

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: P1444999

Luminaire Tested: XAS180-SFPM (4000K-144W-T4-HSS)

Issue Date: 5/5/2026

Test Information

Test Method: LM-79-2024
Report Number: P1444999
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-144W-T4-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 4 WITH HOUSE SIDE SHIELD
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 24748 (1 lamp)
Luminaire Lumens: 20229.6 lumens
Efficiency: 81.7%
Efficacy: 146.0 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 138.6
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

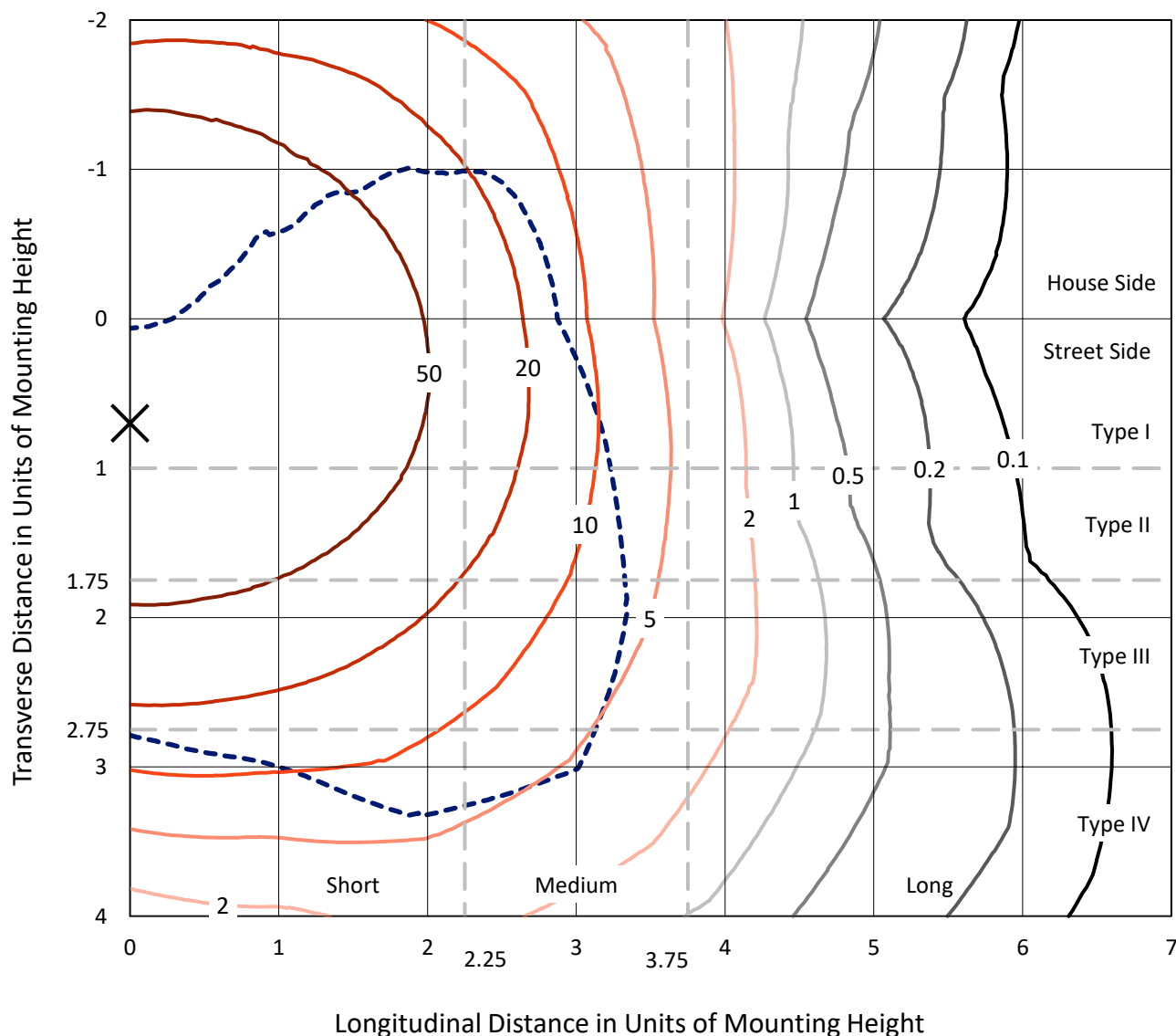
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

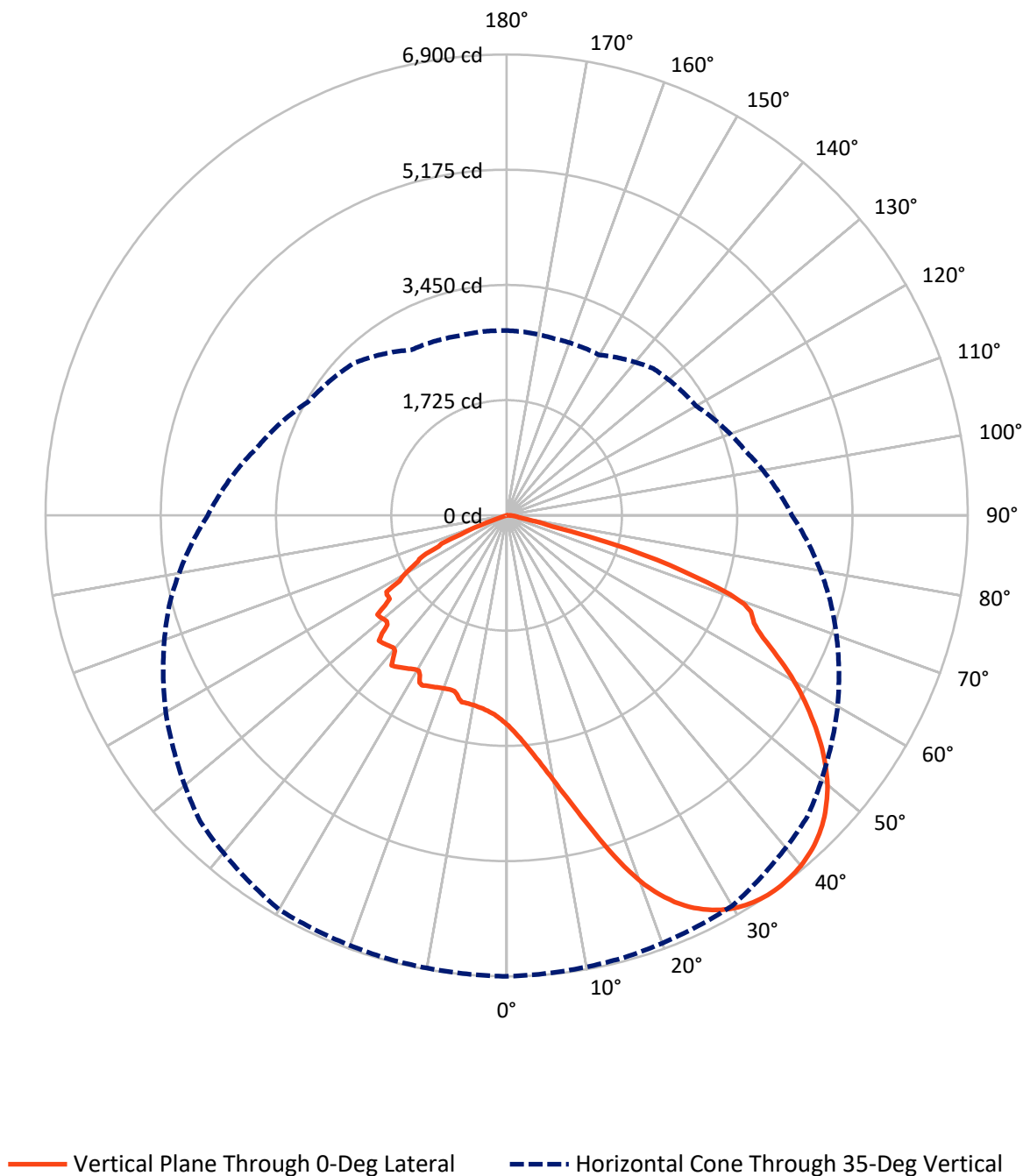


Based on 3 foot mounting height. Maximum calculated value = 545.9 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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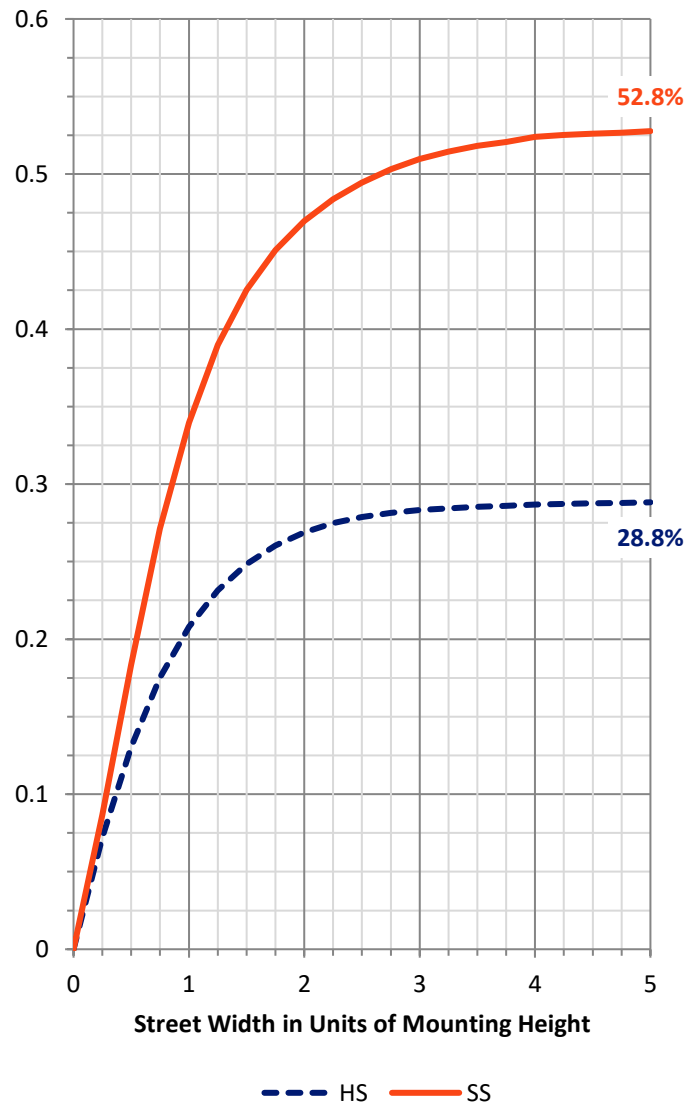
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7166.6	0.0	7166.6
	% Lamp	29.0	0.0	29.0
Street Side	Lumens	13063.0	0.0	13063.0
	% Lamp	52.8	0.0	52.8
Total	Lumens	20229.6	0.0	20229.6
	% Lamp	81.7	0.0	81.7

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	312.3	1.5	1.3
10°-20°	1055.2	5.2	4.3
20°-30°	1995.3	9.9	8.1
30°-40°	2933.5	14.5	11.9
40°-50°	3705.4	18.3	15.0
50°-60°	4103.0	20.3	16.6
60°-70°	3860.4	19.1	15.6
70°-80°	2103.9	10.4	8.5
80°-90°	160.5	0.8	0.6
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°	20229.6	100.0	81.7
0°-180°	20229.6	100.0	81.7

Coefficient of Utilization



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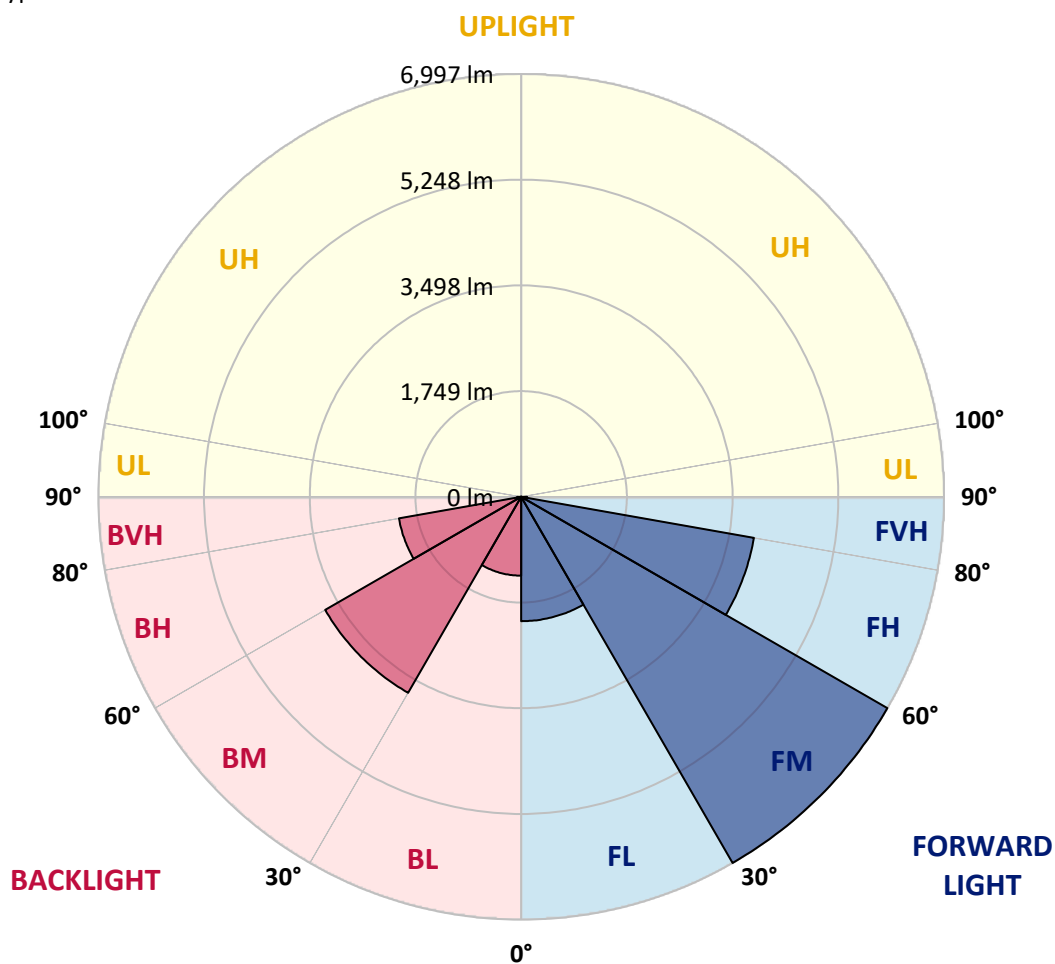
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2058.3	8.3			
FM	(30°-60°)	6996.9	28.3			
FH	(60°-80°)	3910.7	15.8			G2/5000
FVH	(80°-90°)	97.0	0.4			G1/100
BL	(0°-30°)	1304.6	5.3	B3/2500		
BM	(30°-60°)	3745.0	15.1	B3/5000		
BH	(60°-80°)	2053.6	8.3	B3/2500		G3/2500
BVH	(80°-90°)	63.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		4518.4	18.3			

BUG Rating: B3-U0-G3

Type IV Short



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CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5
1°	3205.1	3203.8	3200.1	3192.0	3179.7	3166.8	3140.7	3128.6	3118.8	3109.5	3103.2
2°	3270.1	3266.4	3255.6	3236.3	3210.6	3182.6	3142.2	3117.1	3094.9	3077.3	3064.4
3°	3341.1	3335.9	3315.9	3284.6	3245.9	3203.3	3148.3	3109.4	3076.1	3050.0	3030.3
4°	3420.7	3411.3	3382.0	3339.2	3285.7	3228.0	3156.2	3105.4	3061.2	3026.6	3001.8
5°	3511.1	3497.0	3458.1	3399.0	3329.3	3254.5	3166.8	3102.9	3049.8	3007.7	2979.6
6°	3608.4	3590.3	3541.1	3466.6	3377.4	3283.8	3179.6	3103.1	3040.6	2993.8	2961.1
7°	3714.0	3691.1	3632.3	3541.2	3430.1	3317.7	3195.7	3106.9	3034.3	2983.0	2946.7
8°	3829.2	3801.5	3728.7	3619.8	3487.0	3354.2	3216.5	3114.2	3032.8	2974.5	2935.2
9°	3953.9	3919.7	3833.7	3704.1	3550.5	3394.1	3239.1	3123.0	3033.7	2969.1	2925.7
10°	4089.2	4048.8	3947.3	3795.4	3617.1	3436.8	3263.2	3134.3	3037.8	2967.7	2918.6
11°	4235.5	4188.0	4068.4	3892.5	3687.5	3484.6	3290.7	3148.5	3043.3	2968.6	2915.0
12°	4392.2	4336.6	4197.4	3995.0	3761.4	3533.5	3320.0	3164.1	3051.7	2971.3	2914.3
13°	4561.1	4496.4	4335.3	4106.5	3840.0	3586.5	3350.8	3181.1	3061.1	2975.7	2915.9
14°	4742.8	4671.1	4485.3	4222.1	3922.0	3640.7	3382.2	3198.5	3070.6	2981.8	2917.3
15°	4937.7	4852.2	4644.1	4346.9	4008.1	3694.5	3415.0	3218.1	3082.9	2988.9	2921.3
16°	5138.5	5045.9	4806.6	4476.1	4099.8	3753.0	3450.9	3238.3	3096.3	2996.0	2925.4
17°	5342.7	5237.4	4970.4	4609.4	4194.9	3813.3	3487.4	3260.4	3110.6	3004.7	2909.8
18°	5539.0	5422.5	5132.6	4743.2	4295.5	3876.0	3523.6	3278.4	3125.8	3015.2	2858.8
19°	5726.9	5602.2	5294.3	4875.4	4398.0	3938.9	3548.7	3291.5	3133.8	3026.2	2823.0
20°	5900.0	5772.4	5448.5	5005.9	4500.1	3998.8	3580.5	3307.8	3138.9	3034.5	2802.7
21°	6052.7	5925.1	5596.8	5133.4	4605.3	4054.0	3615.9	3335.8	3147.3	2995.5	2811.0
22°	6185.9	6067.3	5735.0	5256.2	4708.6	4117.3	3660.3	3363.0	3166.7	2963.6	2821.1
23°	6309.0	6193.0	5864.7	5372.6	4811.2	4183.1	3705.3	3387.2	3184.9	2944.8	2832.9
24°	6415.8	6305.7	5986.3	5485.5	4900.2	4256.2	3746.7	3407.1	3197.3	2932.1	2846.9
25°	6509.2	6406.4	6097.3	5592.9	4984.9	4334.0	3784.0	3431.2	3210.7	2945.4	2861.1
26°	6588.6	6493.7	6198.9	5695.8	5071.9	4410.1	3824.2	3457.8	3226.3	2952.4	2877.7
27°	6658.6	6570.6	6291.8	5796.0	5155.1	4483.7	3867.5	3489.9	3249.2	2961.0	2893.7
28°	6718.1	6635.8	6378.0	5889.5	5236.0	4547.8	3914.7	3523.4	3262.7	2973.4	2909.1
29°	6768.3	6691.6	6453.4	5976.6	5315.3	4613.6	3966.9	3556.3	3245.0	2994.9	2926.3
30°	6809.9	6737.8	6523.0	6062.2	5395.4	4680.4	4020.1	3590.5	3246.1	3016.4	2940.2
31°	6842.8	6776.2	6582.8	6140.0	5470.8	4746.4	4074.7	3624.0	3236.7	3039.1	2944.5
32°	6866.3	6804.4	6633.4	6204.6	5542.4	4814.2	4129.5	3649.4	3244.3	3060.7	2857.7
33°	6884.1	6825.5	6679.9	6265.5	5607.5	4883.2	4183.7	3662.9	3237.7	3078.4	2785.5
34°	6895.7	6839.3	6716.6	6319.5	5665.4	4951.0	4234.1	3679.1	3255.6	3093.4	2757.4
35°	6899.9	6846.2	6749.3	6370.1	5720.0	5018.0	4270.2	3705.7	3274.6	3107.1	2772.9
36°	6898.0	6849.3	6772.7	6418.5	5773.7	5081.2	4302.6	3733.8	3297.1	3122.9	2789.0
37°	6889.2	6844.6	6791.0	6462.0	5824.9	5142.5	4341.7	3763.1	3319.4	3119.3	2801.4
38°	6875.8	6836.6	6802.7	6499.9	5874.5	5203.0	4389.5	3795.4	3335.0	3033.8	2811.9
39°	6858.1	6823.2	6809.4	6533.3	5922.4	5259.7	4434.7	3823.3	3349.4	2966.2	2828.0
40°	6835.0	6806.8	6807.1	6561.8	5968.5	5304.7	4480.4	3848.7	3374.5	2948.4	2848.8
41°	6804.4	6784.0	6802.0	6588.5	6013.1	5342.2	4526.1	3872.3	3405.4	2970.7	2869.2
42°	6770.0	6757.1	6789.0	6611.9	6056.7	5376.4	4571.9	3890.2	3435.8	2994.5	2886.8
43°	6727.0	6725.4	6771.7	6629.8	6100.3	5416.3	4610.5	3908.9	3466.7	3019.5	2825.7
44°	6676.5	6687.5	6749.4	6639.9	6141.5	5458.1	4645.9	3943.6	3498.8	3042.8	2727.6

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CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	6619.8	6644.7	6719.8	6642.9	6179.0	5502.1	4676.5	3985.4	3523.6	3058.0	2686.9
46°	6553.7	6594.7	6686.2	6638.7	6216.6	5545.2	4699.7	4027.9	3531.5	3068.1	2701.8
47°	6479.4	6536.0	6648.9	6627.5	6252.3	5587.1	4720.1	4067.1	3532.1	3084.9	2714.3
48°	6401.6	6470.4	6603.8	6610.4	6282.6	5626.0	4739.0	4088.7	3475.2	3104.9	2724.5
49°	6314.3	6396.5	6550.8	6589.8	6306.1	5667.1	4770.0	4102.8	3427.9	3042.8	2738.6
50°	6216.7	6313.9	6490.6	6562.4	6321.1	5702.5	4807.2	4111.7	3411.3	2946.4	2753.8
51°	6110.9	6222.2	6418.9	6528.6	6329.5	5731.9	4844.1	4106.2	3398.7	2905.0	2700.6
52°	5994.1	6121.9	6340.7	6486.5	6333.2	5756.8	4879.3	4134.3	3422.6	2927.2	2554.3
53°	5873.1	6011.1	6254.6	6437.8	6329.1	5779.2	4912.8	4150.6	3437.3	2950.4	2507.9
54°	5744.7	5890.7	6159.2	6384.8	6323.1	5790.2	4942.9	4160.1	3453.4	2967.1	2529.3
55°	5610.6	5764.8	6054.9	6322.3	6308.2	5790.8	4963.4	4179.8	3480.0	2982.4	2553.3
56°	5473.4	5633.2	5948.4	6252.6	6290.5	5787.2	4973.0	4191.4	3509.1	2986.8	2576.8
57°	5335.0	5499.3	5833.8	6179.4	6266.4	5773.2	4971.5	4197.1	3524.1	2883.9	2596.4
58°	5192.7	5358.4	5715.6	6098.6	6233.7	5763.7	4962.3	4208.0	3535.8	2790.5	2464.8
59°	5046.7	5221.3	5594.3	6011.1	6192.0	5752.6	4957.6	4207.9	3477.4	2787.5	2362.1
60°	4892.3	5078.3	5469.0	5918.6	6137.4	5733.0	4948.4	4189.8	3404.5	2820.7	2368.5
61°	4733.7	4930.3	5340.9	5819.9	6072.4	5704.2	4928.9	4166.5	3383.2	2856.7	2376.6
62°	4567.9	4779.5	5216.4	5714.6	5996.7	5663.0	4904.8	4154.4	3393.1	2891.7	2280.8
63°	4406.5	4626.9	5094.2	5606.6	5913.5	5606.3	4863.4	4121.9	3402.0	2821.4	2145.6
64°	4251.7	4479.9	4976.9	5494.8	5815.6	5532.2	4807.2	4083.7	3400.2	2733.4	2118.1
65°	4128.6	4344.7	4860.9	5378.3	5708.9	5443.7	4738.4	4026.9	3363.4	2732.3	2092.3
66°	4036.6	4236.6	4750.0	5262.1	5590.1	5333.6	4656.3	3951.6	3245.8	2749.2	1911.6
67°	3984.8	4155.8	4650.7	5144.3	5455.6	5208.6	4561.8	3854.5	3197.3	2636.7	1882.4
68°	3927.0	4101.0	4562.3	5025.7	5300.9	5065.5	4401.1	3750.4	3215.9	2574.5	1763.5
69°	3797.6	4041.6	4489.3	4909.7	5134.4	4871.3	4138.9	3629.1	3224.9	2566.1	1644.6
70°	3547.8	3934.8	4430.6	4793.2	4966.4	4611.2	3772.1	3452.2	3217.5	2441.5	1525.2
71°	3163.0	3728.8	4375.3	4677.0	4764.7	4283.3	3366.5	3210.6	3113.5	2402.1	1333.9
72°	2769.0	3396.3	4307.9	4554.3	4531.7	3909.4	2999.8	2926.1	2985.5	2310.7	1195.3
73°	2348.7	2974.9	4200.2	4432.9	4263.2	3525.6	2665.0	2647.6	2843.1	2238.0	1065.9
74°	1871.8	2522.6	3996.9	4287.0	3960.1	3156.6	2273.2	2400.9	2677.5	2109.7	900.7
75°	1273.3	2031.8	3648.1	4082.4	3619.6	2734.5	1730.6	2131.3	2465.4	1980.8	803.9
76°	705.9	1441.6	3197.5	3783.3	3262.9	2163.1	1187.9	1710.8	2275.4	1755.7	719.3
77°	545.6	823.8	2715.5	3354.9	2866.9	1427.9	645.7	1287.1	2087.9	1530.7	633.9
78°	388.9	627.8	2132.8	2767.5	2375.4	794.5	310.9	742.7	1726.9	1304.8	545.3
79°	232.2	433.1	1399.3	2080.0	1732.1	526.5	233.8	538.7	1365.9	1029.7	452.3
80°	205.5	238.4	762.4	1368.8	1067.5	268.8	157.2	334.7	1003.4	784.2	382.4
81°	183.8	206.8	578.2	715.0	777.0	222.7	133.3	131.3	540.1	576.7	343.9
82°	164.0	182.8	400.2	474.1	491.6	190.2	113.0	104.6	396.8	460.5	339.5
83°	145.6	161.0	222.1	248.2	206.2	155.9	94.2	82.8	253.6	365.0	279.1
84°	128.2	140.5	185.3	203.1	167.1	121.4	76.9	65.8	114.4	280.7	214.7
85°	111.5	121.8	150.6	172.2	132.6	95.1	60.1	51.8	98.0	196.4	150.2
86°	95.4	104.7	122.8	143.5	102.1	76.6	44.8	39.8	77.3	112.7	86.2
87°	79.6	88.2	98.8	111.8	78.7	58.2	31.1	29.3	57.0	63.8	53.7
88°	68.8	74.1	76.7	77.4	57.2	39.8	21.8	20.8	39.6	43.7	36.8
89°	58.1	60.1	59.1	55.1	35.8	24.2	12.6	12.3	22.2	23.7	20.0

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

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

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1444999
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5	3148.5
1°	3100.0	3100.3	3103.8	3110.6	3120.3	3130.0	3143.9	3146.1	3160.0	3173.9	3186.2
2°	3057.4	3057.1	3062.5	3075.0	3091.1	3112.6	3137.3	3152.9	3181.2	3208.4	3233.4
3°	3020.2	3018.8	3025.9	3041.7	3066.3	3096.5	3133.5	3163.0	3204.7	3247.8	3285.8
4°	2988.4	2986.8	2995.8	3015.4	3045.8	3085.8	3133.3	3175.5	3233.1	3291.3	3343.9
5°	2964.7	2962.1	2971.3	2994.5	3029.2	3077.2	3135.6	3191.7	3264.5	3339.0	3407.5
6°	2943.9	2940.1	2951.5	2978.3	3017.2	3071.2	3140.9	3210.8	3299.5	3391.4	3476.0
7°	2926.3	2922.0	2934.5	2964.3	3009.8	3070.2	3149.6	3233.6	3337.8	3448.9	3554.1
8°	2912.8	2907.8	2920.9	2954.6	3004.8	3072.2	3161.2	3257.8	3379.6	3512.3	3636.6
9°	2900.6	2896.0	2910.5	2947.7	3002.7	3076.4	3173.9	3283.8	3424.7	3579.2	3725.9
10°	2892.0	2885.9	2902.6	2943.9	3003.0	3082.2	3188.8	3313.7	3472.9	3650.3	3820.8
11°	2885.2	2878.9	2897.7	2942.4	3006.4	3091.9	3206.8	3347.4	3526.9	3726.0	3922.0
12°	2881.2	2874.9	2894.6	2943.4	3012.5	3103.2	3227.8	3381.3	3580.9	3806.8	4029.9
13°	2880.7	2873.2	2894.3	2946.0	3021.1	3117.0	3249.7	3417.9	3639.1	3892.1	4146.4
14°	2880.8	2872.2	2896.2	2951.5	3031.6	3132.1	3273.3	3455.8	3698.2	3981.3	4268.9
15°	2877.6	2837.1	2893.5	2957.7	3042.5	3149.5	3297.9	3497.0	3760.6	4077.5	4399.8
16°	2816.7	2779.1	2837.4	2964.4	3054.2	3168.6	3324.2	3537.4	3826.2	4175.1	4537.7
17°	2771.5	2745.1	2793.9	2953.2	3067.2	3188.2	3353.0	3580.6	3893.2	4279.9	4679.1
18°	2747.7	2738.9	2770.6	2903.6	3082.6	3208.6	3378.3	3623.7	3963.7	4389.2	4821.5
19°	2751.2	2743.1	2773.9	2871.3	3096.4	3223.7	3396.0	3660.0	4035.9	4499.8	4963.5
20°	2757.4	2749.0	2780.9	2854.9	3108.9	3234.0	3417.2	3696.0	4110.1	4612.7	5100.8
21°	2765.5	2758.4	2790.0	2862.2	3083.2	3247.0	3447.5	3737.2	4177.5	4728.0	5233.7
22°	2777.1	2768.8	2802.0	2874.8	3046.0	3270.9	3481.1	3785.0	4246.2	4839.6	5359.2
23°	2789.2	2782.7	2817.0	2888.8	3028.8	3295.8	3515.6	3837.0	4322.1	4950.7	5479.2
24°	2802.4	2796.0	2832.4	2904.9	3023.6	3316.6	3543.3	3889.0	4402.1	5056.5	5593.0
25°	2816.3	2808.7	2847.2	2922.2	3037.5	3332.6	3569.7	3936.4	4486.6	5150.0	5699.1
26°	2830.7	2823.9	2863.2	2942.1	3050.4	3349.3	3598.3	3980.9	4572.5	5235.5	5800.9
27°	2845.1	2839.5	2878.6	2960.5	3060.7	3370.0	3629.7	4028.6	4657.4	5320.6	5899.0
28°	2860.1	2823.7	2894.6	2979.4	3073.6	3387.4	3666.5	4080.2	4737.0	5402.3	5992.7
29°	2814.8	2723.3	2859.5	2998.0	3094.8	3382.0	3704.1	4134.7	4807.2	5481.5	6081.5
30°	2720.4	2669.4	2763.4	3013.5	3118.5	3377.7	3741.5	4192.1	4881.0	5561.0	6164.4
31°	2674.3	2676.1	2716.6	3019.7	3142.6	3377.4	3778.6	4251.5	4953.1	5635.9	6243.6
32°	2683.5	2697.1	2724.0	2949.8	3167.7	3378.5	3808.4	4310.7	5021.6	5707.4	6315.4
33°	2702.4	2719.1	2742.8	2878.7	3190.4	3377.8	3827.4	4368.7	5092.7	5776.4	6378.3
34°	2720.9	2741.8	2762.2	2847.4	3208.7	3395.9	3846.6	4426.5	5160.5	5836.5	6432.4
35°	2740.1	2766.8	2781.7	2859.6	3226.6	3415.9	3876.1	4472.8	5229.4	5889.4	6483.8
36°	2761.0	2789.7	2802.5	2879.0	3240.8	3438.4	3907.8	4511.1	5293.8	5941.8	6532.6
37°	2779.5	2811.3	2823.0	2893.5	3249.1	3463.5	3940.0	4554.3	5355.9	5991.9	6578.2
38°	2797.5	2828.5	2842.6	2905.8	3166.1	3482.9	3976.7	4603.1	5415.9	6042.6	6616.4
39°	2810.6	2725.1	2858.2	2919.2	3101.2	3500.0	4012.8	4651.5	5472.9	6090.3	6649.5
40°	2704.0	2626.0	2763.6	2940.2	3081.8	3524.7	4043.2	4699.3	5521.4	6135.1	6677.9
41°	2607.7	2605.0	2662.5	2962.7	3101.0	3557.5	4070.0	4747.6	5558.9	6179.9	6702.7
42°	2585.5	2619.7	2634.5	2983.1	3125.4	3591.8	4089.1	4795.2	5592.7	6224.3	6721.7
43°	2603.1	2636.1	2652.4	2943.1	3151.3	3625.7	4109.9	4839.9	5628.8	6266.4	6737.0
44°	2622.3	2651.5	2672.8	2838.0	3176.4	3660.7	4149.6	4880.5	5666.2	6304.6	6746.2

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2642.0	2666.9	2692.5	2788.5	3194.3	3688.8	4194.1	4916.5	5706.2	6340.3	6746.2
46°	2662.1	2676.1	2712.8	2799.4	3206.2	3699.5	4238.8	4940.2	5748.0	6372.1	6738.0
47°	2681.2	2568.2	2729.4	2811.3	3221.8	3706.7	4282.7	4959.6	5786.9	6402.2	6721.7
48°	2578.8	2420.6	2643.5	2821.6	3242.6	3676.8	4316.6	4976.4	5823.4	6428.2	6702.3
49°	2434.7	2392.1	2496.5	2835.5	3203.4	3627.1	4326.2	5005.1	5856.2	6445.8	6677.1
50°	2409.4	2403.9	2461.2	2849.1	3103.2	3592.0	4333.1	5039.6	5885.5	6453.5	6646.2
51°	2429.3	2417.2	2481.0	2812.0	3046.9	3576.5	4327.1	5070.4	5906.4	6451.7	6610.4
52°	2450.2	2430.3	2499.6	2664.0	3064.2	3594.4	4328.5	5099.5	5922.4	6444.9	6565.6
53°	2468.9	2436.3	2517.3	2606.7	3088.2	3608.9	4345.8	5123.9	5931.2	6430.7	6516.3
54°	2478.3	2260.9	2527.7	2626.8	3103.9	3622.4	4350.3	5143.8	5927.3	6415.5	6458.3
55°	2319.3	2152.8	2369.5	2650.2	3118.6	3640.0	4353.3	5153.5	5914.2	6392.8	6396.8
56°	2201.6	2145.2	2250.4	2674.4	3123.5	3666.9	4353.7	5148.3	5891.9	6367.3	6329.1
57°	2193.8	2149.0	2237.8	2691.8	3047.3	3677.3	4348.1	5130.7	5862.4	6334.5	6253.3
58°	2197.2	2131.0	2240.4	2567.0	2938.1	3682.6	4345.7	5108.0	5831.5	6288.9	6172.2
59°	2156.0	1878.2	2206.5	2455.4	2927.1	3641.8	4339.3	5085.4	5799.9	6237.5	6084.5
60°	1933.5	1809.0	1982.0	2455.9	2959.0	3551.8	4309.0	5058.8	5760.5	6177.6	5988.1
61°	1890.5	1702.8	1933.3	2463.0	2993.1	3508.2	4272.8	5024.8	5712.5	6106.3	5885.4
62°	1884.8	1596.5	1921.3	2381.2	3023.4	3507.1	4251.9	4982.4	5654.0	6022.8	5778.7
63°	1775.1	1491.4	1808.5	2231.8	2961.3	3506.1	4214.6	4926.1	5582.2	5925.2	5666.9
64°	1665.4	1461.2	1695.9	2202.2	2855.5	3496.3	4165.5	4852.4	5495.5	5819.9	5553.8
65°	1555.5	1335.0	1582.4	2183.7	2840.0	3456.1	4096.5	4761.1	5388.5	5704.4	5431.7
66°	1383.6	1116.4	1414.5	1989.8	2840.8	3339.3	4010.2	4652.3	5261.3	5579.4	5303.3
67°	1209.0	1064.4	1233.8	1947.9	2723.6	3262.8	3907.1	4520.7	5122.5	5435.6	5175.4
68°	1087.6	743.3	1115.9	1871.5	2657.9	3265.9	3766.5	4293.6	4945.3	5276.5	5048.7
69°	886.2	613.7	910.4	1708.0	2633.0	3259.3	3597.0	3958.4	4699.8	5101.4	4926.3
70°	709.7	422.9	730.0	1544.4	2499.5	3233.3	3362.3	3519.3	4391.2	4908.4	4795.9
71°	488.0	232.0	487.5	1381.4	2439.9	3102.1	3067.9	3113.5	4004.3	4679.8	4659.2
72°	269.6	42.5	252.1	1241.7	2337.4	2932.9	2754.2	2741.5	3593.6	4420.7	4522.2
73°	227.1	0.5	204.5	1095.5	2232.9	2758.4	2450.1	2370.8	3191.7	4107.8	4368.9
74°	184.5	0.4	157.2	901.0	2078.3	2566.5	2167.8	1930.1	2793.4	3752.3	4189.8
75°	142.0	0.4	136.4	790.6	1905.5	2341.6	1741.7	1352.2	2318.7	3358.4	3939.9
76°	108.0	0.4	108.7	702.8	1661.4	2117.7	1315.6	783.4	1678.1	2942.6	3604.6
77°	76.0	0.5	86.1	619.6	1417.2	1794.6	889.3	503.3	999.5	2500.4	3136.6
78°	56.8	0.5	69.7	536.9	1173.3	1471.7	457.8	229.9	747.9	1958.8	2529.8
79°	56.0	0.6	69.2	446.4	938.6	1146.3	298.9	175.5	500.1	1324.5	1834.0
80°	75.0	0.7	83.5	386.5	729.0	655.5	141.9	148.8	252.2	774.0	1141.1
81°	91.8	0.8	86.4	359.1	547.8	475.4	113.7	126.6	214.4	513.8	836.3
82°	81.0	0.9	53.9	334.7	425.0	295.3	93.6	106.5	183.2	257.5	539.0
83°	50.6	1.0	38.3	253.8	319.0	116.3	76.3	88.6	151.1	196.6	241.7
84°	37.1	1.1	22.7	172.8	213.1	96.9	61.4	72.5	119.6	161.9	201.0
85°	23.6	1.2	7.6	92.7	108.3	76.4	48.8	56.5	93.3	127.1	170.8
86°	10.4	1.4	6.8	47.1	60.3	56.8	37.6	40.5	75.0	98.6	142.2
87°	7.7	1.5	6.7	33.2	34.3	40.9	27.7	27.2	56.7	76.1	110.4
88°	5.6	1.7	5.9	19.3	24.0	28.5	19.5	15.9	38.5	55.3	76.8
89°	4.3	1.8	3.7	5.5	13.6	16.2	11.4	6.8	23.5	34.5	54.8

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1444999
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

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

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3148.5	3148.5	3148.5
1°	3195.4	3202.0	3205.1
2°	3252.4	3265.3	3270.1
3°	3315.1	3334.5	3341.1
4°	3385.5	3412.6	3420.7
5°	3462.0	3499.4	3511.1
6°	3546.5	3594.4	3608.4
7°	3639.5	3695.7	3714.0
8°	3739.8	3806.9	3829.2
9°	3848.1	3928.2	3953.9
10°	3961.5	4059.5	4089.2
11°	4088.2	4199.5	4235.5
12°	4222.6	4352.9	4392.2
13°	4367.5	4514.4	4561.1
14°	4522.3	4688.9	4742.8
15°	4684.5	4873.4	4937.7
16°	4849.6	5061.8	5138.5
17°	5017.5	5255.5	5342.7
18°	5186.3	5447.5	5539.0
19°	5349.5	5632.5	5726.9
20°	5507.3	5804.0	5900.0
21°	5655.1	5960.3	6052.7
22°	5793.0	6102.9	6185.9
23°	5925.4	6227.4	6309.0
24°	6048.2	6338.6	6415.8
25°	6161.8	6436.2	6509.2
26°	6265.4	6522.2	6588.6
27°	6363.0	6596.5	6658.6
28°	6447.2	6661.1	6718.1
29°	6524.4	6714.7	6768.3
30°	6591.2	6759.0	6809.9
31°	6651.5	6796.6	6842.8
32°	6703.5	6826.7	6866.3
33°	6748.0	6847.9	6884.1
34°	6783.4	6862.6	6895.7
35°	6812.4	6870.2	6899.9
36°	6835.0	6869.3	6898.0
37°	6852.1	6865.0	6889.2
38°	6862.4	6856.7	6875.8
39°	6866.0	6841.7	6858.1
40°	6863.9	6823.8	6835.0
41°	6856.9	6802.5	6804.4
42°	6843.8	6775.6	6770.0
43°	6824.4	6744.5	6727.0
44°	6800.9	6707.9	6676.5

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	6771.5	6665.4	6619.8
46°	6738.3	6617.0	6553.7
47°	6698.8	6559.2	6479.4
48°	6656.2	6495.9	6401.6
49°	6605.3	6424.4	6314.3
50°	6545.2	6346.0	6216.7
51°	6476.6	6257.8	6110.9
52°	6396.8	6157.9	5994.1
53°	6310.5	6053.1	5873.1
54°	6216.1	5936.4	5744.7
55°	6118.2	5815.9	5610.6
56°	6011.5	5684.3	5473.4
57°	5899.9	5550.5	5335.0
58°	5781.4	5412.3	5192.7
59°	5658.4	5272.3	5046.7
60°	5534.3	5127.6	4892.3
61°	5410.3	4980.6	4733.7
62°	5286.0	4828.7	4567.9
63°	5166.2	4682.1	4406.5
64°	5053.5	4540.2	4251.7
65°	4944.2	4409.4	4128.6
66°	4838.1	4299.4	4036.6
67°	4737.4	4219.6	3984.8
68°	4644.5	4164.2	3927.0
69°	4562.0	4104.7	3797.6
70°	4497.0	4007.5	3547.8
71°	4430.7	3817.5	3163.0
72°	4348.8	3490.0	2769.0
73°	4228.1	3065.3	2348.7
74°	4007.3	2596.8	1871.8
75°	3655.5	2102.2	1273.3
76°	3207.5	1538.3	705.9
77°	2699.4	917.6	545.6
78°	2091.3	688.7	388.9
79°	1374.6	466.7	232.2
80°	771.8	244.6	205.5
81°	581.0	213.2	183.8
82°	404.1	188.4	164.0
83°	227.2	165.8	145.6
84°	188.1	144.6	128.2
85°	152.5	125.1	111.5
86°	124.6	107.2	95.4
87°	99.9	90.2	79.6
88°	76.5	75.6	68.8
89°	59.1	61.0	58.1

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
90°	0.0	0.0	0.0
91°	0.0	0.0	0.0
92°	0.0	0.0	0.0
93°	0.0	0.0	0.0
94°	0.0	0.0	0.0
95°	0.0	0.0	0.0
96°	0.0	0.0	0.0
97°	0.0	0.0	0.0
98°	0.0	0.0	0.0
99°	0.0	0.0	0.0
100°	0.0	0.0	0.0
101°	0.0	0.0	0.0
102°	0.0	0.0	0.0
103°	0.0	0.0	0.0
104°	0.0	0.0	0.0
105°	0.0	0.0	0.0
106°	0.0	0.0	0.0
107°	0.0	0.0	0.0
108°	0.0	0.0	0.0
109°	0.0	0.0	0.0
110°	0.0	0.0	0.0
111°	0.0	0.0	0.0
112°	0.0	0.0	0.0
113°	0.0	0.0	0.0
114°	0.0	0.0	0.0
115°	0.0	0.0	0.0
116°	0.0	0.0	0.0
117°	0.0	0.0	0.0
118°	0.0	0.0	0.0
119°	0.0	0.0	0.0
120°	0.0	0.0	0.0
121°	0.0	0.0	0.0
122°	0.0	0.0	0.0
123°	0.0	0.0	0.0
124°	0.0	0.0	0.0
125°	0.0	0.0	0.0
126°	0.0	0.0	0.0
127°	0.0	0.0	0.0
128°	0.0	0.0	0.0
129°	0.0	0.0	0.0
130°	0.0	0.0	0.0
131°	0.0	0.0	0.0
132°	0.0	0.0	0.0
133°	0.0	0.0	0.0
134°	0.0	0.0	0.0

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
135°	0.0	0.0	0.0
136°	0.0	0.0	0.0
137°	0.0	0.0	0.0
138°	0.0	0.0	0.0
139°	0.0	0.0	0.0
140°	0.0	0.0	0.0
141°	0.0	0.0	0.0
142°	0.0	0.0	0.0
143°	0.0	0.0	0.0
144°	0.0	0.0	0.0
145°	0.0	0.0	0.0
146°	0.0	0.0	0.0
147°	0.0	0.0	0.0
148°	0.0	0.0	0.0
149°	0.0	0.0	0.0
150°	0.0	0.0	0.0
151°	0.0	0.0	0.0
152°	0.0	0.0	0.0
153°	0.0	0.0	0.0
154°	0.0	0.0	0.0
155°	0.0	0.0	0.0
156°	0.0	0.0	0.0
157°	0.0	0.0	0.0
158°	0.0	0.0	0.0
159°	0.0	0.0	0.0
160°	0.0	0.0	0.0
161°	0.0	0.0	0.0
162°	0.0	0.0	0.0
163°	0.0	0.0	0.0
164°	0.0	0.0	0.0
165°	0.0	0.0	0.0
166°	0.0	0.0	0.0
167°	0.0	0.0	0.0
168°	0.0	0.0	0.0
169°	0.0	0.0	0.0
170°	0.0	0.0	0.0
171°	0.0	0.0	0.0
172°	0.0	0.0	0.0
173°	0.0	0.0	0.0
174°	0.0	0.0	0.0
175°	0.0	0.0	0.0
176°	0.0	0.0	0.0
177°	0.0	0.0	0.0
178°	0.0	0.0	0.0
179°	0.0	0.0	0.0

REPORT NUMBER: P1444999

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)