

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: P1444992

Luminaire Tested: XAS180-SFPM (4000K-108W-T4)

Issue Date: 5/5/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1444992  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA ( )  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/5/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: LUMARK  
Catalog Number: XAS180-SFPM (4000K-108W-T4)  
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.  
LUMEN OUTPUT - 60% (108W)  
OPTICS - TYPE 4  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 28628 (1 lamp)  
Luminaire Lumens: 18071.5 lumens  
Efficiency: 63.1%  
Efficacy: 172.3 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

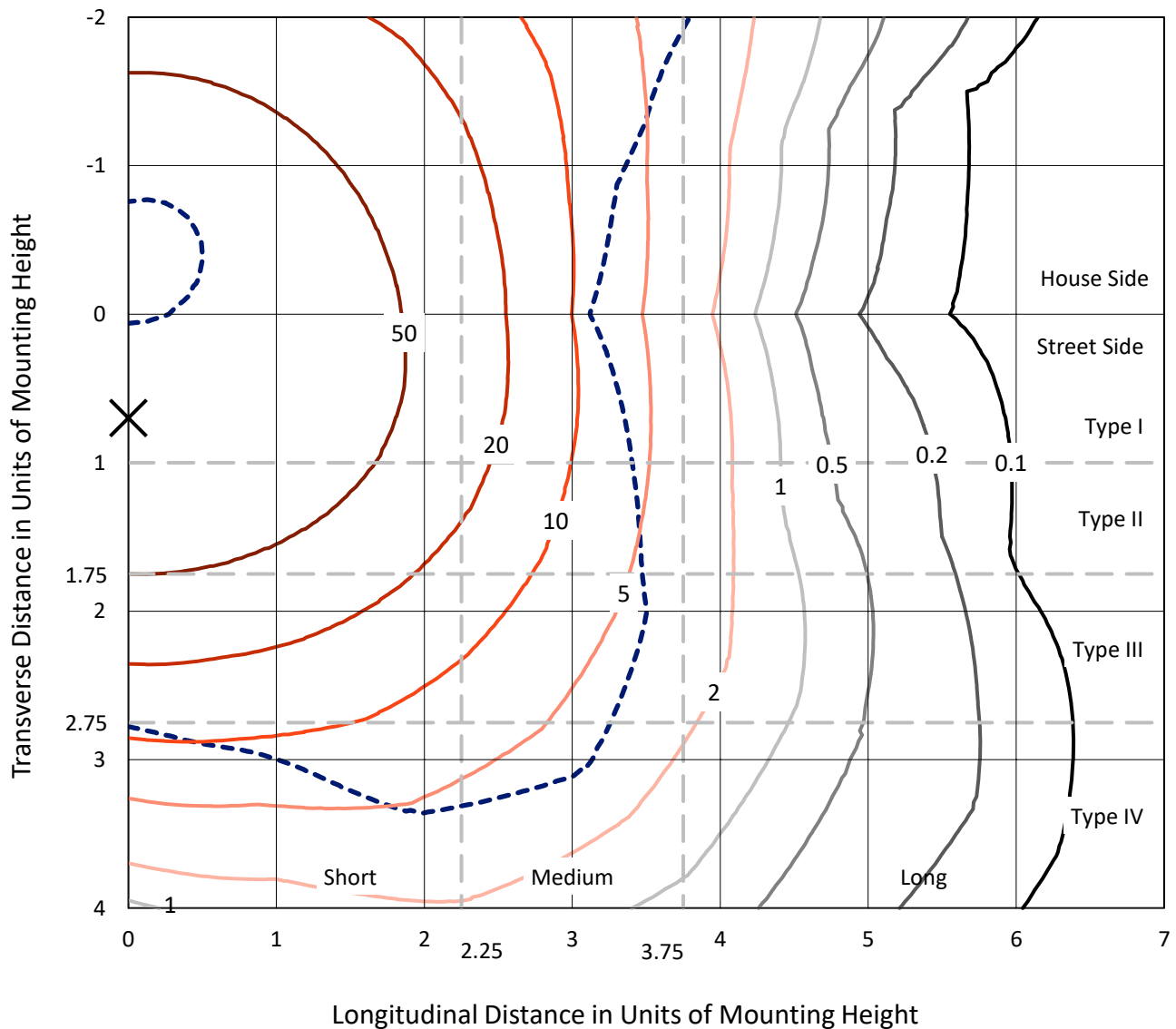
Input Watts (W): 104.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

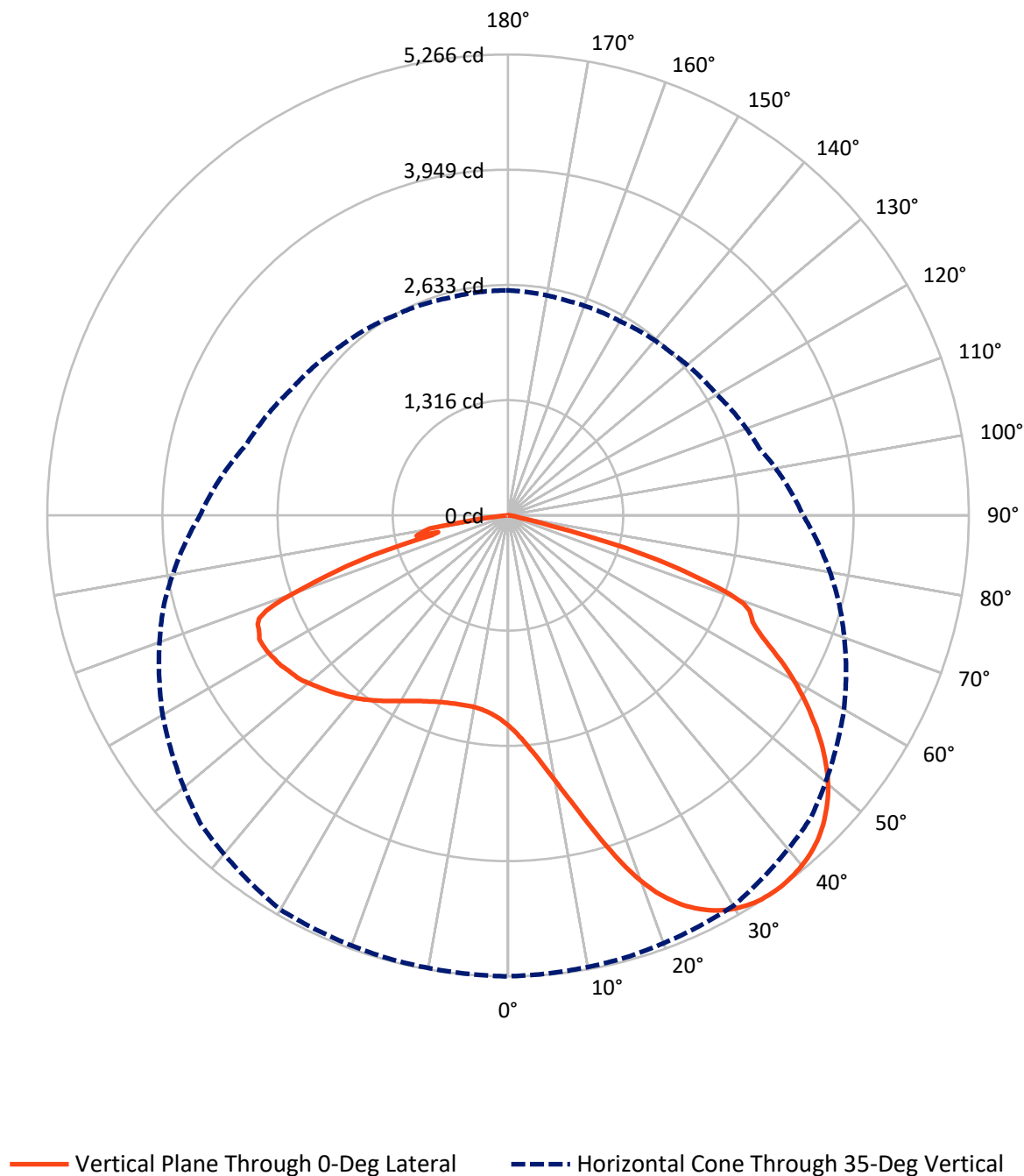


Based on 3 foot mounting height. Maximum calculated value = 417.1 fc  
Type IV - Short - Full Cutoff

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CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

## Luminous Intensity Polar Plot



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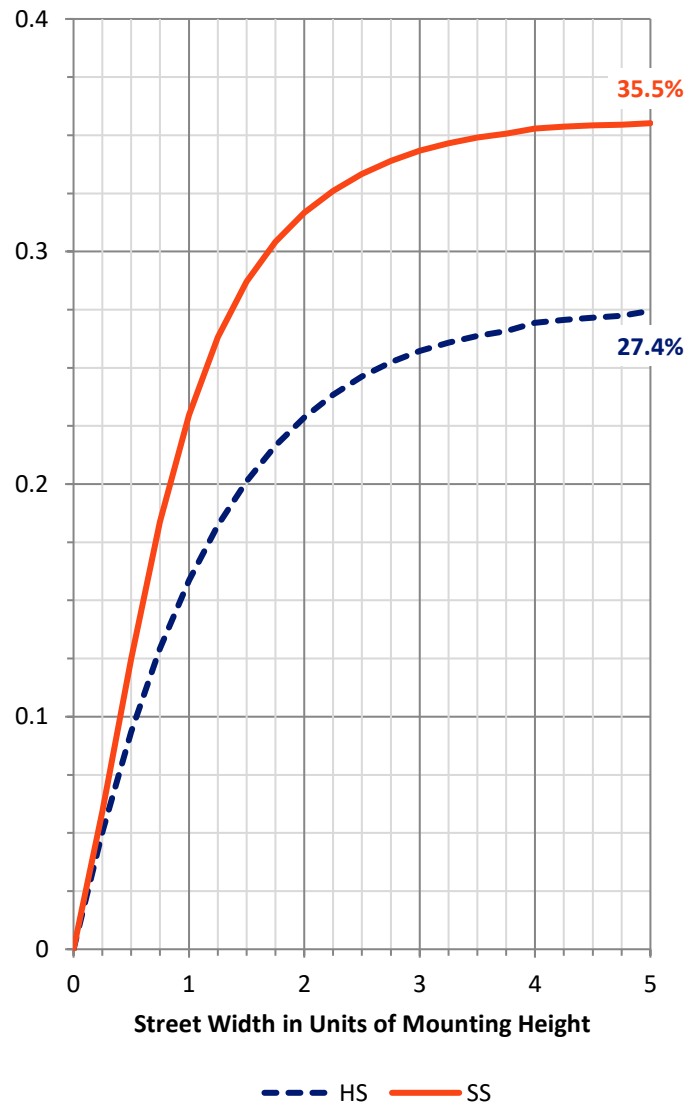
**FLUX DISTRIBUTION:**

|                    |        | Downward | Upward | Total   |
|--------------------|--------|----------|--------|---------|
| <b>House Side</b>  | Lumens | 7911.4   | 0.0    | 7911.4  |
|                    | % Lamp | 27.6     | 0.0    | 27.6    |
| <b>Street Side</b> | Lumens | 10160.0  | 0.0    | 10160.0 |
|                    | % Lamp | 35.5     | 0.0    | 35.5    |
| <b>Total</b>       | Lumens | 18071.5  | 0.0    | 18071.5 |
|                    | % Lamp | 63.1     | 0.0    | 63.1    |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10°    | 239.4   | 1.3       | 0.8    |
| 10°-20°   | 812.5   | 4.5       | 2.8    |
| 20°-30°   | 1559.7  | 8.6       | 5.4    |
| 30°-40°   | 2349.4  | 13.0      | 8.2    |
| 40°-50°   | 3072.6  | 17.0      | 10.7   |
| 50°-60°   | 3613.4  | 20.0      | 12.6   |
| 60°-70°   | 3770.0  | 20.9      | 13.2   |
| 70°-80°   | 2413.6  | 13.4      | 8.4    |
| 80°-90°   | 240.9   | 1.3       | 0.8    |
| 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°    | 18071.5 | 100.0     | 63.1   |
| 0°-180°   | 18071.5 | 100.0     | 63.1   |

**Coefficient of Utilization**



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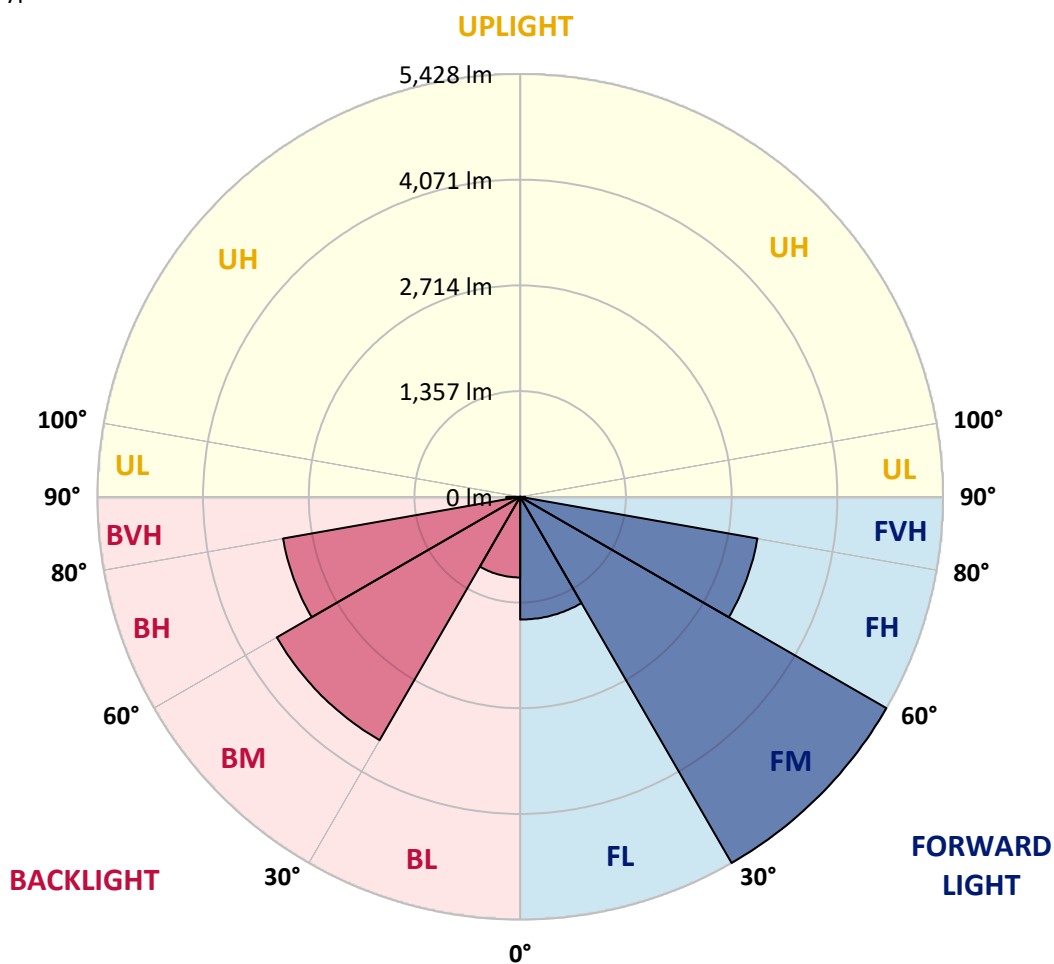
CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone          |             | Lumens  | % Lamp | Zone Rating/Lumen Limit |      |         |
|---------------|-------------|---------|--------|-------------------------|------|---------|
|               |             |         |        | B                       | U    | G       |
| FL            | (0°-30°)    | 1576.0  | 5.5    |                         |      |         |
| FM            | (30°-60°)   | 5427.9  | 19.0   |                         |      |         |
| FH            | (60°-80°)   | 3092.7  | 10.8   |                         |      | G2/5000 |
| FVH           | (80°-90°)   | 63.5    | 0.2    |                         |      | G1/100  |
| BL            | (0°-30°)    | 1035.6  | 3.6    | B3/2500                 |      |         |
| BM            | (30°-60°)   | 3607.5  | 12.6   | B3/5000                 |      |         |
| BH            | (60°-80°)   | 3090.9  | 10.8   | B4/5000                 |      | G4/5000 |
| BVH           | (80°-90°)   | 177.4   | 0.6    |                         |      | G2/225  |
| UL            | (90°-100°)  | 0.0     | 0.0    |                         | U0/0 |         |
| UH            | (100°-180°) | 0.0     | 0.0    |                         | U0/0 |         |
| Trapped Light |             | 10556.5 | 36.9   |                         |      |         |

**BUG Rating: B4-U0-G4**

Type IV Short



REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (FULL):**

|     | 0°     | 15°    | 30°    | 45°    | 60°    | 75°    | 90°    | 105°   | 120°   | 135°   | 150°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°  | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 |
| 1°  | 2454.5 | 2453.8 | 2450.6 | 2444.7 | 2436.5 | 2427.9 | 2409.3 | 2399.4 | 2391.6 | 2384.8 | 2380.6 |
| 2°  | 2501.9 | 2499.7 | 2491.4 | 2477.2 | 2458.5 | 2438.9 | 2410.0 | 2391.4 | 2375.1 | 2361.7 | 2353.1 |
| 3°  | 2555.4 | 2551.1 | 2536.2 | 2513.4 | 2485.2 | 2454.0 | 2414.2 | 2386.0 | 2361.7 | 2342.4 | 2328.8 |
| 4°  | 2614.9 | 2607.6 | 2586.2 | 2554.1 | 2514.4 | 2471.2 | 2419.9 | 2382.9 | 2351.1 | 2326.5 | 2309.0 |
| 5°  | 2681.8 | 2671.7 | 2642.5 | 2598.6 | 2547.2 | 2491.5 | 2427.8 | 2381.3 | 2342.8 | 2313.1 | 2292.1 |
| 6°  | 2755.6 | 2741.4 | 2705.0 | 2648.6 | 2582.7 | 2513.2 | 2437.1 | 2381.9 | 2336.9 | 2302.6 | 2278.0 |
| 7°  | 2835.9 | 2818.4 | 2773.1 | 2704.5 | 2621.6 | 2537.8 | 2449.8 | 2385.1 | 2333.0 | 2294.5 | 2267.4 |
| 8°  | 2923.8 | 2901.7 | 2847.1 | 2763.2 | 2663.7 | 2565.9 | 2464.8 | 2390.9 | 2331.7 | 2287.7 | 2258.5 |
| 9°  | 3018.7 | 2994.4 | 2926.7 | 2826.8 | 2711.1 | 2595.2 | 2481.4 | 2397.7 | 2332.8 | 2283.8 | 2251.8 |
| 10° | 3121.3 | 3089.9 | 3012.5 | 2896.3 | 2762.0 | 2627.4 | 2500.5 | 2407.3 | 2335.5 | 2283.0 | 2247.3 |
| 11° | 3232.8 | 3197.5 | 3105.0 | 2971.1 | 2815.4 | 2662.2 | 2520.9 | 2418.9 | 2340.1 | 2284.0 | 2245.5 |
| 12° | 3353.1 | 3309.4 | 3203.0 | 3048.3 | 2870.3 | 2700.2 | 2543.4 | 2431.4 | 2346.5 | 2286.4 | 2246.8 |
| 13° | 3480.5 | 3432.1 | 3309.6 | 3131.2 | 2929.7 | 2740.4 | 2567.0 | 2445.2 | 2354.0 | 2290.9 | 2249.6 |
| 14° | 3621.5 | 3564.8 | 3423.3 | 3219.9 | 2992.8 | 2780.7 | 2590.9 | 2459.0 | 2362.2 | 2296.7 | 2252.9 |
| 15° | 3771.6 | 3707.1 | 3543.3 | 3313.0 | 3057.6 | 2822.6 | 2616.5 | 2473.9 | 2372.1 | 2303.5 | 2257.8 |
| 16° | 3926.3 | 3852.0 | 3668.6 | 3413.1 | 3127.4 | 2867.3 | 2644.1 | 2491.0 | 2382.4 | 2311.3 | 2264.3 |
| 17° | 4080.6 | 3998.7 | 3793.3 | 3515.8 | 3200.2 | 2913.6 | 2672.8 | 2508.0 | 2394.5 | 2319.5 | 2271.7 |
| 18° | 4232.8 | 4142.0 | 3918.7 | 3619.1 | 3276.3 | 2961.0 | 2702.7 | 2527.4 | 2407.4 | 2329.7 | 2278.6 |
| 19° | 4375.7 | 4279.7 | 4042.2 | 3719.4 | 3354.9 | 3010.4 | 2733.8 | 2547.6 | 2420.6 | 2340.5 | 2287.3 |
| 20° | 4507.4 | 4409.6 | 4159.3 | 3819.4 | 3435.0 | 3062.0 | 2766.7 | 2569.2 | 2434.8 | 2351.8 | 2297.2 |
| 21° | 4626.0 | 4530.1 | 4272.9 | 3916.4 | 3514.1 | 3115.6 | 2800.0 | 2591.6 | 2449.7 | 2362.8 | 2308.0 |
| 22° | 4728.2 | 4633.2 | 4379.3 | 4010.9 | 3593.8 | 3170.6 | 2835.0 | 2614.9 | 2466.8 | 2375.6 | 2320.0 |
| 23° | 4821.0 | 4732.5 | 4478.3 | 4101.5 | 3672.7 | 3228.1 | 2871.2 | 2638.7 | 2485.4 | 2389.3 | 2333.2 |
| 24° | 4902.4 | 4818.1 | 4570.0 | 4186.5 | 3749.9 | 3287.2 | 2908.1 | 2663.9 | 2504.5 | 2404.8 | 2347.5 |
| 25° | 4972.4 | 4894.5 | 4655.1 | 4269.7 | 3825.6 | 3347.1 | 2947.0 | 2689.9 | 2524.1 | 2421.5 | 2362.0 |
| 26° | 5032.7 | 4962.1 | 4734.7 | 4347.6 | 3898.5 | 3406.5 | 2986.6 | 2716.9 | 2544.6 | 2438.6 | 2378.0 |
| 27° | 5087.0 | 5019.6 | 4805.0 | 4422.3 | 3969.3 | 3467.1 | 3026.3 | 2744.2 | 2565.4 | 2456.8 | 2394.7 |
| 28° | 5132.8 | 5068.6 | 4868.6 | 4494.0 | 4036.3 | 3527.0 | 3067.5 | 2770.7 | 2587.4 | 2476.6 | 2412.3 |
| 29° | 5170.8 | 5111.4 | 4926.6 | 4562.1 | 4099.9 | 3586.9 | 3109.6 | 2798.5 | 2608.8 | 2498.0 | 2430.8 |
| 30° | 5200.7 | 5145.6 | 4978.6 | 4627.8 | 4162.9 | 3644.8 | 3153.1 | 2826.8 | 2632.0 | 2519.2 | 2449.9 |
| 31° | 5225.3 | 5173.1 | 5024.0 | 4688.3 | 4221.3 | 3702.3 | 3196.5 | 2854.6 | 2656.1 | 2540.8 | 2469.9 |
| 32° | 5243.1 | 5195.5 | 5064.2 | 4744.7 | 4277.3 | 3758.8 | 3240.4 | 2883.7 | 2680.0 | 2563.3 | 2491.5 |
| 33° | 5256.6 | 5211.7 | 5099.3 | 4798.4 | 4331.2 | 3813.7 | 3284.2 | 2913.8 | 2705.2 | 2585.6 | 2513.7 |
| 34° | 5262.8 | 5221.4 | 5127.2 | 4846.4 | 4382.6 | 3867.3 | 3328.3 | 2942.5 | 2730.6 | 2608.7 | 2536.5 |
| 35° | 5265.6 | 5226.0 | 5150.8 | 4890.8 | 4433.4 | 3919.0 | 3372.3 | 2971.8 | 2756.7 | 2632.5 | 2560.8 |
| 36° | 5264.0 | 5227.3 | 5169.5 | 4931.7 | 4480.0 | 3969.2 | 3416.1 | 3001.1 | 2783.2 | 2656.9 | 2586.1 |
| 37° | 5256.8 | 5223.2 | 5182.8 | 4968.9 | 4525.3 | 4017.6 | 3459.0 | 3031.4 | 2810.1 | 2682.2 | 2612.0 |
| 38° | 5245.9 | 5215.7 | 5191.6 | 5002.3 | 4568.8 | 4065.0 | 3503.2 | 3062.4 | 2836.8 | 2708.7 | 2638.4 |
| 39° | 5232.5 | 5206.5 | 5194.8 | 5030.5 | 4610.7 | 4111.6 | 3547.5 | 3093.2 | 2864.3 | 2735.3 | 2664.5 |
| 40° | 5214.8 | 5193.3 | 5194.7 | 5056.2 | 4650.3 | 4156.6 | 3592.5 | 3126.1 | 2892.5 | 2762.5 | 2690.9 |
| 41° | 5190.5 | 5175.3 | 5189.0 | 5077.8 | 4687.0 | 4199.9 | 3635.2 | 3160.6 | 2921.6 | 2790.1 | 2718.0 |
| 42° | 5163.7 | 5152.9 | 5179.5 | 5096.4 | 4723.5 | 4242.5 | 3676.6 | 3195.2 | 2950.9 | 2818.9 | 2745.5 |
| 43° | 5131.0 | 5128.4 | 5166.6 | 5110.1 | 4756.4 | 4284.8 | 3717.4 | 3228.9 | 2980.2 | 2849.0 | 2773.3 |
| 44° | 5092.7 | 5100.2 | 5148.9 | 5118.1 | 4787.8 | 4325.2 | 3754.7 | 3264.1 | 3010.4 | 2878.9 | 2802.2 |

REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (continued):**

|     | 0°     | 15°    | 30°    | 45°    | 60°    | 75°    | 90°    | 105°   | 120°   | 135°   | 150°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 5048.3 | 5065.1 | 5124.9 | 5124.0 | 4818.3 | 4365.6 | 3793.1 | 3301.2 | 3042.6 | 2909.4 | 2831.3 |
| 46° | 4996.2 | 5028.0 | 5100.3 | 5125.0 | 4847.2 | 4405.5 | 3830.4 | 3339.5 | 3075.8 | 2940.8 | 2861.3 |
| 47° | 4940.1 | 4982.5 | 5070.2 | 5121.6 | 4875.2 | 4446.0 | 3866.6 | 3378.2 | 3109.5 | 2972.3 | 2892.4 |
| 48° | 4880.2 | 4932.9 | 5035.3 | 5112.1 | 4900.2 | 4482.9 | 3900.5 | 3417.4 | 3144.6 | 3004.5 | 2923.9 |
| 49° | 4811.9 | 4876.6 | 4997.1 | 5101.0 | 4922.0 | 4518.7 | 3933.0 | 3457.0 | 3180.8 | 3038.6 | 2956.3 |
| 50° | 4738.3 | 4813.2 | 4950.9 | 5082.8 | 4941.4 | 4553.8 | 3964.4 | 3496.2 | 3217.1 | 3073.0 | 2990.2 |
| 51° | 4655.3 | 4743.9 | 4900.4 | 5060.9 | 4958.1 | 4586.1 | 3996.0 | 3535.9 | 3255.3 | 3109.9 | 3024.2 |
| 52° | 4567.1 | 4665.4 | 4842.5 | 5032.0 | 4971.4 | 4615.6 | 4025.5 | 3577.3 | 3294.5 | 3148.2 | 3061.1 |
| 53° | 4473.3 | 4581.6 | 4781.0 | 4997.5 | 4981.2 | 4642.6 | 4053.4 | 3616.4 | 3334.2 | 3186.2 | 3096.2 |
| 54° | 4376.1 | 4489.3 | 4712.4 | 4959.4 | 4984.8 | 4666.3 | 4080.1 | 3654.6 | 3376.3 | 3225.6 | 3133.9 |
| 55° | 4273.7 | 4390.9 | 4636.4 | 4914.4 | 4982.8 | 4685.6 | 4103.3 | 3689.0 | 3418.7 | 3267.3 | 3172.6 |
| 56° | 4164.6 | 4290.7 | 4553.7 | 4863.4 | 4976.2 | 4700.1 | 4124.4 | 3722.3 | 3461.3 | 3309.9 | 3212.3 |
| 57° | 4058.7 | 4185.7 | 4469.6 | 4808.2 | 4961.1 | 4709.4 | 4143.1 | 3752.7 | 3504.2 | 3354.9 | 3253.1 |
| 58° | 3946.5 | 4079.0 | 4379.4 | 4747.0 | 4938.2 | 4711.0 | 4155.7 | 3780.3 | 3547.2 | 3401.8 | 3291.4 |
| 59° | 3835.7 | 3970.3 | 4289.0 | 4678.8 | 4907.8 | 4704.4 | 4163.2 | 3805.0 | 3590.3 | 3451.1 | 3329.3 |
| 60° | 3716.7 | 3861.0 | 4193.7 | 4605.5 | 4869.1 | 4689.8 | 4166.9 | 3826.1 | 3633.5 | 3501.0 | 3366.8 |
| 61° | 3593.2 | 3745.8 | 4098.6 | 4529.6 | 4821.5 | 4668.3 | 4162.7 | 3843.1 | 3676.8 | 3551.6 | 3404.5 |
| 62° | 3464.0 | 3628.5 | 4004.2 | 4447.7 | 4767.7 | 4635.2 | 4150.9 | 3855.1 | 3718.5 | 3601.8 | 3441.5 |
| 63° | 3336.8 | 3510.4 | 3910.9 | 4362.2 | 4707.7 | 4589.9 | 4129.3 | 3861.8 | 3759.5 | 3651.1 | 3477.3 |
| 64° | 3217.0 | 3395.8 | 3818.3 | 4275.4 | 4637.1 | 4532.7 | 4097.3 | 3863.4 | 3799.6 | 3700.5 | 3511.6 |
| 65° | 3120.3 | 3291.1 | 3728.2 | 4186.5 | 4560.8 | 4464.7 | 4057.2 | 3856.9 | 3838.0 | 3750.5 | 3543.9 |
| 66° | 3049.2 | 3204.9 | 3641.5 | 4098.1 | 4474.6 | 4382.9 | 4002.5 | 3840.9 | 3871.4 | 3805.6 | 3573.4 |
| 67° | 3009.0 | 3141.9 | 3563.1 | 4011.0 | 4376.6 | 4291.1 | 3932.2 | 3814.4 | 3899.5 | 3857.5 | 3600.6 |
| 68° | 2967.1 | 3098.8 | 3494.7 | 3924.8 | 4268.1 | 4183.2 | 3808.9 | 3768.3 | 3920.4 | 3906.5 | 3599.6 |
| 69° | 2871.4 | 3056.9 | 3439.2 | 3839.1 | 4147.2 | 4041.3 | 3611.2 | 3676.8 | 3928.2 | 3950.5 | 3584.8 |
| 70° | 2682.7 | 2979.9 | 3395.2 | 3752.6 | 4020.3 | 3843.0 | 3337.5 | 3524.5 | 3923.1 | 3986.3 | 3587.3 |
| 71° | 2396.6 | 2827.6 | 3355.5 | 3670.4 | 3869.0 | 3585.4 | 3003.8 | 3304.4 | 3886.0 | 4009.0 | 3566.6 |
| 72° | 2087.7 | 2579.5 | 3308.3 | 3585.4 | 3683.9 | 3279.8 | 2688.4 | 3049.6 | 3795.7 | 4000.0 | 3524.4 |
| 73° | 1768.7 | 2258.3 | 3233.2 | 3494.3 | 3468.7 | 2967.8 | 2423.1 | 2796.7 | 3653.1 | 3951.2 | 3466.9 |
| 74° | 1400.8 | 1912.4 | 3087.2 | 3384.7 | 3227.2 | 2664.0 | 2106.8 | 2556.9 | 3469.7 | 3860.8 | 3353.4 |
| 75° | 939.5  | 1539.3 | 2829.8 | 3225.9 | 2953.0 | 2329.6 | 1602.2 | 2275.8 | 3263.7 | 3719.8 | 3183.4 |
| 76° | 511.3  | 1092.3 | 2482.9 | 2994.5 | 2667.0 | 1872.8 | 1097.6 | 1761.9 | 3060.2 | 3491.2 | 2953.0 |
| 77° | 334.4  | 609.7  | 2110.6 | 2663.7 | 2354.8 | 1269.3 | 597.1  | 1247.8 | 2830.2 | 3156.1 | 2680.3 |
| 78° | 159.0  | 449.1  | 1663.1 | 2207.0 | 1959.3 | 695.8  | 289.8  | 736.8  | 2488.8 | 2700.3 | 2345.4 |
| 79° | 126.6  | 291.3  | 1096.7 | 1672.2 | 1450.4 | 516.3  | 180.6  | 359.1  | 1886.4 | 2202.6 | 1968.7 |
| 80° | 109.2  | 133.5  | 580.0  | 1103.1 | 888.4  | 348.1  | 156.2  | 199.9  | 1284.1 | 1758.1 | 1618.5 |
| 81° | 93.9   | 112.8  | 370.5  | 577.5  | 634.3  | 179.9  | 131.8  | 167.3  | 683.9  | 1390.1 | 1468.2 |
| 82° | 80.2   | 95.9   | 165.2  | 371.9  | 390.5  | 151.8  | 107.5  | 134.8  | 328.3  | 1024.4 | 1241.5 |
| 83° | 67.5   | 80.4   | 132.6  | 168.8  | 146.8  | 124.9  | 90.5   | 102.2  | 216.0  | 767.3  | 1014.7 |
| 84° | 56.0   | 66.1   | 107.4  | 132.2  | 117.8  | 96.8   | 74.5   | 82.6   | 173.3  | 540.0  | 785.5  |
| 85° | 44.6   | 54.2   | 82.1   | 109.1  | 90.7   | 74.3   | 59.0   | 65.8   | 141.9  | 348.3  | 485.7  |
| 86° | 33.1   | 42.3   | 61.5   | 87.5   | 66.7   | 58.5   | 44.6   | 51.1   | 110.6  | 250.2  | 343.2  |
| 87° | 22.6   | 30.4   | 44.6   | 63.7   | 49.2   | 42.7   | 31.1   | 37.9   | 80.8   | 152.1  | 200.6  |
| 88° | 13.1   | 19.9   | 27.6   | 51.2   | 31.8   | 27.0   | 21.6   | 29.0   | 53.4   | 56.2   | 59.7   |
| 89° | 5.5    | 8.6    | 11.5   | 38.9   | 14.4   | 13.6   | 12.1   | 20.0   | 36.3   | 38.1   | 40.4   |

REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**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: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**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: P1444992  
CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

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: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (continued):**

|     | 165°   | 180°   | 195°   | 210°   | 225°   | 240°   | 255°   | 270°   | 285°   | 300°   | 315°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°  | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 |
| 1°  | 2378.5 | 2378.2 | 2380.2 | 2386.5 | 2392.7 | 2401.6 | 2411.1 | 2413.2 | 2422.5 | 2432.6 | 2440.7 |
| 2°  | 2348.3 | 2347.2 | 2351.7 | 2360.6 | 2373.0 | 2387.9 | 2406.7 | 2418.1 | 2438.7 | 2458.6 | 2475.7 |
| 3°  | 2322.0 | 2320.4 | 2326.1 | 2338.1 | 2355.7 | 2378.2 | 2404.9 | 2426.1 | 2456.4 | 2487.7 | 2515.5 |
| 4°  | 2300.1 | 2298.1 | 2305.0 | 2319.8 | 2342.2 | 2370.8 | 2405.3 | 2436.0 | 2477.3 | 2519.9 | 2559.0 |
| 5°  | 2281.5 | 2278.7 | 2286.9 | 2304.7 | 2330.8 | 2366.0 | 2407.7 | 2448.0 | 2501.5 | 2556.0 | 2605.6 |
| 6°  | 2265.9 | 2262.6 | 2272.2 | 2292.0 | 2323.0 | 2363.3 | 2412.2 | 2462.7 | 2527.2 | 2594.9 | 2659.1 |
| 7°  | 2252.5 | 2249.5 | 2259.4 | 2281.9 | 2316.6 | 2363.1 | 2420.0 | 2480.2 | 2556.5 | 2638.7 | 2717.1 |
| 8°  | 2242.8 | 2239.1 | 2250.2 | 2274.9 | 2312.9 | 2364.8 | 2429.4 | 2498.7 | 2587.7 | 2686.1 | 2779.8 |
| 9°  | 2234.5 | 2230.9 | 2242.9 | 2270.3 | 2311.4 | 2368.5 | 2440.2 | 2519.4 | 2622.0 | 2736.8 | 2846.6 |
| 10° | 2229.2 | 2225.2 | 2238.5 | 2267.8 | 2312.1 | 2373.4 | 2452.5 | 2542.2 | 2658.4 | 2790.6 | 2919.0 |
| 11° | 2226.7 | 2222.2 | 2236.6 | 2268.3 | 2315.8 | 2380.6 | 2467.4 | 2567.7 | 2699.2 | 2848.4 | 2997.7 |
| 12° | 2225.8 | 2221.7 | 2236.8 | 2271.0 | 2321.2 | 2390.2 | 2484.1 | 2594.3 | 2740.9 | 2910.0 | 3079.2 |
| 13° | 2227.8 | 2222.5 | 2238.4 | 2275.1 | 2328.0 | 2400.9 | 2502.2 | 2623.0 | 2785.1 | 2975.1 | 3168.4 |
| 14° | 2229.9 | 2225.5 | 2242.5 | 2281.0 | 2337.3 | 2413.1 | 2520.9 | 2652.3 | 2831.1 | 3043.5 | 3262.0 |
| 15° | 2234.1 | 2229.1 | 2247.7 | 2288.1 | 2348.0 | 2427.4 | 2540.6 | 2682.8 | 2878.7 | 3115.9 | 3363.0 |
| 16° | 2239.0 | 2233.9 | 2253.2 | 2295.5 | 2358.8 | 2442.6 | 2561.7 | 2715.6 | 2928.9 | 3192.8 | 3468.5 |
| 17° | 2244.6 | 2239.5 | 2260.1 | 2304.5 | 2371.2 | 2459.1 | 2584.2 | 2749.4 | 2981.6 | 3272.6 | 3576.2 |
| 18° | 2251.5 | 2246.2 | 2268.4 | 2313.7 | 2384.4 | 2475.4 | 2606.9 | 2784.0 | 3034.6 | 3356.2 | 3686.0 |
| 19° | 2259.0 | 2254.4 | 2276.9 | 2324.4 | 2397.5 | 2493.7 | 2631.2 | 2819.6 | 3089.9 | 3441.4 | 3794.5 |
| 20° | 2269.0 | 2263.8 | 2287.3 | 2336.4 | 2411.6 | 2511.9 | 2656.5 | 2856.6 | 3149.2 | 3527.2 | 3898.3 |
| 21° | 2279.6 | 2275.1 | 2298.7 | 2349.4 | 2425.7 | 2531.2 | 2683.4 | 2895.3 | 3207.7 | 3616.6 | 3999.3 |
| 22° | 2291.4 | 2286.7 | 2311.8 | 2363.6 | 2441.5 | 2551.6 | 2710.8 | 2935.1 | 3271.2 | 3702.6 | 4096.1 |
| 23° | 2304.5 | 2300.6 | 2325.9 | 2378.7 | 2458.5 | 2573.0 | 2738.2 | 2976.2 | 3336.9 | 3787.9 | 4188.3 |
| 24° | 2318.5 | 2316.0 | 2341.4 | 2395.3 | 2476.1 | 2594.2 | 2766.4 | 3018.3 | 3401.7 | 3869.0 | 4274.1 |
| 25° | 2333.8 | 2331.8 | 2358.1 | 2412.6 | 2495.4 | 2616.8 | 2796.0 | 3060.1 | 3467.7 | 3948.5 | 4355.9 |
| 26° | 2350.7 | 2349.7 | 2375.9 | 2430.4 | 2515.3 | 2639.4 | 2825.4 | 3103.8 | 3534.4 | 4022.4 | 4435.1 |
| 27° | 2367.6 | 2368.8 | 2394.6 | 2449.0 | 2536.0 | 2661.6 | 2855.4 | 3148.2 | 3601.4 | 4093.8 | 4508.3 |
| 28° | 2385.7 | 2390.3 | 2414.0 | 2469.1 | 2557.4 | 2685.8 | 2885.5 | 3194.6 | 3667.6 | 4162.5 | 4579.4 |
| 29° | 2405.2 | 2412.7 | 2434.6 | 2489.4 | 2579.7 | 2709.9 | 2916.3 | 3239.7 | 3731.6 | 4227.5 | 4647.3 |
| 30° | 2426.3 | 2437.0 | 2456.8 | 2510.2 | 2601.2 | 2734.9 | 2946.7 | 3285.7 | 3795.5 | 4288.9 | 4710.5 |
| 31° | 2448.4 | 2461.5 | 2480.0 | 2531.7 | 2624.4 | 2760.0 | 2977.0 | 3331.8 | 3856.3 | 4346.7 | 4769.9 |
| 32° | 2471.3 | 2488.1 | 2503.3 | 2555.2 | 2648.5 | 2786.2 | 3008.1 | 3378.6 | 3914.7 | 4401.7 | 4825.9 |
| 33° | 2495.4 | 2514.8 | 2527.2 | 2578.3 | 2672.5 | 2812.2 | 3038.8 | 3425.7 | 3972.0 | 4456.4 | 4879.3 |
| 34° | 2519.2 | 2541.7 | 2551.1 | 2602.5 | 2697.8 | 2838.7 | 3069.8 | 3472.6 | 4024.8 | 4507.4 | 4929.0 |
| 35° | 2543.1 | 2569.4 | 2575.0 | 2627.7 | 2722.8 | 2866.3 | 3100.9 | 3520.0 | 4077.7 | 4558.0 | 4973.3 |
| 36° | 2567.8 | 2597.5 | 2599.0 | 2653.5 | 2748.3 | 2893.8 | 3134.1 | 3568.4 | 4128.9 | 4603.6 | 5014.4 |
| 37° | 2590.6 | 2625.0 | 2623.6 | 2679.1 | 2774.5 | 2922.4 | 3167.3 | 3614.7 | 4177.3 | 4648.7 | 5051.4 |
| 38° | 2615.8 | 2653.9 | 2649.4 | 2706.8 | 2801.2 | 2950.1 | 3201.7 | 3662.0 | 4225.6 | 4691.2 | 5086.0 |
| 39° | 2641.0 | 2682.0 | 2675.2 | 2733.9 | 2828.6 | 2980.2 | 3236.1 | 3707.4 | 4270.3 | 4731.7 | 5115.1 |
| 40° | 2667.0 | 2709.1 | 2702.1 | 2761.6 | 2857.0 | 3009.2 | 3271.2 | 3751.7 | 4313.4 | 4770.2 | 5140.6 |
| 41° | 2694.0 | 2735.0 | 2729.0 | 2790.0 | 2886.1 | 3039.1 | 3306.5 | 3795.6 | 4354.8 | 4806.3 | 5159.6 |
| 42° | 2720.8 | 2761.0 | 2757.0 | 2817.7 | 2916.7 | 3070.6 | 3342.6 | 3837.3 | 4396.9 | 4842.4 | 5174.5 |
| 43° | 2747.9 | 2786.1 | 2785.9 | 2848.3 | 2946.5 | 3103.0 | 3381.0 | 3878.2 | 4437.9 | 4874.3 | 5187.2 |
| 44° | 2776.7 | 2812.5 | 2815.5 | 2878.4 | 2977.7 | 3137.4 | 3419.4 | 3918.5 | 4478.3 | 4903.5 | 5193.6 |

REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (continued):**

|     | 165°   | 180°   | 195°   | 210°   | 225°   | 240°   | 255°   | 270°   | 285°   | 300°   | 315°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 2806.1 | 2838.7 | 2845.3 | 2909.7 | 3010.2 | 3170.2 | 3458.4 | 3958.0 | 4516.6 | 4931.8 | 5196.7 |
| 46° | 2836.2 | 2863.1 | 2875.9 | 2940.3 | 3042.4 | 3205.5 | 3497.0 | 3994.3 | 4553.5 | 4957.1 | 5194.1 |
| 47° | 2867.8 | 2887.2 | 2908.2 | 2971.6 | 3076.3 | 3239.7 | 3536.4 | 4027.7 | 4589.0 | 4980.6 | 5187.3 |
| 48° | 2899.9 | 2912.9 | 2941.4 | 3003.8 | 3110.3 | 3275.7 | 3575.6 | 4061.0 | 4621.6 | 5000.0 | 5176.7 |
| 49° | 2933.4 | 2939.5 | 2974.3 | 3035.6 | 3144.8 | 3312.3 | 3613.4 | 4092.3 | 4652.4 | 5017.3 | 5161.0 |
| 50° | 2967.4 | 2965.1 | 3008.9 | 3068.9 | 3181.0 | 3350.8 | 3651.4 | 4122.0 | 4679.2 | 5032.8 | 5141.7 |
| 51° | 3003.8 | 2991.9 | 3043.7 | 3102.8 | 3216.4 | 3388.5 | 3688.6 | 4148.7 | 4704.2 | 5043.0 | 5116.4 |
| 52° | 3039.1 | 3017.7 | 3078.7 | 3138.2 | 3255.3 | 3426.2 | 3724.9 | 4173.5 | 4724.5 | 5049.5 | 5084.6 |
| 53° | 3071.8 | 3038.2 | 3110.3 | 3173.5 | 3294.0 | 3465.0 | 3757.9 | 4195.7 | 4739.8 | 5050.6 | 5048.3 |
| 54° | 3100.1 | 3052.7 | 3139.8 | 3210.6 | 3334.9 | 3503.2 | 3789.4 | 4212.7 | 4751.8 | 5049.4 | 5007.6 |
| 55° | 3125.6 | 3068.2 | 3165.4 | 3248.3 | 3375.6 | 3542.0 | 3818.2 | 4227.0 | 4758.0 | 5040.1 | 4963.0 |
| 56° | 3152.1 | 3087.0 | 3190.6 | 3287.2 | 3419.6 | 3581.4 | 3842.8 | 4238.0 | 4757.5 | 5025.5 | 4911.4 |
| 57° | 3177.3 | 3107.1 | 3216.2 | 3325.4 | 3462.6 | 3621.1 | 3865.9 | 4243.8 | 4749.3 | 5002.5 | 4854.2 |
| 58° | 3202.1 | 3121.4 | 3240.7 | 3366.8 | 3507.9 | 3659.1 | 3884.5 | 4246.3 | 4734.1 | 4973.2 | 4790.3 |
| 59° | 3222.2 | 3132.2 | 3260.6 | 3405.2 | 3555.4 | 3695.5 | 3899.3 | 4244.3 | 4711.5 | 4936.2 | 4721.3 |
| 60° | 3239.5 | 3145.1 | 3278.0 | 3444.1 | 3603.9 | 3731.5 | 3912.0 | 4236.0 | 4681.8 | 4891.5 | 4646.0 |
| 61° | 3257.3 | 3157.2 | 3296.0 | 3480.6 | 3653.3 | 3767.8 | 3920.1 | 4218.4 | 4645.2 | 4838.0 | 4566.1 |
| 62° | 3274.7 | 3165.2 | 3313.2 | 3519.1 | 3700.4 | 3804.8 | 3922.8 | 4192.0 | 4599.1 | 4776.3 | 4482.0 |
| 63° | 3288.2 | 3171.4 | 3328.4 | 3555.6 | 3745.8 | 3838.6 | 3920.6 | 4158.3 | 4541.2 | 4705.9 | 4394.7 |
| 64° | 3299.8 | 3174.0 | 3341.9 | 3590.2 | 3791.3 | 3870.1 | 3913.8 | 4114.8 | 4474.9 | 4630.1 | 4306.6 |
| 65° | 3300.8 | 3150.0 | 3343.0 | 3622.5 | 3837.0 | 3898.1 | 3896.7 | 4058.0 | 4395.9 | 4543.8 | 4214.2 |
| 66° | 3269.7 | 3129.4 | 3309.0 | 3649.2 | 3882.0 | 3919.9 | 3871.4 | 3986.8 | 4305.2 | 4447.8 | 4120.6 |
| 67° | 3251.9 | 3119.0 | 3290.7 | 3669.9 | 3922.1 | 3937.4 | 3830.8 | 3882.5 | 4202.9 | 4343.0 | 4029.4 |
| 68° | 3244.7 | 3079.9 | 3277.9 | 3661.7 | 3960.1 | 3946.7 | 3755.0 | 3705.1 | 4070.8 | 4229.4 | 3936.7 |
| 69° | 3198.1 | 2968.9 | 3227.1 | 3641.0 | 3991.5 | 3940.0 | 3618.2 | 3444.9 | 3881.7 | 4100.1 | 3844.7 |
| 70° | 3106.4 | 2767.3 | 3136.4 | 3638.6 | 4015.5 | 3912.1 | 3403.3 | 3109.5 | 3629.9 | 3951.6 | 3752.4 |
| 71° | 2960.5 | 2469.9 | 2991.3 | 3612.8 | 4019.7 | 3841.6 | 3132.9 | 2764.2 | 3315.6 | 3771.9 | 3653.5 |
| 72° | 2726.7 | 2193.1 | 2759.4 | 3570.1 | 3991.6 | 3715.6 | 2848.2 | 2459.7 | 2981.2 | 3553.9 | 3550.5 |
| 73° | 2438.1 | 1930.4 | 2461.8 | 3503.8 | 3918.0 | 3533.8 | 2577.9 | 2159.9 | 2658.2 | 3301.4 | 3432.2 |
| 74° | 2154.9 | 1636.9 | 2188.5 | 3384.9 | 3798.0 | 3328.8 | 2301.1 | 1779.8 | 2330.1 | 3014.5 | 3293.6 |
| 75° | 1857.2 | 1246.6 | 1898.1 | 3201.9 | 3617.0 | 3102.4 | 1928.2 | 1237.4 | 1934.6 | 2699.1 | 3097.6 |
| 76° | 1499.1 | 900.5  | 1537.5 | 2960.5 | 3337.8 | 2861.1 | 1386.7 | 700.7  | 1394.2 | 2369.3 | 2828.0 |
| 77° | 1153.7 | 820.2  | 1218.6 | 2683.0 | 2959.0 | 2570.0 | 848.8  | 513.3  | 815.5  | 2006.6 | 2456.4 |
| 78° | 1085.5 | 1069.8 | 1183.2 | 2339.4 | 2494.4 | 2114.0 | 418.9  | 336.1  | 603.4  | 1557.8 | 1964.0 |
| 79° | 1337.6 | 1017.5 | 1424.5 | 1941.7 | 2037.8 | 1469.9 | 223.0  | 158.8  | 400.7  | 1031.6 | 1418.4 |
| 80° | 1563.2 | 965.2  | 1217.4 | 1549.6 | 1654.1 | 830.3  | 185.3  | 135.3  | 198.0  | 582.7  | 872.8  |
| 81° | 1220.1 | 908.1  | 1010.4 | 1406.4 | 1270.3 | 398.8  | 147.6  | 116.0  | 164.3  | 378.6  | 630.3  |
| 82° | 876.9  | 521.3  | 800.2  | 1162.7 | 886.6  | 235.9  | 110.0  | 98.2   | 139.7  | 175.8  | 394.6  |
| 83° | 499.7  | 370.6  | 453.3  | 919.0  | 613.5  | 182.4  | 91.5   | 81.9   | 114.1  | 133.8  | 158.9  |
| 84° | 281.9  | 220.0  | 273.8  | 674.2  | 371.8  | 149.6  | 74.6   | 66.3   | 89.0   | 107.1  | 125.8  |
| 85° | 187.0  | 71.2   | 220.0  | 378.1  | 271.1  | 116.9  | 59.4   | 52.7   | 68.0   | 81.0   | 103.7  |
| 86° | 92.8   | 48.2   | 166.2  | 302.7  | 170.5  | 84.4   | 45.6   | 39.0   | 52.7   | 58.9   | 82.8   |
| 87° | 64.5   | 25.3   | 112.3  | 227.3  | 71.1   | 59.6   | 33.4   | 25.4   | 37.6   | 42.3   | 58.0   |
| 88° | 36.1   | 2.3    | 58.5   | 151.9  | 48.2   | 40.5   | 23.0   | 14.4   | 22.5   | 25.7   | 33.9   |
| 89° | 8.0    | 1.5    | 5.3    | 76.5   | 25.4   | 21.5   | 12.6   | 5.4    | 9.7    | 10.3   | 9.8    |

REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**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: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**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: P1444992  
CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

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: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (continued):**

|     | 330°   | 345°   | 360°   |
|-----|--------|--------|--------|
| 0°  | 2413.6 | 2413.6 | 2413.6 |
| 1°  | 2447.7 | 2452.5 | 2454.5 |
| 2°  | 2490.5 | 2500.1 | 2501.9 |
| 3°  | 2537.0 | 2551.1 | 2555.4 |
| 4°  | 2589.2 | 2610.0 | 2614.9 |
| 5°  | 2647.6 | 2674.7 | 2681.8 |
| 6°  | 2712.3 | 2745.9 | 2755.6 |
| 7°  | 2781.5 | 2824.4 | 2835.9 |
| 8°  | 2856.4 | 2908.6 | 2923.8 |
| 9°  | 2939.1 | 2998.9 | 3018.7 |
| 10° | 3026.9 | 3098.7 | 3121.3 |
| 11° | 3122.5 | 3208.8 | 3232.8 |
| 12° | 3226.2 | 3323.5 | 3353.1 |
| 13° | 3337.5 | 3448.3 | 3480.5 |
| 14° | 3455.3 | 3582.9 | 3621.5 |
| 15° | 3578.3 | 3722.3 | 3771.6 |
| 16° | 3704.6 | 3867.6 | 3926.3 |
| 17° | 3835.3 | 4016.0 | 4080.6 |
| 18° | 3963.5 | 4163.2 | 4232.8 |
| 19° | 4088.2 | 4302.5 | 4375.7 |
| 20° | 4208.6 | 4435.0 | 4507.4 |
| 21° | 4321.3 | 4554.9 | 4626.0 |
| 22° | 4426.9 | 4662.2 | 4728.2 |
| 23° | 4527.6 | 4757.6 | 4821.0 |
| 24° | 4620.9 | 4843.4 | 4902.4 |
| 25° | 4708.7 | 4917.3 | 4972.4 |
| 26° | 4787.4 | 4983.1 | 5032.7 |
| 27° | 4860.7 | 5038.8 | 5087.0 |
| 28° | 4925.4 | 5087.3 | 5132.8 |
| 29° | 4984.1 | 5128.2 | 5170.8 |
| 30° | 5034.1 | 5163.3 | 5200.7 |
| 31° | 5079.8 | 5189.8 | 5225.3 |
| 32° | 5118.5 | 5212.5 | 5243.1 |
| 33° | 5151.7 | 5228.1 | 5256.6 |
| 34° | 5178.6 | 5238.5 | 5262.8 |
| 35° | 5201.3 | 5242.6 | 5265.6 |
| 36° | 5218.6 | 5242.3 | 5264.0 |
| 37° | 5229.6 | 5238.8 | 5256.8 |
| 38° | 5236.8 | 5230.8 | 5245.9 |
| 39° | 5239.0 | 5220.0 | 5232.5 |
| 40° | 5237.5 | 5205.5 | 5214.8 |
| 41° | 5230.9 | 5187.9 | 5190.5 |
| 42° | 5220.4 | 5166.8 | 5163.7 |
| 43° | 5205.8 | 5143.3 | 5131.0 |
| 44° | 5186.2 | 5114.2 | 5092.7 |

REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (continued):**

|     | 330°   | 345°   | 360°   |
|-----|--------|--------|--------|
| 45° | 5164.2 | 5081.6 | 5048.3 |
| 46° | 5137.2 | 5043.2 | 4996.2 |
| 47° | 5106.8 | 4999.2 | 4940.1 |
| 48° | 5072.3 | 4950.9 | 4880.2 |
| 49° | 5033.3 | 4894.8 | 4811.9 |
| 50° | 4988.9 | 4835.0 | 4738.3 |
| 51° | 4938.1 | 4767.8 | 4655.3 |
| 52° | 4880.9 | 4691.0 | 4567.1 |
| 53° | 4817.0 | 4609.1 | 4473.3 |
| 54° | 4750.0 | 4521.2 | 4376.1 |
| 55° | 4677.2 | 4425.0 | 4273.7 |
| 56° | 4597.0 | 4325.5 | 4164.6 |
| 57° | 4512.0 | 4222.3 | 4058.7 |
| 58° | 4421.5 | 4113.8 | 3946.5 |
| 59° | 4330.2 | 4005.4 | 3835.7 |
| 60° | 4237.7 | 3894.1 | 3716.7 |
| 61° | 4141.9 | 3779.5 | 3593.2 |
| 62° | 4048.6 | 3663.4 | 3464.0 |
| 63° | 3956.3 | 3546.3 | 3336.8 |
| 64° | 3867.0 | 3438.0 | 3217.0 |
| 65° | 3781.2 | 3334.9 | 3120.3 |
| 66° | 3700.2 | 3250.9 | 3049.2 |
| 67° | 3623.0 | 3188.9 | 3009.0 |
| 68° | 3553.6 | 3146.3 | 2967.1 |
| 69° | 3493.3 | 3102.3 | 2871.4 |
| 70° | 3447.2 | 3028.6 | 2682.7 |
| 71° | 3399.8 | 2887.1 | 2396.6 |
| 72° | 3339.5 | 2637.8 | 2087.7 |
| 73° | 3246.6 | 2311.4 | 1768.7 |
| 74° | 3077.5 | 1949.5 | 1400.8 |
| 75° | 2811.0 | 1569.0 | 939.5  |
| 76° | 2462.9 | 1135.2 | 511.3  |
| 77° | 2073.5 | 652.3  | 334.4  |
| 78° | 1586.3 | 481.6  | 159.0  |
| 79° | 1017.3 | 311.0  | 126.6  |
| 80° | 542.6  | 140.4  | 109.2  |
| 81° | 355.8  | 116.3  | 93.9   |
| 82° | 171.3  | 98.7   | 80.2   |
| 83° | 132.3  | 82.9   | 67.5   |
| 84° | 106.2  | 68.4   | 56.0   |
| 85° | 80.7   | 56.0   | 44.6   |
| 86° | 60.0   | 43.6   | 33.1   |
| 87° | 42.9   | 31.2   | 22.6   |
| 88° | 25.8   | 19.8   | 13.1   |
| 89° | 10.1   | 8.4    | 5.5    |

REPORT NUMBER: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**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: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**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: P1444992

CATALOG NUMBER: XAS180-SFPM (4000K-108W-T4)

**CANDELA DISTRIBUTION (continued):**

|      | 330° | 345° | 360° |
|------|------|------|------|
| 180° | 0.0  | 0.0  | 0.0  |

(END OF REPORT)