

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: P1436729

Luminaire Tested: XAS180-SFPM (4000K-144W-T3)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436729
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-T3)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 3
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

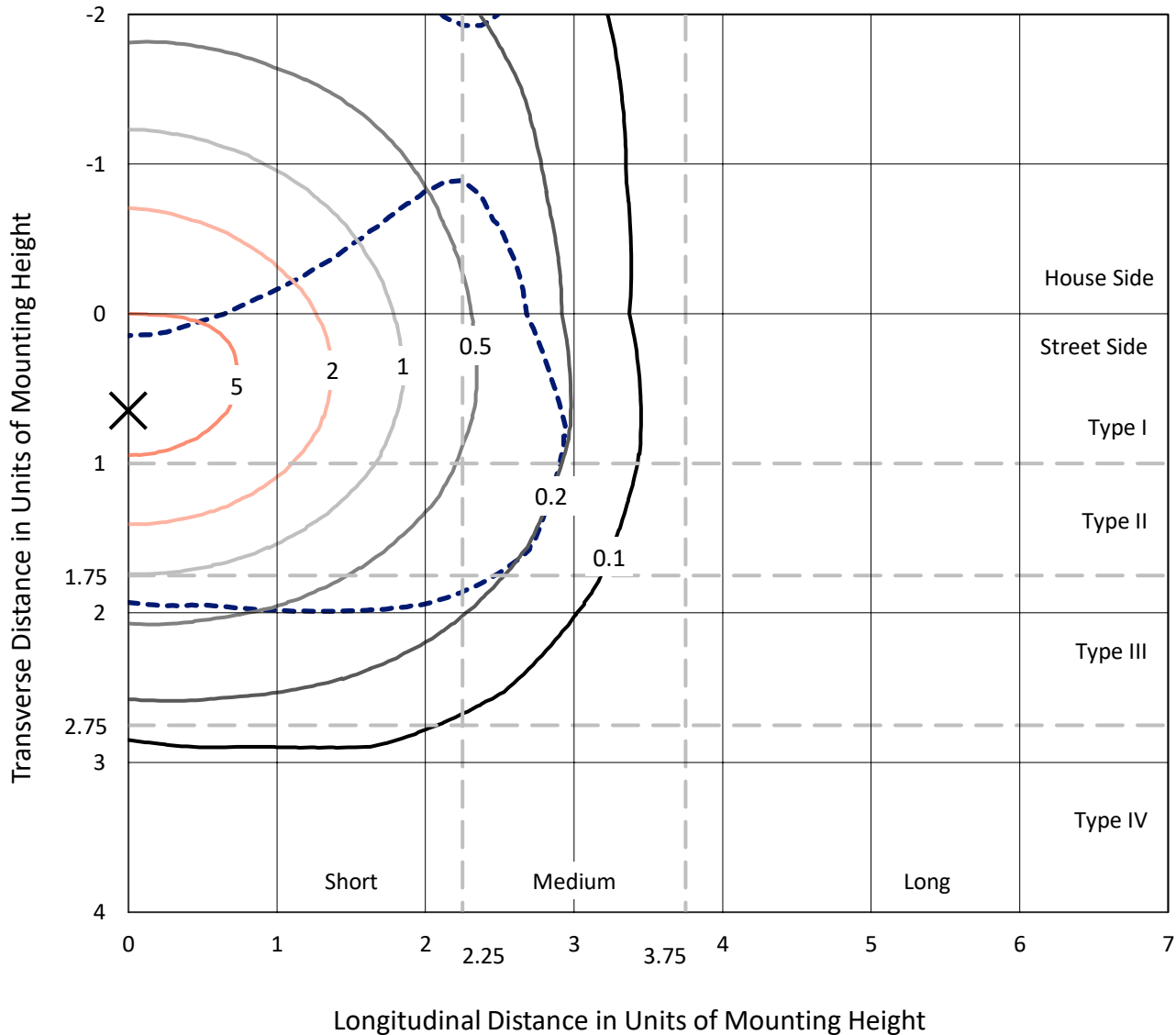
Lumens per Lamp: 27928 (1 lamp)
Luminaire Lumens: 22828.6 lumens
Efficiency: 81.7%
Efficacy: 161.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.35m x L: 0.35m x H: 0.35m)
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 141.5
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

REPORT NUMBER: P1436729
 CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

Iso-Footcandle Lines of Horizontal Illumination

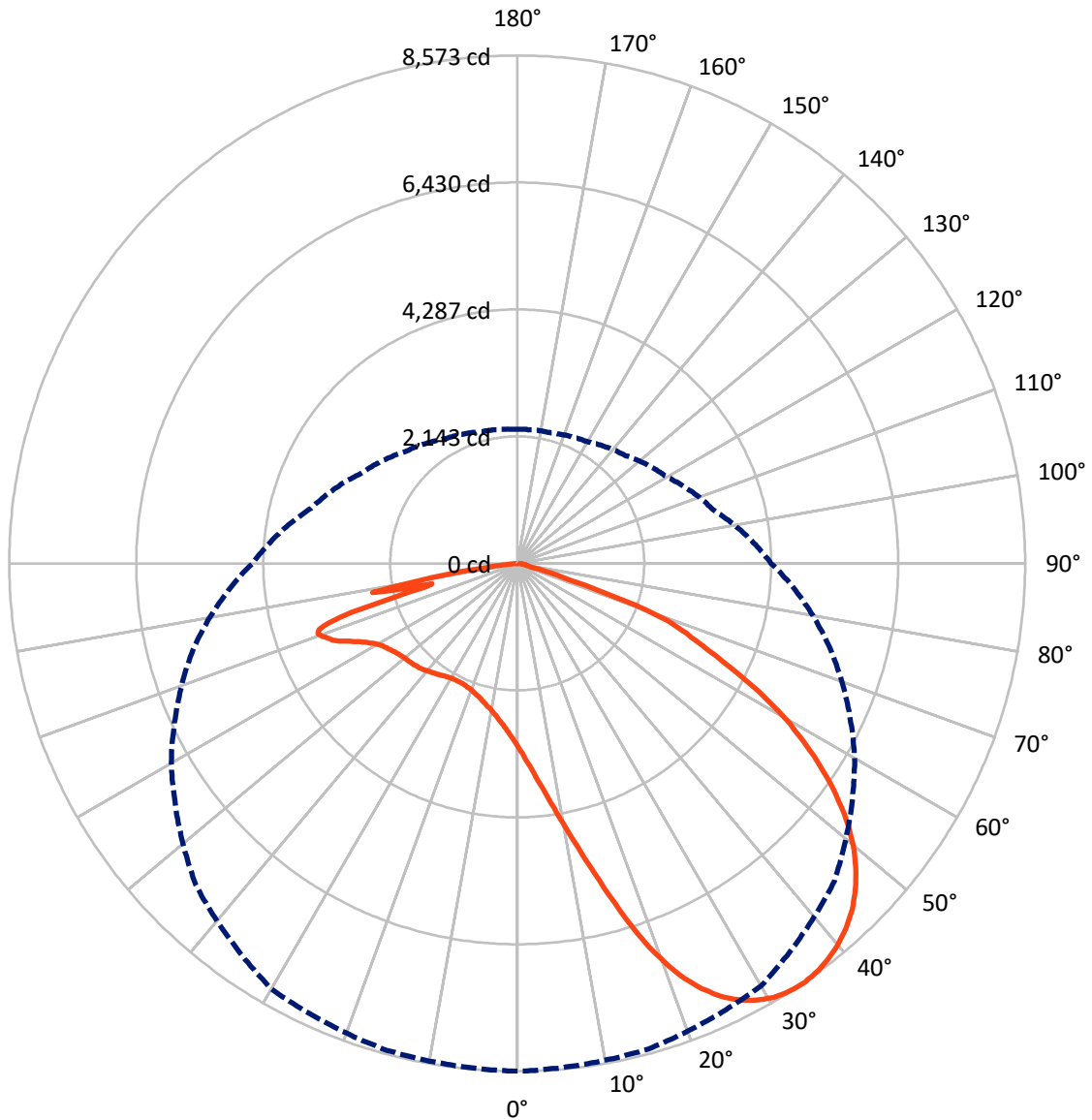
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P1436729
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 33-Deg Vertical

REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

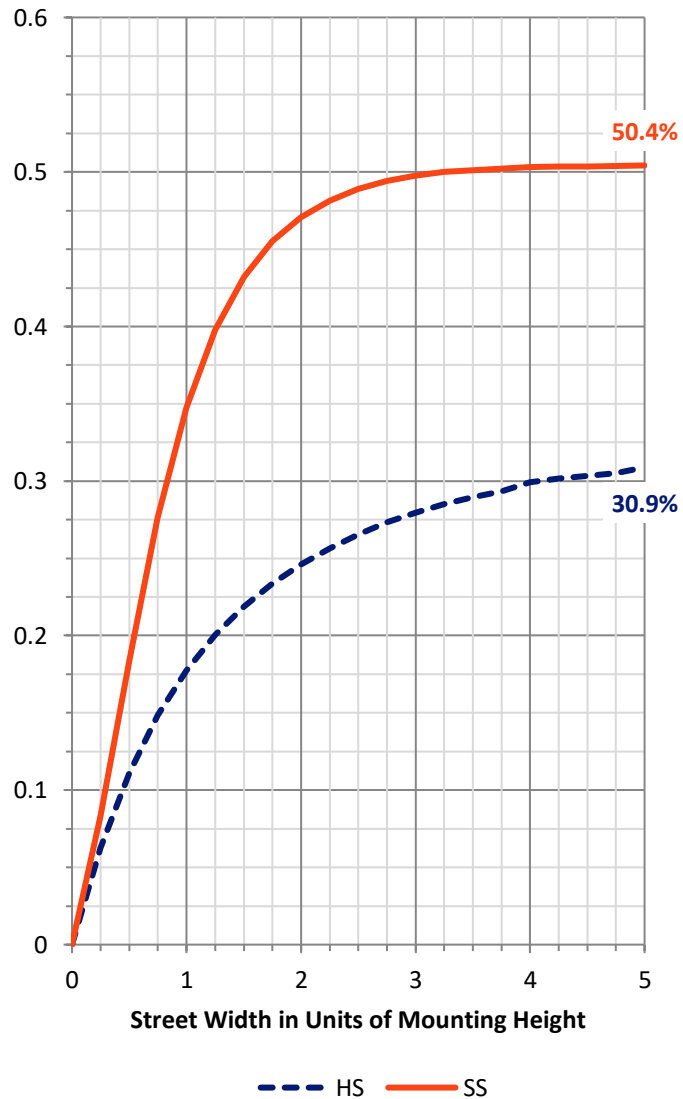
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8735.4	0.0	8735.4
	% Lamp	31.3	0.0	31.3
Street Side	Lumens	14093.2	0.0	14093.2
	% Lamp	50.5	0.0	50.5
Total	Lumens	22828.6	0.0	22828.6
	% Lamp	81.7	0.0	81.7

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	311.4	1.4	1.1
10°-20°	1085.2	4.8	3.9
20°-30°	2132.0	9.3	7.6
30°-40°	3191.6	14.0	11.4
40°-50°	4063.7	17.8	14.6
50°-60°	4543.4	19.9	16.3
60°-70°	4389.6	19.2	15.7
70°-80°	2737.5	12.0	9.8
80°-90°	374.3	1.6	1.3
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°	22828.6	100.0	81.7
0°-180°	22828.6	100.0	81.7

Coefficient of Utilization



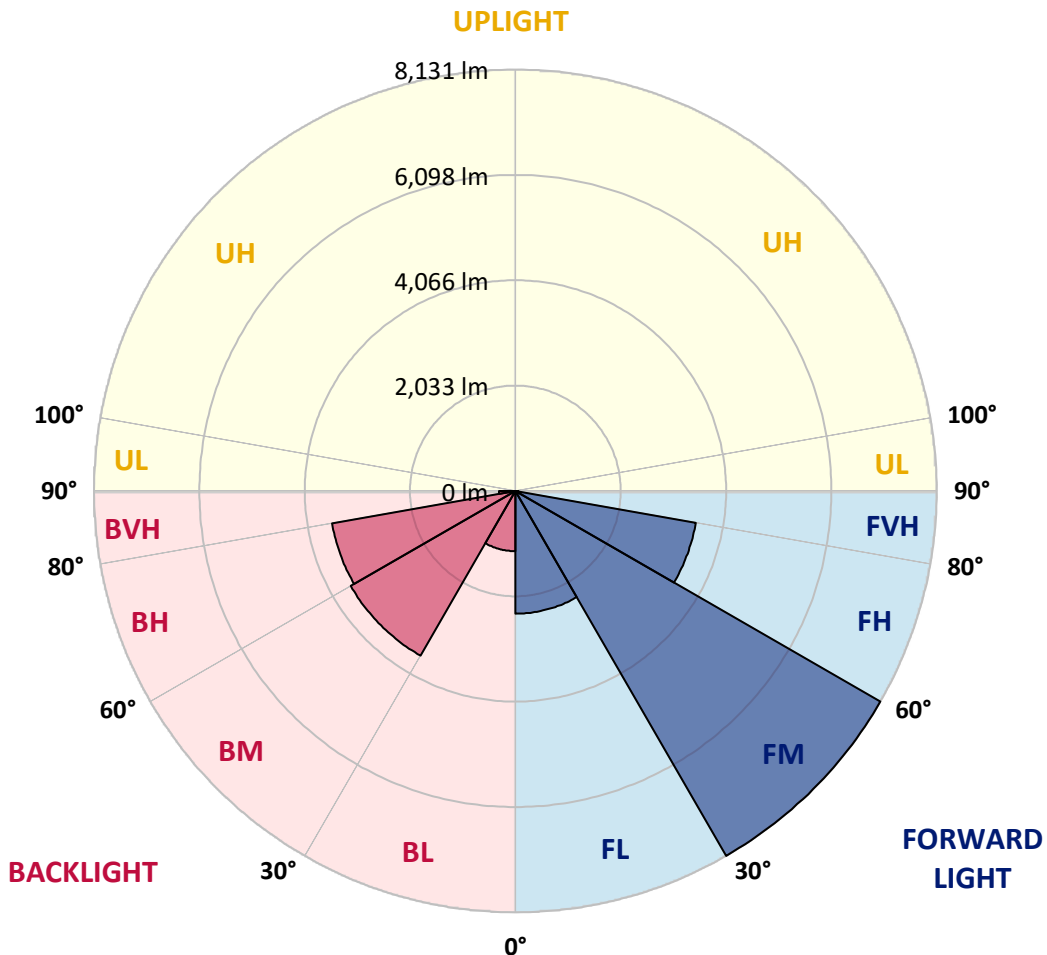
REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2367.2	8.5			
FM (30°-60°)	8131.3	29.1			
FH (60°-80°)	3535.4	12.7			G2/5000
FVH (80°-90°)	59.3	0.2			G1/100
BL (0°-30°)	1161.3	4.2	B3/2500		
BM (30°-60°)	3667.4	13.1	B3/5000		
BH (60°-80°)	3591.7	12.9	B4/5000		G4/5000
BVH (80°-90°)	315.0	1.1			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	5099.4	18.3			

BUG Rating: B4-U0-G4
 Type III Short





REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6
1°	3208.5	3206.0	3199.6	3186.1	3168.7	3147.6	3107.9	3085.0	3064.9	3048.6	3039.1
2°	3311.8	3306.1	3289.5	3257.4	3218.8	3172.6	3109.4	3064.6	3025.7	2993.3	2971.5
3°	3425.1	3415.7	3383.9	3334.7	3272.6	3202.3	3115.1	3048.2	2990.2	2943.9	2909.4
4°	3550.8	3536.0	3487.9	3418.2	3332.0	3235.3	3121.9	3034.2	2958.2	2897.5	2854.1
5°	3686.7	3667.3	3603.0	3508.9	3394.0	3270.0	3131.3	3022.5	2929.2	2856.8	2804.4
6°	3836.1	3807.3	3727.2	3608.5	3463.6	3309.5	3143.1	3013.3	2903.6	2819.2	2757.2
7°	3994.8	3960.6	3863.3	3715.2	3537.6	3353.0	3160.4	3009.3	2881.6	2784.7	2714.0
8°	4168.7	4124.3	4007.4	3828.8	3617.9	3400.6	3179.6	3007.7	2863.6	2752.9	2675.2
9°	4357.4	4303.6	4162.8	3951.1	3704.8	3451.5	3201.6	3008.0	2847.8	2724.5	2638.4
10°	4559.2	4494.1	4328.7	4081.8	3796.6	3506.8	3227.6	3010.9	2834.8	2700.1	2604.6
11°	4774.6	4701.3	4505.8	4222.3	3892.4	3565.1	3256.5	3016.8	2823.4	2677.6	2575.8
12°	5008.2	4921.0	4694.2	4368.5	3993.1	3627.6	3286.9	3024.6	2814.7	2658.0	2549.5
13°	5259.4	5158.5	4899.3	4524.3	4102.0	3693.0	3318.1	3033.9	2808.1	2640.3	2525.9
14°	5530.2	5416.6	5120.1	4691.7	4213.9	3761.1	3351.4	3043.3	2801.8	2625.1	2503.3
15°	5818.8	5685.6	5351.4	4866.5	4332.7	3831.4	3386.2	3054.0	2797.5	2611.8	2482.0
16°	6118.4	5970.6	5588.4	5054.7	4459.3	3905.2	3424.4	3066.9	2794.2	2599.0	2462.7
17°	6416.1	6250.3	5826.4	5246.8	4588.7	3982.1	3463.9	3081.2	2793.4	2587.3	2444.7
18°	6709.2	6526.8	6063.1	5439.8	4725.3	4061.1	3505.4	3096.9	2792.5	2577.1	2428.1
19°	6983.0	6789.9	6297.6	5626.8	4868.7	4143.3	3548.1	3114.6	2792.5	2568.2	2414.2
20°	7234.0	7038.5	6522.0	5813.2	5013.8	4228.8	3593.0	3133.7	2793.1	2560.2	2402.8
21°	7458.5	7264.6	6738.8	5997.7	5157.4	4317.1	3638.7	3154.2	2795.1	2552.7	2392.6
22°	7655.8	7467.0	6937.4	6172.1	5298.7	4410.2	3686.1	3173.9	2799.5	2547.1	2383.6
23°	7830.1	7648.1	7124.3	6340.5	5440.1	4504.2	3735.1	3194.9	2804.1	2542.9	2376.3
24°	7980.5	7809.1	7297.9	6499.5	5577.7	4601.5	3786.1	3217.9	2809.9	2540.2	2369.2
25°	8110.6	7951.3	7456.8	6648.9	5710.2	4700.0	3836.4	3241.0	2816.6	2539.5	2363.9
26°	8220.8	8072.2	7600.4	6790.6	5839.8	4799.4	3888.1	3264.6	2825.0	2540.5	2359.5
27°	8314.0	8175.8	7730.7	6927.2	5961.9	4899.1	3942.4	3287.7	2834.9	2541.9	2356.2
28°	8390.8	8265.7	7846.3	7055.2	6078.4	4996.9	3997.5	3311.0	2845.3	2544.7	2354.6
29°	8454.6	8336.0	7948.6	7174.4	6188.1	5092.3	4054.4	3334.7	2857.4	2549.0	2354.7
30°	8503.6	8394.1	8038.2	7287.4	6295.4	5185.9	4111.0	3360.0	2870.5	2554.4	2355.6
31°	8537.9	8439.8	8113.9	7391.0	6393.0	5277.6	4168.8	3385.3	2884.8	2561.3	2358.4
32°	8561.6	8470.9	8176.6	7485.1	6486.4	5367.3	4227.5	3412.1	2900.4	2569.1	2363.2
33°	8573.1	8490.5	8232.2	7573.6	6574.5	5455.3	4286.0	3440.1	2916.7	2577.5	2369.5
34°	8573.1	8498.7	8274.7	7652.8	6656.7	5538.3	4344.1	3467.2	2934.5	2587.3	2377.3
35°	8564.1	8497.1	8305.8	7723.7	6734.2	5617.3	4403.0	3496.3	2952.6	2599.0	2387.0
36°	8544.5	8486.4	8325.4	7786.7	6807.5	5694.5	4460.8	3526.3	2971.7	2611.8	2398.3
37°	8515.9	8467.6	8333.6	7840.6	6876.8	5768.8	4519.3	3556.3	2991.3	2626.5	2410.8
38°	8478.3	8440.7	8334.4	7884.9	6940.2	5839.0	4576.3	3587.8	3012.2	2642.3	2424.5
39°	8434.9	8407.2	8324.6	7922.9	7000.9	5907.0	4635.3	3619.8	3033.6	2659.8	2438.7
40°	8384.3	8365.5	8305.8	7952.7	7056.4	5971.7	4692.8	3653.9	3056.0	2678.7	2453.6
41°	8324.6	8314.8	8278.0	7974.3	7108.0	6033.0	4747.7	3689.7	3078.9	2698.0	2468.8
42°	8254.3	8260.0	8241.2	7989.4	7155.3	6091.9	4800.9	3724.8	3103.2	2718.8	2485.5
43°	8175.8	8193.8	8196.3	7994.4	7199.7	6148.9	4852.3	3761.0	3129.4	2741.3	2502.2
44°	8087.7	8118.0	8144.0	7990.5	7238.1	6203.0	4901.1	3799.1	3156.1	2764.0	2519.4



REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	7986.7	8035.9	8080.9	7977.8	7272.6	6254.5	4947.9	3837.4	3184.7	2787.6	2536.5
46°	7873.0	7941.0	8010.8	7957.8	7305.4	6306.9	4995.3	3878.0	3215.4	2810.6	2554.3
47°	7753.1	7834.7	7933.5	7928.6	7332.2	6353.6	5040.7	3918.1	3247.0	2834.5	2573.0
48°	7622.3	7717.7	7846.1	7887.3	7353.8	6396.7	5083.0	3961.0	3279.3	2859.9	2593.4
49°	7479.4	7585.2	7747.9	7839.9	7370.9	6435.4	5121.5	4004.5	3314.3	2887.1	2614.5
50°	7319.4	7439.7	7636.6	7780.4	7380.7	6470.4	5159.1	4048.9	3350.4	2915.2	2638.0
51°	7144.2	7278.7	7514.9	7709.1	7383.7	6500.2	5196.1	4095.5	3388.0	2945.9	2662.7
52°	6955.6	7106.3	7379.2	7623.9	7378.8	6524.9	5229.4	4143.6	3427.6	2977.6	2688.2
53°	6754.7	6917.1	7234.2	7529.7	7365.3	6544.0	5259.7	4189.9	3469.1	3011.4	2715.1
54°	6542.9	6709.9	7072.0	7422.2	7339.8	6559.0	5285.5	4234.5	3514.2	3047.7	2743.7
55°	6319.2	6496.9	6897.5	7303.3	7302.2	6567.6	5308.5	4276.2	3561.1	3086.6	2775.5
56°	6085.8	6266.7	6706.8	7169.6	7252.9	6566.7	5326.1	4314.6	3608.9	3129.3	2808.9
57°	5846.3	6038.1	6508.5	7025.8	7189.4	6555.0	5341.1	4350.8	3658.4	3174.0	2846.1
58°	5597.4	5792.7	6297.7	6866.2	7108.6	6533.7	5349.4	4383.7	3709.2	3225.5	2887.8
59°	5342.6	5545.9	6082.9	6692.7	7014.2	6499.9	5349.1	4413.9	3761.6	3280.8	2934.3
60°	5067.8	5288.6	5857.1	6510.0	6904.9	6452.5	5340.8	4442.3	3815.4	3338.3	2985.1
61°	4776.0	5021.7	5624.4	6312.5	6776.9	6392.4	5323.2	4464.3	3867.8	3400.3	3040.8
62°	4465.5	4740.9	5387.4	6105.1	6640.1	6315.5	5294.9	4478.7	3921.3	3466.5	3099.7
63°	4148.8	4445.8	5145.9	5887.4	6489.7	6221.3	5252.2	4485.3	3973.8	3539.9	3163.8
64°	3835.7	4152.2	4900.7	5663.1	6324.2	6110.0	5193.3	4482.6	4025.2	3616.5	3237.7
65°	3548.8	3860.4	4647.9	5434.9	6145.7	5979.4	5122.3	4470.5	4074.2	3697.8	3321.5
66°	3300.7	3592.8	4395.0	5206.7	5948.6	5832.2	5031.5	4442.4	4118.9	3787.8	3411.9
67°	3093.6	3355.3	4146.0	4980.2	5742.0	5662.1	4914.9	4400.6	4157.1	3879.7	3518.5
68°	2880.3	3142.4	3906.0	4751.7	5512.4	5472.1	4734.0	4333.7	4188.5	3974.5	3641.2
69°	2568.9	2926.2	3680.8	4523.4	5271.6	5249.0	4467.4	4196.5	4204.2	4076.5	3779.6
70°	2108.5	2647.6	3468.1	4294.1	5013.1	4967.7	4113.6	3978.8	4208.4	4183.2	3925.7
71°	1493.9	2247.2	3260.3	4067.0	4722.3	4627.2	3681.6	3695.1	4181.3	4293.9	4035.0
72°	931.2	1703.9	3029.1	3838.4	4392.4	4224.0	3277.4	3391.5	4109.4	4399.2	4142.4
73°	701.7	1120.9	2757.8	3597.5	4023.7	3782.9	2925.2	3134.3	3986.7	4493.4	4284.2
74°	474.5	831.7	2390.4	3321.3	3618.6	3325.5	2497.7	2915.5	3838.0	4546.5	4415.9
75°	247.4	552.1	1868.5	2969.8	3186.5	2831.7	1890.9	2610.2	3684.4	4568.6	4518.4
76°	211.1	272.5	1300.7	2532.0	2738.9	2222.4	1283.9	2014.3	3566.9	4508.6	4546.5
77°	182.9	224.8	833.7	1990.8	2271.6	1507.1	677.7	1418.5	3441.8	4357.8	4467.8
78°	160.1	191.9	640.0	1340.0	1762.4	866.1	358.1	824.1	3188.2	4045.9	4081.3
79°	140.8	166.0	451.7	722.6	1234.1	656.6	240.5	420.0	2635.1	3608.1	3512.9
80°	122.9	144.0	263.5	482.7	756.8	458.1	208.3	255.9	1802.3	3084.4	2922.7
81°	106.7	124.2	211.0	246.0	486.4	259.5	176.2	212.2	974.8	2374.3	2687.8
82°	91.8	106.6	177.6	203.2	223.6	220.3	144.3	168.5	464.8	1894.9	2590.1
83°	78.5	89.8	149.0	173.6	164.9	180.4	121.1	124.8	302.7	1415.5	2017.9
84°	65.0	75.5	120.9	147.6	131.7	136.6	99.4	99.5	247.1	938.2	1445.6
85°	51.5	61.3	91.0	123.0	101.8	102.9	78.4	77.9	205.1	590.0	874.3
86°	39.1	47.1	70.7	99.5	75.4	76.7	58.4	59.6	163.1	419.0	507.6
87°	27.0	34.5	50.3	74.2	55.0	56.2	40.2	43.5	121.0	248.0	406.4
88°	16.2	22.6	29.9	45.1	34.5	35.8	27.9	30.7	78.1	81.3	305.3
89°	7.5	10.7	13.4	15.8	16.4	17.5	15.6	17.9	52.9	54.9	204.2



REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6	3115.6
1°	3032.1	3031.5	3037.4	3048.6	3064.3	3084.4	3105.9	3113.1	3135.9	3156.8	3176.8
2°	2959.1	2956.0	2965.1	2984.6	3013.2	3049.1	3091.4	3120.4	3166.4	3211.7	3251.8
3°	2891.0	2886.2	2897.9	2924.6	2966.2	3018.6	3079.6	3131.0	3200.2	3270.0	3332.8
4°	2829.3	2823.8	2838.3	2870.9	2922.9	2990.9	3071.5	3144.1	3239.0	3333.5	3420.7
5°	2774.1	2766.7	2782.2	2822.5	2884.4	2966.8	3065.0	3160.5	3279.5	3401.3	3515.5
6°	2721.9	2712.0	2730.3	2777.5	2850.0	2945.4	3062.1	3179.4	3325.2	3476.1	3617.5
7°	2673.5	2662.0	2682.9	2734.9	2817.6	2927.4	3062.1	3201.6	3374.2	3556.4	3728.3
8°	2629.6	2617.0	2638.5	2697.2	2789.3	2912.5	3064.5	3226.5	3426.0	3641.2	3848.0
9°	2588.0	2574.0	2598.3	2661.8	2762.8	2899.2	3068.3	3252.3	3482.6	3733.5	3975.8
10°	2550.9	2535.1	2561.9	2629.5	2739.0	2887.1	3074.7	3283.1	3543.7	3830.6	4109.2
11°	2517.6	2500.1	2528.9	2601.6	2718.8	2878.1	3083.7	3317.0	3608.7	3934.1	4254.9
12°	2486.7	2468.3	2498.2	2576.7	2700.7	2871.4	3095.2	3352.0	3675.4	4042.0	4406.5
13°	2458.7	2437.7	2469.6	2553.9	2686.1	2866.8	3109.4	3389.4	3746.4	4158.0	4573.6
14°	2431.3	2409.2	2443.1	2532.4	2673.3	2864.6	3124.2	3429.2	3821.4	4277.6	4748.0
15°	2406.5	2383.8	2418.7	2511.8	2663.0	2864.6	3139.4	3470.3	3898.8	4406.0	4934.0
16°	2383.5	2358.7	2395.9	2493.0	2652.4	2865.5	3156.3	3514.1	3979.3	4542.7	5129.2
17°	2362.7	2337.1	2375.3	2476.4	2643.0	2867.4	3175.3	3558.9	4063.7	4685.0	5329.8
18°	2343.9	2316.0	2356.2	2460.5	2635.4	2871.3	3195.3	3605.1	4151.3	4832.7	5533.4
19°	2326.6	2297.4	2338.6	2447.8	2627.6	2876.2	3217.4	3653.3	4242.4	4984.4	5733.9
20°	2310.8	2280.8	2322.7	2436.8	2621.0	2881.0	3240.7	3702.7	4336.3	5139.5	5931.2
21°	2298.0	2266.0	2309.9	2427.4	2615.6	2887.1	3265.0	3755.2	4433.4	5296.1	6119.3
22°	2286.2	2253.4	2298.3	2420.0	2612.9	2894.2	3290.3	3807.9	4535.0	5451.0	6295.4
23°	2276.0	2243.2	2288.9	2413.5	2611.0	2902.4	3316.0	3863.3	4642.0	5601.0	6464.6
24°	2267.5	2235.2	2281.3	2408.4	2611.0	2911.6	3341.9	3919.9	4750.7	5745.1	6621.7
25°	2261.7	2229.2	2276.5	2404.3	2612.4	2921.8	3368.1	3977.2	4858.6	5884.7	6770.5
26°	2257.3	2225.2	2273.5	2402.4	2614.7	2932.8	3396.6	4035.4	4967.5	6015.4	6910.8
27°	2254.4	2223.1	2271.4	2401.0	2618.7	2944.3	3423.8	4094.7	5076.8	6139.6	7043.9
28°	2253.3	2223.9	2271.7	2401.6	2624.0	2957.3	3452.5	4155.8	5184.8	6254.9	7168.0
29°	2254.5	2227.3	2274.4	2403.3	2630.8	2971.1	3480.9	4218.5	5289.8	6366.1	7286.1
30°	2257.5	2232.9	2279.7	2406.8	2638.1	2986.7	3510.7	4281.3	5391.1	6470.0	7393.6
31°	2262.5	2240.4	2285.7	2412.1	2646.6	3003.3	3539.6	4343.7	5489.2	6565.6	7494.8
32°	2268.5	2250.0	2293.0	2419.6	2657.4	3021.3	3569.3	4406.3	5581.6	6656.5	7586.5
33°	2276.0	2261.1	2301.0	2428.3	2669.0	3039.4	3598.8	4469.4	5670.4	6742.2	7672.9
34°	2284.5	2272.7	2309.5	2437.9	2681.2	3058.2	3629.8	4532.5	5755.0	6822.9	7749.9
35°	2293.4	2286.2	2318.8	2448.7	2695.2	3078.4	3661.4	4596.5	5835.1	6898.6	7819.6
36°	2302.3	2300.5	2328.4	2460.9	2709.1	3099.2	3695.1	4659.6	5912.8	6968.6	7880.8
37°	2311.7	2314.9	2338.6	2474.8	2724.3	3120.0	3728.7	4721.8	5984.1	7034.1	7933.5
38°	2320.6	2330.0	2350.0	2489.3	2741.1	3141.8	3764.1	4783.1	6053.5	7096.3	7980.2
39°	2330.1	2345.0	2361.3	2505.1	2759.0	3165.2	3799.9	4842.9	6117.1	7154.1	8016.7
40°	2340.3	2359.7	2373.1	2522.3	2778.2	3189.5	3837.2	4902.2	6178.1	7206.9	8045.4
41°	2350.6	2374.4	2385.0	2540.0	2797.9	3214.8	3874.5	4956.9	6236.7	7255.2	8063.4
42°	2360.5	2389.1	2397.7	2557.9	2819.2	3241.9	3912.3	5011.4	6293.4	7299.5	8071.8
43°	2371.6	2403.2	2411.0	2577.0	2841.1	3270.3	3952.5	5064.6	6347.5	7337.7	8074.0
44°	2384.0	2417.2	2425.9	2596.0	2864.3	3299.8	3993.1	5119.0	6397.8	7371.9	8067.6



REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2397.2	2429.5	2441.2	2615.6	2888.5	3330.0	4034.2	5169.9	6444.9	7401.9	8049.5
46°	2411.4	2439.8	2457.2	2636.1	2914.1	3360.5	4076.5	5215.4	6486.5	7426.3	8022.3
47°	2426.7	2448.9	2474.3	2656.4	2940.1	3393.9	4119.1	5257.1	6524.8	7444.9	7985.0
48°	2443.7	2458.8	2492.3	2677.3	2968.5	3428.7	4161.0	5297.0	6557.0	7456.4	7939.0
49°	2462.6	2468.7	2511.6	2698.4	2996.4	3465.4	4204.1	5333.2	6583.7	7460.7	7882.6
50°	2483.9	2477.8	2533.0	2721.6	3026.4	3505.8	4248.4	5366.4	6604.7	7457.6	7817.4
51°	2508.3	2488.6	2556.1	2745.6	3057.7	3547.4	4292.3	5394.5	6620.3	7447.7	7739.6
52°	2534.3	2502.6	2580.9	2771.9	3091.6	3589.3	4336.6	5419.9	6629.8	7428.0	7649.1
53°	2560.5	2520.1	2607.3	2799.4	3128.3	3632.8	4376.1	5439.1	6632.9	7399.7	7548.5
54°	2588.4	2538.2	2637.0	2830.2	3168.6	3677.1	4414.3	5453.7	6628.7	7362.6	7437.4
55°	2620.6	2559.3	2669.3	2863.6	3212.1	3722.0	4448.5	5464.4	6615.4	7313.8	7314.1
56°	2654.9	2584.5	2702.7	2899.5	3258.7	3769.4	4479.4	5467.9	6589.5	7253.2	7177.3
57°	2690.6	2612.6	2739.0	2940.6	3308.6	3817.6	4506.9	5465.5	6553.0	7179.1	7028.8
58°	2726.7	2636.7	2776.7	2985.3	3360.9	3865.2	4530.4	5457.4	6506.3	7088.6	6864.3
59°	2761.7	2663.2	2812.5	3034.7	3419.2	3908.6	4548.0	5441.4	6450.3	6988.7	6690.2
60°	2801.1	2703.0	2852.8	3089.1	3478.7	3952.0	4563.0	5415.0	6381.3	6871.3	6502.7
61°	2852.6	2757.6	2905.8	3149.4	3543.0	3996.3	4572.2	5377.5	6298.9	6739.8	6301.9
62°	2912.8	2814.7	2968.5	3214.4	3609.1	4039.8	4573.7	5328.7	6202.2	6596.6	6092.1
63°	2980.6	2881.4	3037.0	3281.3	3680.2	4082.2	4566.1	5266.4	6090.6	6434.9	5876.4
64°	3058.5	2965.3	3119.2	3356.3	3753.5	4121.5	4552.0	5186.4	5965.0	6258.3	5651.6
65°	3149.5	3059.3	3212.1	3443.3	3832.6	4158.1	4525.1	5090.4	5819.1	6071.7	5422.9
66°	3254.9	3167.0	3316.4	3537.9	3913.4	4188.0	4482.3	4971.7	5653.4	5870.8	5193.1
67°	3369.4	3283.0	3427.6	3641.5	3993.0	4214.8	4420.0	4811.8	5471.1	5652.5	4963.3
68°	3491.7	3376.5	3543.9	3760.5	4077.1	4232.6	4306.7	4570.0	5253.8	5420.6	4730.3
69°	3567.1	3437.7	3612.4	3894.1	4171.0	4236.3	4113.1	4235.0	4989.5	5165.3	4500.1
70°	3631.2	3514.2	3673.2	4030.9	4264.5	4224.7	3831.5	3812.6	4659.7	4878.1	4265.0
71°	3722.3	3568.8	3757.9	4133.9	4360.8	4176.8	3501.5	3377.3	4254.1	4547.1	4018.8
72°	3780.6	3531.3	3810.9	4242.6	4449.0	4075.7	3199.9	2973.8	3799.8	4180.0	3769.1
73°	3762.9	3337.9	3794.7	4379.6	4519.0	3918.9	2934.7	2579.6	3326.1	3772.5	3493.1
74°	3643.5	2910.3	3680.1	4501.6	4539.5	3754.6	2644.1	2086.2	2857.0	3323.7	3177.1
75°	3297.2	2227.5	3351.5	4580.4	4505.5	3593.3	2076.2	1439.2	2330.9	2850.3	2794.8
76°	2691.8	1595.2	2758.3	4590.9	4361.0	3426.5	1508.2	817.7	1691.8	2383.5	2334.2
77°	2065.3	1479.1	2188.6	4493.0	4148.0	3199.5	942.9	609.5	1027.7	1920.9	1775.2
78°	1983.1	1987.6	2167.5	4078.6	3813.7	2737.0	476.3	412.1	773.3	1429.0	1154.5
79°	2488.2	2490.0	2661.1	3452.6	3427.7	1997.2	274.2	214.7	529.4	935.4	845.5
80°	2902.4	1973.1	2959.7	2800.3	2891.5	1257.4	227.7	182.2	285.5	689.3	540.0
81°	2235.5	1456.1	2243.2	2591.3	2279.3	532.3	181.2	155.9	237.8	445.2	234.5
82°	1568.5	940.6	1526.8	2592.5	1667.0	322.0	135.2	131.7	202.6	201.2	197.4
83°	904.1	483.7	821.1	1950.0	1057.3	248.7	110.5	109.6	164.2	153.8	169.7
84°	503.0	339.9	484.7	1307.4	621.1	205.4	89.0	88.4	126.2	122.2	143.7
85°	361.9	196.2	317.2	679.5	444.6	162.1	69.5	69.9	94.3	92.3	118.9
86°	220.9	56.1	205.9	543.6	268.2	118.9	52.7	51.5	72.8	71.1	95.1
87°	80.7	37.8	95.5	407.6	96.4	83.1	37.8	33.0	51.4	50.0	67.5
88°	54.7	19.6	51.6	271.6	65.1	56.5	26.2	18.5	30.0	29.0	39.8
89°	28.6	1.4	7.8	135.7	33.8	29.8	14.6	6.8	12.6	12.0	12.0



REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3115.6	3115.6	3115.6
1°	3192.2	3202.9	3208.5
2°	3284.7	3304.5	3311.8
3°	3381.8	3415.2	3425.1
4°	3490.1	3536.4	3550.8
5°	3607.1	3666.7	3686.7
6°	3734.5	3810.4	3836.1
7°	3872.6	3965.1	3994.8
8°	4017.3	4130.2	4168.7
9°	4178.8	4311.4	4357.4
10°	4346.4	4505.9	4559.2
11°	4529.4	4716.3	4774.6
12°	4727.1	4938.3	5008.2
13°	4936.5	5181.5	5259.4
14°	5162.5	5441.5	5530.2
15°	5395.6	5709.7	5818.8
16°	5637.7	5988.0	6118.4
17°	5884.0	6272.8	6416.1
18°	6131.3	6556.4	6709.2
19°	6366.5	6823.9	6983.0
20°	6597.8	7072.6	7234.0
21°	6807.4	7303.9	7458.5
22°	7006.2	7507.4	7655.8
23°	7197.5	7688.9	7830.1
24°	7371.6	7846.4	7980.5
25°	7531.7	7985.4	8110.6
26°	7678.6	8103.8	8220.8
27°	7807.3	8203.6	8314.0
28°	7922.2	8287.8	8390.8
29°	8024.8	8358.9	8454.6
30°	8111.5	8413.7	8503.6
31°	8186.5	8456.2	8537.9
32°	8246.9	8488.1	8561.6
33°	8296.0	8507.7	8573.1
34°	8335.2	8515.9	8573.1
35°	8363.8	8512.6	8564.1
36°	8380.2	8499.5	8544.5
37°	8386.7	8478.3	8515.9
38°	8383.4	8449.7	8478.3
39°	8370.4	8414.5	8434.9
40°	8349.1	8372.0	8384.3
41°	8318.1	8322.1	8324.6
42°	8278.8	8264.9	8254.3
43°	8230.6	8199.5	8175.8
44°	8175.0	8128.7	8087.7



REPORT NUMBER: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	8111.4	8046.3	7986.7
46°	8041.1	7953.2	7873.0
47°	7959.8	7849.9	7753.1
48°	7871.6	7735.6	7622.3
49°	7774.1	7604.5	7479.4
50°	7663.7	7464.6	7319.4
51°	7541.6	7306.9	7144.2
52°	7403.9	7135.7	6955.6
53°	7256.1	6949.8	6754.7
54°	7095.6	6748.0	6542.9
55°	6924.0	6533.9	6319.2
56°	6733.9	6306.8	6085.8
57°	6533.6	6070.5	5846.3
58°	6322.0	5824.0	5597.4
59°	6103.7	5572.3	5342.6
60°	5875.5	5317.9	5067.8
61°	5642.2	5047.2	4776.0
62°	5402.6	4764.4	4465.5
63°	5162.1	4478.1	4148.8
64°	4920.3	4186.2	3835.7
65°	4676.9	3901.1	3548.8
66°	4435.3	3635.1	3300.7
67°	4191.3	3398.8	3093.6
68°	3951.6	3189.1	2880.3
69°	3724.4	2970.3	2568.9
70°	3512.2	2703.1	2108.5
71°	3294.4	2322.8	1493.9
72°	3050.1	1794.7	931.2
73°	2761.9	1211.0	701.7
74°	2360.5	705.9	474.5
75°	1838.9	496.0	247.4
76°	1300.2	288.1	211.1
77°	846.3	232.5	182.9
78°	651.7	197.7	160.1
79°	457.3	170.6	140.8
80°	262.8	147.6	122.9
81°	211.5	127.3	106.7
82°	176.7	109.2	91.8
83°	147.4	92.4	78.5
84°	118.6	78.0	65.0
85°	88.5	63.2	51.5
86°	68.3	48.3	39.1
87°	48.0	35.1	27.0
88°	27.8	22.5	16.2
89°	11.8	10.3	7.5



REPORT NUMBER: P1436729
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

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: P1436729

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)