

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: P1436707

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

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436707
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA ()
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 3/25/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: LUMARK
Catalog Number: XAS180-SFPM (3000K-144W-T4)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 4
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

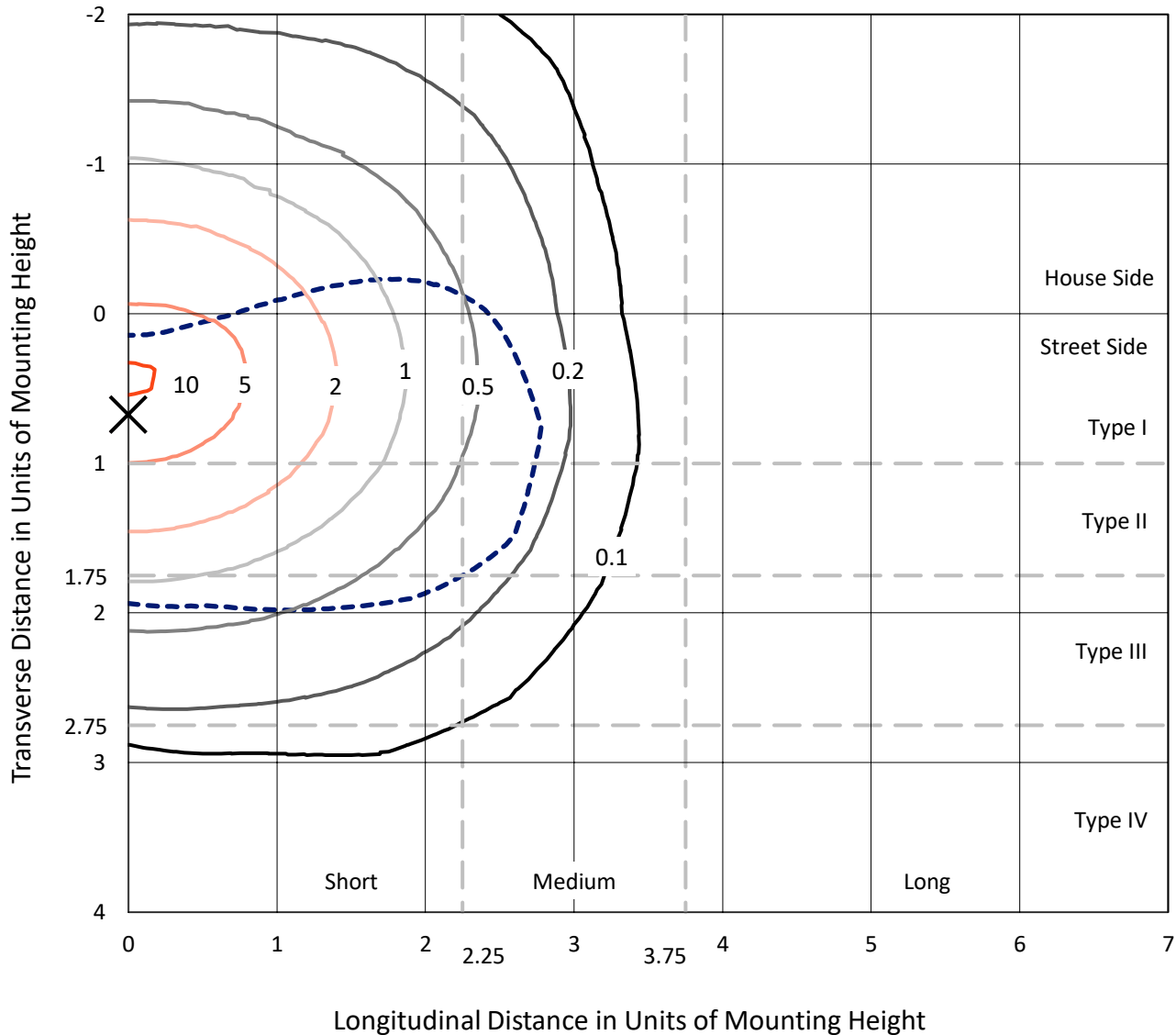
Lumens per Lamp: 24407 (1 lamp)
Luminaire Lumens: 21836.7 lumens
Efficiency: 89.5%
Efficacy: 152.6 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

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

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Iso-Footcandle Lines of Horizontal Illumination

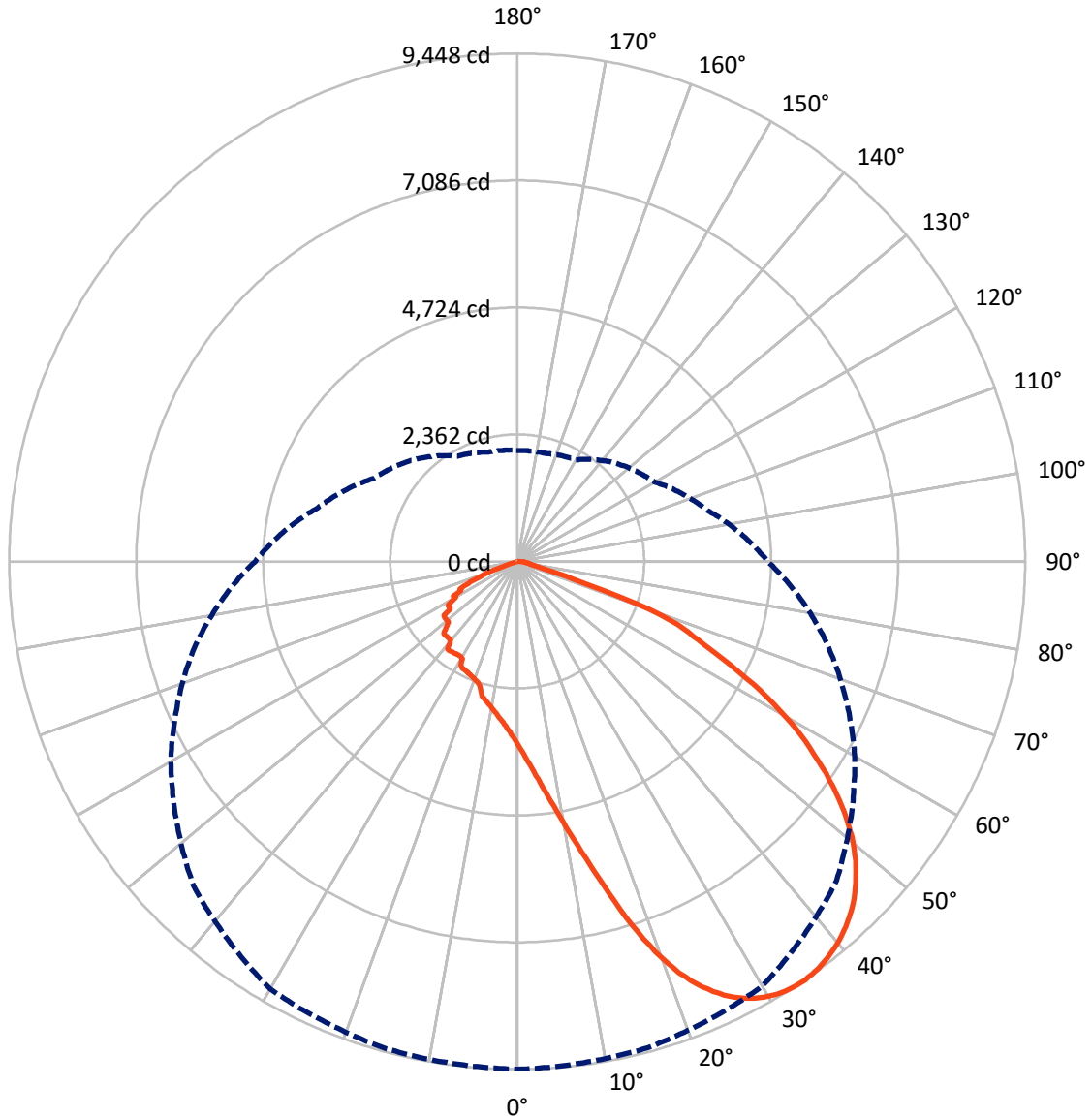
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 34-Deg Vertical

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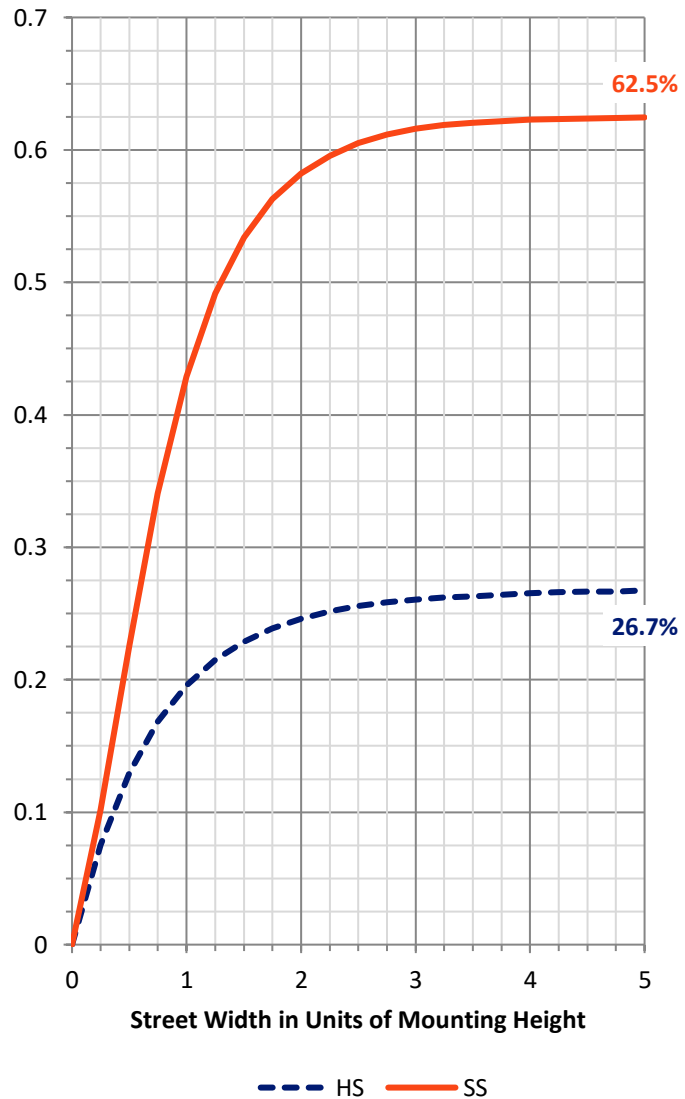
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6567.3	0.0	6567.3
	% Lamp	26.9	0.0	26.9
Street Side	Lumens	15269.4	0.0	15269.4
	% Lamp	62.6	0.0	62.6
Total	Lumens	21836.7	0.0	21836.7
	% Lamp	89.5	0.0	89.5

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	343.0	1.6	1.4
10°-20°	1191.4	5.5	4.9
20°-30°	2311.5	10.6	9.5
30°-40°	3398.3	15.6	13.9
40°-50°	4216.8	19.3	17.3
50°-60°	4493.0	20.6	18.4
60°-70°	3906.0	17.9	16.0
70°-80°	1807.0	8.3	7.4
80°-90°	169.7	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°	21836.7	100.0	89.5
0°-180°	21836.7	100.0	89.5

Coefficient of Utilization



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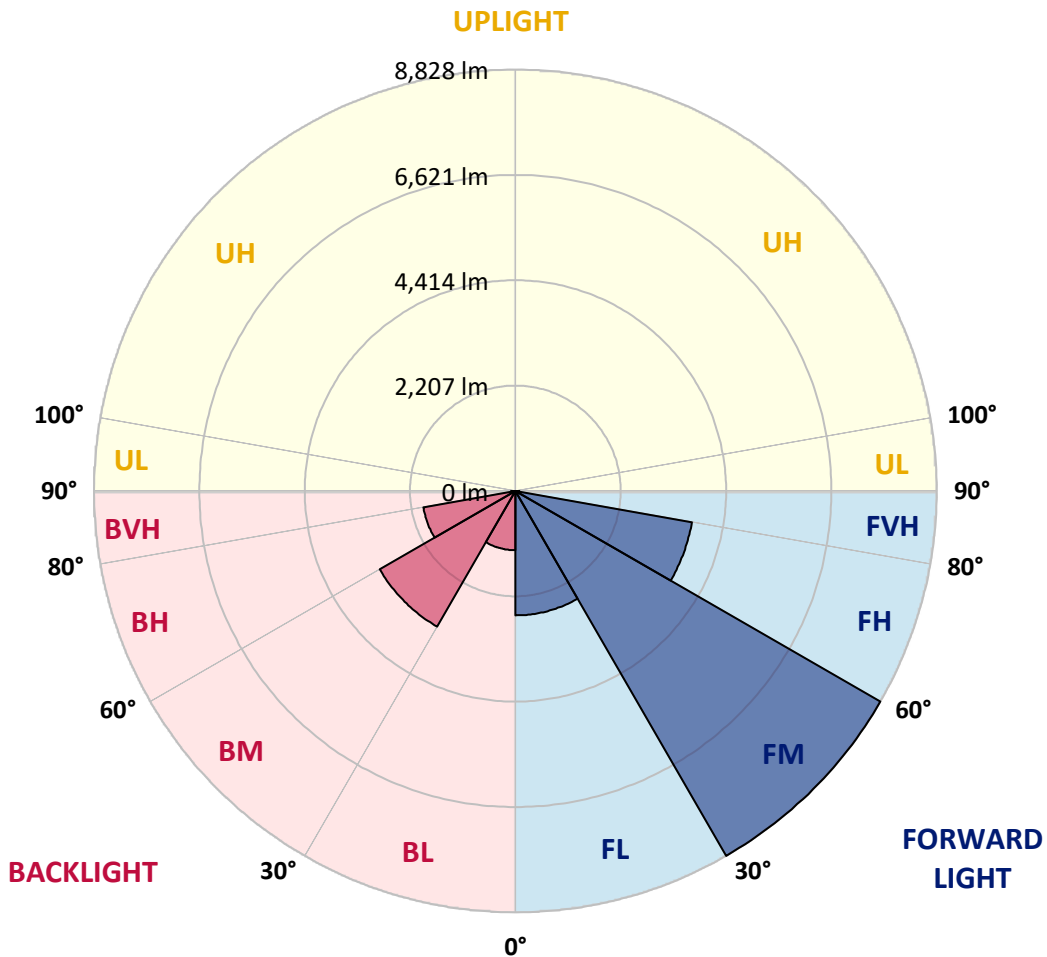
CATALOG NUMBER: XAS180-SFPM (3000K-144W-T4)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2606.1	10.7			
FM (30°-60°)	8827.7	36.2			
FH (60°-80°)	3755.9	15.4			G2/5000
FVH (80°-90°)	79.7	0.3			G1/100
BL (0°-30°)	1239.8	5.1	B3/2500		
BM (30°-60°)	3280.4	13.4	B3/5000		
BH (60°-80°)	1957.1	8.0	B3/2500		G3/2500
BVH (80°-90°)	90.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	2570.3	10.5			

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6
1°	3538.7	3536.7	3528.1	3512.0	3490.4	3465.4	3419.9	3396.4	3375.2	3358.3	3345.9
2°	3654.9	3650.0	3627.1	3592.2	3545.7	3493.5	3421.5	3372.9	3329.7	3295.6	3268.7
3°	3781.2	3768.6	3732.9	3677.0	3607.2	3527.6	3427.1	3354.6	3290.2	3237.8	3199.0
4°	3920.1	3901.4	3850.7	3771.6	3672.4	3564.2	3435.3	3339.0	3254.4	3185.3	3136.2
5°	4071.5	4047.7	3976.9	3873.7	3743.1	3604.8	3446.5	3325.4	3222.1	3139.0	3080.6
6°	4237.9	4203.6	4116.4	3984.8	3822.4	3649.1	3460.0	3315.7	3192.3	3097.8	3029.5
7°	4414.0	4372.2	4265.0	4103.6	3905.4	3698.4	3478.9	3310.6	3168.2	3059.9	2981.2
8°	4606.5	4558.1	4426.8	4230.8	3995.2	3751.3	3501.3	3308.8	3147.4	3025.4	2938.1
9°	4816.2	4758.0	4599.0	4368.0	4090.8	3808.2	3525.9	3308.5	3131.0	2993.9	2897.4
10°	5035.3	4965.2	4783.6	4510.7	4192.2	3870.1	3554.4	3311.8	3115.6	2966.9	2859.2
11°	5273.3	5192.9	4979.8	4664.8	4299.8	3935.8	3585.5	3317.7	3103.2	2942.3	2824.8
12°	5531.6	5437.1	5187.1	4830.2	4412.0	4004.8	3618.8	3325.6	3093.8	2919.8	2793.9
13°	5806.3	5695.5	5411.8	5002.6	4531.8	4078.2	3654.2	3334.9	3085.8	2898.9	2765.4
14°	6105.1	5981.7	5652.8	5185.7	4656.9	4153.8	3689.2	3344.5	3078.6	2880.1	2738.6
15°	6424.7	6280.9	5908.2	5380.4	4788.3	4231.7	3728.1	3355.9	3073.0	2862.7	2711.8
16°	6754.4	6591.8	6172.9	5587.5	4925.5	4312.4	3769.1	3369.6	3068.8	2846.3	2687.5
17°	7078.8	6900.2	6432.9	5800.2	5070.7	4396.4	3811.4	3383.8	3065.7	2831.2	2663.0
18°	7402.3	7203.1	6694.1	6009.8	5223.4	4483.6	3854.4	3396.3	3063.6	2817.3	2625.4
19°	7702.5	7494.9	6951.5	6216.5	5380.5	4573.9	3884.4	3399.3	3057.3	2804.7	2537.6
20°	7977.5	7764.7	7201.7	6422.9	5537.3	4659.6	3921.9	3407.9	3043.3	2792.2	2475.2
21°	8224.2	8011.7	7436.9	6622.0	5696.6	4737.6	3960.0	3427.1	3032.7	2778.3	2458.6
22°	8438.8	8233.2	7658.3	6814.1	5852.1	4829.9	4009.8	3447.0	3034.5	2728.8	2443.5
23°	8628.7	8434.0	7860.4	6999.4	6006.4	4919.2	4062.6	3465.2	3036.5	2665.5	2430.7
24°	8794.6	8610.2	8051.5	7172.8	6142.1	5022.7	4111.8	3476.0	3032.4	2615.0	2421.0
25°	8938.2	8764.8	8223.9	7339.9	6272.6	5130.7	4153.3	3491.1	3028.1	2606.7	2411.6
26°	9059.6	8898.1	8381.1	7493.4	6401.5	5236.5	4197.0	3506.0	3025.6	2596.8	2404.2
27°	9161.6	9013.9	8526.5	7644.2	6525.7	5340.2	4246.0	3529.3	3031.5	2583.6	2396.1
28°	9245.7	9109.7	8652.8	7785.6	6641.5	5432.2	4296.4	3552.7	3040.4	2574.1	2388.8
29°	9315.4	9187.5	8763.4	7915.3	6755.0	5519.2	4355.6	3576.1	3048.0	2573.8	2383.0
30°	9368.2	9251.9	8861.6	8038.4	6870.4	5610.0	4414.8	3601.3	3037.8	2576.0	2377.4
31°	9409.4	9301.1	8946.0	8150.3	6977.1	5701.6	4476.5	3627.0	2992.5	2579.2	2366.4
32°	9434.4	9336.9	9015.7	8242.9	7077.3	5789.2	4537.7	3649.6	2983.0	2582.2	2351.9
33°	9447.0	9358.4	9075.7	8325.0	7168.4	5880.9	4599.3	3656.4	2947.3	2585.2	2260.1
34°	9447.9	9367.3	9122.2	8399.1	7247.9	5970.6	4658.8	3663.6	2951.2	2585.4	2181.1
35°	9437.1	9366.4	9157.1	8469.6	7318.9	6056.0	4702.6	3681.7	2957.0	2583.3	2176.5
36°	9416.5	9355.7	9177.7	8531.5	7385.3	6137.9	4738.9	3702.6	2964.6	2582.2	2178.2
37°	9385.2	9335.1	9187.5	8583.1	7450.3	6216.3	4780.2	3724.7	2977.9	2585.8	2179.7
38°	9345.9	9304.7	9188.4	8622.8	7513.8	6294.0	4831.6	3749.7	2986.1	2586.7	2178.2
39°	9297.5	9268.0	9178.6	8655.7	7570.1	6364.6	4877.7	3776.6	2988.2	2463.2	2176.8
40°	9242.1	9222.4	9156.2	8681.5	7624.3	6423.4	4927.3	3796.3	3001.1	2406.6	2182.2
41°	9175.9	9166.9	9126.7	8701.6	7671.4	6465.2	4975.0	3814.1	3020.7	2414.8	2187.5
42°	9099.8	9105.2	9086.4	8719.0	7721.3	6505.8	5023.7	3829.7	3040.5	2426.4	2193.5
43°	9013.0	9032.7	9036.3	8724.2	7768.4	6547.5	5069.6	3838.5	3061.4	2439.4	2195.7
44°	8915.3	8952.2	8978.1	8718.3	7810.6	6593.1	5108.0	3864.9	3083.9	2453.6	2125.1



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

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	8804.6	8859.8	8908.8	8700.0	7848.1	6636.9	5138.3	3901.7	3107.3	2465.7	2029.0
46°	8677.9	8755.3	8832.1	8671.4	7883.1	6680.4	5165.9	3939.6	3117.2	2465.5	2031.5
47°	8544.4	8635.8	8745.8	8630.5	7913.1	6721.7	5183.4	3978.7	3116.0	2471.8	2037.4
48°	8403.8	8507.3	8649.2	8578.8	7935.7	6755.8	5196.3	4019.5	3126.6	2486.4	2040.2
49°	8244.4	8359.7	8540.2	8519.8	7948.5	6789.6	5223.3	4054.4	3072.5	2495.5	2037.6
50°	8067.4	8201.2	8416.2	8449.5	7949.2	6820.8	5260.7	4061.9	3024.4	2416.5	2038.0
51°	7875.9	8024.0	8275.7	8365.0	7934.3	6840.7	5298.1	4035.6	2979.8	2319.6	2041.2
52°	7669.8	7831.4	8122.7	8267.6	7913.7	6851.4	5332.0	4059.9	3002.1	2327.2	1949.7
53°	7450.3	7622.3	7952.6	8160.0	7880.5	6856.0	5361.7	4067.9	3022.1	2341.7	1850.9
54°	7214.4	7394.8	7770.2	8036.7	7837.0	6855.1	5388.2	4063.5	3032.8	2361.2	1860.4
55°	6973.8	7160.6	7572.7	7900.2	7779.1	6836.3	5409.8	4087.8	3049.8	2371.9	1873.6
56°	6713.7	6914.6	7358.9	7752.2	7714.0	6803.4	5414.4	4103.6	3077.3	2379.7	1888.7
57°	6454.9	6657.2	7139.2	7588.1	7638.9	6761.2	5409.0	4103.5	3099.4	2376.4	1903.3
58°	6185.7	6392.8	6908.7	7410.5	7549.6	6722.2	5387.5	4117.6	3109.3	2249.0	1910.9
59°	5904.7	6124.4	6666.4	7225.4	7445.0	6681.2	5367.2	4130.9	3130.0	2218.7	1759.7
60°	5604.6	5843.8	6417.9	7023.3	7321.4	6630.7	5348.1	4120.9	3045.3	2249.1	1772.3
61°	5283.8	5547.5	6157.8	6812.8	7180.8	6568.4	5314.2	4085.4	2997.3	2285.3	1777.5
62°	4948.8	5239.4	5895.3	6589.3	7031.8	6489.0	5276.4	4074.5	3016.9	2323.9	1725.9
63°	4597.5	4917.2	5629.0	6355.6	6864.3	6391.3	5224.0	4045.2	3031.6	2353.3	1674.7
64°	4257.5	4599.4	5362.6	6116.9	6677.4	6275.9	5151.7	3998.7	3042.7	2243.6	1663.5
65°	3949.2	4282.6	5086.3	5870.9	6476.5	6139.2	5063.4	3944.7	3028.1	2255.3	1682.2
66°	3678.2	3995.7	4816.5	5621.3	6262.1	5980.1	4947.5	3864.6	2945.2	2284.0	1583.8
67°	3455.5	3734.3	4548.5	5373.4	6032.5	5794.9	4825.4	3780.0	2853.8	2265.5	1560.9
68°	3216.4	3505.0	4287.5	5118.8	5773.7	5587.7	4642.4	3655.9	2876.0	2209.5	1600.5
69°	2865.3	3263.4	4042.2	4870.9	5500.3	5339.2	4365.5	3508.1	2889.2	2224.7	1464.1
70°	2350.4	2944.3	3813.3	4620.2	5220.0	5031.3	3964.8	3308.9	2895.1	2165.1	1457.5
71°	1673.3	2498.6	3583.9	4371.0	4902.5	4666.1	3505.0	3049.0	2836.1	2170.1	1261.5
72°	1065.0	1892.1	3325.9	4112.2	4550.0	4237.1	3111.0	2759.7	2728.7	2157.8	1216.5
73°	819.6	1252.5	3016.4	3846.0	4156.1	3771.7	2736.6	2506.5	2621.5	2125.8	1128.5
74°	581.9	761.4	2598.4	3545.6	3738.2	3299.1	2214.6	2319.4	2504.9	2143.8	1022.7
75°	344.2	561.0	2018.7	3161.3	3283.0	2790.0	1692.7	1962.1	2372.0	2099.3	985.0
76°	303.6	366.6	1409.0	2686.9	2813.9	2156.0	1170.3	1604.9	2254.9	2041.9	960.0
77°	271.6	314.9	919.2	2099.4	2326.6	1418.7	639.2	1246.7	2157.7	1846.7	906.0
78°	245.5	278.0	718.6	1401.3	1806.2	816.0	333.4	719.5	1875.9	1651.4	817.2
79°	222.4	248.3	527.1	764.1	1256.3	566.1	272.7	527.0	1594.1	1454.2	693.9
80°	201.4	222.5	335.6	527.4	785.3	318.2	212.0	334.5	1307.9	1186.4	594.4
81°	182.0	199.4	283.7	300.8	515.5	268.6	152.1	145.2	726.2	887.8	537.2
82°	164.0	178.1	246.1	257.2	250.8	229.5	128.3	112.8	532.3	707.2	535.1
83°	146.7	158.0	213.0	224.5	194.7	186.3	106.9	87.1	338.3	560.3	439.5
84°	130.0	139.3	180.3	195.1	158.2	141.3	86.8	68.2	145.0	400.0	327.0
85°	114.0	121.8	145.7	167.0	126.0	107.8	67.1	52.6	127.3	296.0	231.0
86°	98.2	105.2	118.8	139.8	98.2	83.5	49.3	39.9	102.0	192.0	135.6
87°	84.5	89.4	96.2	110.2	76.7	62.9	37.8	30.9	75.6	89.2	83.2
88°	70.9	76.1	78.8	84.7	55.5	42.4	26.4	22.0	57.4	60.7	56.7
89°	57.3	62.9	61.5	59.2	34.2	24.8	14.9	13.0	39.1	32.2	30.2



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CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6	3431.6
1°	3340.3	3340.5	3345.3	3357.7	3374.1	3395.4	3418.4	3425.5	3452.9	3478.4	3500.8
2°	3255.7	3253.3	3263.3	3284.4	3315.5	3354.3	3400.7	3433.3	3487.3	3539.5	3585.8
3°	3178.8	3173.6	3186.4	3216.2	3261.6	3318.9	3386.4	3445.2	3525.5	3603.6	3673.9
4°	3109.2	3103.7	3118.0	3154.6	3212.1	3287.4	3376.3	3459.6	3567.3	3673.1	3771.7
5°	3047.7	3040.0	3056.0	3099.8	3167.6	3259.8	3369.4	3477.3	3613.5	3750.2	3876.9
6°	2989.3	2979.8	2999.2	3049.7	3129.2	3234.7	3364.9	3498.1	3664.1	3834.4	3991.7
7°	2936.1	2924.5	2945.8	3002.7	3093.2	3214.4	3364.4	3524.0	3718.1	3922.7	4114.5
8°	2886.9	2872.9	2896.7	2960.6	3061.0	3196.3	3366.4	3549.8	3776.5	4016.9	4246.3
9°	2840.1	2824.0	2850.6	2921.1	3032.4	3181.4	3370.3	3579.6	3840.2	4118.0	4388.2
10°	2796.5	2779.2	2808.4	2885.2	3005.3	3168.4	3376.1	3612.6	3906.1	4224.8	4536.3
11°	2756.3	2736.8	2769.1	2852.7	2982.7	3157.9	3384.9	3650.0	3978.7	4338.8	4695.9
12°	2719.6	2698.8	2731.5	2821.9	2962.1	3149.6	3396.7	3688.8	4051.9	4459.7	4865.0
13°	2686.0	2662.4	2698.0	2793.8	2943.8	3144.3	3410.5	3730.4	4130.6	4586.4	5046.3
14°	2653.7	2627.3	2665.9	2767.7	2928.0	3140.7	3425.8	3772.8	4211.8	4718.2	5238.3
15°	2622.0	2593.1	2634.4	2742.7	2913.7	3139.9	3441.9	3818.2	4296.9	4861.9	5444.3
16°	2585.5	2516.5	2599.4	2718.9	2899.8	3140.2	3458.7	3865.7	4385.4	5009.3	5661.1
17°	2486.2	2430.7	2504.9	2695.4	2887.1	3140.8	3478.8	3913.3	4477.9	5167.4	5879.7
18°	2416.3	2385.9	2433.2	2658.8	2876.1	3142.8	3498.9	3963.1	4573.6	5330.7	6101.1
19°	2390.7	2359.8	2406.1	2578.1	2865.1	3143.1	3507.0	4005.8	4672.3	5496.6	6324.5
20°	2368.7	2336.3	2383.9	2517.7	2854.4	3133.2	3520.8	4045.1	4775.7	5664.9	6541.1
21°	2349.3	2316.8	2364.2	2495.2	2841.9	3126.6	3541.2	4089.8	4869.8	5835.3	6749.0
22°	2333.7	2299.0	2348.6	2481.7	2793.1	3131.3	3567.4	4144.4	4965.1	6005.9	6945.8
23°	2320.2	2284.0	2336.1	2470.0	2734.7	3137.9	3593.4	4203.3	5073.8	6169.4	7128.3
24°	2307.6	2270.3	2324.4	2460.7	2692.0	3144.6	3616.1	4263.7	5182.3	6330.5	7302.6
25°	2296.4	2257.0	2313.3	2453.1	2680.4	3142.8	3632.1	4320.9	5299.6	6469.9	7465.3
26°	2285.0	2246.2	2303.8	2447.1	2675.6	3142.6	3652.9	4369.3	5417.4	6597.7	7620.3
27°	2275.6	2237.2	2295.1	2441.9	2664.5	3144.4	3672.5	4423.5	5536.4	6724.4	7766.1
28°	2267.9	2229.4	2288.1	2436.7	2656.5	3155.1	3701.1	4480.0	5647.8	6845.8	7905.0
29°	2260.1	2196.3	2280.5	2432.6	2655.7	3165.4	3730.6	4543.1	5745.8	6954.3	8031.6
30°	2198.7	2076.7	2228.7	2429.3	2659.9	3157.3	3760.4	4609.0	5844.6	7065.0	8151.7
31°	2095.0	2053.7	2123.4	2419.4	2665.1	3132.1	3789.4	4675.1	5943.2	7171.2	8263.7
32°	2077.9	2054.4	2104.5	2408.0	2671.8	3107.6	3817.6	4742.3	6035.6	7271.4	8365.1
33°	2076.5	2057.1	2103.6	2339.3	2678.4	3083.7	3830.0	4808.7	6126.5	7361.3	8449.7
34°	2077.4	2062.2	2104.6	2256.7	2684.9	3084.7	3842.7	4875.9	6218.1	7441.3	8522.2
35°	2079.2	2069.0	2107.2	2245.5	2686.1	3092.0	3863.8	4932.9	6305.5	7510.2	8585.9
36°	2082.4	2075.0	2111.4	2248.5	2686.6	3101.2	3887.6	4977.0	6387.3	7574.3	8646.2
37°	2083.5	2080.1	2114.0	2252.8	2687.3	3113.0	3914.0	5024.2	6464.8	7637.2	8698.6
38°	2083.9	2084.8	2115.8	2252.3	2687.7	3126.5	3943.5	5076.8	6538.9	7698.5	8742.1
39°	2083.3	2085.1	2117.4	2251.4	2586.8	3132.2	3975.3	5127.7	6608.7	7752.7	8773.4
40°	2079.1	1970.5	2114.9	2256.0	2527.6	3142.0	4005.5	5181.5	6669.5	7802.7	8799.9
41°	1961.5	1911.7	2011.8	2263.3	2528.7	3163.9	4026.2	5232.8	6713.7	7850.0	8816.0
42°	1896.6	1912.6	1935.7	2270.8	2539.9	3186.8	4042.2	5282.4	6750.1	7897.7	8825.2
43°	1895.5	1915.8	1934.9	2276.2	2553.0	3211.0	4052.5	5333.7	6787.9	7938.3	8825.7
44°	1897.1	1918.2	1938.2	2228.0	2567.9	3236.2	4083.4	5382.1	6823.5	7975.7	8817.7

REPORT NUMBER: P1436707

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1899.4	1918.2	1942.1	2119.9	2582.2	3260.2	4122.5	5418.5	6861.1	8005.7	8795.2
46°	1901.5	1915.3	1945.1	2114.5	2585.8	3273.0	4163.0	5445.7	6898.8	8032.2	8757.9
47°	1902.7	1846.4	1947.5	2121.3	2589.5	3274.8	4203.8	5462.7	6930.6	8052.7	8706.5
48°	1839.6	1777.6	1947.3	2125.0	2606.6	3287.6	4244.1	5472.0	6959.4	8064.1	8647.8
49°	1776.7	1709.8	1833.3	2121.5	2616.6	3278.4	4283.1	5496.2	6980.1	8067.4	8577.7
50°	1713.9	1706.0	1751.1	2121.1	2563.4	3205.4	4307.5	5527.1	6995.4	8053.9	8500.8
51°	1720.4	1704.1	1756.7	2125.5	2447.0	3161.7	4288.2	5554.5	7003.7	8023.2	8412.2
52°	1729.6	1704.4	1765.4	2056.2	2448.2	3176.9	4275.9	5579.4	7002.2	7984.1	8310.7
53°	1739.4	1703.8	1774.7	1939.9	2466.5	3199.7	4291.5	5598.7	6989.2	7934.0	8196.8
54°	1747.3	1696.1	1732.9	1949.9	2489.6	3211.0	4285.4	5611.4	6967.6	7874.0	8066.3
55°	1750.9	1535.5	1691.0	1964.8	2503.2	3218.4	4282.2	5619.9	6927.9	7804.7	7928.0
56°	1599.2	1510.5	1649.3	1982.5	2514.7	3247.9	4287.6	5610.7	6868.6	7728.3	7775.0
57°	1571.2	1517.3	1615.2	2000.7	2512.9	3269.7	4278.6	5583.8	6804.0	7643.8	7613.6
58°	1578.1	1525.1	1622.5	2013.7	2404.5	3276.6	4278.8	5543.3	6737.7	7541.3	7437.9
59°	1588.4	1457.9	1631.6	1866.6	2368.1	3290.4	4280.9	5503.8	6673.7	7429.4	7251.1
60°	1473.1	1324.7	1528.5	1868.7	2401.3	3220.1	4255.8	5460.4	6600.4	7300.0	7047.3
61°	1404.3	1339.3	1454.8	1879.1	2437.9	3141.1	4202.7	5405.8	6511.4	7154.9	6829.7
62°	1421.2	1353.1	1473.5	1899.1	2475.7	3143.2	4177.8	5341.6	6410.2	6995.5	6608.7
63°	1438.8	1184.7	1489.0	1783.5	2505.8	3144.6	4145.1	5267.1	6294.3	6814.9	6375.0
64°	1252.4	1169.4	1297.2	1768.5	2397.1	3145.2	4084.1	5167.1	6161.1	6625.5	6138.1
65°	1264.3	1183.8	1302.9	1735.1	2399.5	3124.7	4021.2	5041.9	6006.7	6418.0	5889.1
66°	1273.0	988.8	1319.6	1701.6	2414.7	3048.5	3928.8	4901.9	5823.1	6201.2	5632.0
67°	1054.1	956.8	1094.1	1670.0	2398.1	2931.3	3824.2	4733.5	5624.5	5962.6	5377.3
68°	1072.0	738.6	1106.8	1706.3	2336.1	2938.6	3670.4	4481.8	5386.4	5701.4	5118.6
69°	857.2	666.2	890.6	1569.4	2332.3	2937.9	3471.3	4122.3	5102.7	5420.3	4869.9
70°	818.7	455.9	840.5	1553.8	2276.3	2931.1	3212.4	3647.7	4750.7	5108.6	4605.1
71°	542.1	245.7	543.9	1353.9	2251.3	2861.3	2913.4	3198.7	4329.6	4761.2	4332.2
72°	336.3	37.5	318.2	1308.5	2235.4	2732.8	2619.8	2800.3	3853.8	4375.4	4054.8
73°	277.7	0.5	253.2	1187.2	2188.0	2600.8	2350.2	2381.2	3363.3	3951.6	3754.4
74°	250.6	0.3	233.5	1056.0	2183.7	2469.7	2017.5	1906.6	2878.6	3495.4	3424.2
75°	205.8	0.3	199.8	993.2	2072.3	2328.8	1684.7	1318.3	2357.6	2998.4	3015.1
76°	161.0	0.3	166.2	958.6	1901.2	2170.6	1350.5	766.2	1718.0	2503.9	2528.0
77°	116.6	0.4	132.7	902.8	1730.1	1902.5	832.3	507.9	1054.4	2032.7	1935.3
78°	86.8	0.4	107.0	813.2	1558.7	1634.5	434.1	253.1	798.0	1537.7	1274.3
79°	85.6	0.4	107.0	688.3	1348.9	1360.5	291.4	197.8	549.7	1026.3	943.3
80°	116.7	0.5	130.7	600.5	1113.3	824.1	152.1	167.2	301.5	763.8	620.7
81°	143.9	0.5	137.3	559.9	842.2	595.0	120.4	142.5	258.1	504.0	298.1
82°	129.6	0.6	84.4	526.9	650.3	365.8	97.9	119.6	220.6	244.2	257.0
83°	80.5	0.7	59.5	438.7	463.2	139.8	79.0	98.7	179.9	191.0	225.5
84°	43.9	0.8	34.6	315.0	334.0	118.2	62.8	80.3	140.0	155.6	195.8
85°	32.7	0.8	9.9	191.2	204.8	93.9	49.2	61.9	106.8	123.3	167.3
86°	21.5	1.0	8.7	70.4	78.8	69.2	37.4	43.5	84.8	95.3	139.5
87°	10.5	1.1	8.7	48.9	40.4	49.5	28.4	28.7	62.9	74.6	108.8
88°	7.2	1.2	7.6	27.4	28.0	34.3	19.3	16.6	40.9	54.0	83.7
89°	5.2	1.3	4.2	6.2	15.5	19.2	10.3	11.5	23.8	33.3	58.6



REPORT NUMBER: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3431.6	3431.6	3431.6
1°	3519.4	3532.7	3538.7
2°	3621.0	3645.8	3654.9
3°	3730.5	3767.4	3781.2
4°	3851.8	3903.4	3920.1
5°	3980.2	4049.0	4071.5
6°	4122.8	4209.3	4237.9
7°	4274.7	4377.5	4414.0
8°	4436.5	4562.1	4606.5
9°	4611.8	4762.8	4816.2
10°	4797.7	4975.0	5035.3
11°	5002.0	5206.3	5273.3
12°	5216.6	5453.3	5531.6
13°	5449.8	5721.1	5806.3
14°	5694.3	6003.7	6105.1
15°	5956.7	6303.9	6424.7
16°	6220.4	6609.3	6754.4
17°	6491.2	6924.1	7078.8
18°	6762.3	7234.6	7402.3
19°	7023.1	7527.1	7702.5
20°	7273.2	7801.9	7977.5
21°	7509.1	8053.5	8224.2
22°	7727.3	8275.5	8438.8
23°	7935.3	8477.9	8628.7
24°	8129.3	8651.3	8794.6
25°	8305.0	8803.4	8938.2
26°	8464.2	8931.4	9059.6
27°	8607.8	9042.6	9161.6
28°	8735.0	9135.6	9245.7
29°	8845.3	9211.7	9315.4
30°	8941.8	9273.4	9368.2
31°	9023.8	9321.7	9409.4
32°	9090.9	9357.5	9434.4
33°	9144.6	9378.1	9447.0
34°	9188.4	9387.0	9447.9
35°	9219.7	9384.3	9437.1
36°	9238.5	9370.9	9416.5
37°	9245.7	9348.5	9385.2
38°	9243.0	9317.2	9345.9
39°	9228.7	9277.9	9297.5
40°	9204.5	9231.3	9242.1
41°	9172.3	9177.7	9175.9
42°	9130.2	9115.9	9099.8
43°	9077.5	9046.1	9013.0
44°	9014.8	8964.7	8915.3



REPORT NUMBER: P1436707

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	8946.3	8874.7	8804.6
46°	8868.9	8773.6	8677.9
47°	8780.9	8656.2	8544.4
48°	8685.4	8533.2	8403.8
49°	8576.1	8390.1	8244.4
50°	8454.5	8236.5	8067.4
51°	8315.9	8064.4	7875.9
52°	8161.8	7874.5	7669.8
53°	7990.5	7669.0	7450.3
54°	7807.5	7447.8	7214.4
55°	7614.0	7215.5	6973.8
56°	7401.4	6964.5	6713.7
57°	7181.4	6699.8	6454.9
58°	6949.9	6436.9	6185.7
59°	6707.7	6164.3	5904.7
60°	6454.3	5883.7	5604.6
61°	6195.1	5585.1	5283.8
62°	5931.8	5282.0	4948.8
63°	5669.6	4965.7	4597.5
64°	5410.6	4651.1	4257.5
65°	5146.7	4337.8	3949.2
66°	4880.8	4053.0	3678.2
67°	4615.7	3792.5	3455.5
68°	4354.2	3566.6	3216.4
69°	4105.6	3324.2	2865.3
70°	3872.2	3021.5	2350.4
71°	3631.4	2604.9	1673.3
72°	3364.6	2018.8	1065.0
73°	3044.9	1368.6	819.6
74°	2610.8	835.6	581.9
75°	2045.9	609.0	344.2
76°	1456.3	383.5	303.6
77°	975.9	325.9	271.6
78°	761.9	286.8	245.5
79°	554.0	255.2	222.4
80°	346.1	228.0	201.4
81°	289.0	204.1	182.0
82°	249.0	182.5	164.0
83°	214.4	161.9	146.7
84°	181.2	143.1	130.0
85°	146.6	124.5	114.0
86°	119.4	107.5	98.2
87°	96.3	90.9	84.5
88°	78.9	77.1	70.9
89°	61.6	63.3	57.3



REPORT NUMBER: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

CATALOG NUMBER: XAS180-SFPM (3000K-144W-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: P1436707

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)