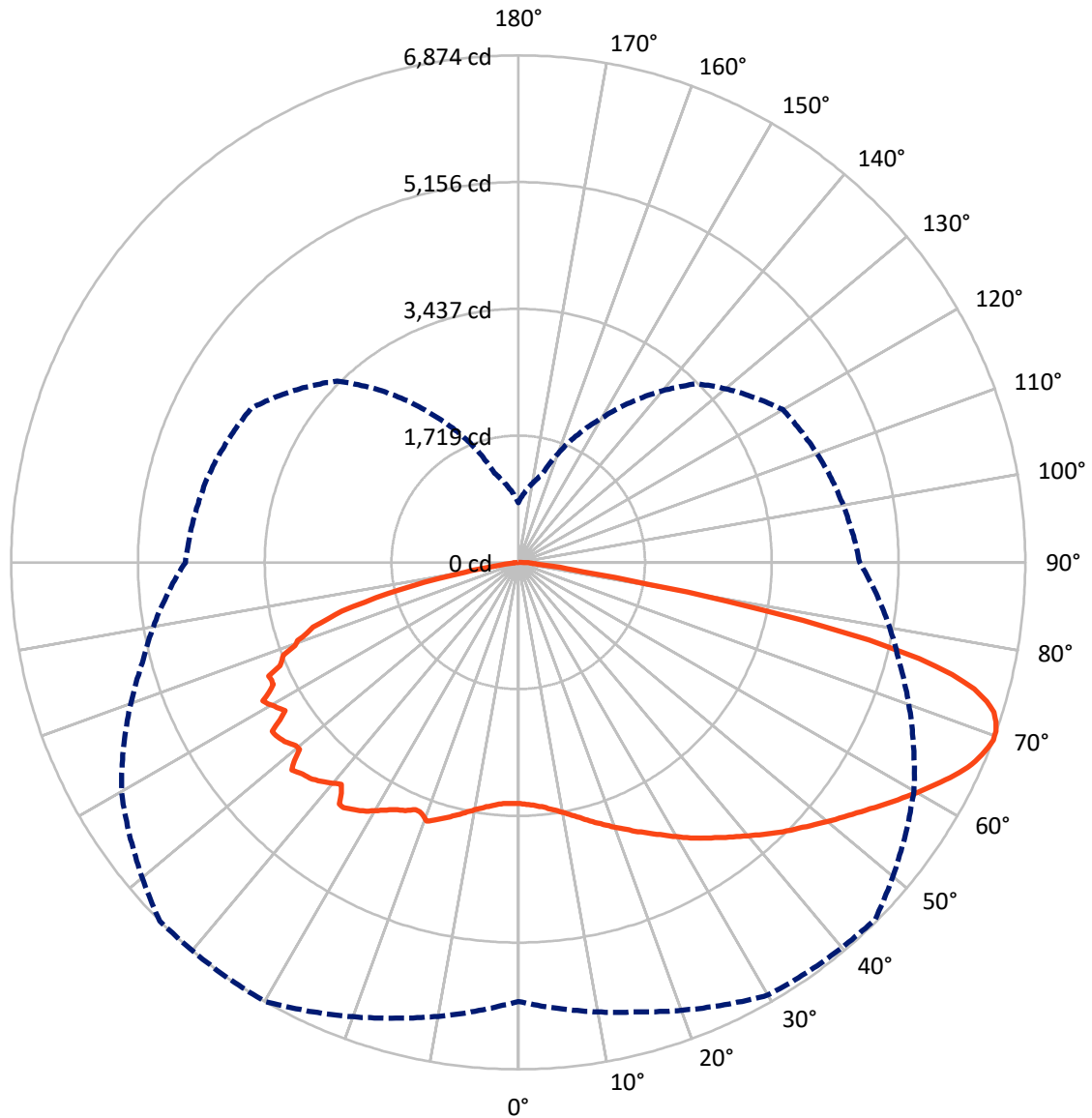
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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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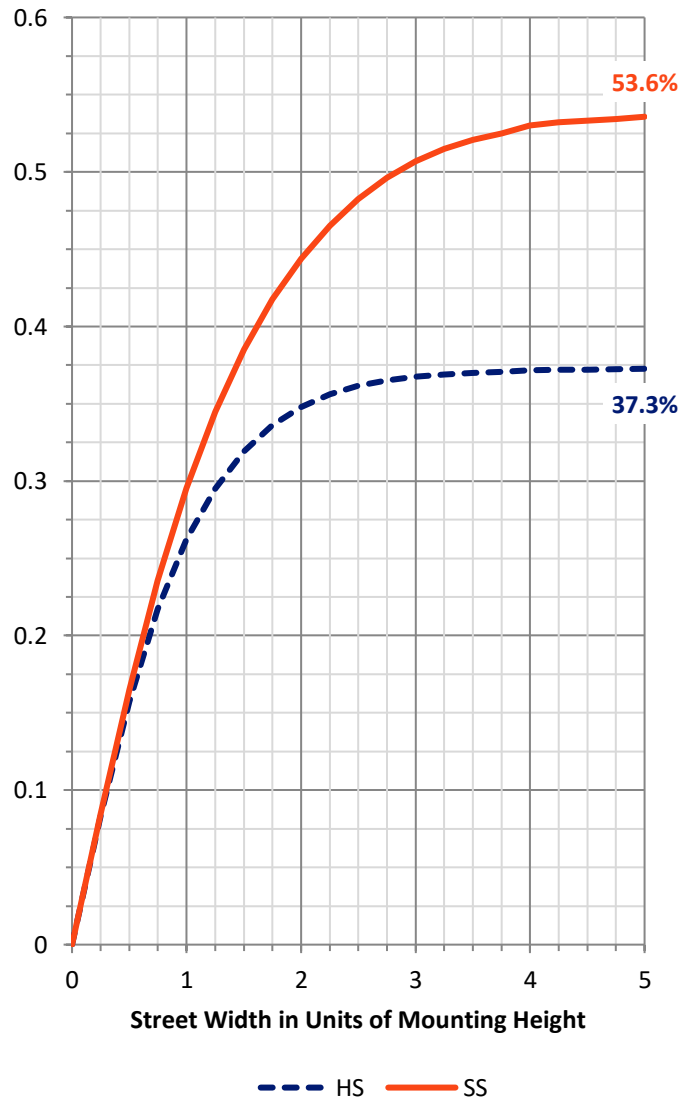
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8889.3	0.0	8889.3
	% Lamp	37.3	0.0	37.3
Street Side	Lumens	12755.5	0.0	12755.5
	% Lamp	53.6	0.0	53.6
Total	Lumens	21644.8	0.0	21644.8
	% Lamp	90.9	0.0	90.9

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	319.6	1.5	1.3
10°-20°	1017.2	4.7	4.3
20°-30°	1813.2	8.4	7.6
30°-40°	2684.5	12.4	11.3
40°-50°	3581.8	16.5	15.0
50°-60°	4392.8	20.3	18.5
60°-70°	4785.0	22.1	20.1
70°-80°	2886.5	13.3	12.1
80°-90°	164.1	0.8	0.7
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°	21644.8	100.0	90.9
0°-180°	21644.8	100.0	90.9

Coefficient of Utilization



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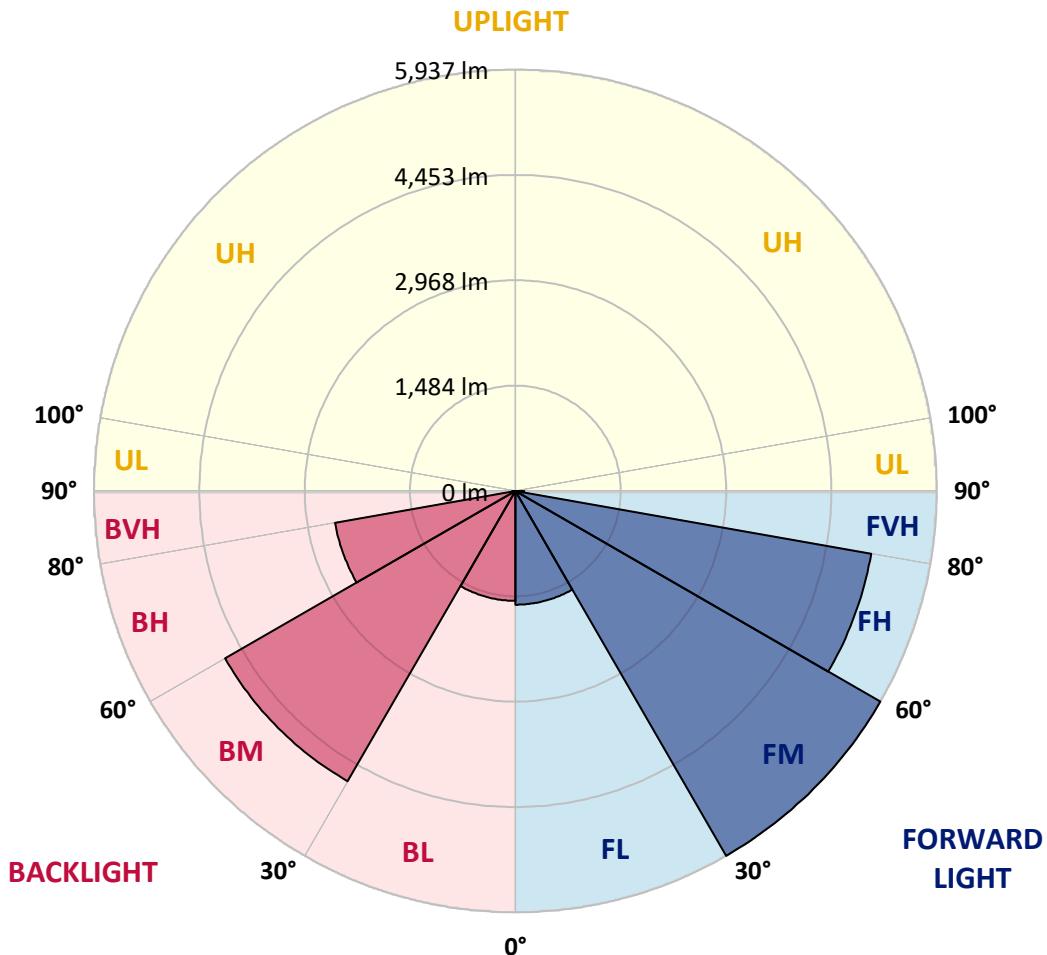
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1602.9	6.7			
FM (30°-60°)	5936.7	24.9			
FH (60°-80°)	5091.1	21.4			G3/7500
FVH (80°-90°)	124.8	0.5			G2/225
BL (0°-30°)	1547.2	6.5	B3/2500		
BM (30°-60°)	4722.4	19.8	B3/5000		
BH (60°-80°)	2580.4	10.8	B4/5000		G4/5000
BVH (80°-90°)	39.3	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	2164.2	9.1			

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°	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9
1°	3277.6	3277.6	3277.3	3276.3	3275.5	3273.7	3271.6	3270.7	3269.8	3269.5	3269.5
2°	3286.2	3285.1	3284.4	3282.1	3280.0	3276.4	3273.2	3271.3	3269.8	3268.9	3269.5
3°	3297.5	3295.8	3293.7	3290.1	3287.6	3283.2	3279.0	3276.2	3273.2	3271.7	3272.0
4°	3312.1	3309.6	3306.4	3302.0	3298.4	3293.0	3287.8	3284.1	3280.1	3278.3	3278.1
5°	3329.0	3325.4	3322.1	3316.5	3311.2	3305.0	3298.7	3294.2	3290.6	3288.3	3290.4
6°	3347.6	3343.1	3340.0	3334.3	3327.2	3318.7	3311.9	3306.2	3302.2	3304.3	3307.0
7°	3366.7	3363.2	3360.2	3354.1	3346.4	3336.3	3328.0	3321.3	3316.6	3322.4	3326.6
8°	3388.2	3384.7	3381.7	3376.0	3367.2	3356.5	3347.8	3340.5	3336.8	3343.0	3348.8
9°	3412.7	3408.9	3404.9	3399.7	3391.0	3378.7	3368.6	3361.3	3361.2	3366.0	3372.4
10°	3438.9	3435.0	3431.9	3426.1	3418.0	3403.1	3392.3	3383.9	3386.9	3393.2	3398.0
11°	3467.1	3462.2	3460.7	3455.4	3446.3	3430.9	3418.1	3409.9	3414.9	3423.4	3426.9
12°	3495.2	3489.8	3490.0	3486.0	3475.4	3459.9	3445.0	3437.5	3444.3	3453.9	3456.6
13°	3523.8	3518.0	3520.8	3519.3	3507.0	3490.3	3473.4	3466.0	3476.5	3485.8	3488.2
14°	3553.5	3546.9	3551.2	3552.1	3540.8	3521.5	3502.7	3495.0	3508.3	3520.3	3520.1
15°	3584.7	3578.7	3584.0	3586.8	3574.5	3553.7	3534.2	3525.9	3541.5	3553.9	3551.8
16°	3615.7	3611.7	3617.3	3621.7	3609.4	3587.7	3566.9	3558.4	3576.7	3587.8	3584.0
17°	3649.7	3645.6	3651.7	3657.3	3646.1	3622.5	3600.1	3591.9	3612.8	3621.3	3574.9
18°	3685.3	3679.9	3687.7	3692.8	3683.2	3657.6	3630.7	3618.7	3648.9	3655.9	3516.4
19°	3721.8	3716.2	3724.7	3729.8	3721.2	3695.6	3652.2	3644.5	3674.6	3690.6	3486.9
20°	3760.5	3754.5	3762.2	3767.2	3759.7	3727.6	3681.6	3672.6	3700.9	3720.6	3516.3
21°	3802.0	3794.5	3800.8	3805.6	3800.3	3755.4	3716.7	3713.6	3729.6	3668.6	3547.9
22°	3844.9	3836.8	3841.8	3846.5	3842.4	3790.5	3757.4	3754.0	3768.5	3634.5	3581.2
23°	3890.3	3881.4	3883.2	3887.5	3886.5	3827.2	3799.9	3788.1	3804.6	3628.6	3616.2
24°	3937.6	3927.6	3926.3	3929.8	3921.5	3871.0	3836.9	3821.5	3831.6	3663.1	3652.5
25°	3985.8	3974.7	3970.4	3975.1	3956.9	3916.4	3871.7	3858.9	3864.3	3696.7	3688.4
26°	4036.7	4023.3	4015.8	4021.3	3999.5	3962.3	3913.6	3900.9	3899.7	3720.7	3726.6
27°	4089.3	4072.5	4063.2	4067.4	4036.8	4002.1	3953.4	3947.3	3940.6	3748.5	3764.2
28°	4143.4	4123.8	4111.5	4116.3	4079.7	4039.2	4002.2	3993.3	3962.3	3781.3	3801.5
29°	4199.6	4174.5	4161.2	4167.1	4126.1	4080.7	4052.7	4040.9	3937.3	3823.6	3839.3
30°	4257.1	4227.0	4213.4	4218.9	4174.1	4123.0	4106.2	4088.7	3939.5	3867.1	3870.9
31°	4314.9	4278.8	4265.6	4269.8	4223.3	4163.3	4160.6	4134.8	3928.1	3911.4	3888.0
32°	4372.2	4330.9	4318.8	4314.6	4272.3	4213.0	4214.1	4166.3	3960.6	3954.0	3749.1
33°	4430.4	4384.6	4372.6	4359.9	4316.1	4262.4	4268.3	4190.2	3992.8	3989.3	3646.0
34°	4489.1	4437.9	4428.0	4406.5	4357.9	4311.0	4313.8	4216.3	4027.0	4019.6	3661.3
35°	4549.8	4492.8	4484.5	4458.4	4402.5	4359.6	4345.7	4255.3	4064.5	4049.9	3699.6
36°	4610.7	4548.5	4541.2	4507.9	4451.7	4409.5	4381.5	4295.3	4106.2	4083.5	3731.9
37°	4671.4	4603.3	4599.5	4559.0	4499.9	4458.0	4420.4	4336.1	4144.4	4077.2	3758.5
38°	4732.5	4660.1	4658.0	4613.3	4547.7	4509.8	4467.2	4378.5	4170.1	3944.8	3781.8
39°	4792.4	4718.3	4714.6	4670.3	4597.5	4559.5	4518.0	4413.7	4201.0	3849.4	3815.5
40°	4853.4	4777.9	4773.1	4727.9	4651.7	4596.1	4569.2	4446.6	4246.8	3886.7	3854.4
41°	4911.8	4840.8	4833.4	4785.5	4708.5	4637.4	4617.5	4480.9	4293.4	3927.8	3892.7
42°	4973.2	4902.1	4893.8	4846.4	4765.2	4677.3	4664.6	4506.5	4341.0	3970.6	3926.9
43°	5031.2	4966.3	4955.9	4906.7	4825.1	4722.2	4702.9	4540.2	4388.1	4014.9	3814.2
44°	5088.9	5033.2	5017.6	4966.9	4882.9	4773.9	4734.4	4594.0	4435.8	4052.5	3669.6



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	5148.7	5100.6	5083.5	5023.2	4944.2	4831.7	4771.6	4649.2	4470.1	4077.2	3667.2
46°	5208.4	5171.4	5150.4	5081.4	5007.2	4892.6	4796.8	4706.5	4477.8	4099.6	3700.2
47°	5267.9	5244.5	5219.5	5141.1	5072.1	4954.5	4823.6	4754.6	4484.9	4133.1	3726.2
48°	5330.4	5318.9	5289.4	5202.1	5135.3	5014.7	4855.4	4773.3	4387.5	4163.5	3747.6
49°	5393.5	5394.0	5360.7	5267.6	5194.0	5078.1	4898.3	4784.0	4311.9	4054.6	3776.3
50°	5458.8	5471.2	5432.2	5335.9	5245.2	5141.0	4945.1	4788.5	4302.6	3901.4	3812.6
51°	5524.5	5549.2	5506.1	5405.5	5301.9	5195.8	4991.5	4779.8	4344.9	3906.2	3709.9
52°	5591.1	5627.9	5578.3	5476.1	5362.2	5247.0	5040.6	4814.9	4378.7	3948.2	3485.8
53°	5659.4	5704.7	5651.5	5545.9	5415.8	5300.2	5087.8	4859.5	4395.9	3988.4	3485.1
54°	5725.5	5780.0	5728.5	5621.6	5475.7	5344.6	5132.2	4903.3	4418.0	4015.4	3525.5
55°	5791.4	5851.2	5806.3	5699.8	5539.0	5373.8	5165.1	4931.3	4464.0	4040.2	3567.5
56°	5851.5	5920.6	5889.2	5781.5	5605.9	5411.6	5183.9	4941.3	4502.5	4044.7	3609.5
57°	5909.0	5986.5	5972.9	5869.8	5673.8	5449.3	5198.8	4959.3	4518.9	3875.5	3645.2
58°	5963.9	6047.8	6056.6	5957.3	5740.5	5488.8	5209.1	4976.1	4543.8	3746.4	3425.9
59°	6012.6	6105.4	6138.1	6044.5	5807.5	5523.3	5226.0	4969.6	4431.3	3791.8	3307.6
60°	6055.3	6156.7	6218.1	6137.0	5870.5	5552.8	5238.7	4937.4	4320.8	3841.5	3323.4
61°	6090.4	6202.7	6297.9	6228.7	5930.4	5579.5	5244.1	4932.4	4338.3	3894.2	3340.0
62°	6117.8	6241.3	6375.4	6322.9	5987.2	5596.2	5242.8	4927.0	4349.6	3940.5	3176.3
63°	6141.4	6275.6	6454.3	6417.6	6041.9	5602.5	5225.0	4885.3	4358.0	3807.9	2992.3
64°	6162.5	6303.5	6527.5	6511.8	6089.1	5600.6	5186.9	4851.8	4348.1	3710.1	2970.4
65°	6182.1	6327.2	6594.8	6599.6	6134.9	5589.6	5145.5	4788.8	4287.0	3704.9	2914.4
66°	6193.6	6349.2	6655.0	6677.3	6174.7	5559.6	5103.9	4719.5	4114.5	3717.4	2640.5
67°	6192.0	6362.7	6706.5	6746.2	6199.9	5518.9	5049.2	4603.3	4105.2	3520.8	2630.2
68°	6134.1	6356.7	6750.4	6802.9	6199.6	5467.9	4902.1	4503.2	4129.2	3464.3	2473.9
69°	5951.5	6307.7	6774.4	6844.4	6194.0	5355.9	4627.6	4394.2	4141.1	3423.0	2256.9
70°	5572.7	6163.0	6779.7	6867.6	6187.5	5152.5	4231.8	4214.4	4126.5	3228.7	2037.4
71°	4977.7	5851.7	6754.4	6863.2	6131.5	4849.3	3826.0	3941.5	3977.2	3173.4	1817.9
72°	4347.3	5344.3	6691.8	6821.8	6022.3	4461.8	3451.1	3600.2	3825.2	3015.5	1599.5
73°	3682.1	4682.5	6551.6	6736.4	5839.3	4068.0	3120.0	3248.1	3655.8	2918.7	1426.4
74°	2910.1	3961.2	6250.9	6575.6	5575.4	3704.4	2737.4	2929.1	3445.2	2678.0	1187.4
75°	1942.5	3177.6	5712.6	6300.4	5233.2	3297.5	2082.2	2599.8	3152.0	2481.1	1022.9
76°	1059.0	2244.1	5007.4	5866.3	4830.6	2683.7	1427.0	2042.2	2874.8	2151.3	878.2
77°	789.3	1247.9	4253.9	5236.1	4336.1	1768.7	781.3	1484.7	2555.5	1821.6	717.4
78°	528.6	915.5	3329.0	4324.2	3655.5	922.2	568.3	936.5	2038.3	1491.3	524.2
79°	267.8	596.4	2164.7	3261.1	2702.2	665.7	355.4	664.4	1521.0	1108.3	371.1
80°	237.6	277.4	1119.9	2118.8	1647.8	427.7	146.7	392.3	1010.4	740.4	218.0
81°	211.5	241.9	832.3	1076.8	826.6	189.7	125.3	124.5	709.5	516.0	67.3
82°	188.0	212.9	550.8	796.7	542.3	161.2	106.3	104.5	408.5	291.7	34.5
83°	166.5	186.5	269.3	528.8	263.5	136.3	89.2	86.7	111.6	74.4	28.0
84°	146.0	162.1	221.3	260.9	212.8	114.4	73.2	70.9	86.3	56.6	23.3
85°	126.3	139.8	179.3	216.5	168.2	95.1	58.7	57.5	67.2	47.1	18.5
86°	107.7	119.8	146.4	180.8	128.4	78.6	45.3	45.2	49.7	38.6	13.8
87°	89.9	101.0	117.4	141.2	99.5	62.2	33.5	33.8	36.7	30.1	10.8
88°	77.6	84.6	90.6	97.0	75.1	45.7	21.6	24.0	26.2	21.5	8.3
89°	65.4	68.3	74.5	76.0	50.8	29.6	10.0	14.1	15.7	13.0	6.0



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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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9	3272.9
1°	3270.1	3269.8	3271.3	3272.0	3273.4	3274.7	3275.6	3275.2	3276.4	3277.0	3277.5
2°	3270.4	3269.5	3272.2	3274.0	3276.5	3278.7	3280.9	3281.8	3284.1	3285.4	3286.7
3°	3273.2	3272.9	3276.0	3279.0	3282.4	3285.4	3289.2	3291.0	3294.3	3296.5	3298.2
4°	3280.0	3281.7	3284.9	3287.4	3291.8	3296.2	3301.5	3304.3	3308.3	3310.5	3312.2
5°	3294.2	3296.0	3299.4	3301.9	3305.0	3310.3	3315.8	3319.6	3324.2	3327.6	3329.7
6°	3311.1	3313.2	3318.2	3320.9	3324.0	3326.6	3333.4	3337.8	3343.7	3347.7	3350.0
7°	3331.9	3333.7	3339.0	3342.4	3345.7	3347.4	3355.0	3360.2	3366.0	3370.9	3373.3
8°	3353.6	3355.7	3362.1	3367.7	3370.9	3372.4	3379.2	3384.0	3391.2	3396.7	3398.2
9°	3377.4	3379.9	3386.6	3394.1	3399.2	3401.0	3404.1	3409.3	3418.0	3425.0	3426.7
10°	3402.2	3406.0	3414.6	3424.0	3430.5	3431.3	3432.8	3437.8	3447.0	3455.4	3456.4
11°	3430.2	3433.4	3443.9	3457.1	3463.5	3464.5	3463.8	3470.1	3480.8	3489.5	3488.5
12°	3457.6	3461.6	3473.0	3490.8	3499.4	3499.7	3497.2	3503.8	3515.3	3524.5	3523.1
13°	3487.4	3490.5	3503.8	3525.1	3537.7	3537.5	3532.0	3539.5	3552.6	3561.2	3559.7
14°	3516.2	3517.7	3535.5	3559.3	3578.0	3576.2	3568.1	3576.1	3591.3	3601.5	3598.9
15°	3535.1	3481.1	3555.4	3595.7	3617.1	3617.4	3607.8	3613.5	3630.9	3643.7	3636.7
16°	3463.8	3415.7	3487.2	3630.4	3655.6	3660.0	3647.7	3653.4	3670.9	3685.3	3677.1
17°	3419.0	3420.0	3445.9	3627.9	3695.8	3703.2	3689.6	3694.7	3712.4	3727.4	3717.2
18°	3447.7	3450.0	3473.5	3570.5	3736.5	3745.3	3727.5	3736.4	3755.6	3769.3	3758.1
19°	3476.8	3480.8	3504.7	3546.2	3776.1	3777.5	3756.2	3767.5	3800.2	3813.8	3799.0
20°	3508.5	3513.8	3537.4	3578.0	3810.7	3810.2	3789.7	3801.2	3845.5	3859.0	3841.5
21°	3541.4	3546.9	3571.7	3614.0	3779.8	3845.2	3835.6	3839.1	3880.8	3905.9	3884.1
22°	3576.7	3582.6	3608.5	3650.7	3738.7	3890.4	3883.1	3885.2	3921.7	3951.6	3928.0
23°	3611.7	3619.4	3647.5	3689.0	3735.2	3937.3	3929.5	3935.0	3962.6	3998.8	3973.8
24°	3649.2	3657.6	3686.9	3728.6	3774.9	3975.3	3967.3	3983.8	4010.6	4045.7	4018.8
25°	3685.3	3693.3	3725.6	3769.0	3816.5	4009.5	4008.1	4026.2	4061.3	4085.8	4065.5
26°	3721.6	3731.4	3763.6	3812.2	3848.5	4045.2	4048.6	4068.4	4112.2	4125.5	4113.6
27°	3758.0	3768.3	3802.3	3854.3	3879.4	4087.1	4096.1	4115.2	4162.4	4170.5	4162.4
28°	3790.6	3741.0	3837.5	3896.7	3913.1	4116.0	4146.3	4163.8	4206.4	4214.2	4214.5
29°	3710.9	3593.3	3773.9	3938.3	3958.2	4109.7	4197.0	4218.6	4248.3	4264.1	4268.1
30°	3575.1	3548.2	3634.5	3971.6	4004.0	4102.9	4249.0	4274.5	4295.8	4314.9	4323.3
31°	3553.7	3587.4	3607.9	3994.7	4050.1	4106.2	4298.2	4330.3	4338.3	4365.8	4377.9
32°	3589.7	3628.9	3644.5	3879.4	4095.6	4127.4	4337.0	4387.7	4384.9	4417.6	4432.2
33°	3626.0	3671.8	3682.2	3778.9	4138.2	4163.1	4363.7	4443.7	4436.6	4467.8	4483.5
34°	3663.0	3713.4	3719.2	3777.6	4172.1	4201.5	4393.4	4499.8	4487.2	4515.4	4533.3
35°	3699.3	3758.7	3756.9	3817.9	4206.4	4239.5	4435.5	4539.0	4539.9	4563.3	4586.0
36°	3737.8	3801.3	3797.7	3857.1	4238.4	4279.2	4478.3	4579.3	4594.2	4613.9	4642.6
37°	3772.5	3843.5	3836.7	3885.7	4250.6	4321.8	4523.4	4618.8	4648.0	4667.6	4696.2
38°	3809.8	3879.4	3875.3	3911.3	4123.1	4350.3	4571.2	4669.8	4703.2	4718.0	4750.5
39°	3840.9	3701.7	3910.0	3942.3	4027.3	4381.0	4618.4	4718.8	4758.5	4772.7	4808.8
40°	3657.5	3557.1	3746.0	3983.1	4054.3	4426.1	4654.3	4767.6	4802.7	4832.1	4869.7
41°	3521.8	3580.5	3603.7	4024.0	4097.5	4474.9	4689.5	4815.7	4843.4	4893.5	4931.3
42°	3545.8	3612.2	3617.6	4061.2	4142.1	4527.1	4713.8	4864.5	4888.5	4953.4	4993.9
43°	3583.2	3644.8	3656.1	3977.5	4187.4	4579.5	4751.6	4911.3	4935.3	5014.6	5055.5
44°	3623.2	3676.2	3697.3	3822.1	4229.0	4631.4	4806.9	4949.6	4991.7	5075.5	5119.2

REPORT NUMBER: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3663.0	3706.1	3736.2	3799.0	4258.0	4671.4	4866.8	4988.0	5052.0	5138.5	5178.4
46°	3703.1	3728.4	3777.0	3834.1	4280.7	4683.1	4926.0	5018.0	5116.1	5204.4	5238.9
47°	3737.1	3535.5	3812.6	3859.1	4314.1	4703.0	4986.1	5040.0	5178.8	5269.5	5300.0
48°	3565.9	3327.0	3666.5	3880.4	4347.8	4644.1	5026.3	5072.4	5240.3	5334.4	5364.4
49°	3350.6	3342.2	3443.9	3909.4	4273.1	4566.4	5025.7	5117.4	5302.5	5394.7	5430.8
50°	3376.0	3371.0	3452.1	3944.6	4113.9	4513.4	5025.2	5165.9	5361.7	5448.7	5500.9
51°	3416.8	3400.6	3490.3	3870.0	4089.2	4550.6	5015.1	5210.9	5413.0	5500.5	5569.9
52°	3457.5	3429.7	3527.2	3642.0	4133.4	4579.6	5016.5	5256.5	5458.5	5557.1	5638.3
53°	3493.8	3450.1	3561.8	3619.0	4173.9	4596.2	5047.2	5298.1	5505.3	5607.7	5709.9
54°	3519.0	3164.2	3590.0	3657.3	4198.9	4614.8	5081.2	5336.8	5542.4	5665.6	5786.6
55°	3256.4	3025.5	3323.3	3698.1	4220.6	4650.6	5105.9	5361.3	5562.6	5728.7	5867.0
56°	3105.9	3046.0	3168.2	3738.2	4225.1	4685.9	5105.6	5366.2	5590.2	5791.9	5949.5
57°	3113.7	3058.2	3173.2	3772.5	4091.3	4694.0	5106.5	5364.1	5612.7	5851.9	6031.3
58°	3126.1	3015.7	3185.9	3561.8	3935.4	4705.7	5108.3	5362.9	5637.4	5908.0	6115.1
59°	3030.4	2616.3	3107.0	3423.7	3971.0	4620.9	5096.2	5368.0	5660.0	5963.2	6198.4
60°	2697.6	2574.9	2757.2	3436.8	4015.2	4481.3	5058.2	5370.2	5677.8	6017.2	6282.9
61°	2689.1	2573.3	2743.8	3455.6	4061.8	4471.7	5038.3	5362.1	5693.9	6071.8	6368.3
62°	2675.8	2291.0	2728.4	3306.0	4103.8	4475.2	5028.5	5353.5	5704.4	6120.4	6454.0
63°	2398.0	2076.5	2433.5	3096.6	3976.9	4473.2	4982.8	5332.2	5703.2	6160.3	6540.7
64°	2209.4	1899.0	2243.1	3074.3	3842.7	4457.1	4943.3	5287.0	5694.6	6193.0	6623.4
65°	2191.1	1721.4	2225.4	3034.4	3820.2	4397.5	4867.0	5235.1	5663.6	6220.9	6696.6
66°	1951.9	1545.5	1976.6	2729.6	3813.5	4222.4	4788.1	5178.2	5617.0	6244.5	6757.3
67°	1712.8	1490.3	1729.6	2705.0	3606.9	4174.1	4672.6	5083.6	5561.6	6247.5	6806.8
68°	1504.9	989.1	1533.9	2553.3	3535.8	4185.4	4533.3	4871.3	5462.5	6234.6	6845.1
69°	1224.8	807.5	1251.0	2307.1	3475.7	4179.3	4369.2	4513.6	5277.4	6213.5	6874.0
70°	938.9	550.4	955.6	2100.6	3268.0	4141.2	4117.2	4037.8	4986.3	6160.9	6870.1
71°	662.2	293.3	655.0	1876.4	3191.8	3949.5	3769.3	3617.7	4576.6	6054.5	6829.6
72°	324.5	39.4	279.2	1652.0	3022.8	3740.1	3374.4	3242.7	4140.9	5881.7	6759.5
73°	269.9	0.6	234.2	1425.8	2877.1	3516.1	2998.9	2869.9	3717.8	5618.2	6625.9
74°	219.0	0.4	189.1	1136.2	2610.3	3259.2	2652.6	2399.3	3303.4	5270.1	6415.1
75°	168.2	0.5	144.1	947.9	2363.2	2925.4	2142.9	1732.0	2786.2	4840.7	6078.7
76°	118.9	0.5	102.4	799.6	2004.7	2589.5	1633.2	1013.5	2035.5	4340.7	5589.8
77°	66.8	0.6	59.9	641.7	1646.3	2139.1	1127.3	476.8	1178.2	3762.5	4874.8
78°	47.6	0.7	42.8	467.4	1287.7	1688.7	797.8	365.3	860.4	3000.9	3937.4
79°	28.3	0.8	25.8	332.5	923.9	1237.5	468.3	256.2	544.5	2038.4	2881.1
80°	9.2	1.0	8.9	197.7	559.7	675.5	143.8	147.2	228.5	1162.2	1783.3
81°	7.7	1.1	7.5	65.8	329.8	483.3	117.8	123.4	182.9	849.2	892.0
82°	6.7	1.3	6.5	37.3	106.0	291.1	99.3	103.9	155.0	548.7	671.7
83°	5.9	1.5	5.7	28.9	70.4	102.4	82.4	86.8	131.2	248.3	464.0
84°	5.2	1.6	5.1	23.9	57.7	82.4	67.6	71.6	110.3	203.3	256.2
85°	4.7	1.8	4.6	18.8	48.2	63.3	54.6	56.4	91.3	159.5	215.1
86°	4.2	2.0	4.2	13.8	39.6	46.6	42.9	42.7	75.4	122.6	179.5
87°	3.9	2.2	3.9	10.5	29.7	35.1	31.9	29.6	59.6	95.2	138.7
88°	3.6	2.4	3.6	7.8	19.8	24.9	22.5	17.9	43.9	72.4	96.7
89°	3.4	2.6	3.3	5.4	10.0	14.8	13.1	8.1	28.4	49.7	75.7



REPORT NUMBER: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3272.9	3272.9	3272.9
1°	3278.5	3278.8	3277.6
2°	3287.4	3288.1	3286.2
3°	3299.5	3300.2	3297.5
4°	3314.7	3315.0	3312.1
5°	3331.2	3331.6	3329.0
6°	3350.5	3350.8	3347.6
7°	3372.4	3370.9	3366.7
8°	3396.1	3393.4	3388.2
9°	3423.0	3418.5	3412.7
10°	3452.3	3446.1	3438.9
11°	3482.9	3475.5	3467.1
12°	3515.7	3505.8	3495.2
13°	3549.9	3535.6	3523.8
14°	3585.7	3567.0	3553.5
15°	3620.4	3600.0	3584.7
16°	3655.8	3633.9	3615.7
17°	3692.8	3668.5	3649.7
18°	3730.3	3705.0	3685.3
19°	3769.5	3741.9	3721.8
20°	3808.9	3780.4	3760.5
21°	3849.7	3820.9	3802.0
22°	3893.0	3863.1	3844.9
23°	3937.3	3907.3	3890.3
24°	3980.9	3951.7	3937.6
25°	4027.5	3999.2	3985.8
26°	4075.9	4048.1	4036.7
27°	4126.1	4098.1	4089.3
28°	4177.4	4148.0	4143.4
29°	4231.1	4199.6	4199.6
30°	4284.6	4252.8	4257.1
31°	4340.0	4306.8	4314.9
32°	4394.9	4360.7	4372.2
33°	4450.9	4416.4	4430.4
34°	4508.2	4471.0	4489.1
35°	4566.2	4525.8	4549.8
36°	4625.4	4580.8	4610.7
37°	4684.6	4637.9	4671.4
38°	4744.9	4696.1	4732.5
39°	4805.4	4755.4	4792.4
40°	4868.4	4816.9	4853.4
41°	4930.1	4880.4	4911.8
42°	4992.2	4945.3	4973.2
43°	5056.4	5010.0	5031.2
44°	5121.7	5077.5	5088.9



REPORT NUMBER: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	5188.3	5149.2	5148.7
46°	5255.2	5220.2	5208.4
47°	5324.4	5294.1	5267.9
48°	5395.8	5369.5	5330.4
49°	5469.2	5449.4	5393.5
50°	5543.4	5527.6	5458.8
51°	5617.1	5608.0	5524.5
52°	5691.1	5688.0	5591.1
53°	5766.5	5768.7	5659.4
54°	5841.7	5846.9	5725.5
55°	5921.0	5923.4	5791.4
56°	6003.5	5995.9	5851.5
57°	6087.8	6063.0	5909.0
58°	6168.0	6124.2	5963.9
59°	6245.7	6181.0	6012.6
60°	6326.0	6230.5	6055.3
61°	6405.6	6273.6	6090.4
62°	6483.3	6311.7	6117.8
63°	6562.6	6345.6	6141.4
64°	6640.8	6377.2	6162.5
65°	6712.4	6404.8	6182.1
66°	6775.5	6430.7	6193.6
67°	6825.7	6447.0	6192.0
68°	6860.3	6442.7	6134.1
69°	6872.4	6398.2	5951.5
70°	6865.3	6271.7	5572.7
71°	6827.4	5989.4	4977.7
72°	6745.2	5493.2	4347.3
73°	6581.8	4829.8	3682.1
74°	6257.3	4080.2	2910.1
75°	5723.7	3286.0	1942.5
76°	5017.6	2396.7	1059.0
77°	4232.9	1387.0	789.3
78°	3261.5	1020.7	528.6
79°	2118.3	660.0	267.8
80°	1143.9	299.2	237.6
81°	836.2	251.9	211.5
82°	552.9	221.2	188.0
83°	269.6	193.2	166.5
84°	224.8	167.7	146.0
85°	182.9	144.5	126.3
86°	149.0	123.4	107.7
87°	119.7	103.9	89.9
88°	92.1	86.6	77.6
89°	75.7	69.5	65.4



REPORT NUMBER: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-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: P1436716

CATALOG NUMBER: XAS180-SFPM (3000K-180W-T5-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)