

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: P1436733

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

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436733
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)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 5
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

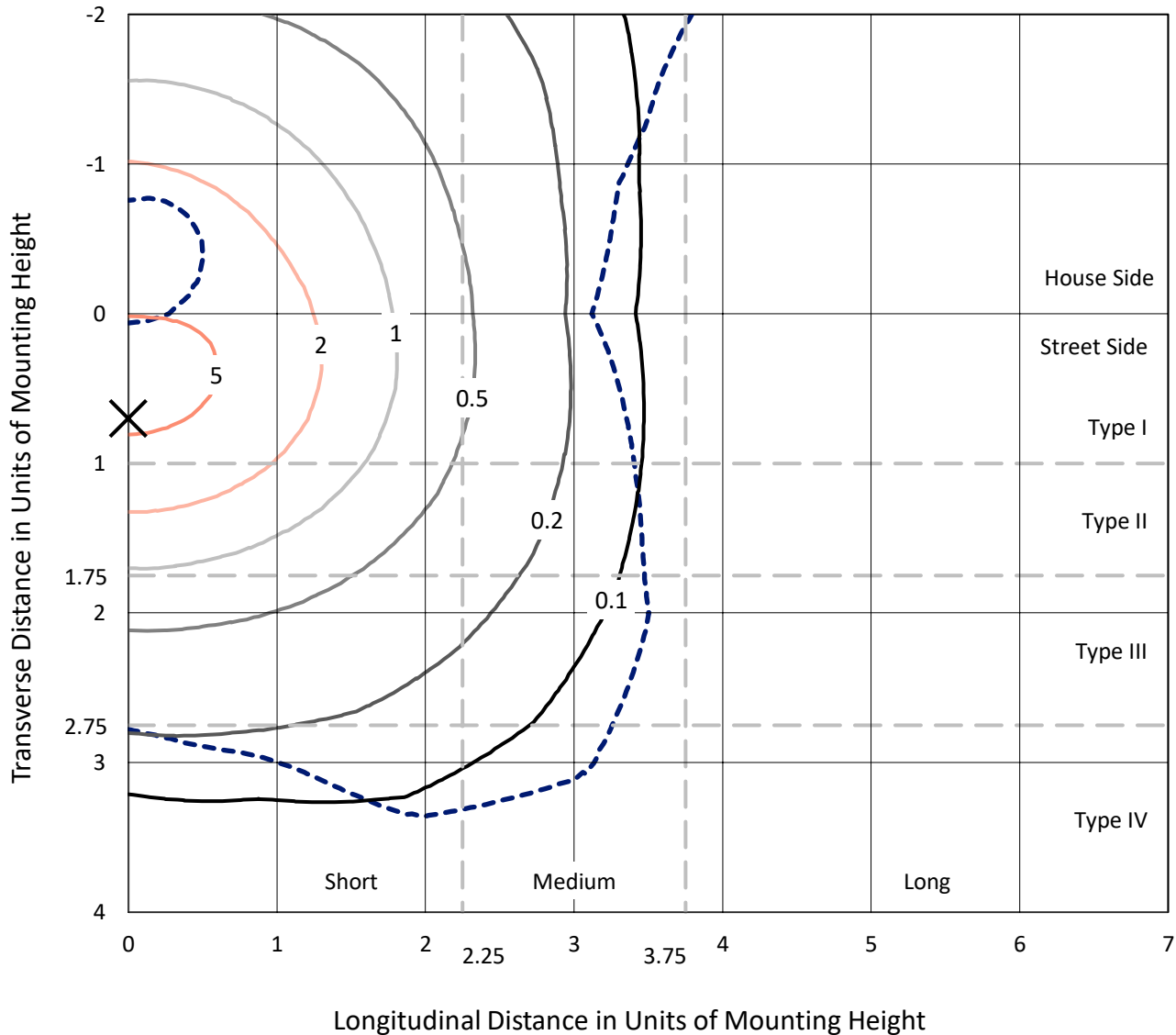
Lumens per Lamp: 28628 (1 lamp)
Luminaire Lumens: 22938.7 lumens
Efficiency: 80.1%
Efficacy: 162.2 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 141.4
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

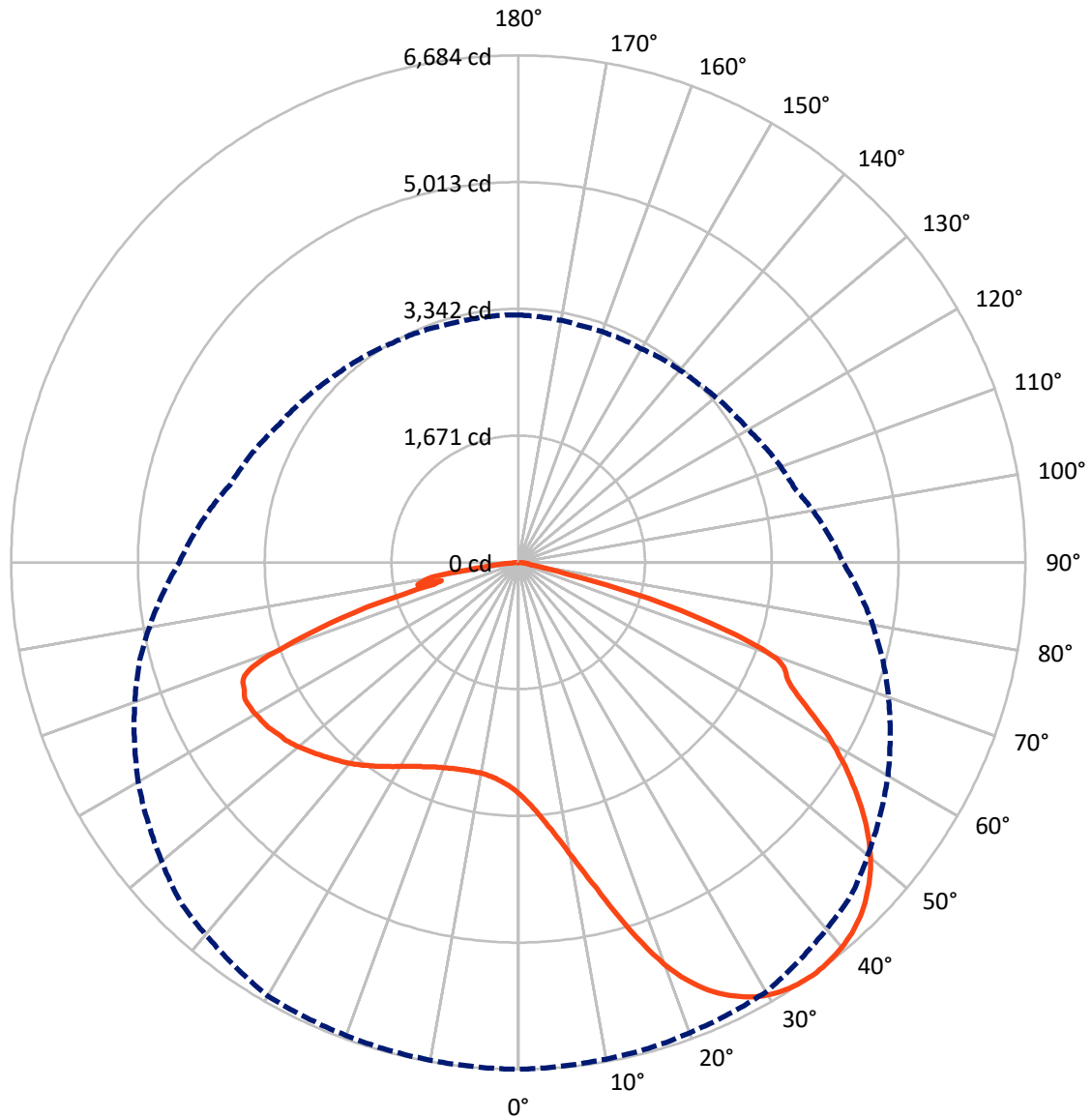
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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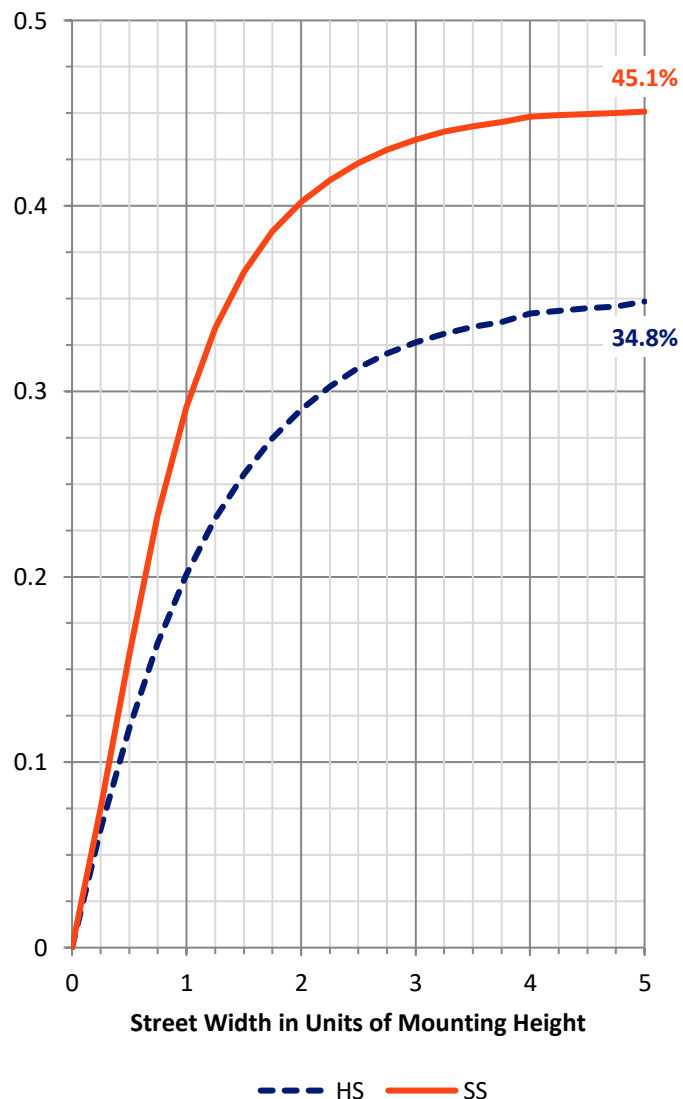
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10042.2	0.0	10042.2
	% Lamp	35.1	0.0	35.1
Street Side	Lumens	12896.5	0.0	12896.5
	% Lamp	45.0	0.0	45.0
Total	Lumens	22938.7	0.0	22938.7
	% Lamp	80.1	0.0	80.1

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	303.9	1.3	1.1
10°-20°	1031.3	4.5	3.6
20°-30°	1979.8	8.6	6.9
30°-40°	2982.2	13.0	10.4
40°-50°	3900.1	17.0	13.6
50°-60°	4586.6	20.0	16.0
60°-70°	4785.4	20.9	16.7
70°-80°	3063.7	13.4	10.7
80°-90°	305.8	1.3	1.1
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°	22938.7	100.0	80.1
0°-180°	22938.7	100.0	80.1

Coefficient of Utilization



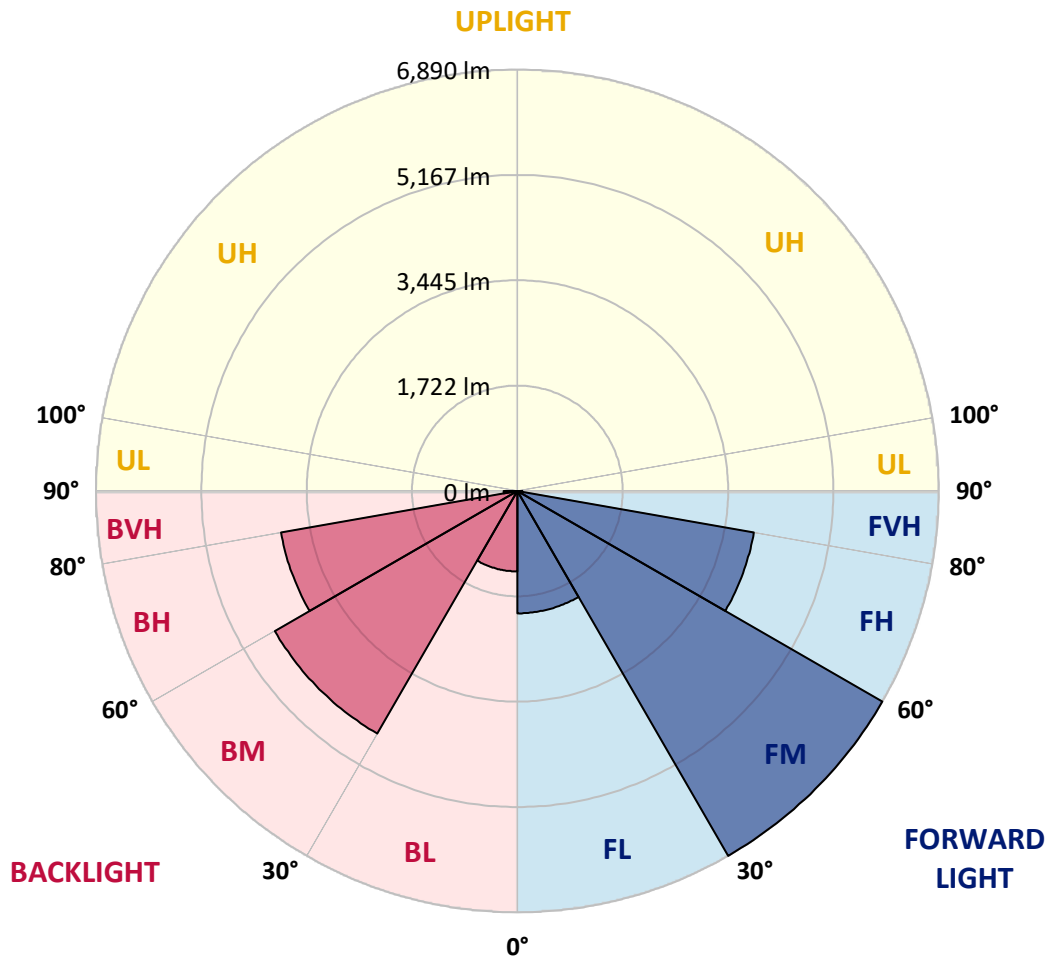
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2000.5	7.0			
FM (30°-60°)	6889.8	24.1			
FH (60°-80°)	3925.7	13.7			G2/5000
FVH (80°-90°)	80.6	0.3			G1/100
BL (0°-30°)	1314.5	4.6	B3/2500		
BM (30°-60°)	4579.1	16.0	B3/5000		
BH (60°-80°)	3923.4	13.7	B4/5000		G4/5000
BVH (80°-90°)	225.2	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	5689.3	19.9			

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°	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6
1°	3115.6	3114.7	3110.6	3103.1	3092.8	3081.8	3058.2	3045.7	3035.7	3027.2	3021.8
2°	3175.8	3173.0	3162.4	3144.4	3120.7	3095.8	3059.1	3035.5	3014.7	2997.8	2986.9
3°	3243.7	3238.2	3219.2	3190.3	3154.6	3114.9	3064.4	3028.7	2997.8	2973.3	2956.0
4°	3319.1	3309.9	3282.7	3242.0	3191.7	3136.8	3071.6	3024.7	2984.3	2953.1	2930.9
5°	3404.1	3391.3	3354.2	3298.5	3233.3	3162.5	3081.7	3022.6	2973.8	2936.1	2909.4
6°	3497.7	3479.7	3433.6	3362.0	3278.4	3190.1	3093.4	3023.5	2966.3	2922.8	2891.5
7°	3599.7	3577.5	3519.9	3432.9	3327.7	3221.3	3109.6	3027.5	2961.3	2912.4	2878.1
8°	3711.3	3683.2	3613.9	3507.4	3381.1	3257.0	3128.6	3034.9	2959.7	2903.9	2866.8
9°	3831.7	3800.9	3715.0	3588.2	3441.3	3294.1	3149.8	3043.4	2961.1	2899.0	2858.3
10°	3961.9	3922.1	3823.9	3676.3	3505.9	3335.0	3174.0	3055.6	2964.6	2897.9	2852.6
11°	4103.5	4058.6	3941.2	3771.3	3573.6	3379.2	3199.9	3070.4	2970.4	2899.2	2850.2
12°	4256.1	4200.8	4065.7	3869.3	3643.3	3427.5	3228.4	3086.2	2978.5	2902.3	2851.9
13°	4417.9	4356.5	4200.9	3974.6	3718.8	3478.5	3258.3	3103.8	2988.0	2907.9	2855.5
14°	4596.8	4524.9	4345.3	4087.1	3798.9	3529.6	3288.7	3121.3	2998.5	2915.2	2859.6
15°	4787.4	4705.6	4497.6	4205.3	3881.2	3582.8	3321.2	3140.2	3011.0	2924.0	2866.0
16°	4983.8	4889.5	4656.6	4332.4	3969.8	3639.6	3356.2	3161.9	3024.1	2933.8	2874.2
17°	5179.7	5075.7	4815.0	4462.7	4062.2	3698.4	3392.6	3183.5	3039.4	2944.2	2883.5
18°	5372.8	5257.6	4974.1	4593.9	4158.7	3758.5	3430.6	3208.2	3055.9	2957.2	2892.3
19°	5554.3	5432.3	5130.9	4721.1	4258.5	3821.1	3470.1	3233.8	3072.5	2970.8	2903.4
20°	5721.3	5597.3	5279.5	4848.0	4360.1	3886.7	3511.9	3261.1	3090.5	2985.3	2916.0
21°	5871.9	5750.3	5423.7	4971.3	4460.5	3954.7	3554.2	3289.6	3109.5	2999.1	2929.6
22°	6001.7	5881.1	5558.8	5091.2	4561.7	4024.5	3598.5	3319.1	3131.2	3015.4	2944.8
23°	6119.4	6007.1	5684.4	5206.1	4661.8	4097.6	3644.5	3349.4	3154.8	3032.8	2961.6
24°	6222.8	6115.7	5800.9	5314.0	4759.9	4172.6	3691.3	3381.4	3179.0	3052.5	2979.7
25°	6311.6	6212.7	5908.8	5419.7	4856.0	4248.6	3740.8	3414.4	3203.9	3073.7	2998.2
26°	6388.2	6298.6	6009.9	5518.5	4948.4	4323.9	3791.0	3448.6	3230.0	3095.4	3018.5
27°	6457.1	6371.6	6099.2	5613.4	5038.4	4400.9	3841.4	3483.2	3256.3	3118.5	3039.7
28°	6515.2	6433.7	6179.8	5704.4	5123.4	4477.0	3893.7	3516.9	3284.2	3143.7	3062.0
29°	6563.5	6488.1	6253.5	5790.8	5204.1	4552.9	3947.1	3552.2	3311.4	3170.8	3085.5
30°	6601.4	6531.5	6319.5	5874.2	5284.1	4626.4	4002.3	3588.2	3340.9	3197.8	3109.8
31°	6632.6	6566.3	6377.2	5951.0	5358.2	4699.4	4057.4	3623.4	3371.5	3225.2	3135.2
32°	6655.2	6594.8	6428.1	6022.6	5429.3	4771.1	4113.2	3660.3	3401.8	3253.7	3162.5
33°	6672.4	6615.4	6472.7	6090.7	5497.8	4840.8	4168.7	3698.6	3433.8	3282.0	3190.8
34°	6680.2	6627.6	6508.2	6151.7	5563.0	4908.9	4224.7	3735.0	3466.1	3311.3	3219.7
35°	6683.8	6633.5	6538.1	6208.1	5627.4	4974.6	4280.6	3772.2	3499.1	3341.6	3250.6
36°	6681.8	6635.2	6561.9	6260.0	5686.6	5038.3	4336.2	3809.4	3532.8	3372.4	3282.6
37°	6672.6	6630.0	6578.7	6307.2	5744.2	5099.6	4390.6	3847.8	3566.9	3404.6	3315.5
38°	6658.8	6620.5	6589.9	6349.6	5799.4	5159.9	4446.8	3887.2	3600.9	3438.3	3349.0
39°	6641.8	6608.8	6593.9	6385.4	5852.6	5218.9	4502.9	3926.3	3635.7	3471.9	3382.1
40°	6619.3	6592.0	6593.7	6418.0	5902.7	5276.1	4560.1	3968.1	3671.5	3506.6	3415.7
41°	6588.5	6569.1	6586.5	6445.4	5949.4	5331.1	4614.2	4011.8	3708.5	3541.6	3450.0
42°	6554.5	6540.8	6574.5	6469.1	5995.7	5385.2	4666.8	4055.8	3745.7	3578.1	3484.9
43°	6512.9	6509.7	6558.2	6486.5	6037.5	5438.9	4718.6	4098.5	3782.8	3616.3	3520.2
44°	6464.3	6473.8	6535.7	6496.6	6077.3	5490.2	4766.0	4143.2	3821.2	3654.3	3556.9

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

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	6408.0	6429.3	6505.2	6504.1	6116.0	5541.4	4814.7	4190.3	3862.1	3693.0	3593.8
46°	6341.8	6382.2	6474.0	6505.4	6152.7	5592.1	4862.1	4239.0	3904.2	3732.8	3631.9
47°	6270.7	6324.4	6435.7	6501.0	6188.3	5643.4	4908.0	4288.1	3947.0	3772.9	3671.5
48°	6194.6	6261.5	6391.4	6488.9	6220.0	5690.2	4951.0	4337.9	3991.6	3813.8	3711.4
49°	6107.9	6190.0	6342.9	6474.9	6247.7	5735.7	4992.3	4388.1	4037.5	3857.0	3752.5
50°	6014.4	6109.5	6284.4	6451.8	6272.3	5780.3	5032.1	4437.9	4083.6	3900.6	3795.6
51°	5909.1	6021.6	6220.2	6424.0	6293.4	5821.2	5072.2	4488.3	4132.1	3947.5	3838.7
52°	5797.2	5921.9	6146.8	6387.3	6310.3	5858.7	5109.7	4540.8	4181.8	3996.1	3885.6
53°	5678.1	5815.6	6068.7	6343.5	6322.8	5893.0	5145.1	4590.4	4232.2	4044.3	3930.1
54°	5554.7	5698.4	5981.6	6295.1	6327.4	5923.1	5179.0	4638.9	4285.6	4094.4	3978.0
55°	5424.7	5573.5	5885.1	6238.0	6324.8	5947.5	5208.4	4682.6	4339.5	4147.3	4027.1
56°	5286.2	5446.3	5780.1	6173.3	6316.5	5966.0	5235.2	4724.8	4393.6	4201.4	4077.5
57°	5151.8	5313.0	5673.4	6103.2	6297.3	5977.8	5259.0	4763.4	4448.0	4258.5	4129.2
58°	5009.4	5177.6	5558.9	6025.5	6268.3	5979.8	5275.0	4798.4	4502.6	4318.0	4177.9
59°	4868.8	5039.7	5444.2	5939.0	6229.7	5971.5	5284.5	4829.8	4557.3	4380.6	4226.0
60°	4717.7	4900.8	5323.3	5845.9	6180.5	5952.9	5289.1	4856.6	4612.1	4444.0	4273.5
61°	4560.9	4754.7	5202.5	5749.5	6120.0	5925.6	5283.8	4878.2	4667.1	4508.2	4321.4
62°	4397.0	4605.8	5082.7	5645.6	6051.8	5883.7	5268.9	4893.4	4720.0	4571.9	4368.4
63°	4235.5	4455.9	4964.3	5537.0	5975.7	5826.1	5241.5	4902.0	4772.0	4634.5	4413.9
64°	4083.5	4310.4	4846.8	5426.9	5886.0	5753.5	5200.8	4903.9	4823.0	4697.2	4457.3
65°	3960.7	4177.5	4732.3	5314.0	5789.1	5667.2	5150.0	4895.7	4871.8	4760.6	4498.4
66°	3870.5	4068.1	4622.3	5201.8	5679.7	5563.4	5080.5	4875.4	4914.1	4830.6	4535.8
67°	3819.4	3988.1	4522.8	5091.3	5555.4	5446.8	4991.2	4841.8	4949.8	4896.5	4570.4
68°	3766.3	3933.4	4435.9	4981.9	5417.7	5309.9	4834.7	4783.2	4976.3	4958.7	4569.0
69°	3644.8	3880.3	4365.4	4873.1	5264.1	5129.8	4583.9	4667.0	4986.2	5014.5	4550.4
70°	3405.2	3782.5	4309.7	4763.3	5103.2	4878.0	4236.4	4473.8	4979.8	5060.0	4553.5
71°	3042.1	3589.2	4259.3	4659.0	4911.1	4551.0	3812.9	4194.4	4932.6	5088.8	4527.2
72°	2649.9	3274.2	4199.3	4551.1	4676.1	4163.2	3412.4	3870.9	4818.0	5077.3	4473.7
73°	2245.1	2866.6	4104.1	4435.5	4402.9	3767.1	3075.7	3550.0	4637.0	5015.4	4400.6
74°	1778.1	2427.5	3918.7	4296.4	4096.4	3381.5	2674.3	3245.6	4404.2	4900.6	4256.6
75°	1192.5	1953.9	3592.0	4094.8	3748.3	2957.0	2033.8	2888.8	4142.8	4721.7	4040.8
76°	649.1	1386.5	3151.6	3801.0	3385.3	2377.2	1393.2	2236.4	3884.4	4431.5	3748.4
77°	424.5	773.9	2679.0	3381.1	2989.0	1611.2	758.0	1583.9	3592.5	4006.1	3402.2
78°	201.8	570.0	2111.0	2801.4	2487.0	883.2	367.9	935.2	3159.1	3427.6	2977.1
79°	160.7	369.7	1392.1	2122.5	1841.0	655.4	229.2	455.8	2394.5	2795.8	2499.0
80°	138.6	169.4	736.2	1400.2	1127.7	441.9	198.3	253.7	1629.9	2231.7	2054.4
81°	119.2	143.1	470.3	733.0	805.1	228.4	167.3	212.4	868.1	1764.5	1863.7
82°	101.8	121.8	209.7	472.0	495.7	192.7	136.4	171.1	416.8	1300.4	1575.8
83°	85.7	102.0	168.3	214.2	186.4	158.6	114.9	129.8	274.2	973.9	1287.9
84°	71.1	83.9	136.3	167.8	149.5	122.8	94.6	104.9	220.0	685.5	997.1
85°	56.6	68.8	104.2	138.4	115.1	94.3	74.9	83.5	180.2	442.1	616.5
86°	42.0	53.7	78.1	111.0	84.7	74.2	56.6	64.9	140.4	317.6	435.6
87°	28.7	38.6	56.6	80.9	62.5	54.2	39.4	48.2	102.6	193.1	254.7
88°	16.6	25.2	35.1	65.0	40.4	34.3	27.4	36.8	67.8	71.4	75.8
89°	7.0	11.0	14.6	49.3	18.2	17.2	15.3	25.3	46.1	48.4	51.3



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CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6	3063.6
1°	3019.2	3018.8	3021.2	3029.3	3037.2	3048.5	3060.5	3063.1	3075.0	3087.8	3098.0
2°	2980.8	2979.3	2985.1	2996.4	3012.1	3031.1	3054.9	3069.3	3095.5	3120.8	3142.5
3°	2947.4	2945.4	2952.7	2967.9	2990.1	3018.8	3052.6	3079.6	3118.0	3157.7	3192.9
4°	2919.6	2917.1	2925.8	2944.6	2973.0	3009.3	3053.1	3092.1	3144.5	3198.6	3248.2
5°	2896.0	2892.4	2902.9	2925.5	2958.6	3003.2	3056.2	3107.4	3175.2	3244.4	3307.4
6°	2876.2	2872.0	2884.1	2909.3	2948.6	2999.8	3061.9	3126.0	3207.9	3293.8	3375.3
7°	2859.1	2855.4	2867.9	2896.5	2940.6	2999.6	3071.8	3148.2	3245.1	3349.4	3449.0
8°	2846.8	2842.2	2856.3	2887.6	2935.8	3001.8	3083.7	3171.7	3284.7	3409.6	3528.4
9°	2836.3	2831.7	2847.0	2881.7	2934.0	3006.4	3097.4	3197.9	3328.2	3474.0	3613.3
10°	2829.6	2824.5	2841.4	2878.6	2934.8	3012.7	3113.0	3226.8	3374.4	3542.1	3705.2
11°	2826.5	2820.8	2839.0	2879.3	2939.5	3021.7	3132.0	3259.2	3426.2	3615.5	3805.0
12°	2825.3	2820.0	2839.3	2882.6	2946.3	3033.9	3153.1	3293.0	3479.2	3693.8	3908.6
13°	2827.8	2821.1	2841.3	2887.8	2955.1	3047.5	3176.1	3329.4	3535.2	3776.4	4021.7
14°	2830.5	2824.8	2846.5	2895.4	2966.8	3063.1	3199.8	3366.7	3593.6	3863.2	4140.6
15°	2835.8	2829.4	2853.1	2904.4	2980.5	3081.2	3224.8	3405.4	3654.1	3955.1	4268.8
16°	2842.0	2835.6	2860.1	2913.7	2994.1	3100.5	3251.6	3446.9	3717.7	4052.7	4402.7
17°	2849.1	2842.7	2868.8	2925.2	3009.9	3121.4	3280.2	3489.9	3784.6	4154.1	4539.4
18°	2857.9	2851.2	2879.4	2936.9	3026.6	3142.1	3309.1	3533.8	3851.9	4260.1	4678.8
19°	2867.5	2861.6	2890.2	2950.5	3043.3	3165.3	3339.9	3579.0	3922.1	4368.2	4816.5
20°	2880.1	2873.5	2903.4	2965.6	3061.1	3188.4	3372.0	3626.0	3997.3	4477.1	4948.2
21°	2893.6	2887.9	2917.9	2982.1	3079.0	3212.9	3406.2	3675.1	4071.7	4590.7	5076.4
22°	2908.6	2902.6	2934.4	3000.2	3099.0	3238.9	3440.9	3725.6	4152.3	4699.8	5199.3
23°	2925.2	2920.2	2952.3	3019.4	3120.6	3266.0	3475.7	3777.8	4235.6	4808.1	5316.3
24°	2943.0	2939.8	2972.0	3040.4	3142.9	3292.9	3511.5	3831.2	4317.9	4911.0	5425.3
25°	2962.4	2959.9	2993.2	3062.4	3167.5	3321.6	3549.1	3884.3	4401.7	5012.0	5529.1
26°	2983.8	2982.5	3015.9	3084.9	3192.8	3350.2	3586.4	3939.8	4486.3	5105.8	5629.6
27°	3005.3	3006.7	3039.6	3108.6	3219.0	3378.4	3624.4	3996.1	4571.4	5196.4	5722.5
28°	3028.2	3034.1	3064.2	3134.1	3246.2	3409.2	3662.6	4055.0	4655.4	5283.6	5812.8
29°	3053.0	3062.5	3090.3	3159.9	3274.5	3439.8	3701.7	4112.2	4736.7	5366.1	5899.0
30°	3079.7	3093.4	3118.5	3186.3	3301.8	3471.5	3740.4	4170.6	4817.7	5444.1	5979.3
31°	3107.8	3124.5	3147.9	3213.5	3331.2	3503.4	3778.8	4229.2	4895.0	5517.4	6054.7
32°	3136.9	3158.2	3177.6	3243.3	3361.9	3536.6	3818.3	4288.6	4969.1	5587.3	6125.6
33°	3167.5	3192.1	3207.9	3272.7	3392.3	3569.6	3857.2	4348.4	5041.8	5656.7	6193.5
34°	3197.7	3226.3	3238.2	3303.4	3424.4	3603.3	3896.5	4407.9	5108.8	5721.3	6256.5
35°	3228.0	3261.4	3268.6	3335.4	3456.2	3638.3	3936.0	4468.1	5176.0	5785.6	6312.7
36°	3259.5	3297.1	3299.0	3368.2	3488.5	3673.1	3978.2	4529.5	5240.9	5843.5	6365.0
37°	3288.4	3332.0	3330.3	3400.7	3521.7	3709.4	4020.4	4588.3	5302.4	5900.7	6411.9
38°	3320.3	3368.7	3363.0	3435.8	3555.7	3744.7	4064.0	4648.4	5363.6	5954.7	6455.8
39°	3352.3	3404.3	3395.7	3470.2	3590.4	3782.9	4107.7	4705.9	5420.4	6006.1	6492.8
40°	3385.3	3438.8	3429.9	3505.4	3626.5	3819.6	4152.2	4762.1	5475.2	6055.0	6525.1
41°	3419.5	3471.6	3464.0	3541.4	3663.4	3857.6	4197.1	4817.9	5527.7	6100.8	6549.3
42°	3453.6	3504.6	3499.5	3576.6	3702.2	3897.7	4242.9	4870.8	5581.1	6146.6	6568.2
43°	3488.1	3536.5	3536.2	3615.5	3740.1	3938.8	4291.6	4922.7	5633.2	6187.1	6584.3
44°	3524.5	3569.9	3573.9	3653.7	3779.6	3982.4	4340.4	4973.9	5684.5	6224.2	6592.4



REPORT NUMBER: P1436733

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3561.9	3603.2	3611.7	3693.3	3820.9	4024.0	4389.9	5024.1	5733.0	6260.1	6596.4
46°	3600.1	3634.3	3650.5	3732.3	3861.8	4068.8	4438.9	5070.1	5779.9	6292.1	6593.0
47°	3640.2	3664.8	3691.5	3771.9	3904.8	4112.2	4488.8	5112.5	5825.0	6322.0	6584.5
48°	3681.0	3697.4	3733.6	3812.9	3948.0	4157.9	4538.6	5154.8	5866.4	6346.7	6570.9
49°	3723.5	3731.2	3775.4	3853.2	3991.8	4204.5	4586.6	5194.5	5905.5	6368.6	6551.0
50°	3766.6	3763.7	3819.3	3895.4	4037.7	4253.3	4634.8	5232.2	5939.4	6388.3	6526.5
51°	3812.8	3797.7	3863.5	3938.4	4082.7	4301.1	4682.0	5266.1	5971.2	6401.2	6494.4
52°	3857.6	3830.4	3907.8	3983.4	4132.1	4349.0	4728.1	5297.5	5997.0	6409.5	6454.1
53°	3899.1	3856.5	3948.1	4028.3	4181.1	4398.3	4770.0	5325.7	6016.4	6410.9	6407.9
54°	3935.0	3874.9	3985.5	4075.3	4233.1	4446.8	4810.0	5347.4	6031.7	6409.4	6356.3
55°	3967.4	3894.5	4018.0	4123.2	4284.7	4496.0	4846.6	5365.5	6039.5	6397.6	6299.7
56°	4001.1	3918.5	4049.9	4172.6	4340.6	4546.0	4877.8	5379.4	6038.8	6379.1	6234.2
57°	4033.1	3943.9	4082.4	4221.0	4395.2	4596.4	4907.2	5386.8	6028.5	6349.8	6161.5
58°	4064.5	3962.2	4113.5	4273.5	4452.7	4644.7	4930.7	5390.0	6009.1	6312.7	6080.5
59°	4090.0	3975.8	4138.8	4322.3	4513.0	4690.8	4949.5	5387.4	5980.5	6265.7	5993.0
60°	4112.0	3992.1	4160.9	4371.7	4574.6	4736.5	4965.6	5376.9	5942.7	6209.0	5897.4
61°	4134.6	4007.6	4183.7	4418.1	4637.3	4782.7	4975.9	5354.5	5896.3	6141.0	5795.9
62°	4156.7	4017.7	4205.6	4466.9	4697.1	4829.6	4979.3	5321.1	5837.8	6062.7	5689.2
63°	4173.9	4025.5	4224.9	4513.3	4754.6	4872.5	4976.6	5278.2	5764.4	5973.4	5578.4
64°	4188.6	4028.9	4242.0	4557.2	4812.4	4912.5	4967.9	5223.0	5680.1	5877.2	5466.4
65°	4189.9	3998.4	4243.3	4598.1	4870.5	4948.0	4946.3	5151.0	5579.9	5767.6	5349.2
66°	4150.3	3972.3	4200.2	4632.1	4927.6	4975.7	4914.1	5060.6	5464.7	5645.7	5230.4
67°	4127.8	3959.0	4177.0	4658.3	4978.5	4997.9	4862.6	4928.2	5334.9	5512.7	5114.6
68°	4118.6	3909.4	4160.7	4647.9	5026.6	5009.7	4766.4	4703.0	5167.2	5368.5	4997.0
69°	4059.4	3768.6	4096.2	4621.7	5066.5	5001.2	4592.8	4372.7	4927.2	5204.4	4880.2
70°	3943.0	3512.7	3981.2	4618.6	5097.1	4965.7	4319.9	3946.9	4607.6	5015.9	4763.0
71°	3757.8	3135.2	3797.0	4585.9	5102.4	4876.2	3976.7	3508.7	4208.5	4787.9	4637.5
72°	3461.1	2783.7	3502.6	4531.6	5066.7	4716.4	3615.3	3122.2	3784.1	4511.0	4506.8
73°	3094.7	2450.3	3124.8	4447.5	4973.3	4485.5	3272.2	2741.6	3374.2	4190.6	4356.6
74°	2735.3	2077.8	2778.0	4296.5	4820.9	4225.3	2920.8	2259.2	2957.7	3826.3	4180.7
75°	2357.4	1582.3	2409.3	4064.3	4591.2	3938.0	2447.5	1570.7	2455.7	3426.1	3931.9
76°	1902.8	1143.0	1951.6	3757.9	4236.8	3631.7	1760.1	889.4	1769.7	3007.4	3589.7
77°	1464.5	1041.2	1546.8	3405.6	3756.0	3262.2	1077.5	651.6	1035.2	2547.1	3118.0
78°	1377.9	1357.9	1501.9	2969.5	3166.2	2683.4	531.7	426.6	765.9	1977.4	2493.0
79°	1697.9	1291.6	1808.1	2464.6	2586.6	1865.7	283.0	201.6	508.6	1309.5	1800.4
80°	1984.2	1225.2	1545.3	1967.0	2099.5	1054.0	235.2	171.8	251.4	739.7	1107.9
81°	1548.7	1152.7	1282.6	1785.1	1612.5	506.2	187.4	147.2	208.5	480.6	800.1
82°	1113.0	661.7	1015.7	1475.8	1125.5	299.4	139.6	124.6	177.3	223.1	500.9
83°	634.2	470.4	575.3	1166.5	778.7	231.5	116.1	104.0	144.9	169.8	201.6
84°	357.8	279.2	347.5	855.8	471.9	189.9	94.6	84.2	113.0	135.9	159.6
85°	237.4	90.4	279.2	479.9	344.1	148.4	75.3	66.8	86.3	102.9	131.6
86°	117.8	61.2	210.9	384.2	216.4	107.1	57.8	49.6	66.9	74.7	105.1
87°	81.8	32.1	142.6	288.5	90.2	75.6	42.4	32.3	47.8	53.7	73.7
88°	45.8	2.9	74.3	192.8	61.2	51.5	29.2	18.2	28.6	32.6	43.1
89°	10.1	1.9	6.7	97.1	32.2	27.3	16.0	6.8	12.4	13.0	12.5



REPORT NUMBER: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3063.6	3063.6	3063.6
1°	3106.9	3113.0	3115.6
2°	3161.2	3173.5	3175.8
3°	3220.4	3238.2	3243.7
4°	3286.5	3313.0	3319.1
5°	3360.7	3395.0	3404.1
6°	3442.9	3485.4	3497.7
7°	3530.7	3585.2	3599.7
8°	3625.7	3692.0	3711.3
9°	3730.8	3806.6	3831.7
10°	3842.1	3933.3	3961.9
11°	3963.5	4073.0	4103.5
12°	4095.2	4218.6	4256.1
13°	4236.4	4377.1	4417.9
14°	4385.9	4547.9	4596.8
15°	4542.0	4724.8	4787.4
16°	4702.4	4909.3	4983.8
17°	4868.2	5097.6	5179.7
18°	5031.0	5284.5	5372.8
19°	5189.3	5461.3	5554.3
20°	5342.2	5629.5	5721.3
21°	5485.1	5781.7	5871.9
22°	5619.2	5917.9	6001.7
23°	5747.1	6039.0	6119.4
24°	5865.5	6147.8	6222.8
25°	5976.9	6241.7	6311.6
26°	6076.8	6325.2	6388.2
27°	6169.8	6395.9	6457.1
28°	6252.0	6457.5	6515.2
29°	6326.5	6509.5	6563.5
30°	6389.9	6553.9	6601.4
31°	6448.0	6587.6	6632.6
32°	6497.1	6616.3	6655.2
33°	6539.2	6636.2	6672.4
34°	6573.3	6649.4	6680.2
35°	6602.2	6654.6	6683.8
36°	6624.1	6654.2	6681.8
37°	6638.1	6649.8	6672.6
38°	6647.2	6639.6	6658.8
39°	6650.1	6626.0	6641.8
40°	6648.1	6607.5	6619.3
41°	6639.7	6585.2	6588.5
42°	6626.4	6558.4	6554.5
43°	6607.8	6528.6	6512.9
44°	6583.0	6491.6	6464.3



REPORT NUMBER: P1436733

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	6555.0	6450.2	6408.0
46°	6520.8	6401.4	6341.8
47°	6482.3	6345.7	6270.7
48°	6438.4	6284.4	6194.6
49°	6388.9	6213.1	6107.9
50°	6332.6	6137.2	6014.4
51°	6268.0	6051.9	5909.1
52°	6195.4	5954.5	5797.2
53°	6114.3	5850.5	5678.1
54°	6029.3	5739.0	5554.7
55°	5937.0	5616.8	5424.7
56°	5835.1	5490.5	5286.2
57°	5727.3	5359.5	5151.8
58°	5612.4	5221.7	5009.4
59°	5496.4	5084.2	4868.8
60°	5379.1	4942.9	4717.7
61°	5257.5	4797.4	4560.9
62°	5139.1	4650.0	4397.0
63°	5021.8	4501.4	4235.5
64°	4908.5	4363.9	4083.5
65°	4799.6	4233.1	3960.7
66°	4696.8	4126.4	3870.5
67°	4598.8	4047.7	3819.4
68°	4510.7	3993.7	3766.3
69°	4434.1	3937.8	3644.8
70°	4375.7	3844.3	3405.2
71°	4315.5	3664.7	3042.1
72°	4238.9	3348.2	2649.9
73°	4121.0	2933.9	2245.1
74°	3906.4	2474.5	1778.1
75°	3568.1	1991.6	1192.5
76°	3126.2	1441.0	649.1
77°	2632.0	827.9	424.5
78°	2013.5	611.3	201.8
79°	1291.2	394.8	160.7
80°	688.8	178.2	138.6
81°	451.6	147.6	119.2
82°	217.4	125.3	101.8
83°	167.9	105.3	85.7
84°	134.8	86.9	71.1
85°	102.4	71.1	56.6
86°	76.2	55.3	42.0
87°	54.4	39.6	28.7
88°	32.8	25.1	16.6
89°	12.8	10.6	7.0



REPORT NUMBER: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436733
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T5)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)