

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: P1436708

Luminaire Tested: XAS180-SFPM (3000K-144W-T4-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436708
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA ()
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 3/25/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: LUMARK
Catalog Number: XAS180-SFPM (3000K-144W-T4-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 4 WITH HOUSE SIDE SHIELD
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 28062 (1 lamp)
Luminaire Lumens: 18877.1 lumens
Efficiency: 67.3%
Efficacy: 131.9 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

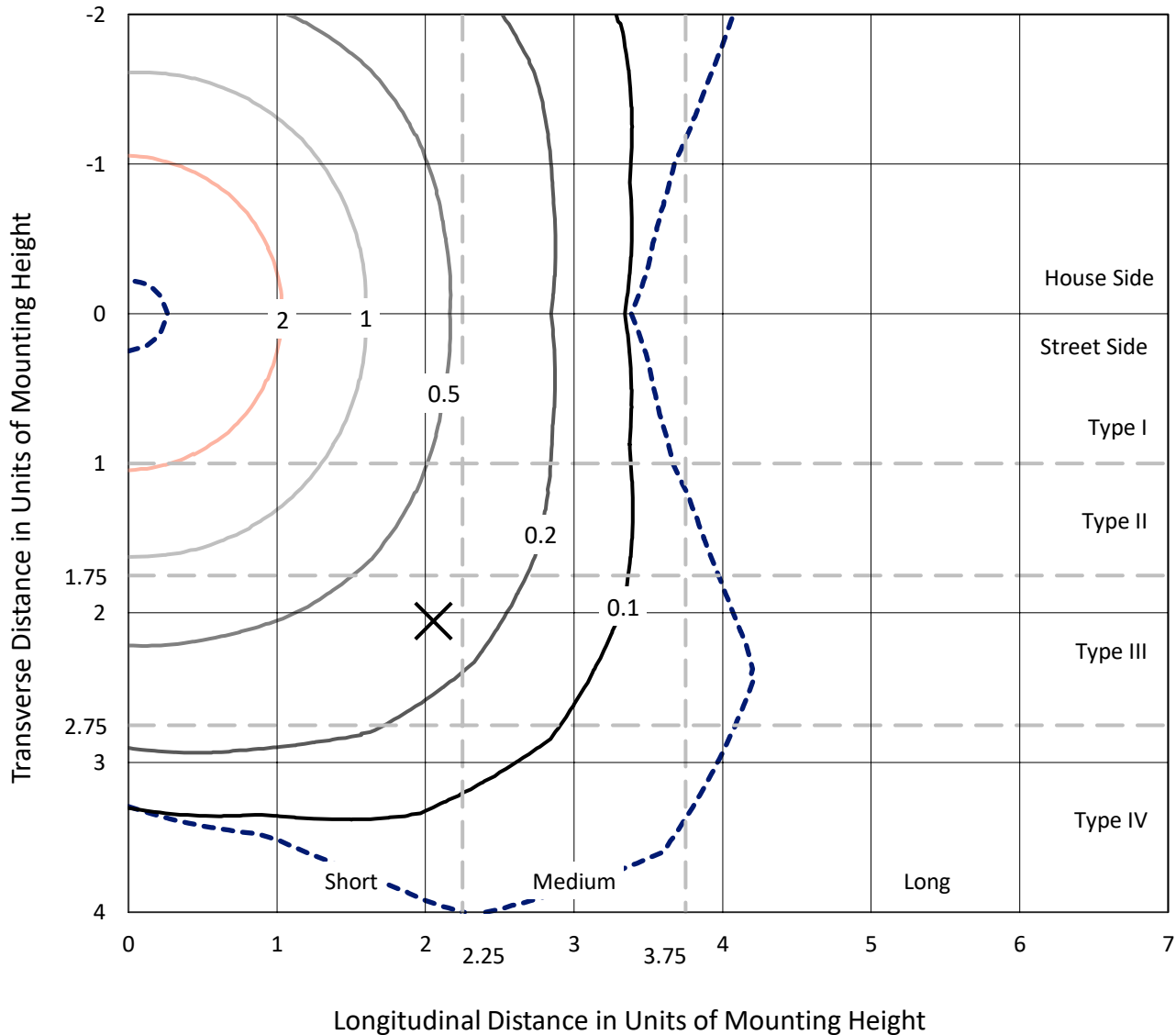
Input Watts (W): 143.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

Iso-Footcandle Lines of Horizontal Illumination

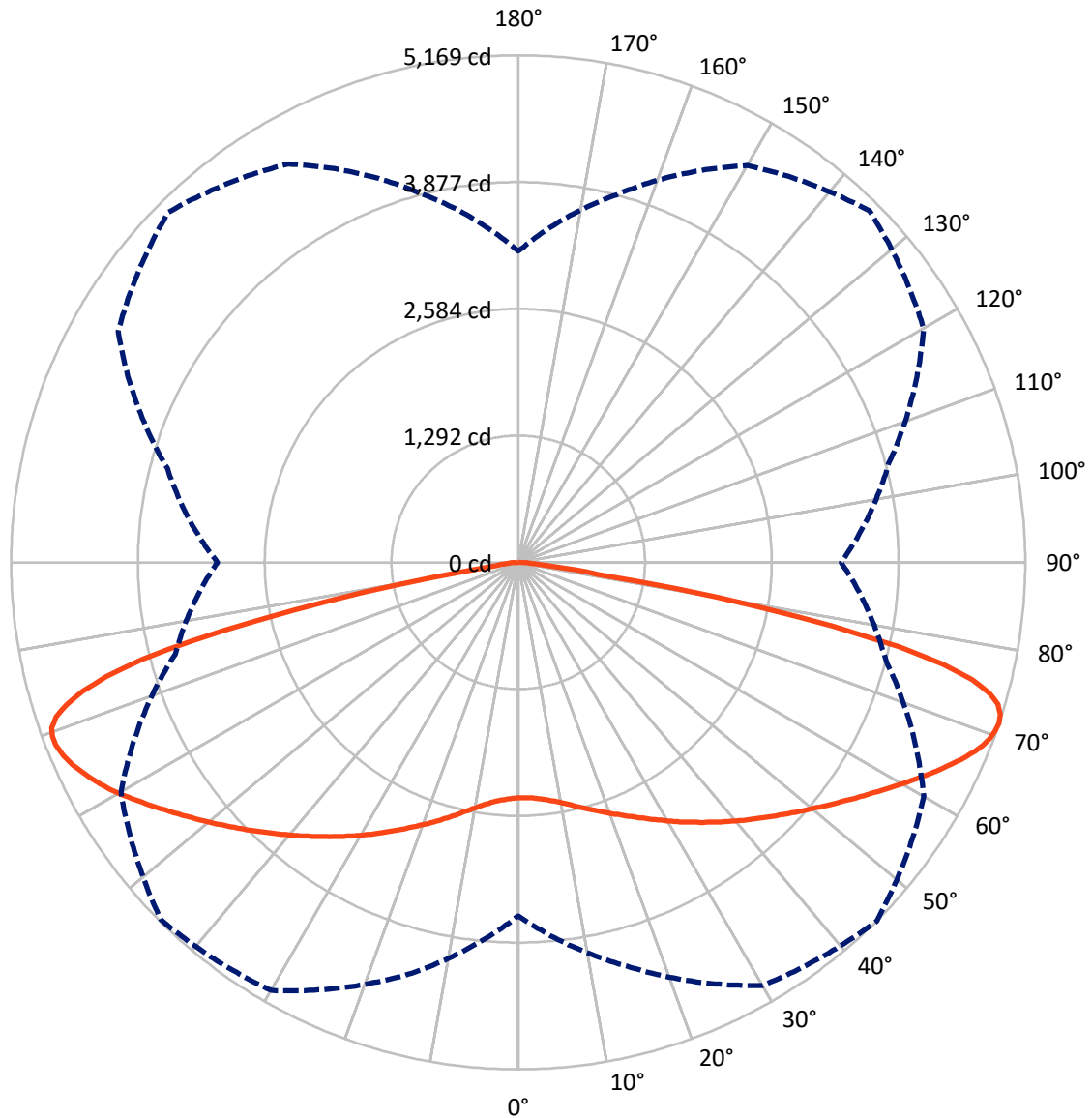
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P1436708
CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

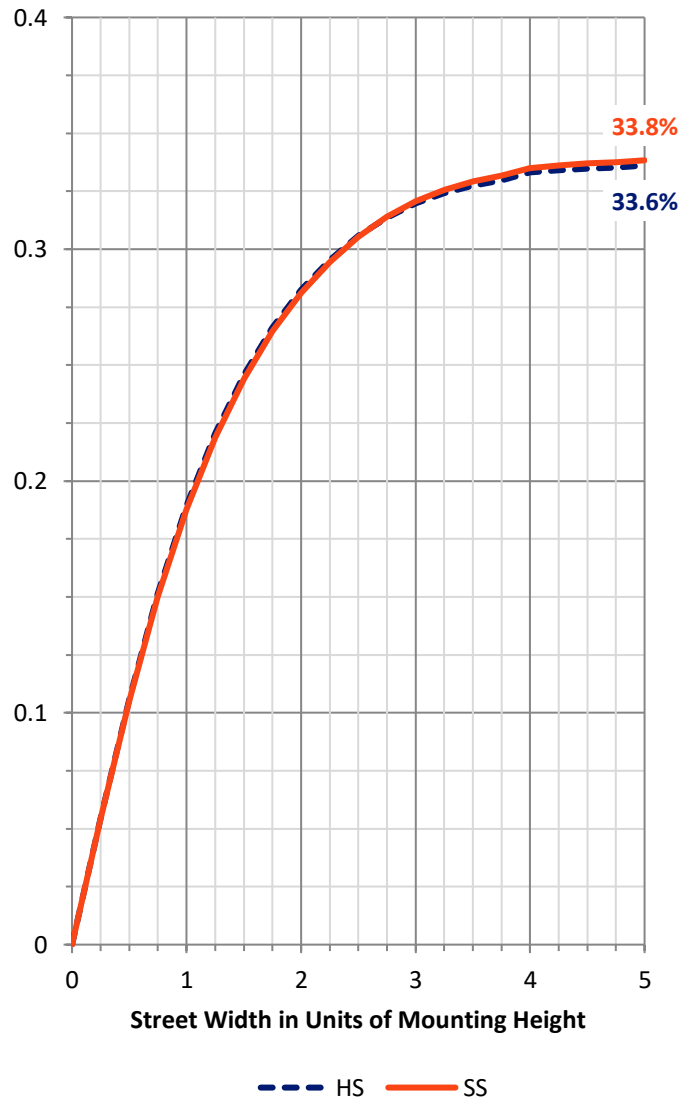
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9393.6	0.0	9393.6
	% Lamp	33.5	0.0	33.5
Street Side	Lumens	9483.6	0.0	9483.6
	% Lamp	33.8	0.0	33.8
Total	Lumens	18877.1	0.0	18877.1
	% Lamp	67.3	0.0	67.3

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	234.4	1.2	0.8
10°-20°	750.0	4.0	2.7
20°-30°	1363.7	7.2	4.9
30°-40°	2088.7	11.1	7.4
40°-50°	2911.2	15.4	10.4
50°-60°	3810.3	20.2	13.6
60°-70°	4553.6	24.1	16.2
70°-80°	3017.0	16.0	10.8
80°-90°	148.3	0.8	0.5
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°	18877.1	100.0	67.3
0°-180°	18877.1	100.0	67.3

Coefficient of Utilization



REPORT NUMBER: P1436708

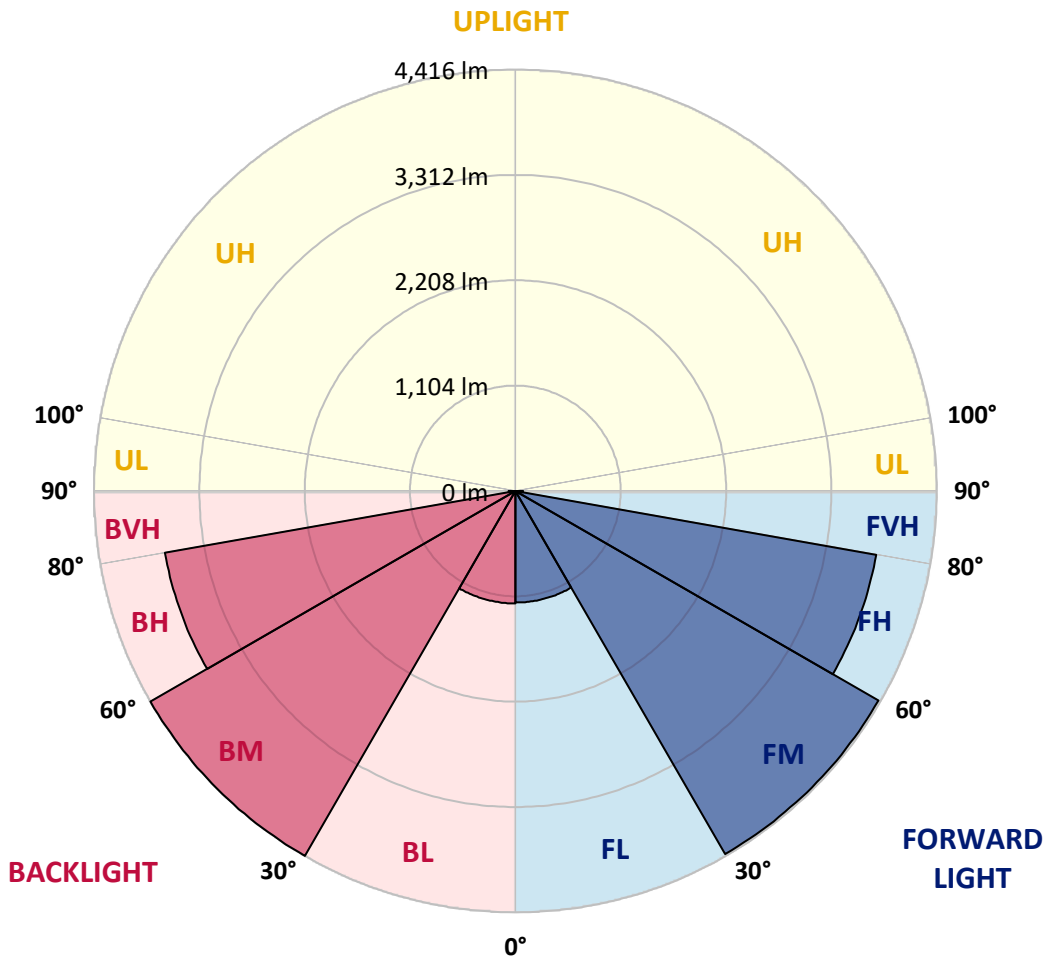
CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1169.5	4.2			
FM (30°-60°)	4393.9	15.7			
FH (60°-80°)	3840.7	13.7			G2/5000
FVH (80°-90°)	79.5	0.3			G1/100
BL (0°-30°)	1178.6	4.2	B3/2500		
BM (30°-60°)	4416.3	15.7	B3/5000		
BH (60°-80°)	3729.9	13.3	B4/5000		G2/5000
BVH (80°-90°)	68.7	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	9184.9	32.7			

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5
1°	2400.7	2400.2	2400.7	2400.2	2400.3	2400.0	2398.3	2398.5	2398.5	2399.3	2399.8
2°	2404.4	2403.5	2403.3	2402.7	2401.8	2400.9	2399.4	2399.4	2399.8	2401.0	2402.3
3°	2410.8	2409.2	2408.3	2406.7	2406.2	2404.9	2403.4	2403.2	2403.6	2405.0	2407.0
4°	2419.7	2417.8	2415.9	2414.4	2412.9	2411.2	2409.5	2409.4	2410.0	2412.0	2414.4
5°	2429.9	2427.5	2425.5	2422.9	2420.6	2419.2	2417.0	2417.8	2419.4	2421.7	2424.2
6°	2441.5	2438.5	2437.2	2434.2	2430.5	2428.3	2426.1	2426.8	2429.3	2433.3	2436.6
7°	2454.2	2451.3	2450.4	2447.1	2443.5	2440.1	2437.4	2438.5	2440.8	2446.8	2451.3
8°	2469.0	2465.8	2464.3	2461.6	2457.6	2453.9	2452.0	2453.3	2456.0	2461.5	2467.9
9°	2485.2	2482.2	2480.1	2477.4	2473.9	2469.4	2466.7	2468.7	2473.5	2479.2	2485.7
10°	2502.8	2499.9	2498.0	2495.1	2492.1	2486.8	2484.4	2486.5	2492.4	2499.3	2504.9
11°	2522.2	2518.8	2518.0	2515.3	2511.3	2506.2	2503.1	2506.4	2512.8	2521.6	2526.5
12°	2541.9	2537.5	2538.1	2536.6	2532.2	2526.8	2523.0	2527.3	2534.8	2544.6	2550.3
13°	2561.0	2556.9	2559.5	2559.7	2554.1	2549.0	2543.6	2548.9	2558.8	2568.8	2575.7
14°	2582.2	2577.5	2580.9	2583.0	2577.6	2571.4	2565.1	2571.9	2582.3	2594.8	2601.3
15°	2603.0	2598.6	2603.0	2607.5	2601.8	2594.4	2588.3	2594.7	2607.7	2621.4	2627.0
16°	2625.7	2622.3	2625.9	2631.8	2627.2	2619.1	2613.1	2619.4	2633.8	2648.8	2654.3
17°	2650.0	2646.8	2651.0	2657.2	2653.9	2644.3	2637.9	2644.6	2661.7	2675.3	2681.5
18°	2675.3	2671.0	2676.3	2682.6	2680.3	2670.5	2664.2	2671.4	2689.3	2702.8	2707.7
19°	2701.4	2696.6	2702.8	2709.0	2707.9	2697.9	2691.4	2699.8	2717.8	2730.9	2734.1
20°	2729.6	2724.0	2729.7	2735.9	2736.0	2726.8	2720.4	2729.5	2747.1	2758.9	2760.4
21°	2758.4	2752.7	2756.7	2763.6	2765.1	2756.1	2749.5	2760.2	2776.8	2786.0	2788.0
22°	2788.9	2782.7	2785.5	2791.6	2796.1	2786.7	2781.0	2792.0	2808.5	2815.8	2817.1
23°	2821.1	2814.6	2815.1	2821.6	2827.6	2819.0	2813.1	2825.7	2840.4	2845.7	2847.8
24°	2855.0	2847.6	2845.9	2852.3	2859.5	2851.6	2847.0	2859.9	2873.8	2876.9	2879.4
25°	2890.4	2881.8	2878.0	2884.9	2893.4	2885.8	2882.7	2895.6	2906.8	2909.3	2910.7
26°	2927.3	2917.0	2911.5	2918.0	2927.1	2919.5	2918.8	2931.7	2940.8	2942.3	2942.8
27°	2965.2	2952.9	2945.1	2952.4	2960.7	2953.9	2955.6	2968.3	2975.2	2976.7	2976.0
28°	3004.9	2989.3	2979.8	2987.4	2995.1	2989.2	2993.8	3004.4	3011.1	3012.3	3009.5
29°	3045.4	3026.1	3015.8	3024.1	3029.5	3024.9	3033.8	3041.2	3046.8	3049.2	3044.6
30°	3086.6	3062.9	3052.7	3061.3	3064.8	3061.7	3074.8	3078.9	3083.3	3086.5	3080.0
31°	3128.7	3100.7	3091.0	3099.6	3100.2	3097.4	3116.3	3116.1	3120.2	3124.9	3117.1
32°	3170.4	3138.6	3129.1	3138.4	3136.0	3135.9	3157.0	3154.8	3157.9	3163.8	3154.3
33°	3212.0	3177.5	3169.2	3176.6	3173.9	3173.1	3198.9	3192.1	3196.5	3202.8	3192.7
34°	3253.9	3216.2	3208.4	3215.8	3211.5	3209.5	3239.8	3229.4	3235.1	3241.1	3231.2
35°	3298.2	3254.6	3248.9	3255.5	3249.9	3246.1	3282.0	3266.3	3274.3	3281.2	3271.8
36°	3342.0	3294.2	3290.2	3296.0	3289.8	3284.2	3323.9	3304.3	3315.4	3321.7	3313.4
37°	3385.8	3334.3	3332.3	3337.4	3329.9	3320.8	3365.4	3342.8	3356.1	3363.0	3355.8
38°	3430.3	3375.9	3374.6	3378.6	3369.8	3359.3	3408.5	3380.6	3395.8	3404.2	3397.9
39°	3473.9	3417.5	3416.5	3420.5	3409.9	3399.1	3452.1	3419.7	3437.1	3445.1	3439.1
40°	3517.1	3461.0	3458.3	3463.0	3450.7	3439.4	3495.4	3459.8	3478.7	3487.8	3482.2
41°	3559.5	3505.2	3501.6	3505.4	3492.8	3481.0	3538.7	3501.9	3519.6	3530.5	3523.3
42°	3603.9	3550.4	3545.9	3549.7	3535.2	3523.4	3580.2	3544.4	3562.1	3574.9	3568.4
43°	3647.0	3597.6	3590.9	3594.6	3579.2	3567.5	3620.6	3588.6	3604.9	3619.9	3613.1
44°	3689.1	3646.0	3636.3	3640.1	3623.1	3612.9	3659.5	3634.0	3647.7	3664.2	3658.7



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	3731.3	3694.3	3682.9	3685.1	3667.8	3660.3	3697.3	3680.1	3691.4	3710.0	3705.8
46°	3773.7	3745.4	3731.2	3732.1	3714.6	3709.1	3735.8	3728.2	3735.8	3756.6	3753.4
47°	3817.5	3799.5	3781.3	3781.2	3763.1	3759.6	3775.6	3776.4	3782.8	3805.2	3803.9
48°	3862.0	3852.7	3831.9	3831.2	3811.2	3811.0	3812.9	3826.6	3831.5	3853.1	3855.0
49°	3908.1	3908.8	3885.4	3882.9	3861.1	3862.7	3850.0	3876.0	3880.7	3902.7	3905.3
50°	3955.1	3963.5	3938.8	3934.8	3910.6	3915.0	3887.2	3925.4	3929.5	3955.1	3957.9
51°	4003.3	4020.0	3993.9	3987.9	3963.2	3966.4	3926.2	3973.8	3980.2	4008.1	4013.4
52°	4052.8	4077.8	4051.8	4044.8	4016.7	4017.2	3966.1	4023.8	4032.3	4063.9	4068.4
53°	4102.4	4134.5	4110.9	4100.9	4069.9	4066.2	4004.2	4072.8	4084.4	4118.5	4124.6
54°	4152.0	4191.0	4170.8	4161.0	4124.0	4114.0	4042.0	4119.7	4138.4	4174.5	4180.9
55°	4199.6	4242.8	4232.1	4220.1	4177.6	4158.9	4079.2	4162.2	4192.8	4234.8	4240.0
56°	4244.3	4294.1	4294.8	4282.4	4232.8	4201.2	4114.7	4205.0	4247.1	4295.5	4300.7
57°	4286.7	4342.3	4357.5	4347.8	4287.3	4240.3	4146.6	4243.4	4300.9	4357.5	4359.7
58°	4326.4	4387.9	4421.5	4414.2	4341.2	4275.2	4173.8	4277.6	4354.8	4421.7	4416.2
59°	4362.2	4430.2	4487.0	4481.3	4395.4	4304.1	4199.2	4309.3	4407.4	4487.1	4470.7
60°	4394.3	4468.4	4551.2	4551.2	4447.4	4328.7	4219.1	4336.2	4457.7	4553.2	4523.2
61°	4420.6	4503.1	4613.5	4620.7	4498.9	4350.6	4234.6	4359.5	4509.7	4618.3	4576.0
62°	4441.1	4532.0	4674.5	4692.3	4548.6	4366.3	4243.4	4376.6	4558.0	4682.6	4626.7
63°	4459.2	4558.2	4734.0	4764.4	4599.7	4374.5	4243.8	4389.9	4606.5	4742.0	4674.0
64°	4475.3	4579.4	4788.4	4835.7	4647.4	4376.3	4237.0	4397.9	4654.8	4799.4	4718.6
65°	4491.0	4597.4	4841.0	4906.0	4693.2	4375.5	4225.2	4399.4	4699.4	4858.1	4757.6
66°	4500.1	4614.5	4887.8	4973.2	4732.8	4366.7	4207.5	4393.0	4739.5	4917.0	4794.0
67°	4500.1	4626.5	4927.8	5035.6	4765.6	4351.0	4178.5	4379.2	4772.5	4971.3	4823.4
68°	4458.7	4624.1	4961.9	5090.6	4788.2	4325.2	4089.4	4350.8	4798.6	5014.5	4804.6
69°	4325.8	4589.1	4984.0	5131.8	4801.5	4254.3	3902.4	4280.0	4811.4	5048.6	4760.6
70°	4045.7	4488.2	4992.3	5157.9	4806.6	4107.7	3629.3	4136.3	4809.4	5068.2	4737.0
71°	3602.7	4260.4	4980.7	5168.8	4774.1	3880.0	3291.2	3910.6	4770.8	5065.0	4671.5
72°	3141.0	3888.0	4941.1	5153.4	4690.8	3589.2	2982.8	3614.6	4669.9	5012.8	4561.7
73°	2651.9	3402.6	4844.5	5099.6	4548.2	3276.8	2744.9	3295.2	4501.1	4899.6	4423.6
74°	2086.3	2873.2	4632.4	4984.9	4348.7	2992.8	2446.2	3001.5	4280.9	4727.4	4195.6
75°	1381.4	2296.3	4244.1	4780.8	4086.8	2676.9	1869.1	2691.1	4000.8	4497.8	3855.9
76°	714.3	1611.6	3720.1	4453.0	3776.9	2202.3	1292.0	2238.3	3692.0	4158.9	3392.3
77°	516.9	867.0	3152.6	3973.3	3396.2	1482.1	715.8	1620.9	3324.1	3680.3	2817.7
78°	330.3	623.2	2464.0	3269.5	2866.9	768.2	308.2	1003.6	2814.4	3043.5	2129.0
79°	143.8	388.1	1598.4	2491.5	2127.2	555.4	242.8	390.6	2099.5	2303.1	1440.2
80°	119.5	152.9	815.6	1622.4	1288.0	348.3	177.3	301.7	1384.5	1558.1	753.9
81°	102.2	126.0	589.8	821.1	632.7	141.1	113.2	212.7	676.3	820.7	346.4
82°	87.1	106.4	373.2	590.4	466.4	120.1	96.7	123.9	301.1	331.9	264.3
83°	73.0	88.8	156.6	375.4	305.3	101.7	81.9	104.5	236.6	259.1	182.1
84°	60.3	72.8	122.7	160.4	144.1	84.6	67.8	86.7	172.1	186.2	100.7
85°	47.7	59.6	93.7	132.3	109.5	69.2	54.6	70.5	108.2	113.7	72.8
86°	35.0	46.4	70.3	106.4	80.4	55.6	42.3	56.0	77.7	89.1	48.8
87°	23.6	33.2	51.1	78.2	59.1	42.0	30.1	42.4	56.1	63.2	30.3
88°	13.6	21.5	32.1	62.7	38.0	28.4	21.0	30.1	38.8	39.4	21.5
89°	5.5	9.3	13.0	47.5	17.0	15.2	11.9	20.8	26.7	27.2	12.7



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-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: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-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: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5	2399.5
1°	2400.3	2400.7	2401.2	2402.0	2402.4	2402.8	2403.0	2401.5	2401.1	2400.9	2401.3
2°	2403.2	2404.5	2404.9	2406.3	2407.1	2407.3	2407.7	2406.3	2406.4	2405.8	2405.9
3°	2408.3	2410.4	2411.8	2413.1	2414.3	2414.8	2415.6	2413.7	2413.8	2413.2	2413.6
4°	2416.6	2419.0	2420.7	2422.3	2423.7	2424.4	2425.2	2423.7	2423.3	2422.8	2422.5
5°	2426.8	2430.1	2432.0	2434.3	2435.5	2436.2	2436.5	2434.8	2434.6	2434.0	2433.6
6°	2440.0	2443.2	2446.1	2448.6	2449.7	2449.7	2449.8	2447.8	2447.9	2447.5	2447.1
7°	2455.4	2458.3	2462.0	2464.8	2465.9	2466.6	2467.3	2464.6	2464.2	2463.3	2462.9
8°	2472.0	2475.6	2479.6	2483.1	2484.8	2486.2	2485.6	2482.4	2481.7	2480.8	2479.5
9°	2490.2	2494.2	2499.0	2503.7	2506.4	2506.9	2505.3	2500.8	2500.9	2500.6	2499.2
10°	2510.3	2515.2	2520.6	2526.3	2529.5	2529.5	2526.8	2522.3	2522.0	2522.5	2519.8
11°	2532.5	2537.8	2544.2	2551.2	2554.7	2554.2	2550.8	2546.0	2545.9	2546.4	2542.9
12°	2555.6	2561.0	2568.9	2577.3	2581.6	2580.4	2576.4	2570.6	2571.3	2571.3	2567.2
13°	2579.3	2584.7	2593.5	2605.4	2610.5	2608.9	2602.9	2597.1	2598.0	2598.0	2593.1
14°	2604.2	2609.2	2619.5	2633.2	2640.3	2638.1	2631.5	2624.5	2625.9	2626.7	2620.2
15°	2629.3	2633.8	2645.9	2662.0	2671.3	2668.8	2660.5	2652.9	2655.0	2656.6	2647.8
16°	2655.1	2659.6	2672.4	2690.7	2702.8	2701.7	2690.9	2682.3	2684.7	2686.4	2675.9
17°	2681.0	2685.4	2699.6	2719.7	2734.7	2733.5	2723.0	2713.3	2715.2	2717.1	2705.3
18°	2707.7	2712.1	2727.4	2748.3	2766.1	2766.8	2755.3	2744.4	2747.5	2748.7	2734.9
19°	2734.7	2740.5	2755.0	2777.4	2798.4	2799.8	2787.9	2776.6	2780.0	2780.4	2763.7
20°	2762.2	2769.0	2784.2	2808.6	2829.9	2834.0	2821.8	2810.2	2813.9	2813.3	2793.9
21°	2791.4	2798.4	2814.3	2839.3	2862.3	2869.1	2857.8	2845.1	2847.9	2846.9	2823.9
22°	2821.7	2829.2	2845.7	2871.7	2896.6	2904.7	2894.4	2880.4	2883.9	2880.8	2856.4
23°	2851.8	2860.8	2879.0	2905.7	2930.8	2941.8	2930.2	2917.4	2921.2	2915.2	2889.6
24°	2884.4	2894.4	2912.9	2940.0	2966.6	2978.3	2967.5	2955.2	2958.3	2949.8	2922.1
25°	2916.5	2928.3	2947.4	2974.6	3002.9	3015.2	3006.4	2993.8	2995.7	2985.7	2955.7
26°	2950.5	2964.9	2983.1	3011.0	3039.9	3052.2	3044.8	3034.3	3032.9	3021.2	2991.4
27°	2984.6	3001.3	3018.8	3047.1	3076.5	3089.0	3083.1	3074.6	3070.5	3057.0	3026.7
28°	3019.1	3041.3	3055.4	3084.4	3115.9	3127.6	3122.5	3117.2	3109.0	3094.1	3064.3
29°	3054.9	3081.2	3093.1	3122.9	3154.4	3165.7	3162.4	3159.5	3147.6	3132.3	3103.5
30°	3091.9	3123.2	3131.4	3160.9	3193.9	3204.2	3201.8	3202.0	3185.7	3169.6	3143.3
31°	3129.8	3165.5	3170.2	3199.1	3231.5	3242.9	3240.4	3245.5	3224.3	3207.3	3183.1
32°	3167.7	3208.3	3209.3	3237.6	3271.5	3283.1	3280.4	3288.6	3261.7	3244.8	3223.2
33°	3206.8	3251.8	3248.4	3278.0	3311.4	3323.7	3320.1	3332.0	3300.6	3284.9	3264.9
34°	3245.8	3295.1	3286.9	3319.0	3352.7	3363.9	3360.3	3376.1	3339.1	3324.6	3306.7
35°	3283.9	3340.4	3327.3	3360.9	3393.9	3404.8	3399.7	3420.2	3378.9	3366.0	3350.6
36°	3323.3	3385.8	3368.0	3403.0	3434.7	3444.7	3439.8	3464.9	3418.5	3407.5	3393.6
37°	3362.0	3431.1	3409.2	3445.4	3476.2	3485.2	3481.3	3509.9	3459.4	3449.7	3436.8
38°	3402.7	3476.0	3451.6	3488.5	3518.7	3527.0	3522.6	3554.5	3500.5	3492.4	3480.9
39°	3444.3	3521.3	3494.3	3532.5	3562.4	3568.5	3565.5	3598.5	3542.0	3535.8	3524.3
40°	3487.7	3563.7	3539.0	3577.4	3605.9	3611.6	3608.3	3640.8	3584.6	3580.2	3568.8
41°	3533.0	3606.4	3584.1	3622.5	3651.1	3654.2	3651.3	3681.7	3628.4	3624.9	3613.2
42°	3577.6	3648.0	3631.4	3667.1	3695.7	3698.4	3695.5	3722.3	3674.3	3670.6	3659.5
43°	3624.0	3689.0	3678.8	3712.5	3742.3	3745.0	3742.1	3763.4	3721.6	3715.8	3704.5
44°	3671.8	3730.1	3727.5	3759.5	3789.4	3791.5	3789.2	3806.0	3770.1	3761.5	3751.5



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3720.5	3772.0	3776.9	3808.4	3838.1	3838.7	3839.0	3847.2	3819.6	3808.8	3798.8
46°	3771.1	3812.8	3828.5	3856.4	3887.2	3885.9	3888.6	3884.6	3871.6	3857.0	3847.4
47°	3824.3	3852.8	3880.9	3904.9	3937.0	3933.3	3938.1	3921.9	3921.2	3905.5	3898.0
48°	3878.1	3894.8	3934.9	3955.1	3987.3	3981.9	3986.7	3960.0	3971.5	3954.4	3949.5
49°	3932.2	3939.8	3990.6	4005.6	4039.4	4030.9	4035.0	3998.9	4020.8	4004.0	4001.5
50°	3989.1	3984.1	4047.0	4058.7	4091.3	4080.6	4082.3	4038.4	4069.5	4055.3	4054.5
51°	4048.8	4029.8	4103.4	4112.1	4144.9	4129.6	4129.3	4074.0	4116.8	4106.7	4108.9
52°	4105.8	4073.0	4158.4	4165.5	4199.6	4178.8	4174.1	4110.3	4162.7	4157.8	4164.5
53°	4157.0	4108.9	4209.4	4221.0	4255.6	4228.0	4215.7	4144.1	4203.9	4207.6	4220.6
54°	4201.4	4135.5	4255.7	4277.4	4312.4	4278.7	4254.3	4174.1	4243.1	4260.4	4279.4
55°	4241.7	4162.8	4295.6	4334.2	4370.6	4327.6	4290.4	4202.9	4278.8	4311.0	4340.6
56°	4282.9	4193.8	4334.8	4393.6	4429.6	4375.2	4322.7	4228.8	4311.1	4360.8	4403.5
57°	4321.9	4226.1	4373.2	4451.6	4488.8	4423.3	4351.2	4250.4	4338.4	4408.9	4464.3
58°	4358.5	4248.8	4410.3	4511.0	4549.0	4470.7	4375.3	4271.4	4361.2	4457.0	4528.1
59°	4386.7	4264.7	4437.8	4567.1	4611.9	4515.6	4395.7	4289.0	4380.1	4503.2	4591.5
60°	4409.9	4284.3	4460.8	4619.8	4673.7	4559.3	4414.2	4302.3	4396.1	4549.2	4656.1
61°	4432.3	4303.8	4483.0	4673.5	4736.1	4603.0	4429.0	4307.7	4411.3	4593.6	4721.2
62°	4453.5	4319.6	4503.6	4724.5	4793.1	4648.0	4438.8	4309.2	4420.2	4636.1	4787.4
63°	4472.7	4332.6	4522.9	4771.3	4844.9	4688.5	4442.9	4307.8	4422.4	4675.6	4852.7
64°	4490.0	4335.1	4539.2	4814.2	4893.7	4727.5	4445.0	4297.0	4419.7	4711.8	4918.3
65°	4487.5	4294.4	4533.1	4852.1	4941.3	4761.5	4438.4	4278.1	4409.9	4742.2	4980.0
66°	4432.1	4258.4	4472.2	4881.7	4986.7	4788.5	4426.9	4251.0	4394.5	4768.1	5038.7
67°	4396.7	4236.2	4434.3	4898.4	5022.1	4811.2	4404.1	4185.3	4367.5	4787.0	5088.8
68°	4375.4	4164.2	4401.7	4864.9	5049.8	4825.8	4348.2	4029.2	4303.8	4797.7	5130.6
69°	4289.4	3975.4	4306.8	4808.6	5068.1	4821.3	4226.6	3764.8	4167.0	4790.8	5159.6
70°	4127.9	3645.5	4149.9	4771.5	5070.6	4789.4	4005.6	3415.8	3936.3	4760.5	5168.8
71°	3881.5	3171.3	3902.2	4690.4	5046.2	4709.6	3703.3	3067.1	3620.9	4677.8	5151.3
72°	3504.6	2741.6	3519.1	4573.2	4969.0	4560.9	3360.5	2775.8	3276.8	4540.3	5102.9
73°	3044.0	2302.3	3052.3	4413.1	4828.5	4336.8	3028.7	2492.7	2949.5	4330.5	5003.8
74°	2566.8	1725.6	2576.5	4166.7	4627.2	4063.3	2713.9	2106.4	2630.9	4060.1	4840.6
75°	1953.6	1148.9	1965.8	3794.1	4358.5	3731.2	2319.9	1502.3	2218.6	3726.9	4576.7
76°	1340.5	581.2	1355.1	3297.9	3962.7	3369.3	1704.5	851.6	1606.2	3343.8	4197.5
77°	732.8	426.2	749.6	2722.4	3423.5	2932.4	1089.1	611.4	898.0	2882.4	3652.3
78°	309.2	271.3	324.2	2038.2	2721.4	2322.9	482.4	379.4	650.8	2263.2	2922.9
79°	241.0	120.0	251.4	1354.1	1986.7	1687.1	223.8	147.5	403.7	1500.4	2098.8
80°	172.8	98.9	178.7	675.2	1252.0	1051.3	186.9	123.3	156.6	823.6	1270.7
81°	104.8	82.4	107.1	303.5	529.3	417.0	150.0	105.4	128.8	595.2	598.6
82°	85.6	67.6	87.4	235.2	228.1	220.4	113.4	89.6	109.3	380.6	386.7
83°	68.2	53.7	69.9	166.8	188.4	179.0	95.6	75.1	92.0	166.0	187.5
84°	52.7	41.5	53.8	99.0	148.7	137.5	79.5	62.3	76.0	128.3	151.3
85°	38.4	29.6	39.1	70.6	109.0	96.1	64.3	49.6	62.4	96.1	125.5
86°	27.2	20.4	27.5	46.6	84.9	69.1	50.4	36.9	48.8	70.2	100.6
87°	16.0	11.2	15.9	33.6	59.6	49.9	37.6	25.1	35.3	50.8	70.9
88°	4.8	2.2	4.3	20.6	40.7	34.3	25.9	14.7	23.6	31.5	56.9
89°	3.5	2.0	3.2	7.6	21.8	18.8	14.3	5.9	10.7	12.2	43.2



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-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: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-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: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2399.5	2399.5	2399.5
1°	2401.3	2400.7	2400.7
2°	2405.7	2405.3	2404.4
3°	2412.8	2412.1	2410.8
4°	2422.2	2421.1	2419.7
5°	2433.0	2431.6	2429.9
6°	2445.6	2444.1	2441.5
7°	2459.6	2457.6	2454.2
8°	2475.7	2472.3	2469.0
9°	2494.0	2489.4	2485.2
10°	2514.0	2508.2	2502.8
11°	2535.5	2528.6	2522.2
12°	2558.5	2549.5	2541.9
13°	2583.0	2570.7	2561.0
14°	2607.1	2592.6	2582.2
15°	2631.4	2615.0	2603.0
16°	2657.4	2638.7	2625.7
17°	2683.3	2664.1	2650.0
18°	2710.5	2689.9	2675.3
19°	2738.5	2716.4	2701.4
20°	2765.7	2743.0	2729.6
21°	2794.9	2772.1	2758.4
22°	2825.3	2802.2	2788.9
23°	2857.2	2833.5	2821.1
24°	2889.8	2865.9	2855.0
25°	2922.5	2900.1	2890.4
26°	2957.9	2935.1	2927.3
27°	2994.3	2971.1	2965.2
28°	3030.8	3007.4	3004.9
29°	3069.7	3044.6	3045.4
30°	3109.3	3082.2	3086.6
31°	3149.0	3121.9	3128.7
32°	3188.9	3161.3	3170.4
33°	3229.4	3201.4	3212.0
34°	3269.9	3240.1	3253.9
35°	3312.0	3279.9	3298.2
36°	3355.9	3319.4	3342.0
37°	3398.3	3361.0	3385.8
38°	3442.5	3403.4	3430.3
39°	3485.6	3445.7	3473.9
40°	3531.1	3490.2	3517.1
41°	3576.0	3535.4	3559.5
42°	3622.3	3582.9	3603.9
43°	3669.1	3631.1	3647.0
44°	3716.1	3679.0	3689.1



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	3764.3	3730.8	3731.3
46°	3813.6	3782.0	3773.7
47°	3863.8	3836.3	3817.5
48°	3916.0	3891.6	3862.0
49°	3969.4	3949.3	3908.1
50°	4024.3	4006.8	3955.1
51°	4080.5	4066.2	4003.3
52°	4138.4	4124.5	4052.8
53°	4198.5	4183.0	4102.4
54°	4257.2	4240.5	4152.0
55°	4318.7	4297.4	4199.6
56°	4381.9	4350.3	4244.3
57°	4443.9	4399.1	4286.7
58°	4508.2	4443.9	4326.4
59°	4570.5	4485.4	4362.2
60°	4632.8	4523.1	4394.3
61°	4695.1	4555.2	4420.6
62°	4755.9	4584.1	4441.1
63°	4814.3	4608.4	4459.2
64°	4872.7	4631.6	4475.3
65°	4926.3	4652.4	4491.0
66°	4976.4	4672.2	4500.1
67°	5016.9	4685.0	4500.1
68°	5048.0	4683.4	4458.7
69°	5063.0	4651.0	4325.8
70°	5062.6	4556.3	4045.7
71°	5039.1	4348.6	3602.7
72°	4980.4	3977.2	3141.0
73°	4857.1	3485.6	2651.9
74°	4613.0	2932.2	2086.3
75°	4209.9	2352.7	1381.4
76°	3691.9	1685.7	714.3
77°	3094.8	934.5	516.9
78°	2355.3	673.9	330.3
79°	1488.5	414.9	143.8
80°	765.4	155.9	119.5
81°	549.2	131.2	102.2
82°	351.4	110.9	87.1
83°	153.6	92.1	73.0
84°	121.4	75.7	60.3
85°	91.9	61.7	47.7
86°	69.0	47.9	35.0
87°	49.7	34.0	23.6
88°	30.5	21.6	13.6
89°	11.3	8.8	5.5



REPORT NUMBER: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-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: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-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: P1436708

CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)