

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: P1436736

Luminaire Tested: XAS180-SFPM (4000K-180W-T3-HSS)

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436736
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 (4000K-180W-T3-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 100% (180W)
OPTICS - TYPE 3 WITH HOUSE SIDE SHIELD
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 24748 (1 lamp)
Luminaire Lumens: 24041.1 lumens
Efficiency: 97.1%
Efficacy: 138.0 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

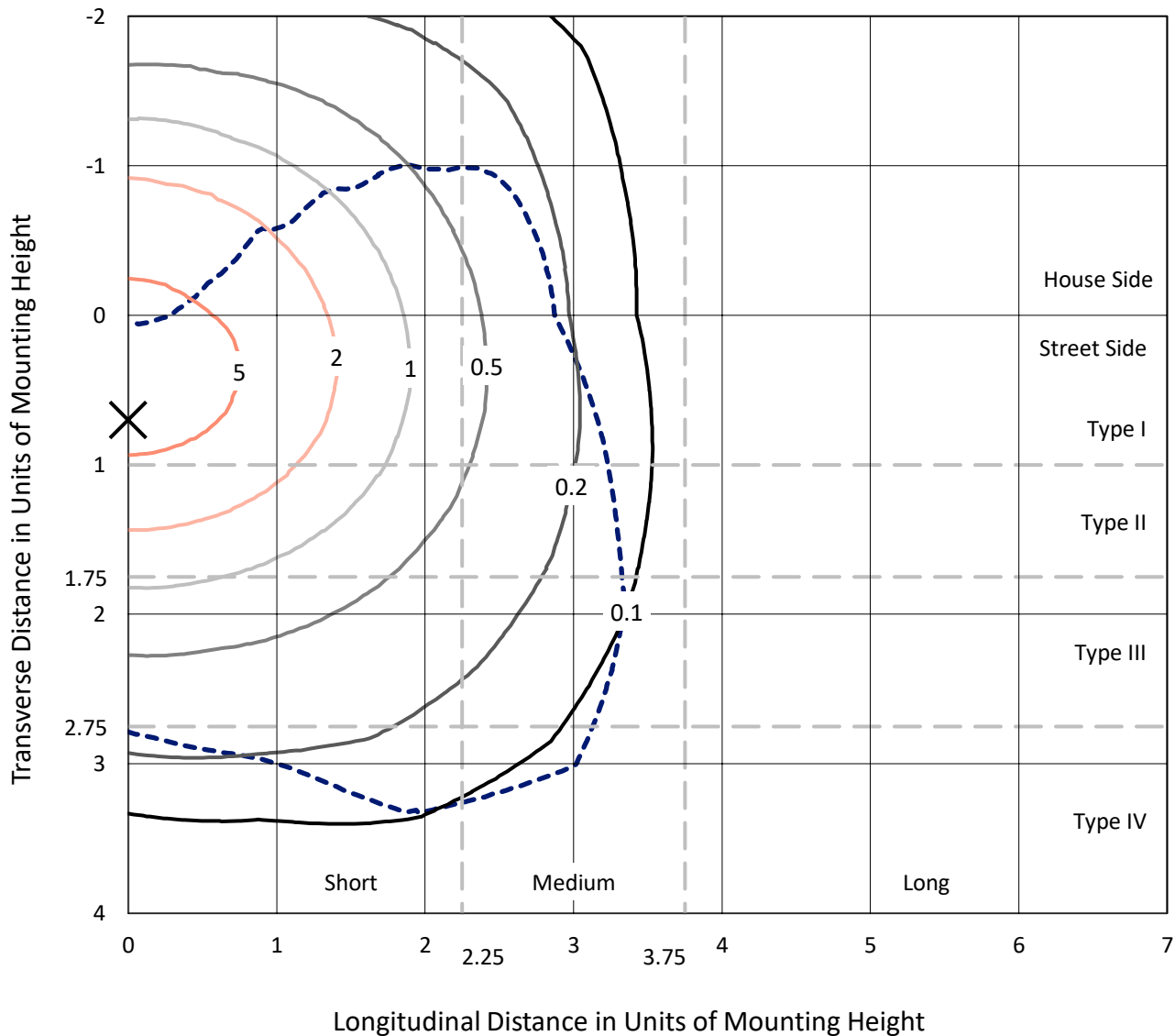
Input Watts (W): 174.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

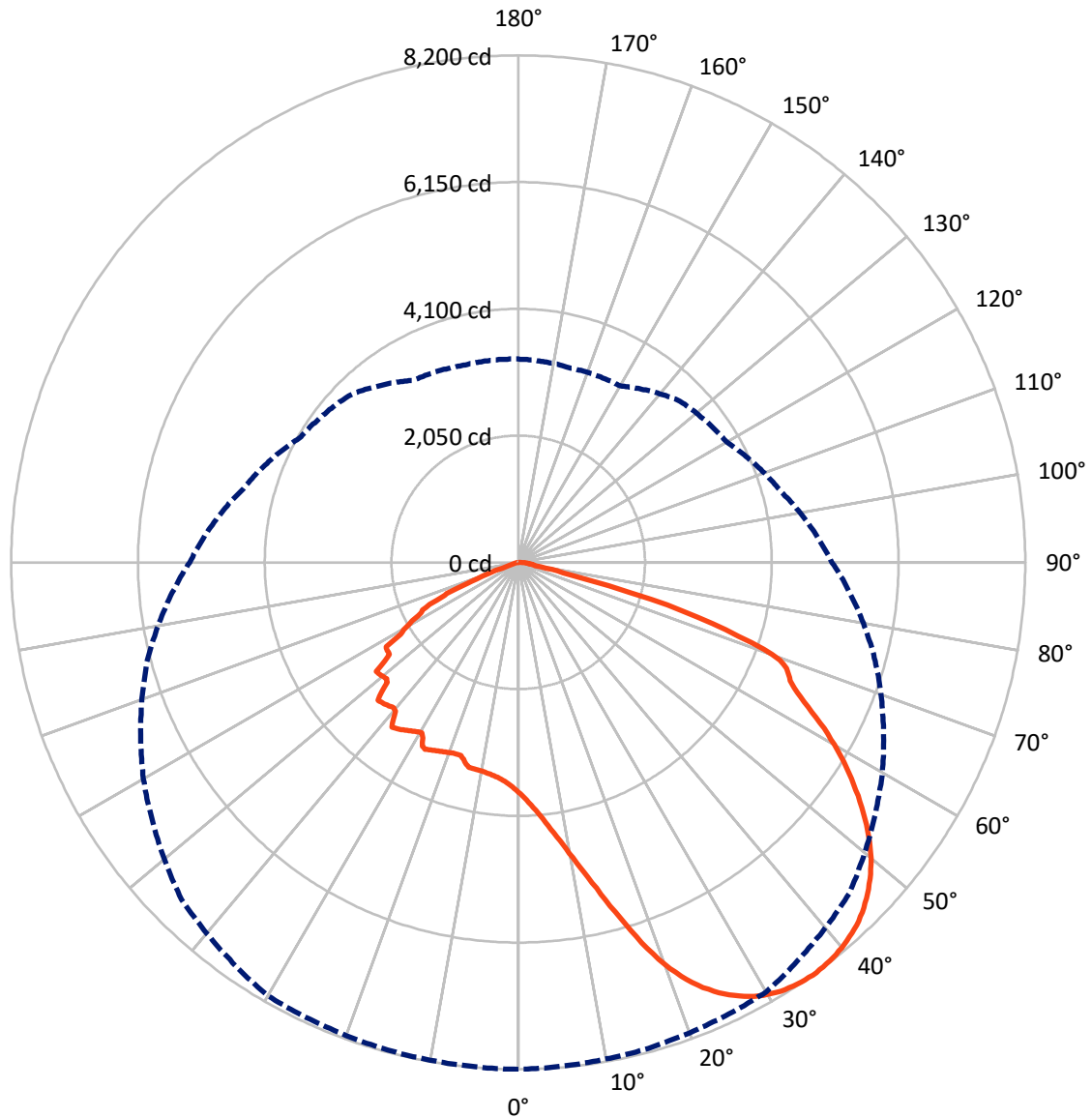
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 35-Deg Vertical

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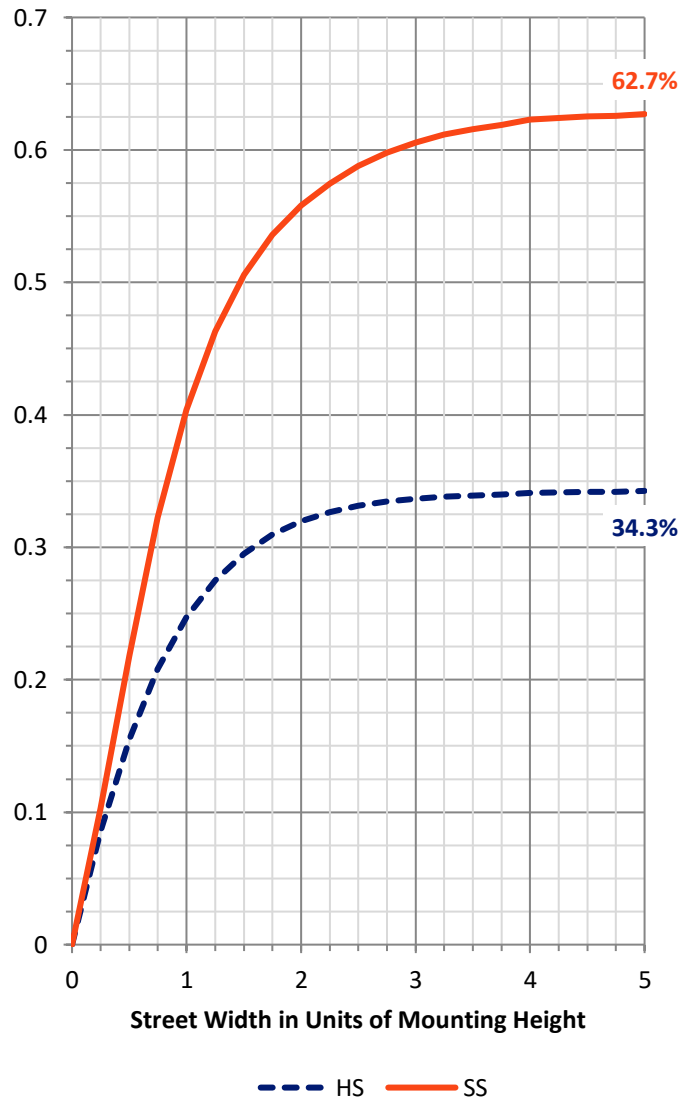
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8516.9	0.0	8516.9
	% Lamp	34.4	0.0	34.4
Street Side	Lumens	15524.2	0.0	15524.2
	% Lamp	62.7	0.0	62.7
Total	Lumens	24041.1	0.0	24041.1
	% Lamp	97.1	0.0	97.1

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	371.1	1.5	1.5
10°-20°	1254.1	5.2	5.1
20°-30°	2371.3	9.9	9.6
30°-40°	3486.2	14.5	14.1
40°-50°	4403.6	18.3	17.8
50°-60°	4876.1	20.3	19.7
60°-70°	4587.7	19.1	18.5
70°-80°	2500.3	10.4	10.1
80°-90°	190.8	0.8	0.8
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	24041.1	100.0	97.1
0°-180°	24041.1	100.0	97.1

Coefficient of Utilization



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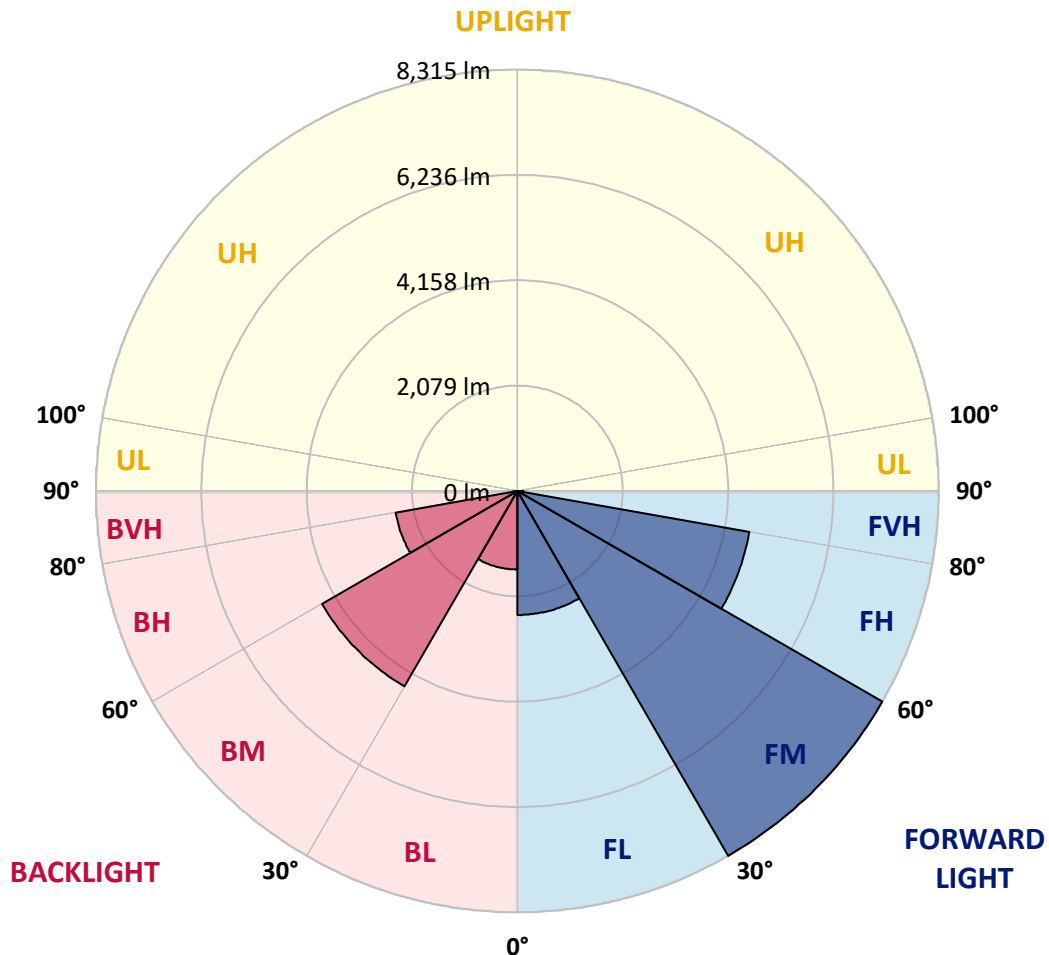
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2446.1	9.9			
FM (30°-60°)	8315.2	33.6			
FH (60°-80°)	4647.6	18.8			G2/5000
FVH (80°-90°)	115.3	0.5			G2/225
BL (0°-30°)	1550.4	6.3	B3/2500		
BM (30°-60°)	4450.6	18.0	B3/5000		
BH (60°-80°)	2440.5	9.9	B3/2500		G3/2500
BVH (80°-90°)	75.5	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	706.9	2.9			

BUG Rating: B3-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8
1°	3809.0	3807.4	3803.1	3793.4	3778.8	3763.5	3732.4	3718.1	3706.4	3695.3	3687.9
2°	3886.2	3881.8	3869.0	3846.1	3815.5	3782.3	3734.2	3704.4	3678.0	3657.1	3641.8
3°	3970.6	3964.4	3940.7	3903.5	3857.5	3806.8	3741.5	3695.2	3655.7	3624.6	3601.3
4°	4065.2	4054.0	4019.2	3968.3	3904.8	3836.2	3750.9	3690.5	3638.0	3596.8	3567.4
5°	4172.6	4155.9	4109.6	4039.4	3956.6	3867.7	3763.4	3687.6	3624.4	3574.4	3541.0
6°	4288.3	4266.7	4208.2	4119.7	4013.8	3902.5	3778.7	3687.7	3613.4	3557.9	3519.0
7°	4413.8	4386.6	4316.7	4208.4	4076.3	3942.8	3797.8	3692.3	3606.1	3545.0	3501.9
8°	4550.7	4517.7	4431.2	4301.8	4144.0	3986.2	3822.5	3701.0	3604.2	3534.9	3488.2
9°	4698.9	4658.2	4556.0	4402.0	4219.4	4033.6	3849.4	3711.5	3605.3	3528.5	3476.9
10°	4859.7	4811.6	4691.0	4510.5	4298.6	4084.4	3878.1	3724.9	3610.1	3526.9	3468.5
11°	5033.5	4977.0	4834.9	4626.0	4382.3	4141.1	3910.7	3741.7	3616.7	3527.9	3464.2
12°	5219.8	5153.6	4988.3	4747.7	4470.1	4199.3	3945.6	3760.2	3626.6	3531.2	3463.3
13°	5420.5	5343.6	5152.2	4880.3	4563.5	4262.3	3982.1	3780.5	3637.8	3536.4	3465.3
14°	5636.4	5551.2	5330.3	5017.6	4660.9	4326.7	4019.4	3801.1	3649.2	3543.6	3466.9
15°	5868.0	5766.4	5519.1	5165.9	4763.3	4390.6	4058.4	3824.4	3663.8	3552.0	3471.7
16°	6106.6	5996.6	5712.2	5319.5	4872.2	4460.1	4101.1	3848.4	3679.7	3560.5	3476.6
17°	6349.4	6224.3	5906.9	5477.9	4985.3	4531.7	4144.4	3874.7	3696.7	3570.8	3458.0
18°	6582.6	6444.2	6099.6	5636.8	5104.9	4606.2	4187.5	3896.1	3714.8	3583.3	3397.5
19°	6805.9	6657.7	6291.8	5794.0	5226.6	4681.0	4217.4	3911.7	3724.3	3596.4	3354.8
20°	7011.6	6860.1	6475.1	5949.0	5348.0	4752.2	4255.2	3931.1	3730.3	3606.2	3330.7
21°	7193.1	7041.4	6651.3	6100.6	5472.9	4817.8	4297.1	3964.3	3740.3	3559.9	3340.7
22°	7351.4	7210.4	6815.6	6246.5	5595.7	4893.1	4350.0	3996.7	3763.3	3522.0	3352.6
23°	7497.7	7359.9	6969.6	6384.9	5717.7	4971.2	4403.4	4025.4	3785.0	3499.6	3366.7
24°	7624.7	7493.8	7114.2	6519.0	5823.4	5058.1	4452.7	4049.0	3799.7	3484.5	3383.3
25°	7735.6	7613.5	7246.1	6646.6	5924.2	5150.5	4496.9	4077.7	3815.6	3500.4	3400.2
26°	7830.0	7717.1	7366.8	6768.9	6027.5	5241.1	4544.7	4109.3	3834.1	3508.7	3419.9
27°	7913.2	7808.6	7477.3	6888.0	6126.4	5328.5	4596.1	4147.4	3861.4	3518.9	3438.9
28°	7983.9	7886.1	7579.7	6999.2	6222.5	5404.7	4652.3	4187.3	3877.5	3533.6	3457.2
29°	8043.5	7952.3	7669.4	7102.6	6316.8	5482.9	4714.3	4226.4	3856.4	3559.2	3477.6
30°	8093.0	8007.3	7752.0	7204.4	6411.9	5562.2	4777.6	4267.0	3857.7	3584.8	3494.1
31°	8132.0	8053.0	7823.1	7296.8	6501.6	5640.7	4842.4	4306.8	3846.5	3611.7	3499.3
32°	8160.0	8086.4	7883.3	7373.6	6586.7	5721.2	4907.6	4337.0	3855.5	3637.4	3396.1
33°	8181.2	8111.5	7938.4	7446.0	6664.0	5803.2	4972.0	4353.1	3847.7	3658.4	3310.3
34°	8194.9	8128.0	7982.2	7510.2	6732.9	5883.9	5031.8	4372.3	3869.0	3676.3	3276.9
35°	8199.9	8136.1	8020.9	7570.3	6797.7	5963.4	5074.8	4403.9	3891.6	3692.5	3295.4
36°	8197.7	8139.8	8048.8	7627.8	6861.5	6038.5	5113.2	4437.3	3918.4	3711.3	3314.4
37°	8187.2	8134.2	8070.6	7679.6	6922.4	6111.5	5159.8	4472.1	3944.8	3707.0	3329.2
38°	8171.3	8124.8	8084.4	7724.5	6981.4	6183.3	5216.6	4510.5	3963.3	3605.4	3341.7
39°	8150.3	8108.8	8092.4	7764.3	7038.2	6250.7	5270.2	4543.7	3980.4	3525.1	3360.9
40°	8122.8	8089.3	8089.7	7798.2	7093.0	6304.2	5324.5	4573.8	4010.3	3504.0	3385.5
41°	8086.4	8062.2	8083.6	7829.8	7146.0	6348.7	5378.9	4601.9	4047.0	3530.4	3409.8
42°	8045.6	8030.2	8068.1	7857.6	7197.8	6389.4	5433.3	4623.1	4083.1	3558.7	3430.7
43°	7994.5	7992.5	8047.6	7878.9	7249.7	6436.8	5479.2	4645.4	4119.8	3588.5	3358.1
44°	7934.5	7947.5	8021.1	7890.9	7298.7	6486.4	5521.2	4686.7	4158.0	3616.1	3241.6

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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	7867.0	7896.7	7985.8	7894.5	7343.2	6538.8	5557.7	4736.3	4187.5	3634.1	3193.2
46°	7788.5	7837.2	7946.0	7889.5	7387.8	6590.0	5585.1	4786.8	4196.9	3646.2	3210.9
47°	7700.2	7767.5	7901.6	7876.2	7430.3	6639.8	5609.4	4833.4	4197.6	3666.2	3225.7
48°	7607.8	7689.5	7848.1	7855.9	7466.3	6686.0	5631.9	4859.1	4129.9	3689.9	3237.8
49°	7504.0	7601.6	7785.1	7831.4	7494.3	6734.8	5668.7	4875.8	4073.8	3616.1	3254.6
50°	7388.0	7503.5	7713.6	7798.8	7512.1	6776.9	5712.9	4886.4	4054.0	3501.5	3272.7
51°	7262.3	7394.5	7628.3	7758.7	7522.1	6811.9	5756.8	4879.9	4039.0	3452.4	3209.4
52°	7123.4	7275.3	7535.4	7708.6	7526.5	6841.5	5798.6	4913.3	4067.5	3478.7	3035.5
53°	6979.6	7143.7	7433.1	7650.8	7521.6	6868.1	5838.4	4932.6	4085.0	3506.3	2980.4
54°	6827.1	7000.6	7319.6	7587.8	7514.5	6881.1	5874.2	4943.9	4104.1	3526.1	3005.9
55°	6667.7	6851.0	7195.8	7513.5	7496.7	6881.8	5898.5	4967.3	4135.7	3544.3	3034.4
56°	6504.7	6694.6	7069.2	7430.7	7475.7	6877.6	5910.0	4981.1	4170.3	3549.6	3062.3
57°	6340.2	6535.4	6933.0	7343.7	7447.1	6860.9	5908.1	4987.9	4188.0	3427.3	3085.7
58°	6171.0	6368.0	6792.4	7247.7	7408.2	6849.7	5897.3	5000.8	4202.0	3316.3	2929.2
59°	5997.6	6205.0	6648.4	7143.6	7358.7	6836.4	5891.7	5000.7	4132.6	3312.7	2807.1
60°	5814.1	6035.1	6499.5	7033.7	7293.8	6813.2	5880.8	4979.2	4045.9	3352.1	2814.7
61°	5625.6	5859.3	6347.1	6916.4	7216.5	6778.9	5857.5	4951.5	4020.7	3395.0	2824.4
62°	5428.6	5680.1	6199.3	6791.3	7126.5	6730.0	5829.0	4937.1	4032.4	3436.5	2710.6
63°	5236.7	5498.7	6054.0	6663.0	7027.6	6662.7	5779.7	4898.5	4043.0	3353.0	2549.9
64°	5052.8	5323.9	5914.6	6530.1	6911.3	6574.6	5712.9	4853.1	4040.9	3248.4	2517.2
65°	4906.5	5163.3	5776.8	6391.6	6784.6	6469.3	5631.2	4785.7	3997.1	3247.1	2486.5
66°	4797.1	5034.8	5645.0	6253.6	6643.3	6338.5	5533.6	4696.2	3857.4	3267.2	2271.8
67°	4735.5	4938.8	5527.0	6113.5	6483.5	6190.0	5421.3	4580.7	3799.7	3133.5	2237.0
68°	4667.0	4873.7	5421.8	5972.7	6299.6	6020.0	5230.4	4457.0	3821.8	3059.6	2095.8
69°	4513.1	4803.1	5335.2	5834.7	6101.8	5789.1	4918.7	4312.9	3832.5	3049.6	1954.5
70°	4216.2	4676.2	5265.4	5696.3	5902.1	5480.0	4482.9	4102.6	3823.7	2901.5	1812.6
71°	3759.0	4431.4	5199.7	5558.2	5662.5	5090.3	4000.7	3815.5	3700.1	2854.6	1585.3
72°	3290.7	4036.2	5119.5	5412.4	5385.5	4646.0	3565.1	3477.4	3548.1	2746.0	1420.5
73°	2791.2	3535.4	4991.6	5268.2	5066.4	4189.9	3167.2	3146.5	3378.7	2659.7	1266.7
74°	2224.5	2997.9	4749.9	5094.8	4706.3	3751.4	2701.6	2853.3	3181.9	2507.2	1070.4
75°	1513.2	2414.6	4335.4	4851.6	4301.6	3249.7	2056.6	2532.9	2929.9	2354.0	955.4
76°	838.9	1713.2	3799.9	4496.2	3877.7	2570.6	1411.7	2033.1	2704.2	2086.5	854.9
77°	648.4	979.0	3227.2	3987.0	3407.0	1696.9	767.3	1529.6	2481.3	1819.1	753.3
78°	462.2	746.1	2534.7	3289.0	2823.0	944.2	369.5	882.7	2052.2	1550.6	648.0
79°	276.0	514.7	1663.0	2471.9	2058.5	625.7	277.9	640.2	1623.3	1223.7	537.5
80°	244.3	283.4	906.0	1626.8	1268.7	319.4	186.8	397.8	1192.4	932.0	454.4
81°	218.4	245.7	687.1	849.7	923.4	264.7	158.4	156.0	641.8	685.4	408.7
82°	194.9	217.2	475.6	563.5	584.2	226.1	134.3	124.3	471.6	547.2	403.5
83°	173.0	191.4	264.0	295.0	245.0	185.3	112.0	98.4	301.4	433.8	331.7
84°	152.3	167.0	220.2	241.4	198.6	144.3	91.4	78.2	135.9	333.6	255.1
85°	132.5	144.8	179.0	204.7	157.6	113.0	71.4	61.6	116.4	233.4	178.5
86°	113.4	124.4	145.9	170.5	121.3	91.0	53.3	47.3	91.8	133.9	102.4
87°	94.6	104.8	117.4	132.9	93.5	69.1	36.9	34.8	67.8	75.8	63.8
88°	81.7	88.1	91.2	92.0	68.0	47.3	25.9	24.7	47.1	52.0	43.8
89°	69.0	71.5	70.2	65.4	42.5	28.7	15.0	14.6	26.4	28.2	23.8



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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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8	3741.8
1°	3684.1	3684.4	3688.6	3696.7	3708.1	3719.7	3736.2	3738.8	3755.4	3771.9	3786.5
2°	3633.4	3633.1	3639.5	3654.3	3673.5	3699.0	3728.4	3746.9	3780.6	3812.9	3842.6
3°	3589.2	3587.6	3596.0	3614.8	3644.0	3680.0	3723.9	3759.0	3808.5	3859.7	3904.9
4°	3551.5	3549.6	3560.2	3583.5	3619.7	3667.2	3723.7	3773.8	3842.3	3911.5	3973.9
5°	3523.3	3520.2	3531.2	3558.6	3599.9	3657.0	3726.4	3793.1	3879.6	3968.1	4049.5
6°	3498.6	3494.0	3507.6	3539.4	3585.7	3649.9	3732.6	3815.8	3921.2	4030.4	4130.9
7°	3477.6	3472.6	3487.4	3522.8	3576.9	3648.7	3743.0	3842.9	3966.7	4098.8	4223.7
8°	3461.6	3455.7	3471.2	3511.3	3571.0	3651.0	3756.8	3871.6	4016.4	4174.0	4321.8
9°	3447.1	3441.6	3458.9	3503.1	3568.5	3656.0	3771.9	3902.5	4070.0	4253.5	4427.9
10°	3436.9	3429.6	3449.5	3498.6	3568.8	3663.0	3789.6	3938.1	4127.2	4338.1	4540.7
11°	3428.9	3421.4	3443.7	3496.8	3572.8	3674.4	3811.0	3978.1	4191.4	4428.0	4660.9
12°	3424.0	3416.5	3439.9	3498.0	3580.1	3687.8	3836.0	4018.4	4255.6	4524.1	4789.2
13°	3423.4	3414.6	3439.6	3501.0	3590.3	3704.3	3862.0	4061.8	4324.7	4625.5	4927.6
14°	3423.6	3413.4	3441.9	3507.5	3602.7	3722.2	3890.0	4106.9	4394.9	4731.5	5073.2
15°	3419.8	3371.6	3438.7	3515.0	3615.8	3742.9	3919.2	4155.9	4469.2	4845.8	5228.8
16°	3347.4	3302.8	3372.0	3522.9	3629.7	3765.7	3950.5	4203.9	4547.1	4961.8	5392.6
17°	3293.6	3262.3	3320.3	3509.6	3645.1	3788.9	3984.7	4255.3	4626.7	5086.3	5560.7
18°	3265.4	3255.0	3292.7	3450.6	3663.4	3813.2	4014.8	4306.5	4710.6	5216.2	5730.0
19°	3269.5	3259.9	3296.6	3412.3	3679.8	3831.1	4035.8	4349.6	4796.3	5347.6	5898.7
20°	3276.9	3266.9	3304.8	3392.8	3694.6	3843.4	4061.1	4392.4	4884.6	5481.8	6061.8
21°	3286.5	3278.1	3315.7	3401.5	3664.1	3858.8	4097.0	4441.4	4964.6	5618.9	6219.8
22°	3300.3	3290.5	3330.0	3416.4	3619.9	3887.2	4137.0	4498.1	5046.2	5751.5	6369.0
23°	3314.7	3306.9	3347.7	3433.1	3599.4	3916.8	4177.9	4559.9	5136.4	5883.5	6511.6
24°	3330.4	3322.8	3366.1	3452.3	3593.3	3941.5	4211.0	4621.8	5231.5	6009.2	6646.8
25°	3346.9	3337.9	3383.7	3472.8	3609.8	3960.5	4242.2	4678.0	5331.9	6120.3	6772.9
26°	3364.1	3355.9	3402.6	3496.5	3625.2	3980.3	4276.2	4731.0	5434.0	6221.9	6893.9
27°	3381.2	3374.5	3421.0	3518.3	3637.3	4004.9	4313.5	4787.7	5534.9	6323.0	7010.4
28°	3399.0	3355.7	3439.9	3540.8	3652.7	4025.6	4357.3	4849.0	5629.5	6420.2	7121.9
29°	3345.1	3236.4	3398.3	3562.8	3677.9	4019.2	4401.9	4913.8	5712.9	6514.3	7227.4
30°	3232.9	3172.3	3284.0	3581.3	3706.0	4014.1	4446.4	4982.0	5800.6	6608.7	7325.9
31°	3178.2	3180.3	3228.5	3588.7	3734.8	4013.8	4490.5	5052.5	5886.3	6697.7	7420.0
32°	3189.1	3205.2	3237.3	3505.6	3764.6	4015.0	4525.9	5122.8	5967.8	6782.7	7505.3
33°	3211.6	3231.4	3259.6	3421.1	3791.5	4014.2	4548.5	5191.8	6052.2	6864.7	7580.1
34°	3233.6	3258.4	3282.7	3383.9	3813.3	4035.7	4571.4	5260.5	6132.8	6936.2	7644.3
35°	3256.3	3288.1	3305.8	3398.4	3834.5	4059.5	4606.4	5315.6	6214.6	6999.1	7705.4
36°	3281.2	3315.3	3330.6	3421.5	3851.4	4086.2	4644.1	5361.0	6291.2	7061.3	7763.4
37°	3303.2	3340.9	3354.9	3438.7	3861.2	4116.1	4682.4	5412.4	6365.0	7120.9	7817.6
38°	3324.6	3361.4	3378.2	3453.2	3762.6	4139.2	4726.0	5470.4	6436.3	7181.1	7863.1
39°	3340.2	3238.6	3396.7	3469.2	3685.5	4159.5	4768.9	5527.9	6504.0	7237.8	7902.3
40°	3213.5	3120.7	3284.3	3494.1	3662.5	4188.8	4805.0	5584.7	6561.7	7291.1	7936.1
41°	3099.1	3095.8	3164.1	3520.9	3685.3	4227.8	4836.9	5642.1	6606.2	7344.2	7965.5
42°	3072.6	3113.3	3130.9	3545.1	3714.3	4268.6	4859.5	5698.7	6646.4	7397.1	7988.2
43°	3093.5	3132.8	3152.1	3497.6	3745.1	4308.9	4884.3	5751.7	6689.4	7447.1	8006.3
44°	3116.4	3151.0	3176.4	3372.7	3774.9	4350.5	4931.5	5800.0	6733.8	7492.5	8017.2



REPORT NUMBER: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	3139.8	3169.4	3199.8	3313.8	3796.2	4383.8	4984.3	5842.9	6781.3	7534.9	8017.2
46°	3163.7	3180.3	3224.0	3326.9	3810.3	4396.5	5037.5	5871.0	6831.0	7572.7	8007.5
47°	3186.4	3052.1	3243.6	3341.0	3828.8	4405.1	5089.6	5894.1	6877.2	7608.4	7988.2
48°	3064.7	2876.7	3141.5	3353.3	3853.6	4369.5	5129.9	5914.0	6920.6	7639.3	7965.2
49°	2893.4	2842.8	2966.8	3369.7	3806.9	4310.5	5141.3	5948.2	6959.5	7660.2	7935.1
50°	2863.4	2856.9	2925.0	3385.9	3687.8	4268.8	5149.5	5989.2	6994.4	7669.5	7898.4
51°	2887.0	2872.6	2948.5	3341.8	3621.0	4250.3	5142.4	6025.8	7019.3	7667.3	7855.9
52°	2911.9	2888.3	2970.5	3165.9	3641.5	4271.6	5144.0	6060.4	7038.2	7659.3	7802.6
53°	2934.1	2895.4	2991.6	3097.9	3670.1	4288.9	5164.6	6089.3	7048.7	7642.3	7744.1
54°	2945.2	2686.9	3004.0	3121.7	3688.7	4304.9	5170.0	6112.9	7044.1	7624.3	7675.2
55°	2756.3	2558.5	2816.0	3149.5	3706.2	4325.8	5173.6	6124.5	7028.5	7597.3	7602.0
56°	2616.5	2549.4	2674.4	3178.3	3712.0	4357.7	5174.0	6118.3	7002.0	7567.0	7521.6
57°	2607.1	2553.9	2659.4	3199.0	3621.4	4370.2	5167.3	6097.4	6967.0	7528.0	7431.4
58°	2611.2	2532.5	2662.5	3050.7	3491.7	4376.4	5164.5	6070.4	6930.2	7473.8	7335.2
59°	2562.2	2232.1	2622.2	2918.0	3478.6	4328.0	5156.8	6043.6	6892.7	7412.7	7230.8
60°	2297.8	2149.9	2355.4	2918.7	3516.5	4221.1	5120.9	6011.9	6845.9	7341.5	7116.3
61°	2246.7	2023.6	2297.5	2927.1	3557.1	4169.2	5077.9	5971.6	6788.8	7256.8	6994.3
62°	2239.9	1897.3	2283.3	2829.9	3593.0	4167.9	5053.0	5921.2	6719.3	7157.6	6867.4
63°	2109.6	1772.4	2149.3	2652.3	3519.3	4166.7	5008.7	5854.2	6634.0	7041.6	6734.6
64°	1979.2	1736.5	2015.4	2617.1	3393.5	4155.1	4950.3	5766.6	6530.9	6916.5	6600.2
65°	1848.5	1586.5	1880.5	2595.2	3375.0	4107.3	4868.3	5658.2	6403.8	6779.2	6455.1
66°	1644.3	1326.8	1681.1	2364.8	3376.0	3968.5	4765.7	5528.8	6252.6	6630.6	6302.5
67°	1436.7	1265.0	1466.3	2314.9	3236.8	3877.6	4643.2	5372.5	6087.7	6459.7	6150.5
68°	1292.5	883.3	1326.2	2224.1	3158.7	3881.3	4476.2	5102.5	5877.1	6270.7	5999.9
69°	1053.1	729.4	1082.0	2029.8	3129.1	3873.4	4274.7	4704.2	5585.3	6062.6	5854.5
70°	843.4	502.5	867.6	1835.4	2970.4	3842.5	3995.8	4182.4	5218.5	5833.2	5699.5
71°	579.9	275.7	579.4	1641.6	2899.6	3686.6	3646.0	3700.1	4758.8	5561.5	5537.1
72°	320.4	50.5	299.6	1475.6	2777.8	3485.5	3273.1	3258.0	4270.7	5253.6	5374.2
73°	269.8	0.6	243.0	1301.9	2653.7	3278.1	2911.8	2817.5	3793.1	4881.7	5192.1
74°	219.2	0.4	186.9	1070.7	2469.9	3050.1	2576.2	2293.7	3319.8	4459.3	4979.2
75°	168.8	0.5	162.2	939.5	2264.5	2782.8	2069.8	1606.9	2755.6	3991.1	4682.2
76°	128.4	0.5	129.2	835.2	1974.4	2516.7	1563.4	931.0	1994.3	3497.1	4283.7
77°	90.4	0.6	102.3	736.3	1684.3	2132.8	1056.8	598.1	1187.9	2971.5	3727.6
78°	67.6	0.6	82.8	638.1	1394.4	1749.0	544.0	273.3	888.8	2327.8	3006.5
79°	66.6	0.7	82.3	530.5	1115.4	1362.3	355.2	208.5	594.3	1574.1	2179.5
80°	89.2	0.8	99.3	459.3	866.3	779.0	168.6	176.9	299.7	919.9	1356.1
81°	109.1	0.9	102.6	426.8	651.0	565.0	135.1	150.5	254.8	610.6	993.9
82°	96.3	1.1	64.0	397.8	505.0	351.0	111.2	126.5	217.7	306.0	640.6
83°	60.1	1.2	45.5	301.6	379.1	138.2	90.7	105.2	179.6	233.6	287.3
84°	44.0	1.3	27.0	205.4	253.2	115.1	72.9	86.2	142.2	192.4	238.9
85°	28.0	1.5	9.0	110.2	128.7	90.8	58.0	67.2	110.9	151.1	202.9
86°	12.3	1.6	8.0	56.0	71.7	67.5	44.7	48.1	89.1	117.2	169.0
87°	9.1	1.8	7.9	39.5	40.8	48.6	32.9	32.3	67.4	90.4	131.2
88°	6.7	2.0	7.0	22.9	28.5	33.9	23.2	18.9	45.8	65.7	91.2
89°	5.1	2.1	4.4	6.6	16.2	19.3	13.6	8.0	28.0	41.0	65.1



REPORT NUMBER: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3741.8	3741.8	3741.8
1°	3797.4	3805.3	3809.0
2°	3865.2	3880.6	3886.2
3°	3939.7	3962.8	3970.6
4°	4023.4	4055.6	4065.2
5°	4114.3	4158.7	4172.6
6°	4214.7	4271.7	4288.3
7°	4325.2	4392.0	4413.8
8°	4444.4	4524.1	4550.7
9°	4573.1	4668.3	4698.9
10°	4707.8	4824.3	4859.7
11°	4858.5	4990.7	5033.5
12°	5018.2	5173.1	5219.8
13°	5190.4	5365.0	5420.5
14°	5374.3	5572.3	5636.4
15°	5567.2	5791.6	5868.0
16°	5763.3	6015.5	6106.6
17°	5962.8	6245.7	6349.4
18°	6163.4	6473.9	6582.6
19°	6357.4	6693.7	6805.9
20°	6544.9	6897.6	7011.6
21°	6720.7	7083.3	7193.1
22°	6884.5	7252.8	7351.4
23°	7041.8	7400.8	7497.7
24°	7187.7	7532.9	7624.7
25°	7322.7	7648.9	7735.6
26°	7445.9	7751.1	7830.0
27°	7561.9	7839.4	7913.2
28°	7662.0	7916.2	7983.9
29°	7753.7	7979.8	8043.5
30°	7833.0	8032.5	8093.0
31°	7904.7	8077.2	8132.0
32°	7966.5	8112.9	8160.0
33°	8019.5	8138.2	8181.2
34°	8061.4	8155.6	8194.9
35°	8095.9	8164.6	8199.9
36°	8122.8	8163.6	8197.7
37°	8143.1	8158.5	8187.2
38°	8155.4	8148.6	8171.3
39°	8159.6	8130.8	8150.3
40°	8157.1	8109.5	8122.8
41°	8148.9	8084.2	8086.4
42°	8133.2	8052.2	8045.6
43°	8110.2	8015.3	7994.5
44°	8082.3	7971.8	7934.5



REPORT NUMBER: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	8047.3	7921.2	7867.0
46°	8007.9	7863.7	7788.5
47°	7961.0	7795.1	7700.2
48°	7910.4	7719.8	7607.8
49°	7849.8	7634.9	7504.0
50°	7778.4	7541.7	7388.0
51°	7696.8	7436.9	7262.3
52°	7602.0	7318.2	7123.4
53°	7499.4	7193.5	6979.6
54°	7387.2	7054.9	6827.1
55°	7271.0	6911.7	6667.7
56°	7144.2	6755.3	6504.7
57°	7011.5	6596.3	6340.2
58°	6870.6	6432.0	6171.0
59°	6724.5	6265.6	5997.6
60°	6577.1	6093.7	5814.1
61°	6429.7	5919.0	5625.6
62°	6282.0	5738.5	5428.6
63°	6139.5	5564.3	5236.7
64°	6005.7	5395.6	5052.8
65°	5875.7	5240.2	4906.5
66°	5749.7	5109.4	4797.1
67°	5629.9	5014.6	4735.5
68°	5519.6	4948.8	4667.0
69°	5421.6	4878.0	4513.1
70°	5344.3	4762.5	4216.2
71°	5265.4	4536.8	3759.0
72°	5168.2	4147.5	3290.7
73°	5024.7	3642.9	2791.2
74°	4762.3	3086.0	2224.5
75°	4344.2	2498.2	1513.2
76°	3811.8	1828.1	838.9
77°	3208.0	1090.4	648.4
78°	2485.3	818.5	462.2
79°	1633.6	554.6	276.0
80°	917.2	290.7	244.3
81°	690.5	253.4	218.4
82°	480.3	223.9	194.9
83°	270.0	197.1	173.0
84°	223.5	171.8	152.3
85°	181.3	148.6	132.5
86°	148.1	127.4	113.4
87°	118.8	107.2	94.6
88°	90.9	89.8	81.7
89°	70.2	72.4	69.0



REPORT NUMBER: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-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: P1436736

CATALOG NUMBER: XAS180-SFPM (4000K-180W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)