

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: P1436762

Luminaire Tested: XAS180-SFPM (5000K-180W-T4-HSS)

Issue Date: 3/25/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1436762  
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 (5000K-180W-T4-HSS)  
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.  
LUMEN OUTPUT - 100% (180W)  
OPTICS - TYPE 4 WITH HOUSE SIDE SHIELD  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 28062 (1 lamp)  
Luminaire Lumens: 23790 lumens  
Efficiency: 84.8%  
Efficacy: 134.3 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

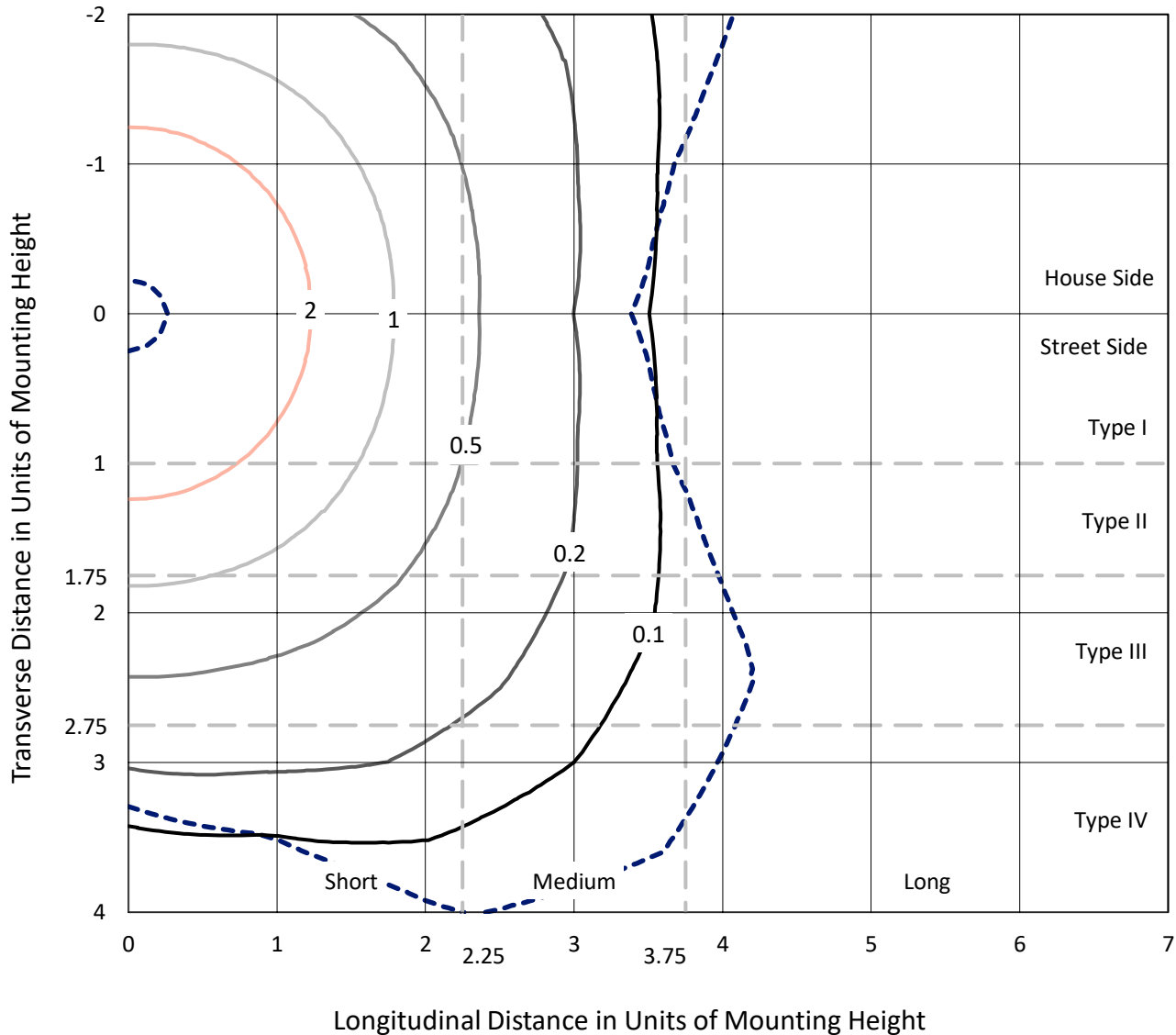
Input Watts (W): 177.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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### Iso-Footcandle Lines of Horizontal Illumination

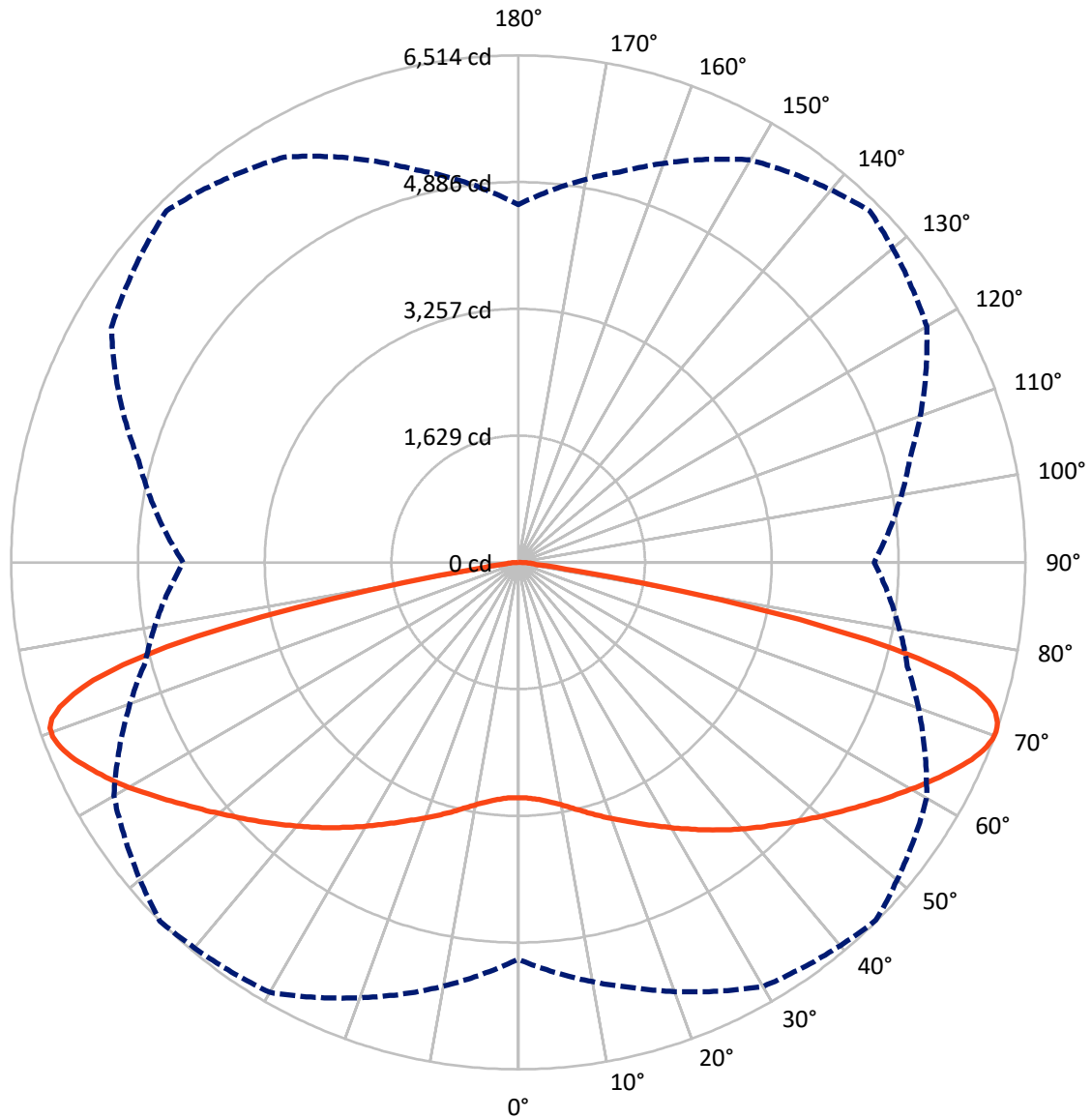
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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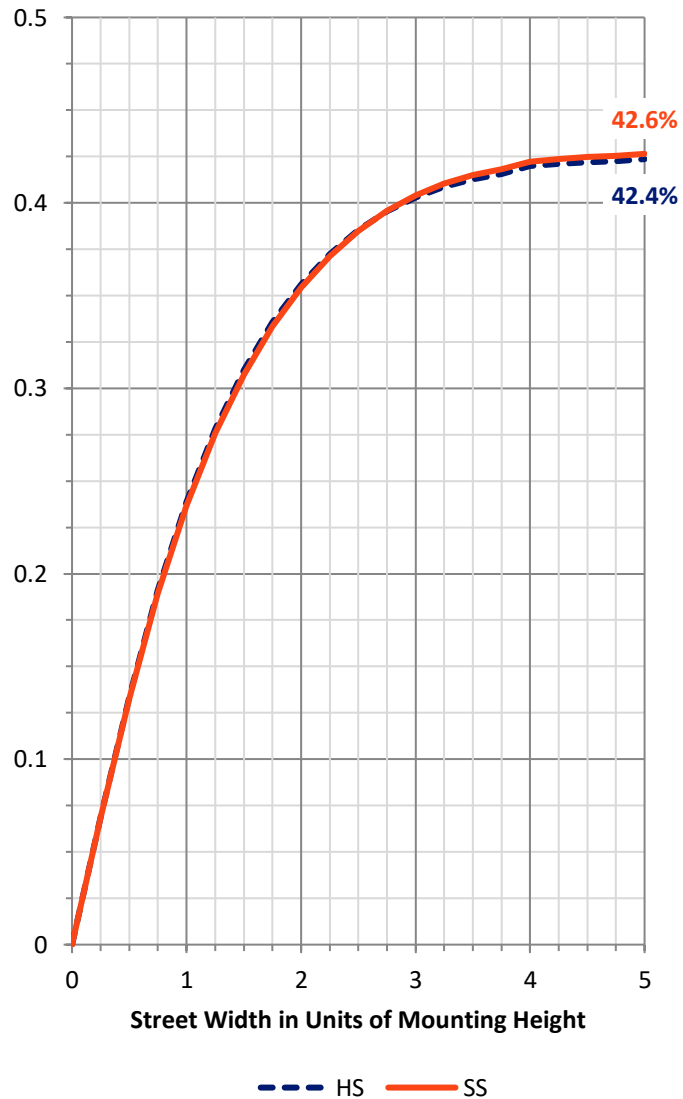
**FLUX DISTRIBUTION:**

|                    |        | Downward | Upward | Total   |
|--------------------|--------|----------|--------|---------|
| <b>House Side</b>  | Lumens | 11838.3  | 0.0    | 11838.3 |
|                    | % Lamp | 42.2     | 0.0    | 42.2    |
| <b>Street Side</b> | Lumens | 11951.7  | 0.0    | 11951.7 |
|                    | % Lamp | 42.6     | 0.0    | 42.6    |
| <b>Total</b>       | Lumens | 23790.0  | 0.0    | 23790.0 |
|                    | % Lamp | 84.8     | 0.0    | 84.8    |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10°    | 295.4   | 1.2       | 1.1    |
| 10°-20°   | 945.2   | 4.0       | 3.4    |
| 20°-30°   | 1718.6  | 7.2       | 6.1    |
| 30°-40°   | 2632.3  | 11.1      | 9.4    |
| 40°-50°   | 3668.9  | 15.4      | 13.1   |
| 50°-60°   | 4801.9  | 20.2      | 17.1   |
| 60°-70°   | 5738.8  | 24.1      | 20.5   |
| 70°-80°   | 3802.2  | 16.0      | 13.5   |
| 80°-90°   | 186.9   | 0.8       | 0.7    |
| 90°-100°  | 0.0     | 0.0       | 0.0    |
| 100°-110° | 0.0     | 0.0       | 0.0    |
| 110°-120° | 0.0     | 0.0       | 0.0    |
| 120°-130° | 0.0     | 0.0       | 0.0    |
| 130°-140° | 0.0     | 0.0       | 0.0    |
| 140°-150° | 0.0     | 0.0       | 0.0    |
| 150°-160° | 0.0     | 0.0       | 0.0    |
| 160°-170° | 0.0     | 0.0       | 0.0    |
| 170°-180° | 0.0     | 0.0       | 0.0    |
| 0°-90°    | 23790.0 | 100.0     | 84.8   |
| 0°-180°   | 23790.0 | 100.0     | 84.8   |

**Coefficient of Utilization**



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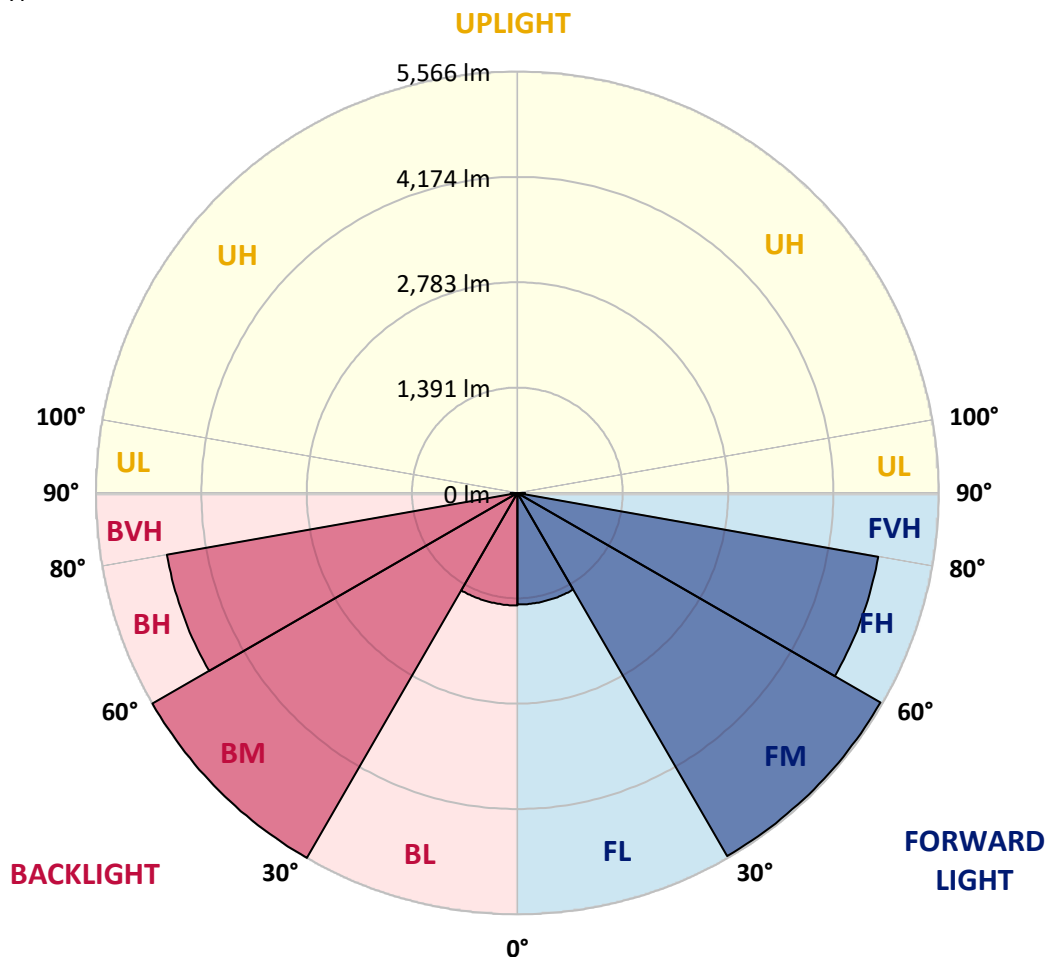
CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

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

| Zone           | Lumens | % Lamp | Zone Rating/Lumen Limit |      |         |
|----------------|--------|--------|-------------------------|------|---------|
|                |        |        | B                       | U    | G       |
| FL (0°-30°)    | 1473.8 | 5.3    |                         |      |         |
| FM (30°-60°)   | 5537.4 | 19.7   |                         |      |         |
| FH (60°-80°)   | 4840.3 | 17.2   |                         |      | G2/5000 |
| FVH (80°-90°)  | 100.3  | 0.4    |                         |      | G2/225  |
| BL (0°-30°)    | 1485.3 | 5.3    | B3/2500                 |      |         |
| BM (30°-60°)   | 5565.7 | 19.8   | B4/8500                 |      |         |
| BH (60°-80°)   | 4700.7 | 16.8   | B4/5000                 |      | G2/5000 |
| BVH (80°-90°)  | 86.6   | 0.3    |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0    |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0    |                         | U0/0 |         |
| Trapped Light  | 4272.0 | 15.2   |                         |      |         |

**BUG Rating: B4-U0-G2**

Type V Short





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CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (FULL):**

|     | 0°     | 15°    | 30°    | 45°    | 60°    | 75°    | 90°    | 105°   | 120°   | 135°   | 150°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°  | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 |
| 1°  | 3025.5 | 3024.9 | 3025.5 | 3024.9 | 3025.0 | 3024.6 | 3022.4 | 3022.7 | 3022.7 | 3023.8 | 3024.4 |
| 2°  | 3030.2 | 3029.0 | 3028.8 | 3028.0 | 3026.8 | 3025.7 | 3023.9 | 3023.9 | 3024.4 | 3025.9 | 3027.5 |
| 3°  | 3038.2 | 3036.2 | 3035.0 | 3033.1 | 3032.4 | 3030.8 | 3028.9 | 3028.6 | 3029.1 | 3031.0 | 3033.4 |
| 4°  | 3049.5 | 3047.0 | 3044.7 | 3042.8 | 3040.8 | 3038.8 | 3036.6 | 3036.4 | 3037.2 | 3039.7 | 3042.8 |
| 5°  | 3062.3 | 3059.3 | 3056.8 | 3053.4 | 3050.6 | 3048.8 | 3046.0 | 3047.1 | 3049.0 | 3051.9 | 3055.1 |
| 6°  | 3076.9 | 3073.2 | 3071.5 | 3067.7 | 3063.1 | 3060.3 | 3057.5 | 3058.4 | 3061.5 | 3066.6 | 3070.7 |
| 7°  | 3093.0 | 3089.2 | 3088.1 | 3084.0 | 3079.4 | 3075.1 | 3071.8 | 3073.2 | 3076.0 | 3083.6 | 3089.3 |
| 8°  | 3111.6 | 3107.5 | 3105.7 | 3102.2 | 3097.2 | 3092.5 | 3090.2 | 3091.8 | 3095.2 | 3102.1 | 3110.2 |
| 9°  | 3131.9 | 3128.2 | 3125.5 | 3122.1 | 3117.8 | 3112.0 | 3108.6 | 3111.2 | 3117.2 | 3124.4 | 3132.6 |
| 10° | 3154.2 | 3150.5 | 3148.1 | 3144.5 | 3140.7 | 3134.1 | 3131.0 | 3133.6 | 3141.0 | 3149.7 | 3156.9 |
| 11° | 3178.6 | 3174.3 | 3173.3 | 3169.9 | 3164.9 | 3158.5 | 3154.5 | 3158.7 | 3166.8 | 3177.8 | 3184.1 |
| 12° | 3203.5 | 3197.9 | 3198.7 | 3196.7 | 3191.2 | 3184.4 | 3179.6 | 3185.1 | 3194.5 | 3206.8 | 3214.0 |
| 13° | 3227.6 | 3222.3 | 3225.6 | 3225.9 | 3218.8 | 3212.4 | 3205.5 | 3212.3 | 3224.7 | 3237.3 | 3246.1 |
| 14° | 3254.3 | 3248.3 | 3252.6 | 3255.2 | 3248.4 | 3240.6 | 3232.7 | 3241.3 | 3254.4 | 3270.1 | 3278.4 |
| 15° | 3280.5 | 3274.9 | 3280.4 | 3286.2 | 3278.9 | 3269.6 | 3261.9 | 3270.0 | 3286.3 | 3303.6 | 3310.7 |
| 16° | 3309.0 | 3304.7 | 3309.3 | 3316.8 | 3311.0 | 3300.7 | 3293.2 | 3301.1 | 3319.3 | 3338.1 | 3345.1 |
| 17° | 3339.7 | 3335.7 | 3341.0 | 3348.8 | 3344.6 | 3332.5 | 3324.5 | 3332.9 | 3354.5 | 3371.5 | 3379.3 |
| 18° | 3371.6 | 3366.1 | 3372.9 | 3380.8 | 3377.9 | 3365.5 | 3357.5 | 3366.7 | 3389.2 | 3406.2 | 3412.4 |
| 19° | 3404.4 | 3398.4 | 3406.3 | 3414.1 | 3412.6 | 3400.0 | 3391.9 | 3402.4 | 3425.1 | 3441.6 | 3445.6 |
| 20° | 3440.0 | 3432.9 | 3440.1 | 3447.9 | 3448.1 | 3436.5 | 3428.4 | 3439.9 | 3462.1 | 3476.9 | 3478.8 |
| 21° | 3476.3 | 3469.1 | 3474.2 | 3482.8 | 3484.7 | 3473.3 | 3465.1 | 3478.5 | 3499.5 | 3511.1 | 3513.6 |
| 22° | 3514.7 | 3506.9 | 3510.5 | 3518.2 | 3523.9 | 3512.0 | 3504.8 | 3518.7 | 3539.5 | 3548.6 | 3550.2 |
| 23° | 3555.3 | 3547.1 | 3547.8 | 3556.0 | 3563.5 | 3552.6 | 3545.2 | 3561.1 | 3579.6 | 3586.3 | 3589.0 |
| 24° | 3598.0 | 3588.7 | 3586.5 | 3594.7 | 3603.7 | 3593.8 | 3588.0 | 3604.2 | 3621.8 | 3625.7 | 3628.8 |
| 25° | 3642.6 | 3631.8 | 3627.0 | 3635.8 | 3646.4 | 3636.9 | 3632.9 | 3649.2 | 3663.3 | 3666.5 | 3668.2 |
| 26° | 3689.1 | 3676.1 | 3669.3 | 3677.4 | 3688.9 | 3679.3 | 3678.5 | 3694.7 | 3706.1 | 3708.0 | 3708.7 |
| 27° | 3736.9 | 3721.4 | 3711.6 | 3720.8 | 3731.2 | 3722.7 | 3724.8 | 3740.8 | 3749.5 | 3751.4 | 3750.6 |
| 28° | 3786.9 | 3767.3 | 3755.3 | 3764.9 | 3774.5 | 3767.2 | 3772.9 | 3786.3 | 3794.7 | 3796.2 | 3792.8 |
| 29° | 3838.0 | 3813.7 | 3800.7 | 3811.2 | 3818.0 | 3812.1 | 3823.4 | 3832.7 | 3839.7 | 3842.8 | 3837.0 |
| 30° | 3889.9 | 3860.1 | 3847.2 | 3858.0 | 3862.4 | 3858.5 | 3875.1 | 3880.2 | 3885.8 | 3889.8 | 3881.5 |
| 31° | 3942.9 | 3907.7 | 3895.4 | 3906.3 | 3907.0 | 3903.6 | 3927.3 | 3927.1 | 3932.2 | 3938.2 | 3928.3 |
| 32° | 3995.5 | 3955.5 | 3943.4 | 3955.2 | 3952.1 | 3952.1 | 3978.6 | 3975.8 | 3979.8 | 3987.2 | 3975.2 |
| 33° | 4047.9 | 4004.5 | 3993.9 | 4003.4 | 4000.0 | 3998.9 | 4031.4 | 4022.9 | 4028.4 | 4036.3 | 4023.6 |
| 34° | 4100.8 | 4053.2 | 4043.5 | 4052.7 | 4047.4 | 4044.8 | 4083.0 | 4069.8 | 4077.1 | 4084.7 | 4072.2 |
| 35° | 4156.6 | 4101.6 | 4094.4 | 4102.7 | 4095.8 | 4090.9 | 4136.2 | 4116.4 | 4126.4 | 4135.1 | 4123.3 |
| 36° | 4211.7 | 4151.5 | 4146.5 | 4153.7 | 4146.0 | 4138.9 | 4188.9 | 4164.3 | 4178.2 | 4186.2 | 4175.7 |
| 37° | 4267.0 | 4202.1 | 4199.6 | 4206.0 | 4196.6 | 4185.1 | 4241.3 | 4212.7 | 4229.5 | 4238.2 | 4229.1 |
| 38° | 4323.0 | 4254.5 | 4252.8 | 4257.9 | 4246.8 | 4233.6 | 4295.6 | 4260.4 | 4279.6 | 4290.1 | 4282.2 |
| 39° | 4378.0 | 4306.9 | 4305.7 | 4310.7 | 4297.4 | 4283.8 | 4350.5 | 4309.6 | 4331.6 | 4341.7 | 4334.1 |
| 40° | 4432.4 | 4361.7 | 4358.4 | 4364.2 | 4348.7 | 4334.5 | 4405.1 | 4360.3 | 4384.0 | 4395.5 | 4388.4 |
| 41° | 4485.9 | 4417.4 | 4412.9 | 4417.7 | 4401.8 | 4387.0 | 4459.6 | 4413.3 | 4435.6 | 4449.4 | 4440.3 |
| 42° | 4541.8 | 4474.5 | 4468.8 | 4473.5 | 4455.2 | 4440.4 | 4512.0 | 4466.8 | 4489.1 | 4505.3 | 4497.1 |
| 43° | 4596.1 | 4533.9 | 4525.4 | 4530.1 | 4510.7 | 4496.0 | 4562.9 | 4522.6 | 4543.1 | 4562.0 | 4553.4 |
| 44° | 4649.2 | 4594.9 | 4582.6 | 4587.5 | 4566.0 | 4553.2 | 4611.9 | 4579.8 | 4597.0 | 4617.9 | 4610.9 |



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CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

|     | 0°     | 15°    | 30°    | 45°    | 60°    | 75°    | 90°    | 105°   | 120°   | 135°   | 150°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 4702.4 | 4655.8 | 4641.4 | 4644.2 | 4622.4 | 4612.9 | 4659.6 | 4637.8 | 4652.1 | 4675.5 | 4670.2 |
| 46° | 4755.8 | 4720.1 | 4702.2 | 4703.3 | 4681.4 | 4674.4 | 4708.1 | 4698.4 | 4708.1 | 4734.3 | 4730.3 |
| 47° | 4811.0 | 4788.3 | 4765.4 | 4765.2 | 4742.4 | 4738.1 | 4758.2 | 4759.2 | 4767.4 | 4795.6 | 4793.9 |
| 48° | 4867.1 | 4855.4 | 4829.2 | 4828.3 | 4803.1 | 4802.8 | 4805.2 | 4822.5 | 4828.7 | 4855.9 | 4858.3 |
| 49° | 4925.2 | 4926.1 | 4896.5 | 4893.4 | 4865.9 | 4868.0 | 4852.0 | 4884.8 | 4890.7 | 4918.4 | 4921.7 |
| 50° | 4984.5 | 4995.0 | 4963.9 | 4958.9 | 4928.3 | 4933.9 | 4898.9 | 4947.0 | 4952.2 | 4984.5 | 4988.0 |
| 51° | 5045.2 | 5066.3 | 5033.3 | 5025.8 | 4994.6 | 4998.7 | 4948.0 | 5008.0 | 5016.1 | 5051.2 | 5058.0 |
| 52° | 5107.6 | 5139.1 | 5106.4 | 5097.5 | 5062.0 | 5062.7 | 4998.4 | 5071.0 | 5081.8 | 5121.5 | 5127.2 |
| 53° | 5170.0 | 5210.6 | 5180.8 | 5168.2 | 5129.1 | 5124.5 | 5046.3 | 5132.8 | 5147.4 | 5190.4 | 5198.0 |
| 54° | 5232.6 | 5281.8 | 5256.3 | 5243.9 | 5197.2 | 5184.7 | 5094.0 | 5191.9 | 5215.4 | 5260.9 | 5269.0 |
| 55° | 5292.5 | 5347.0 | 5333.6 | 5318.4 | 5264.8 | 5241.2 | 5140.8 | 5245.5 | 5284.0 | 5337.0 | 5343.5 |
| 56° | 5348.9 | 5411.7 | 5412.6 | 5397.0 | 5334.4 | 5294.6 | 5185.6 | 5299.3 | 5352.4 | 5413.4 | 5420.0 |
| 57° | 5402.3 | 5472.4 | 5491.6 | 5479.4 | 5403.1 | 5343.9 | 5225.8 | 5347.7 | 5420.2 | 5491.6 | 5494.3 |
| 58° | 5452.3 | 5529.8 | 5572.2 | 5563.0 | 5471.0 | 5387.8 | 5260.1 | 5390.9 | 5488.1 | 5572.5 | 5565.5 |
| 59° | 5497.4 | 5583.1 | 5654.8 | 5647.6 | 5539.3 | 5424.3 | 5292.0 | 5430.8 | 5554.5 | 5654.9 | 5634.2 |
| 60° | 5538.0 | 5631.4 | 5735.7 | 5735.7 | 5604.8 | 5455.2 | 5317.1 | 5464.7 | 5617.8 | 5738.2 | 5700.4 |
| 61° | 5571.1 | 5675.0 | 5814.2 | 5823.3 | 5669.8 | 5482.9 | 5336.7 | 5494.1 | 5683.4 | 5820.3 | 5766.9 |
| 62° | 5597.0 | 5711.5 | 5891.1 | 5913.5 | 5732.4 | 5502.7 | 5347.7 | 5515.7 | 5744.2 | 5901.3 | 5830.8 |
| 63° | 5619.8 | 5744.5 | 5966.1 | 6004.4 | 5796.8 | 5513.0 | 5348.3 | 5532.4 | 5805.3 | 5976.1 | 5890.5 |
| 64° | 5640.0 | 5771.2 | 6034.6 | 6094.3 | 5857.0 | 5515.2 | 5339.8 | 5542.5 | 5866.2 | 6048.5 | 5946.7 |
| 65° | 5659.9 | 5793.9 | 6100.9 | 6182.8 | 5914.6 | 5514.2 | 5324.8 | 5544.3 | 5922.5 | 6122.5 | 5995.8 |
| 66° | 5671.3 | 5815.5 | 6159.9 | 6267.5 | 5964.6 | 5503.2 | 5302.5 | 5536.3 | 5973.0 | 6196.7 | 6041.7 |
| 67° | 5671.3 | 5830.6 | 6210.2 | 6346.2 | 6005.8 | 5483.4 | 5266.0 | 5518.9 | 6014.6 | 6265.2 | 6078.7 |
| 68° | 5619.1 | 5827.6 | 6253.2 | 6415.5 | 6034.4 | 5450.8 | 5153.7 | 5483.1 | 6047.5 | 6319.5 | 6055.0 |
| 69° | 5451.6 | 5783.5 | 6281.1 | 6467.4 | 6051.1 | 5361.5 | 4918.0 | 5393.8 | 6063.7 | 6362.6 | 5999.6 |
| 70° | 5098.6 | 5656.2 | 6291.6 | 6500.3 | 6057.5 | 5176.7 | 4573.8 | 5212.8 | 6061.0 | 6387.2 | 5969.8 |
| 71° | 4540.3 | 5369.2 | 6276.9 | 6514.0 | 6016.6 | 4889.8 | 4147.7 | 4928.3 | 6012.4 | 6383.3 | 5887.2 |
| 72° | 3958.5 | 4899.9 | 6227.0 | 6494.7 | 5911.6 | 4523.3 | 3759.0 | 4555.3 | 5885.3 | 6317.4 | 5748.9 |
| 73° | 3342.0 | 4288.2 | 6105.3 | 6426.8 | 5731.9 | 4129.7 | 3459.3 | 4152.8 | 5672.6 | 6174.8 | 5574.8 |
| 74° | 2629.2 | 3620.9 | 5838.0 | 6282.2 | 5480.5 | 3771.7 | 3082.8 | 3782.6 | 5395.0 | 5957.8 | 5287.5 |
| 75° | 1740.9 | 2894.0 | 5348.7 | 6025.1 | 5150.4 | 3373.6 | 2355.6 | 3391.5 | 5042.0 | 5668.4 | 4859.4 |
| 76° | 900.1  | 2031.0 | 4688.3 | 5611.9 | 4759.8 | 2775.5 | 1628.3 | 2820.8 | 4652.8 | 5241.2 | 4275.1 |
| 77° | 651.4  | 1092.6 | 3973.1 | 5007.4 | 4280.1 | 1867.9 | 902.1  | 2042.8 | 4189.3 | 4638.2 | 3551.0 |
| 78° | 416.3  | 785.4  | 3105.3 | 4120.4 | 3613.0 | 968.1  | 388.4  | 1264.8 | 3546.9 | 3835.6 | 2683.1 |
| 79° | 181.3  | 489.1  | 2014.4 | 3139.9 | 2680.8 | 700.0  | 305.9  | 492.2  | 2645.9 | 2902.5 | 1815.0 |
| 80° | 150.6  | 192.7  | 1027.8 | 2044.6 | 1623.2 | 438.9  | 223.5  | 380.2  | 1744.8 | 1963.6 | 950.2  |
| 81° | 128.8  | 158.7  | 743.3  | 1034.8 | 797.4  | 177.9  | 142.7  | 268.1  | 852.3  | 1034.3 | 436.6  |
| 82° | 109.7  | 134.1  | 470.4  | 744.0  | 587.8  | 151.4  | 121.9  | 156.1  | 379.5  | 418.3  | 333.0  |
| 83° | 92.0   | 111.9  | 197.4  | 473.1  | 384.7  | 128.1  | 103.2  | 131.7  | 298.2  | 326.5  | 229.5  |
| 84° | 76.0   | 91.8   | 154.7  | 202.2  | 181.7  | 106.7  | 85.5   | 109.3  | 216.9  | 234.7  | 126.9  |
| 85° | 60.1   | 75.1   | 118.1  | 166.7  | 138.0  | 87.3   | 68.8   | 88.9   | 136.4  | 143.3  | 91.8   |
| 86° | 44.1   | 58.5   | 88.6   | 134.1  | 101.3  | 70.0   | 53.3   | 70.5   | 97.9   | 112.3  | 61.5   |
| 87° | 29.8   | 41.8   | 64.5   | 98.6   | 74.5   | 52.9   | 38.0   | 53.4   | 70.6   | 79.7   | 38.2   |
| 88° | 17.1   | 27.1   | 40.4   | 79.0   | 47.9   | 35.8   | 26.5   | 37.9   | 48.9   | 49.6   | 27.1   |
| 89° | 6.9    | 11.7   | 16.3   | 59.9   | 21.4   | 19.2   | 15.1   | 26.2   | 33.7   | 34.3   | 16.0   |



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CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

|     | 165°   | 180°   | 195°   | 210°   | 225°   | 240°   | 255°   | 270°   | 285°   | 300°   | 315°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°  | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 | 3024.0 |
| 1°  | 3025.0 | 3025.6 | 3026.1 | 3027.1 | 3027.6 | 3028.1 | 3028.4 | 3026.5 | 3026.1 | 3025.7 | 3026.2 |
| 2°  | 3028.7 | 3030.3 | 3030.8 | 3032.6 | 3033.5 | 3033.9 | 3034.3 | 3032.5 | 3032.7 | 3031.9 | 3032.1 |
| 3°  | 3035.0 | 3037.7 | 3039.5 | 3041.1 | 3042.7 | 3043.3 | 3044.3 | 3041.8 | 3042.0 | 3041.2 | 3041.7 |
| 4°  | 3045.6 | 3048.6 | 3050.7 | 3052.7 | 3054.5 | 3055.4 | 3056.4 | 3054.5 | 3054.0 | 3053.4 | 3052.9 |
| 5°  | 3058.4 | 3062.5 | 3064.9 | 3067.9 | 3069.3 | 3070.2 | 3070.6 | 3068.4 | 3068.2 | 3067.4 | 3066.9 |
| 6°  | 3075.0 | 3079.0 | 3082.7 | 3085.8 | 3087.3 | 3087.3 | 3087.4 | 3084.9 | 3085.0 | 3084.5 | 3084.0 |
| 7°  | 3094.4 | 3098.1 | 3102.7 | 3106.3 | 3107.6 | 3108.5 | 3109.5 | 3106.1 | 3105.6 | 3104.4 | 3103.9 |
| 8°  | 3115.4 | 3119.9 | 3124.9 | 3129.4 | 3131.5 | 3133.3 | 3132.5 | 3128.5 | 3127.6 | 3126.4 | 3124.8 |
| 9°  | 3138.3 | 3143.4 | 3149.4 | 3155.3 | 3158.7 | 3159.3 | 3157.4 | 3151.6 | 3151.8 | 3151.4 | 3149.7 |
| 10° | 3163.7 | 3169.8 | 3176.6 | 3183.8 | 3187.8 | 3187.8 | 3184.4 | 3178.7 | 3178.3 | 3179.0 | 3175.6 |
| 11° | 3191.6 | 3198.3 | 3206.3 | 3215.1 | 3219.6 | 3218.9 | 3214.7 | 3208.6 | 3208.5 | 3209.2 | 3204.8 |
| 12° | 3220.7 | 3227.6 | 3237.5 | 3248.0 | 3253.4 | 3252.0 | 3247.0 | 3239.6 | 3240.5 | 3240.5 | 3235.4 |
| 13° | 3250.5 | 3257.3 | 3268.4 | 3283.4 | 3289.9 | 3287.9 | 3280.3 | 3273.0 | 3274.2 | 3274.2 | 3268.0 |
| 14° | 3282.0 | 3288.3 | 3301.2 | 3318.5 | 3327.4 | 3324.7 | 3316.3 | 3307.5 | 3309.3 | 3310.3 | 3302.1 |
| 15° | 3313.6 | 3319.3 | 3334.5 | 3354.8 | 3366.5 | 3363.4 | 3353.0 | 3343.4 | 3345.9 | 3348.0 | 3336.9 |
| 16° | 3346.1 | 3351.8 | 3367.9 | 3391.0 | 3406.3 | 3404.8 | 3391.3 | 3380.3 | 3383.4 | 3385.6 | 3372.4 |
| 17° | 3378.7 | 3384.3 | 3402.1 | 3427.6 | 3446.4 | 3444.9 | 3431.6 | 3419.5 | 3421.9 | 3424.3 | 3409.3 |
| 18° | 3412.4 | 3417.9 | 3437.2 | 3463.5 | 3486.0 | 3486.9 | 3472.4 | 3458.6 | 3462.6 | 3464.0 | 3446.6 |
| 19° | 3446.4 | 3453.8 | 3472.0 | 3500.2 | 3526.7 | 3528.4 | 3513.4 | 3499.2 | 3503.5 | 3504.0 | 3482.9 |
| 20° | 3481.1 | 3489.7 | 3508.8 | 3539.5 | 3566.4 | 3571.5 | 3556.2 | 3541.6 | 3546.2 | 3545.5 | 3521.1 |
| 21° | 3517.8 | 3526.7 | 3546.8 | 3578.2 | 3607.2 | 3615.8 | 3601.6 | 3585.5 | 3589.1 | 3587.8 | 3558.9 |
| 22° | 3556.1 | 3565.5 | 3586.3 | 3619.1 | 3650.4 | 3660.6 | 3647.7 | 3630.0 | 3634.5 | 3630.6 | 3599.7 |
| 23° | 3594.0 | 3605.3 | 3628.3 | 3661.9 | 3693.6 | 3707.4 | 3692.8 | 3676.7 | 3681.5 | 3673.9 | 3641.6 |
| 24° | 3635.1 | 3647.7 | 3670.9 | 3705.2 | 3738.7 | 3753.4 | 3739.8 | 3724.3 | 3728.3 | 3717.5 | 3682.6 |
| 25° | 3675.5 | 3690.4 | 3714.4 | 3748.8 | 3784.4 | 3799.9 | 3788.8 | 3773.0 | 3775.3 | 3762.8 | 3725.0 |
| 26° | 3718.4 | 3736.6 | 3759.5 | 3794.6 | 3831.0 | 3846.6 | 3837.3 | 3824.1 | 3822.2 | 3807.5 | 3770.0 |
| 27° | 3761.3 | 3782.4 | 3804.5 | 3840.2 | 3877.1 | 3892.9 | 3885.5 | 3874.7 | 3869.7 | 3852.6 | 3814.5 |
| 28° | 3804.9 | 3832.9 | 3850.6 | 3887.1 | 3926.9 | 3941.6 | 3935.2 | 3928.4 | 3918.2 | 3899.3 | 3861.8 |
| 29° | 3850.0 | 3883.1 | 3898.1 | 3935.6 | 3975.4 | 3989.5 | 3985.5 | 3981.8 | 3966.7 | 3947.5 | 3911.2 |
| 30° | 3896.5 | 3936.0 | 3946.4 | 3983.5 | 4025.1 | 4038.1 | 4035.1 | 4035.3 | 4014.8 | 3994.5 | 3961.3 |
| 31° | 3944.4 | 3989.4 | 3995.3 | 4031.7 | 4072.5 | 4086.9 | 4083.7 | 4090.2 | 4063.5 | 4042.0 | 4011.6 |
| 32° | 3992.2 | 4043.3 | 4044.6 | 4080.2 | 4123.0 | 4137.6 | 4134.2 | 4144.5 | 4110.6 | 4089.3 | 4062.0 |
| 33° | 4041.4 | 4098.0 | 4093.8 | 4131.1 | 4173.2 | 4188.7 | 4184.2 | 4199.2 | 4159.6 | 4139.8 | 4114.7 |
| 34° | 4090.5 | 4152.6 | 4142.4 | 4182.8 | 4225.2 | 4239.4 | 4234.8 | 4254.8 | 4208.2 | 4189.9 | 4167.3 |
| 35° | 4138.6 | 4209.8 | 4193.3 | 4235.6 | 4277.2 | 4290.9 | 4284.6 | 4310.3 | 4258.3 | 4242.1 | 4222.6 |
| 36° | 4188.2 | 4267.0 | 4244.5 | 4288.6 | 4328.6 | 4341.2 | 4335.0 | 4366.7 | 4308.2 | 4294.3 | 4276.8 |
| 37° | 4237.0 | 4324.1 | 4296.5 | 4342.1 | 4380.9 | 4392.2 | 4387.4 | 4423.3 | 4359.8 | 4347.5 | 4331.3 |
| 38° | 4288.3 | 4380.6 | 4349.9 | 4396.5 | 4434.5 | 4444.9 | 4439.4 | 4479.6 | 4411.5 | 4401.3 | 4386.9 |
| 39° | 4340.7 | 4437.7 | 4403.7 | 4451.9 | 4489.5 | 4497.2 | 4493.4 | 4535.1 | 4463.9 | 4456.1 | 4441.6 |
| 40° | 4395.4 | 4491.2 | 4460.0 | 4508.4 | 4544.3 | 4551.5 | 4547.4 | 4588.4 | 4517.5 | 4511.9 | 4497.6 |
| 41° | 4452.5 | 4545.0 | 4516.9 | 4565.3 | 4601.3 | 4605.2 | 4601.6 | 4639.8 | 4572.7 | 4568.3 | 4553.5 |
| 42° | 4508.7 | 4597.4 | 4576.4 | 4621.5 | 4657.5 | 4661.0 | 4657.3 | 4691.1 | 4630.5 | 4625.9 | 4612.0 |
| 43° | 4567.1 | 4649.1 | 4636.2 | 4678.8 | 4716.2 | 4719.7 | 4716.1 | 4742.9 | 4690.1 | 4682.9 | 4668.6 |
| 44° | 4627.4 | 4700.9 | 4697.6 | 4737.9 | 4775.7 | 4778.2 | 4775.3 | 4796.6 | 4751.3 | 4740.5 | 4727.8 |



REPORT NUMBER: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

|     | 165°   | 180°   | 195°   | 210°   | 225°   | 240°   | 255°   | 270°   | 285°   | 300°   | 315°   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 4688.8 | 4753.7 | 4759.9 | 4799.6 | 4837.0 | 4837.8 | 4838.1 | 4848.5 | 4813.7 | 4800.1 | 4787.4 |
| 46° | 4752.6 | 4805.2 | 4824.9 | 4860.0 | 4898.9 | 4897.2 | 4900.6 | 4895.6 | 4879.2 | 4860.8 | 4848.7 |
| 47° | 4819.6 | 4855.5 | 4890.9 | 4921.1 | 4961.6 | 4956.9 | 4963.0 | 4942.6 | 4941.7 | 4922.0 | 4912.5 |
| 48° | 4887.4 | 4908.4 | 4959.0 | 4984.5 | 5025.0 | 5018.2 | 5024.3 | 4990.6 | 5005.1 | 4983.5 | 4977.4 |
| 49° | 4955.6 | 4965.2 | 5029.1 | 5048.0 | 5090.7 | 5079.9 | 5085.2 | 5039.7 | 5067.2 | 5046.0 | 5043.0 |
| 50° | 5027.3 | 5021.0 | 5100.3 | 5115.0 | 5156.1 | 5142.7 | 5144.7 | 5089.4 | 5128.7 | 5110.8 | 5109.8 |
| 51° | 5102.6 | 5078.6 | 5171.4 | 5182.2 | 5223.7 | 5204.4 | 5203.9 | 5134.3 | 5188.2 | 5175.5 | 5178.3 |
| 52° | 5174.4 | 5133.0 | 5240.7 | 5249.6 | 5292.5 | 5266.3 | 5260.4 | 5180.0 | 5246.1 | 5239.9 | 5248.4 |
| 53° | 5238.9 | 5178.3 | 5304.9 | 5319.6 | 5363.2 | 5328.3 | 5312.9 | 5222.6 | 5298.0 | 5302.6 | 5319.0 |
| 54° | 5294.8 | 5211.7 | 5363.2 | 5390.6 | 5434.8 | 5392.2 | 5361.5 | 5260.5 | 5347.4 | 5369.3 | 5393.2 |
| 55° | 5345.7 | 5246.2 | 5413.6 | 5462.2 | 5508.0 | 5453.9 | 5407.1 | 5296.7 | 5392.4 | 5432.9 | 5470.2 |
| 56° | 5397.6 | 5285.2 | 5462.9 | 5537.1 | 5582.5 | 5513.9 | 5447.8 | 5329.4 | 5433.1 | 5495.7 | 5549.6 |
| 57° | 5446.7 | 5326.0 | 5511.3 | 5610.1 | 5657.1 | 5574.5 | 5483.6 | 5356.6 | 5467.5 | 5556.4 | 5626.1 |
| 58° | 5492.9 | 5354.6 | 5558.1 | 5685.0 | 5732.9 | 5634.2 | 5514.1 | 5383.1 | 5496.3 | 5617.0 | 5706.6 |
| 59° | 5528.4 | 5374.6 | 5592.7 | 5755.7 | 5812.1 | 5690.8 | 5539.7 | 5405.2 | 5520.0 | 5675.1 | 5786.4 |
| 60° | 5557.5 | 5399.4 | 5621.7 | 5822.1 | 5890.0 | 5745.8 | 5563.1 | 5422.0 | 5540.2 | 5733.1 | 5867.9 |
| 61° | 5585.8 | 5423.9 | 5649.8 | 5889.9 | 5968.7 | 5801.0 | 5581.6 | 5428.8 | 5559.4 | 5789.2 | 5950.0 |
| 62° | 5612.6 | 5443.8 | 5675.7 | 5954.0 | 6040.6 | 5857.6 | 5594.0 | 5430.6 | 5570.6 | 5842.7 | 6033.3 |
| 63° | 5636.8 | 5460.1 | 5700.1 | 6013.0 | 6105.8 | 5908.7 | 5599.2 | 5428.9 | 5573.3 | 5892.5 | 6115.6 |
| 64° | 5658.5 | 5463.4 | 5720.6 | 6067.1 | 6167.3 | 5957.9 | 5601.9 | 5415.4 | 5570.0 | 5938.0 | 6198.3 |
| 65° | 5655.4 | 5412.0 | 5712.9 | 6114.9 | 6227.4 | 6000.7 | 5593.6 | 5391.6 | 5557.5 | 5976.4 | 6276.1 |
| 66° | 5585.6 | 5366.7 | 5636.1 | 6152.2 | 6284.5 | 6034.7 | 5579.1 | 5357.4 | 5538.2 | 6009.1 | 6350.0 |
| 67° | 5541.0 | 5338.7 | 5588.3 | 6173.2 | 6329.1 | 6063.3 | 5550.3 | 5274.6 | 5504.2 | 6032.8 | 6413.2 |
| 68° | 5514.1 | 5247.9 | 5547.3 | 6131.1 | 6364.0 | 6081.8 | 5479.9 | 5077.8 | 5423.9 | 6046.4 | 6465.8 |
| 69° | 5405.7 | 5010.1 | 5427.7 | 6060.1 | 6387.1 | 6076.1 | 5326.6 | 4744.6 | 5251.5 | 6037.6 | 6502.4 |
| 70° | 5202.2 | 4594.3 | 5230.0 | 6013.3 | 6390.3 | 6035.9 | 5048.1 | 4304.8 | 4960.7 | 5999.5 | 6514.1 |
| 71° | 4891.6 | 3996.7 | 4917.7 | 5911.1 | 6359.5 | 5935.3 | 4667.1 | 3865.3 | 4563.2 | 5895.2 | 6491.9 |
| 72° | 4416.7 | 3455.1 | 4434.9 | 5763.5 | 6262.2 | 5747.9 | 4235.0 | 3498.2 | 4129.6 | 5721.9 | 6431.0 |
| 73° | 3836.2 | 2901.5 | 3846.7 | 5561.6 | 6085.2 | 5465.5 | 3816.9 | 3141.4 | 3717.2 | 5457.5 | 6306.0 |
| 74° | 3234.8 | 2174.7 | 3247.1 | 5251.1 | 5831.5 | 5120.8 | 3420.2 | 2654.7 | 3315.6 | 5116.7 | 6100.4 |
| 75° | 2462.1 | 1448.0 | 2477.4 | 4781.6 | 5492.9 | 4702.3 | 2923.7 | 1893.3 | 2796.1 | 4696.8 | 5767.9 |
| 76° | 1689.4 | 732.5  | 1707.7 | 4156.2 | 4994.0 | 4246.2 | 2148.1 | 1073.3 | 2024.3 | 4214.1 | 5289.9 |
| 77° | 923.5  | 537.2  | 944.7  | 3430.9 | 4314.5 | 3695.6 | 1372.6 | 770.5  | 1131.8 | 3632.5 | 4602.9 |
| 78° | 389.7  | 341.9  | 408.5  | 2568.7 | 3429.7 | 2927.5 | 608.0  | 478.2  | 820.1  | 2852.2 | 3683.6 |
| 79° | 303.7  | 151.2  | 316.9  | 1706.5 | 2503.8 | 2126.2 | 282.0  | 185.9  | 508.8  | 1890.8 | 2645.1 |
| 80° | 217.8  | 124.7  | 225.2  | 851.0  | 1577.8 | 1324.9 | 235.6  | 155.4  | 197.4  | 1037.9 | 1601.4 |
| 81° | 132.1  | 103.8  | 134.9  | 382.4  | 667.1  | 525.5  | 189.1  | 132.9  | 162.3  | 750.1  | 754.4  |
| 82° | 107.9  | 85.2   | 110.1  | 296.4  | 287.4  | 277.8  | 142.9  | 112.9  | 137.7  | 479.7  | 487.3  |
| 83° | 86.0   | 67.6   | 88.1   | 210.3  | 237.4  | 225.5  | 120.5  | 94.6   | 115.9  | 209.2  | 236.3  |
| 84° | 66.4   | 52.3   | 67.8   | 124.8  | 187.4  | 173.3  | 100.2  | 78.6   | 95.7   | 161.7  | 190.7  |
| 85° | 48.4   | 37.3   | 49.3   | 88.9   | 137.4  | 121.1  | 81.0   | 62.5   | 78.6   | 121.2  | 158.2  |
| 86° | 34.3   | 25.7   | 34.7   | 58.7   | 107.0  | 87.0   | 63.5   | 46.5   | 61.6   | 88.5   | 126.7  |
| 87° | 20.2   | 14.2   | 20.1   | 42.3   | 75.1   | 62.9   | 47.4   | 31.7   | 44.5   | 64.0   | 89.3   |
| 88° | 6.1    | 2.8    | 5.5    | 25.9   | 51.3   | 43.3   | 32.7   | 18.5   | 29.8   | 39.7   | 71.7   |
| 89° | 4.4    | 2.6    | 4.1    | 9.6    | 27.4   | 23.7   | 18.0   | 7.5    | 13.5   | 15.4   | 54.5   |



REPORT NUMBER: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

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



REPORT NUMBER: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

|     | 330°   | 345°   | 360°   |
|-----|--------|--------|--------|
| 0°  | 3024.0 | 3024.0 | 3024.0 |
| 1°  | 3026.3 | 3025.5 | 3025.5 |
| 2°  | 3031.8 | 3031.2 | 3030.2 |
| 3°  | 3040.7 | 3039.9 | 3038.2 |
| 4°  | 3052.6 | 3051.2 | 3049.5 |
| 5°  | 3066.2 | 3064.4 | 3062.3 |
| 6°  | 3082.1 | 3080.2 | 3076.9 |
| 7°  | 3099.7 | 3097.2 | 3093.0 |
| 8°  | 3120.0 | 3115.7 | 3111.6 |
| 9°  | 3143.1 | 3137.3 | 3131.9 |
| 10° | 3168.3 | 3161.0 | 3154.2 |
| 11° | 3195.4 | 3186.6 | 3178.6 |
| 12° | 3224.4 | 3213.0 | 3203.5 |
| 13° | 3255.2 | 3239.8 | 3227.6 |
| 14° | 3285.6 | 3267.3 | 3254.3 |
| 15° | 3316.2 | 3295.6 | 3280.5 |
| 16° | 3349.0 | 3325.5 | 3309.0 |
| 17° | 3381.6 | 3357.4 | 3339.7 |
| 18° | 3415.9 | 3390.0 | 3371.6 |
| 19° | 3451.2 | 3423.3 | 3404.4 |
| 20° | 3485.5 | 3456.9 | 3440.0 |
| 21° | 3522.3 | 3493.5 | 3476.3 |
| 22° | 3560.7 | 3531.5 | 3514.7 |
| 23° | 3600.8 | 3571.0 | 3555.3 |
| 24° | 3641.9 | 3611.8 | 3598.0 |
| 25° | 3683.1 | 3654.9 | 3642.6 |
| 26° | 3727.7 | 3699.0 | 3689.1 |
| 27° | 3773.6 | 3744.4 | 3736.9 |
| 28° | 3819.6 | 3790.1 | 3786.9 |
| 29° | 3868.6 | 3837.0 | 3838.0 |
| 30° | 3918.6 | 3884.4 | 3889.9 |
| 31° | 3968.6 | 3934.3 | 3942.9 |
| 32° | 4018.9 | 3984.0 | 3995.5 |
| 33° | 4069.8 | 4034.6 | 4047.9 |
| 34° | 4120.9 | 4083.4 | 4100.8 |
| 35° | 4174.0 | 4133.5 | 4156.6 |
| 36° | 4229.3 | 4183.3 | 4211.7 |
| 37° | 4282.7 | 4235.7 | 4267.0 |
| 38° | 4338.4 | 4289.1 | 4323.0 |
| 39° | 4392.7 | 4342.5 | 4378.0 |
| 40° | 4450.0 | 4398.6 | 4432.4 |
| 41° | 4506.7 | 4455.5 | 4485.9 |
| 42° | 4565.1 | 4515.3 | 4541.8 |
| 43° | 4624.0 | 4576.1 | 4596.1 |
| 44° | 4683.3 | 4636.5 | 4649.2 |



REPORT NUMBER: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

|     | 330°   | 345°   | 360°   |
|-----|--------|--------|--------|
| 45° | 4744.0 | 4701.7 | 4702.4 |
| 46° | 4806.1 | 4766.3 | 4755.8 |
| 47° | 4869.4 | 4834.7 | 4811.0 |
| 48° | 4935.1 | 4904.4 | 4867.1 |
| 49° | 5002.4 | 4977.1 | 4925.2 |
| 50° | 5071.7 | 5049.7 | 4984.5 |
| 51° | 5142.5 | 5124.5 | 5045.2 |
| 52° | 5215.4 | 5197.9 | 5107.6 |
| 53° | 5291.2 | 5271.7 | 5170.0 |
| 54° | 5365.1 | 5344.1 | 5232.6 |
| 55° | 5442.7 | 5415.8 | 5292.5 |
| 56° | 5522.3 | 5482.5 | 5348.9 |
| 57° | 5600.4 | 5544.0 | 5402.3 |
| 58° | 5681.5 | 5600.4 | 5452.3 |
| 59° | 5760.0 | 5652.7 | 5497.4 |
| 60° | 5838.6 | 5700.3 | 5538.0 |
| 61° | 5917.1 | 5740.7 | 5571.1 |
| 62° | 5993.6 | 5777.1 | 5597.0 |
| 63° | 6067.3 | 5807.7 | 5619.8 |
| 64° | 6140.8 | 5837.0 | 5640.0 |
| 65° | 6208.5 | 5863.2 | 5659.9 |
| 66° | 6271.5 | 5888.2 | 5671.3 |
| 67° | 6322.6 | 5904.3 | 5671.3 |
| 68° | 6361.7 | 5902.3 | 5619.1 |
| 69° | 6380.7 | 5861.5 | 5451.6 |
| 70° | 6380.2 | 5742.1 | 5098.6 |
| 71° | 6350.6 | 5480.3 | 4540.3 |
| 72° | 6276.6 | 5012.4 | 3958.5 |
| 73° | 6121.1 | 4392.7 | 3342.0 |
| 74° | 5813.6 | 3695.4 | 2629.2 |
| 75° | 5305.6 | 2965.0 | 1740.9 |
| 76° | 4652.7 | 2124.5 | 900.1  |
| 77° | 3900.3 | 1177.7 | 651.4  |
| 78° | 2968.2 | 849.3  | 416.3  |
| 79° | 1875.9 | 522.9  | 181.3  |
| 80° | 964.7  | 196.5  | 150.6  |
| 81° | 692.1  | 165.3  | 128.8  |
| 82° | 442.9  | 139.7  | 109.7  |
| 83° | 193.6  | 116.1  | 92.0   |
| 84° | 153.0  | 95.3   | 76.0   |
| 85° | 115.8  | 77.8   | 60.1   |
| 86° | 87.0   | 60.3   | 44.1   |
| 87° | 62.6   | 42.8   | 29.8   |
| 88° | 38.4   | 27.2   | 17.1   |
| 89° | 14.2   | 11.1   | 6.9    |



REPORT NUMBER: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-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: P1436762

CATALOG NUMBER: XAS180-SFPM (5000K-180W-T4-HSS)

**CANDELA DISTRIBUTION (continued):**

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

(END OF REPORT)