

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: P1436731

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

Issue Date: 3/25/2026

Test Information

Test Method: LM-79-2024
Report Number: P1436731
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-144W-T4)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 4
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

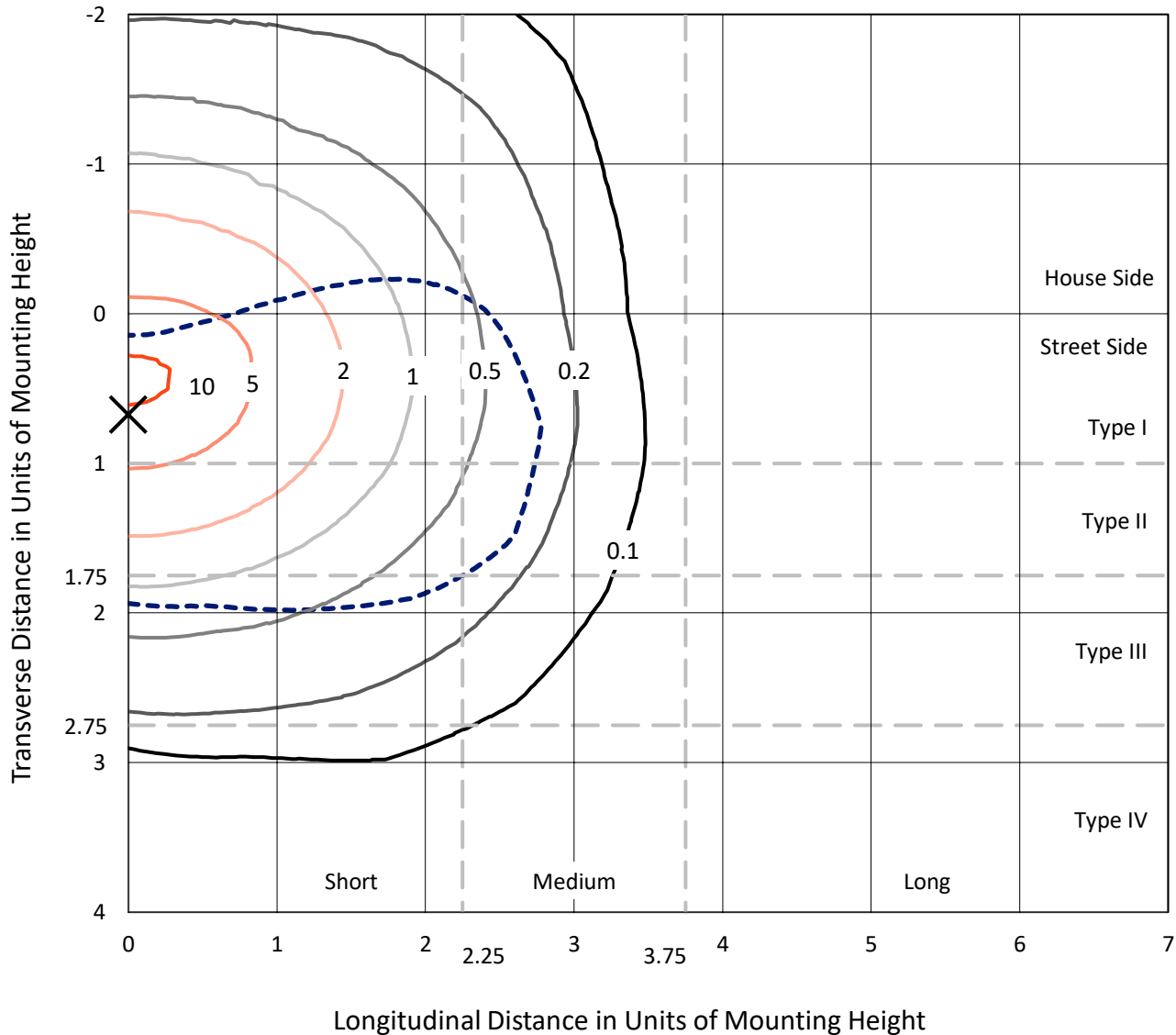
Lumens per Lamp: 24407 (1 lamp)
Luminaire Lumens: 23401.3 lumens
Efficiency: 95.9%
Efficacy: 168.8 lumens/watt
Luminous Opening: Rectangular (W 0.29m x L: 0.35m x H: 0m)
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 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

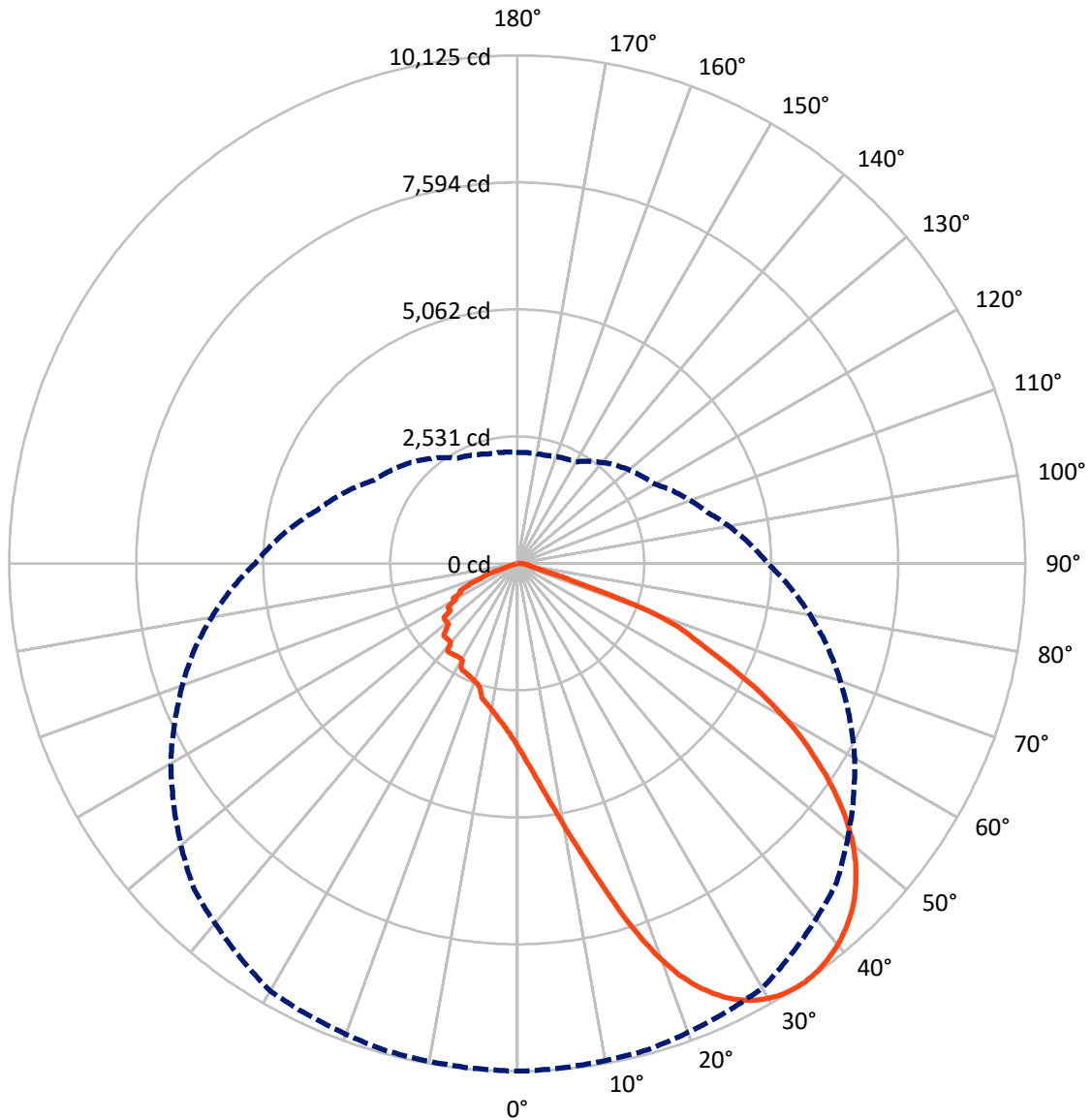
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 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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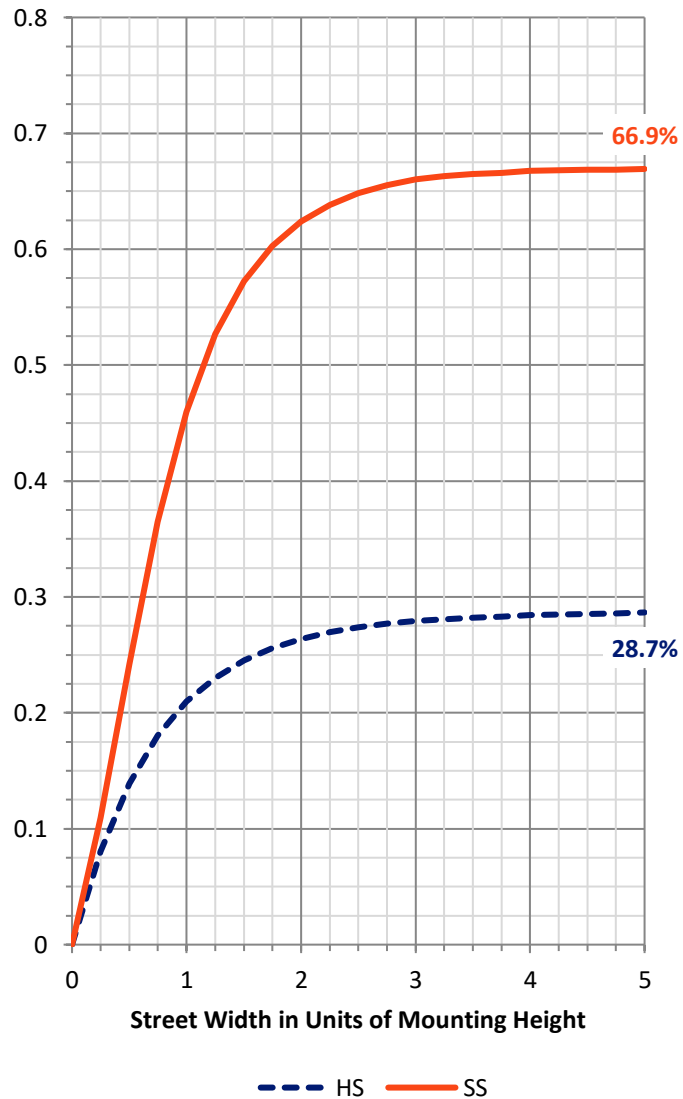
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7037.9	0.0	7037.9
	% Lamp	28.8	0.0	28.8
Street Side	Lumens	16363.4	0.0	16363.4
	% Lamp	67.0	0.0	67.0
Total	Lumens	23401.3	0.0	23401.3
	% Lamp	95.9	0.0	95.9

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	367.5	1.6	1.5
10°-20°	1276.7	5.5	5.2
20°-30°	2477.2	10.6	10.1
30°-40°	3641.8	15.6	14.9
40°-50°	4518.9	19.3	18.5
50°-60°	4814.9	20.6	19.7
60°-70°	4185.9	17.9	17.2
70°-80°	1936.4	8.3	7.9
80°-90°	181.9	0.8	0.7
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	23401.3	100.0	95.9
0°-180°	23401.3	100.0	95.9

Coefficient of Utilization



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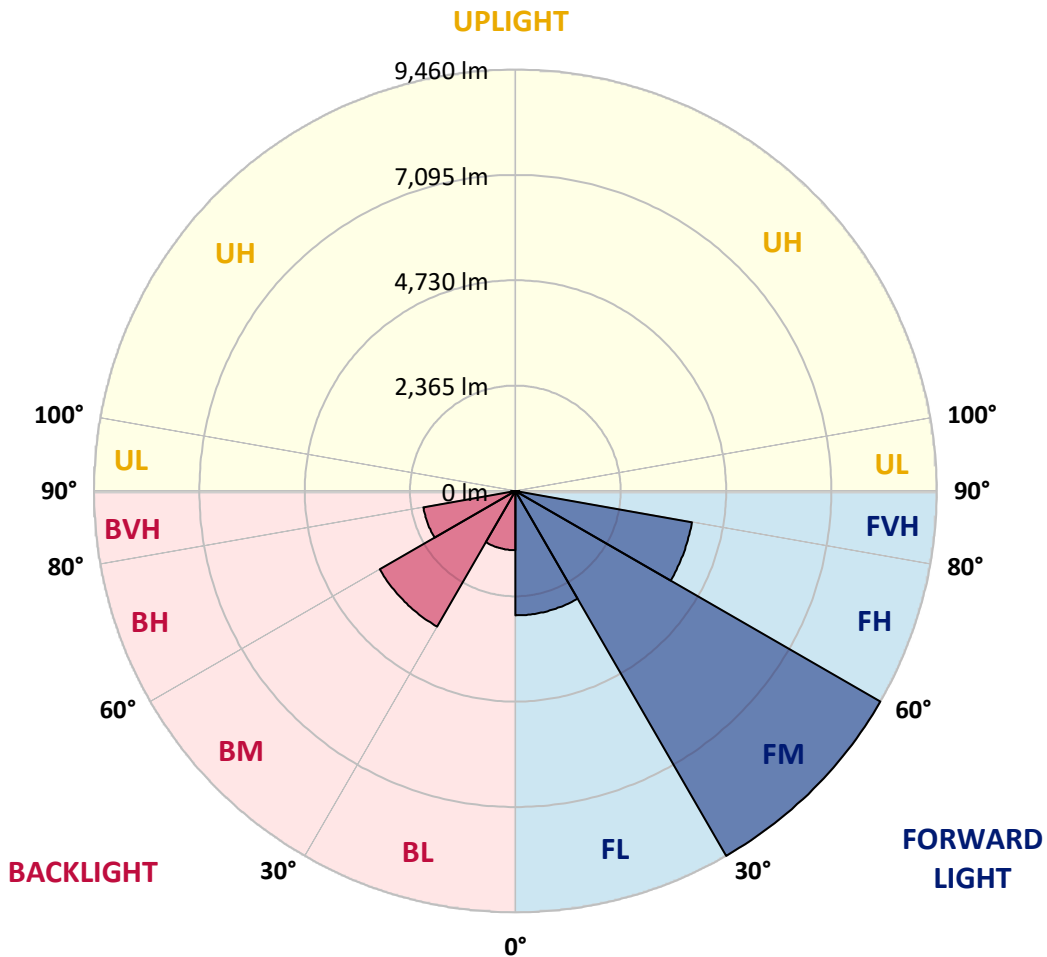
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2792.9	11.4			
FM (30°-60°)	9460.2	38.8			
FH (60°-80°)	4025.0	16.5			G2/5000
FVH (80°-90°)	85.4	0.3			G1/100
BL (0°-30°)	1328.6	5.4	B3/2500		
BM (30°-60°)	3515.5	14.4	B3/5000		
BH (60°-80°)	2097.3	8.6	B3/2500		G3/2500
BVH (80°-90°)	96.5	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	1005.7	4.1			

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°	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5
1°	3792.3	3790.1	3780.9	3763.6	3740.5	3713.7	3665.0	3639.7	3617.0	3598.9	3585.7
2°	3916.7	3911.6	3887.0	3849.5	3799.8	3743.8	3666.7	3614.5	3568.3	3531.7	3502.9
3°	4052.1	4038.6	4000.3	3940.4	3865.6	3780.4	3672.6	3595.0	3525.9	3469.7	3428.2
4°	4200.9	4181.0	4126.6	4041.8	3935.5	3819.6	3681.4	3578.2	3487.6	3413.6	3360.9
5°	4363.2	4337.7	4261.8	4151.2	4011.3	3863.0	3693.4	3563.7	3453.0	3363.9	3301.3
6°	4541.6	4504.8	4411.4	4270.3	4096.3	3910.6	3707.9	3553.3	3421.0	3319.7	3246.5
7°	4730.3	4685.5	4570.6	4397.7	4185.2	3963.4	3728.1	3547.8	3395.1	3279.1	3194.8
8°	4936.6	4884.6	4744.0	4533.9	4281.4	4020.1	3752.2	3545.9	3372.9	3242.1	3148.6
9°	5161.2	5098.9	4928.5	4681.0	4383.8	4081.1	3778.6	3545.6	3355.4	3208.4	3105.0
10°	5396.0	5321.0	5126.3	4833.9	4492.6	4147.4	3809.1	3549.1	3338.9	3179.5	3064.1
11°	5651.1	5565.0	5336.6	4999.0	4607.8	4217.8	3842.4	3555.4	3325.5	3153.1	3027.2
12°	5927.9	5826.6	5558.7	5176.3	4728.1	4291.7	3878.1	3563.9	3315.5	3129.0	2994.1
13°	6222.3	6103.5	5799.5	5361.0	4856.5	4370.4	3916.0	3573.9	3306.8	3106.6	2963.5
14°	6542.5	6410.2	6057.8	5557.2	4990.6	4451.4	3953.5	3584.1	3299.2	3086.4	2934.8
15°	6885.0	6730.9	6331.5	5765.9	5131.3	4534.9	3995.2	3596.3	3293.1	3067.8	2906.1
16°	7238.3	7064.0	6615.1	5987.8	5278.4	4621.3	4039.2	3611.0	3288.6	3050.3	2880.1
17°	7586.0	7394.6	6893.8	6215.8	5434.0	4711.4	4084.5	3626.2	3285.4	3034.1	2853.8
18°	7932.6	7719.2	7173.7	6440.3	5597.7	4804.8	4130.5	3639.6	3283.1	3019.1	2813.6
19°	8254.4	8031.8	7449.6	6661.9	5766.0	4901.6	4162.7	3642.9	3276.4	3005.7	2719.4
20°	8549.1	8321.0	7717.6	6883.1	5934.0	4993.4	4202.9	3652.1	3261.3	2992.3	2652.6
21°	8813.4	8585.7	7969.7	7096.4	6104.8	5077.0	4243.7	3672.6	3250.0	2977.4	2634.7
22°	9043.4	8823.1	8207.0	7302.3	6271.4	5175.9	4297.1	3694.0	3251.9	2924.3	2618.5
23°	9246.9	9038.3	8423.6	7500.9	6436.7	5271.7	4353.6	3713.5	3254.0	2856.5	2604.8
24°	9424.7	9227.0	8628.4	7686.7	6582.1	5382.5	4406.4	3725.1	3249.6	2802.3	2594.5
25°	9578.6	9392.7	8813.1	7865.8	6722.0	5498.2	4450.9	3741.3	3245.1	2793.5	2584.4
26°	9708.6	9535.6	8981.6	8030.3	6860.2	5611.7	4497.8	3757.2	3242.3	2782.9	2576.4
27°	9817.9	9659.7	9137.4	8191.8	6993.3	5722.8	4550.2	3782.2	3248.7	2768.7	2567.8
28°	9908.1	9762.3	9272.8	8343.4	7117.3	5821.4	4604.2	3807.2	3258.2	2758.5	2560.0
29°	9982.9	9845.8	9391.3	8482.4	7239.0	5914.6	4667.6	3832.4	3266.4	2758.2	2553.7
30°	10039.4	9914.8	9496.5	8614.3	7362.6	6012.0	4731.1	3859.3	3255.5	2760.5	2547.7
31°	10083.5	9967.5	9587.0	8734.2	7477.0	6110.1	4797.3	3886.9	3206.9	2764.0	2536.0
32°	10110.4	10005.9	9661.7	8833.5	7584.4	6204.0	4862.8	3911.1	3196.7	2767.2	2520.5
33°	10123.8	10028.9	9725.9	8921.5	7682.0	6302.3	4928.8	3918.4	3158.4	2770.4	2422.1
34°	10124.8	10038.5	9775.8	9000.9	7767.2	6398.3	4992.6	3926.1	3162.6	2770.6	2337.4
35°	10113.3	10037.5	9813.2	9076.4	7843.2	6489.9	5039.6	3945.5	3168.9	2768.4	2332.4
36°	10091.2	10026.0	9835.2	9142.8	7914.5	6577.6	5078.4	3967.9	3177.0	2767.2	2334.3
37°	10057.6	10004.0	9845.8	9198.1	7984.1	6661.6	5122.7	3991.5	3191.2	2771.1	2335.9
38°	10015.5	9971.4	9846.7	9240.6	8052.2	6744.9	5177.7	4018.4	3200.0	2772.0	2334.3
39°	9963.7	9932.0	9836.2	9275.9	8112.5	6820.6	5227.2	4047.2	3202.2	2639.7	2332.7
40°	9904.2	9883.1	9812.2	9303.5	8170.6	6883.6	5280.3	4068.3	3216.1	2579.0	2338.6
41°	9833.3	9823.7	9780.6	9325.0	8221.0	6928.4	5331.4	4087.4	3237.1	2587.9	2344.2
42°	9751.8	9757.5	9737.4	9343.6	8274.5	6971.9	5383.7	4104.1	3258.3	2600.2	2350.7
43°	9658.8	9679.9	9683.7	9349.3	8324.9	7016.6	5432.9	4113.5	3280.8	2614.2	2353.0
44°	9554.0	9593.6	9621.4	9343.0	8370.2	7065.5	5474.0	4141.9	3304.8	2629.4	2277.4



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

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	9435.4	9494.5	9547.1	9323.3	8410.4	7112.5	5506.5	4181.3	3330.0	2642.4	2174.3
46°	9299.6	9382.6	9464.9	9292.7	8447.8	7159.0	5536.0	4221.8	3340.5	2642.1	2177.0
47°	9156.6	9254.5	9372.4	9248.8	8480.1	7203.2	5554.8	4263.7	3339.3	2648.9	2183.3
48°	9006.0	9116.8	9268.9	9193.4	8504.2	7239.9	5568.6	4307.5	3350.7	2664.6	2186.4
49°	8835.1	8958.7	9152.1	9130.2	8518.0	7276.0	5597.6	4344.9	3292.7	2674.3	2183.6
50°	8645.4	8788.8	9019.2	9054.9	8518.7	7309.5	5637.6	4352.9	3241.1	2589.6	2184.0
51°	8440.2	8598.9	8868.7	8964.3	8502.8	7330.9	5677.7	4324.7	3193.3	2485.8	2187.5
52°	8219.3	8392.5	8704.6	8859.9	8480.6	7342.3	5714.0	4350.8	3217.2	2493.9	2089.4
53°	7984.1	8168.4	8522.3	8744.7	8445.2	7347.3	5745.9	4359.3	3238.6	2509.4	1983.5
54°	7731.2	7924.6	8326.9	8612.5	8398.5	7346.2	5774.3	4354.6	3250.1	2530.3	1993.7
55°	7473.4	7673.6	8115.2	8466.3	8336.4	7326.1	5797.4	4380.7	3268.3	2541.8	2007.9
56°	7194.7	7410.1	7886.2	8307.6	8266.6	7290.8	5802.3	4397.6	3297.7	2550.2	2024.0
57°	6917.3	7134.1	7650.7	8131.7	8186.2	7245.6	5796.5	4397.5	3321.4	2546.6	2039.6
58°	6628.8	6850.8	7403.7	7941.4	8090.5	7203.8	5773.5	4412.6	3332.1	2410.1	2047.8
59°	6327.8	6563.2	7144.0	7743.0	7978.4	7159.9	5751.7	4426.9	3354.3	2377.7	1885.7
60°	6006.1	6262.5	6877.7	7526.5	7845.9	7105.7	5731.2	4416.2	3263.5	2410.3	1899.3
61°	5662.4	5944.9	6599.0	7300.9	7695.3	7039.0	5695.0	4378.1	3212.0	2449.0	1904.8
62°	5303.3	5614.7	6317.7	7061.4	7535.6	6954.0	5654.4	4366.4	3233.0	2490.4	1849.6
63°	4926.9	5269.5	6032.3	6810.9	7356.1	6849.3	5598.2	4335.0	3248.8	2521.9	1794.7
64°	4562.6	4928.9	5746.9	6555.1	7155.8	6725.6	5520.8	4285.2	3260.7	2404.3	1782.7
65°	4232.2	4589.4	5450.7	6291.5	6940.5	6579.1	5426.1	4227.4	3245.0	2416.9	1802.7
66°	3941.8	4282.0	5161.6	6024.0	6710.7	6408.5	5302.0	4141.5	3156.2	2447.7	1697.2
67°	3703.1	4001.9	4874.4	5758.4	6464.7	6210.0	5171.1	4050.9	3058.2	2427.8	1672.7
68°	3446.8	3756.1	4594.7	5485.6	6187.4	5988.1	4975.0	3917.8	3082.0	2367.8	1715.2
69°	3070.6	3497.3	4331.8	5219.9	5894.4	5721.7	4678.3	3759.4	3096.2	2384.1	1569.0
70°	2518.8	3155.3	4086.5	4951.3	5594.0	5391.7	4248.9	3546.0	3102.5	2320.3	1562.0
71°	1793.2	2677.6	3840.7	4684.1	5253.8	5000.4	3756.1	3267.4	3039.3	2325.6	1351.9
72°	1141.3	2027.6	3564.2	4406.9	4876.0	4540.7	3333.9	2957.5	2924.2	2312.4	1303.7
73°	878.4	1342.2	3232.5	4121.5	4453.8	4041.9	2932.6	2686.0	2809.3	2278.1	1209.3
74°	623.6	815.9	2784.6	3799.7	4006.0	3535.4	2373.3	2485.6	2684.4	2297.4	1096.0
75°	368.9	601.2	2163.3	3387.8	3518.3	2989.9	1813.9	2102.7	2541.9	2249.7	1055.5
76°	325.4	392.9	1510.0	2879.4	3015.5	2310.5	1254.2	1719.9	2416.4	2188.2	1028.8
77°	291.1	337.4	985.1	2249.8	2493.3	1520.3	685.0	1336.1	2312.3	1979.0	970.9
78°	263.1	297.9	770.1	1501.6	1935.6	874.5	357.3	771.0	2010.3	1769.7	875.8
79°	238.3	266.1	564.9	818.9	1346.3	606.7	292.3	564.8	1708.4	1558.4	743.6
80°	215.8	238.5	359.6	565.2	841.6	341.0	227.2	358.5	1401.6	1271.4	637.0
81°	195.0	213.7	304.1	322.3	552.5	287.8	163.0	155.6	778.3	951.4	575.6
82°	175.7	190.9	263.7	275.7	268.7	245.9	137.5	120.8	570.4	757.9	573.4
83°	157.2	169.4	228.3	240.6	208.6	199.6	114.6	93.3	362.5	600.4	470.9
84°	139.3	149.3	193.2	209.0	169.5	151.4	93.0	73.1	155.4	428.7	350.4
85°	122.2	130.5	156.1	179.0	135.1	115.5	71.9	56.4	136.5	317.2	247.6
86°	105.2	112.7	127.3	149.8	105.2	89.5	52.8	42.8	109.3	205.8	145.3
87°	90.6	95.8	103.0	118.1	82.2	67.5	40.5	33.2	81.0	95.6	89.1
88°	76.0	81.6	84.4	90.8	59.4	45.5	28.2	23.6	61.5	65.1	60.7
89°	61.4	67.4	65.9	63.5	36.7	26.5	16.0	14.0	41.9	34.5	32.3



REPORT NUMBER: P1436731

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5	3677.5
1°	3579.6	3579.8	3585.0	3598.3	3615.9	3638.7	3663.3	3670.9	3700.2	3727.7	3751.6
2°	3488.9	3486.4	3497.1	3519.7	3553.1	3594.7	3644.3	3679.2	3737.1	3793.1	3842.7
3°	3406.6	3401.0	3414.7	3446.6	3495.2	3556.7	3629.0	3692.1	3778.1	3861.8	3937.2
4°	3332.0	3326.1	3341.4	3380.6	3442.2	3523.0	3618.2	3707.4	3822.9	3936.3	4041.9
5°	3266.1	3257.8	3274.9	3321.9	3394.6	3493.3	3610.8	3726.4	3872.4	4018.9	4154.7
6°	3203.5	3193.3	3214.0	3268.2	3353.4	3466.5	3606.0	3748.7	3926.6	4109.2	4277.7
7°	3146.4	3134.0	3156.9	3217.9	3314.8	3444.7	3605.4	3776.5	3984.5	4203.8	4409.3
8°	3093.7	3078.8	3104.3	3172.7	3280.3	3425.4	3607.6	3804.2	4047.1	4304.7	4550.6
9°	3043.6	3026.3	3054.9	3130.4	3249.7	3409.3	3611.7	3836.1	4115.4	4413.1	4702.5
10°	2996.9	2978.3	3009.6	3091.9	3220.7	3395.4	3618.0	3871.5	4186.0	4527.5	4861.3
11°	2953.8	2932.9	2967.5	3057.1	3196.4	3384.1	3627.4	3911.6	4263.7	4649.6	5032.4
12°	2914.4	2892.2	2927.2	3024.1	3174.3	3375.3	3640.0	3953.1	4342.2	4779.3	5213.6
13°	2878.5	2853.1	2891.3	2994.0	3154.7	3369.6	3654.9	3997.6	4426.5	4915.0	5407.8
14°	2843.8	2815.6	2856.9	2966.0	3137.8	3365.7	3671.3	4043.1	4513.6	5056.2	5613.6
15°	2809.9	2778.8	2823.1	2939.2	3122.5	3364.9	3688.5	4091.8	4604.8	5210.2	5834.4
16°	2770.8	2696.8	2785.7	2913.6	3107.5	3365.1	3706.5	4142.7	4699.6	5368.2	6066.7
17°	2664.4	2604.8	2684.4	2888.5	3093.9	3365.8	3728.0	4193.7	4798.7	5537.6	6300.9
18°	2589.4	2556.8	2607.5	2849.3	3082.2	3368.0	3749.6	4247.0	4901.3	5712.6	6538.2
19°	2562.0	2528.9	2578.5	2762.8	3070.4	3368.3	3758.2	4292.8	5007.1	5890.4	6777.6
20°	2538.4	2503.7	2554.7	2698.1	3058.9	3357.7	3773.1	4334.9	5117.9	6070.7	7009.8
21°	2517.7	2482.8	2533.6	2674.0	3045.5	3350.6	3795.0	4382.8	5218.7	6253.4	7232.6
22°	2500.9	2463.7	2516.9	2659.5	2993.2	3355.6	3823.0	4441.3	5320.9	6436.2	7443.4
23°	2486.4	2447.7	2503.5	2646.9	2930.6	3362.7	3850.9	4504.5	5437.4	6611.4	7639.0
24°	2472.9	2432.9	2490.9	2637.0	2884.9	3369.9	3875.2	4569.2	5553.6	6784.1	7825.8
25°	2460.9	2418.7	2479.0	2628.9	2872.4	3368.0	3892.4	4630.4	5679.3	6933.4	8000.2
26°	2448.7	2407.1	2468.9	2622.5	2867.2	3367.7	3914.6	4682.3	5805.5	7070.4	8166.3
27°	2438.7	2397.4	2459.6	2616.8	2855.5	3369.6	3935.6	4740.4	5933.1	7206.2	8322.5
28°	2430.4	2389.1	2452.0	2611.2	2846.8	3381.2	3966.3	4801.0	6052.4	7336.2	8471.3
29°	2422.0	2353.6	2443.8	2606.8	2846.0	3392.2	3997.8	4868.6	6157.5	7452.5	8607.0
30°	2356.2	2225.5	2388.4	2603.4	2850.5	3383.5	4029.8	4939.2	6263.4	7571.2	8735.8
31°	2245.1	2200.9	2275.5	2592.7	2856.0	3356.5	4060.9	5010.0	6369.0	7684.9	8855.8
32°	2226.8	2201.6	2255.3	2580.6	2863.2	3330.2	4091.1	5082.0	6468.1	7792.4	8964.4
33°	2225.2	2204.5	2254.3	2506.9	2870.3	3304.6	4104.5	5153.2	6565.5	7888.7	9055.1
34°	2226.2	2210.0	2255.3	2418.4	2877.3	3305.7	4118.0	5225.3	6663.6	7974.4	9132.8
35°	2228.1	2217.3	2258.2	2406.4	2878.6	3313.6	4140.6	5286.4	6757.3	8048.3	9201.1
36°	2231.6	2223.7	2262.6	2409.6	2879.1	3323.3	4166.1	5333.6	6844.9	8117.0	9265.7
37°	2232.8	2229.2	2265.5	2414.2	2879.8	3336.0	4194.4	5384.1	6928.0	8184.4	9321.9
38°	2233.2	2234.2	2267.4	2413.6	2880.3	3350.5	4226.0	5440.5	7007.4	8250.0	9368.5
39°	2232.5	2234.4	2269.1	2412.7	2772.1	3356.6	4260.2	5495.1	7082.2	8308.2	9402.0
40°	2228.0	2111.7	2266.4	2417.7	2708.7	3367.2	4292.5	5552.7	7147.4	8361.7	9430.4
41°	2102.0	2048.6	2155.9	2425.4	2709.9	3390.5	4314.6	5607.7	7194.7	8412.4	9447.7
42°	2032.5	2049.6	2074.4	2433.5	2721.9	3415.1	4331.8	5660.9	7233.7	8463.6	9457.4
43°	2031.3	2053.0	2073.6	2439.2	2735.9	3441.1	4342.8	5715.8	7274.2	8507.1	9458.0
44°	2033.0	2055.6	2077.1	2387.7	2751.9	3468.0	4376.0	5767.8	7312.4	8547.1	9449.5



REPORT NUMBER: P1436731

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

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2035.5	2055.6	2081.2	2271.7	2767.2	3493.8	4417.9	5806.7	7352.7	8579.3	9425.3
46°	2037.7	2052.6	2084.5	2266.0	2771.1	3507.5	4461.2	5835.8	7393.1	8607.7	9385.3
47°	2039.0	1978.7	2087.0	2273.3	2775.0	3509.4	4505.0	5854.0	7427.1	8629.6	9330.3
48°	1971.5	1904.9	2086.8	2277.2	2793.3	3523.1	4548.2	5864.0	7458.0	8641.9	9267.4
49°	1904.0	1832.3	1964.6	2273.5	2804.1	3513.3	4590.0	5890.0	7480.1	8645.4	9192.2
50°	1836.7	1828.2	1876.5	2273.1	2747.0	3435.0	4616.1	5923.1	7496.6	8631.0	9109.9
51°	1843.6	1826.2	1882.6	2277.8	2622.3	3388.2	4595.5	5952.4	7505.5	8598.0	9014.9
52°	1853.5	1826.5	1891.9	2203.5	2623.6	3404.5	4582.2	5979.2	7503.9	8556.1	8906.1
53°	1864.1	1825.9	1901.8	2078.9	2643.2	3428.9	4599.0	5999.8	7489.9	8502.4	8784.1
54°	1872.5	1817.6	1857.1	2089.6	2668.0	3441.1	4592.4	6013.4	7466.8	8438.2	8644.2
55°	1876.3	1645.6	1812.2	2105.6	2682.6	3449.0	4589.0	6022.5	7424.2	8363.9	8496.0
56°	1713.7	1618.7	1767.5	2124.6	2694.9	3480.6	4594.8	6012.7	7360.7	8282.0	8332.0
57°	1683.7	1626.0	1730.9	2144.0	2692.9	3504.0	4585.1	5983.9	7291.5	8191.5	8159.1
58°	1691.2	1634.3	1738.8	2157.9	2576.7	3511.4	4585.4	5940.4	7220.4	8081.6	7970.8
59°	1702.2	1562.3	1748.5	2000.3	2537.8	3526.1	4587.6	5898.2	7151.9	7961.6	7770.6
60°	1578.6	1419.6	1638.0	2002.6	2573.4	3450.9	4560.7	5851.6	7073.3	7823.0	7552.2
61°	1504.9	1435.3	1559.0	2013.7	2612.6	3366.2	4503.8	5793.1	6977.9	7667.5	7319.0
62°	1523.0	1450.1	1579.1	2035.1	2653.1	3368.4	4477.1	5724.3	6869.5	7496.7	7082.2
63°	1541.9	1269.6	1595.7	1911.2	2685.4	3369.9	4442.0	5644.5	6745.2	7303.2	6831.7
64°	1342.1	1253.2	1390.1	1895.2	2568.9	3370.5	4376.8	5537.3	6602.5	7100.2	6577.8
65°	1354.9	1268.6	1396.3	1859.4	2571.5	3348.6	4309.3	5403.1	6437.1	6877.8	6311.0
66°	1364.3	1059.6	1414.1	1823.5	2587.7	3266.9	4210.3	5253.1	6240.3	6645.5	6035.5
67°	1129.6	1025.3	1172.5	1789.7	2569.9	3141.3	4098.2	5072.6	6027.5	6389.8	5762.6
68°	1148.8	791.5	1186.1	1828.5	2503.5	3149.1	3933.4	4802.9	5772.3	6109.9	5485.3
69°	918.6	714.0	954.4	1681.8	2499.5	3148.4	3720.0	4417.6	5468.3	5808.6	5218.9
70°	877.4	488.6	900.8	1665.1	2439.3	3141.1	3442.6	3909.1	5091.0	5474.7	4935.1
71°	580.9	263.3	582.9	1450.9	2412.6	3066.3	3122.1	3427.8	4639.7	5102.4	4642.6
72°	360.4	40.2	341.0	1402.2	2395.5	2928.6	2807.5	3000.9	4130.0	4688.8	4345.3
73°	297.6	0.5	271.3	1272.3	2344.8	2787.2	2518.6	2551.8	3604.3	4234.8	4023.4
74°	268.6	0.4	250.2	1131.7	2340.1	2646.6	2162.1	2043.2	3084.9	3745.9	3669.6
75°	220.5	0.4	214.2	1064.3	2220.7	2495.6	1805.4	1412.8	2526.5	3213.2	3231.1
76°	172.5	0.4	178.1	1027.2	2037.4	2326.1	1447.3	821.1	1841.1	2683.3	2709.1
77°	124.9	0.4	142.2	967.5	1854.1	2038.9	891.9	544.3	1129.9	2178.4	2073.9
78°	93.0	0.4	114.7	871.5	1670.4	1751.6	465.2	271.2	855.1	1647.9	1365.6
79°	91.8	0.4	114.6	737.6	1445.6	1457.9	312.3	212.0	589.1	1099.8	1010.8
80°	125.1	0.5	140.1	643.5	1193.0	883.1	163.0	179.2	323.1	818.5	665.1
81°	154.2	0.6	147.2	600.0	902.5	637.6	129.0	152.7	276.6	540.1	319.5
82°	138.9	0.6	90.5	564.6	696.9	392.1	104.9	128.2	236.4	261.6	275.4
83°	86.2	0.7	63.8	470.2	496.4	149.8	84.6	105.8	192.8	204.7	241.7
84°	47.0	0.8	37.1	337.5	357.9	126.7	67.3	86.0	150.0	166.8	209.9
85°	35.0	0.9	10.6	204.9	219.5	100.6	52.7	66.3	114.5	132.1	179.3
86°	23.0	1.0	9.4	75.4	84.4	74.1	40.1	46.6	90.9	102.2	149.5
87°	11.3	1.1	9.3	52.4	43.3	53.1	30.4	30.8	67.4	79.9	116.6
88°	7.7	1.3	8.1	29.3	30.0	36.8	20.7	17.8	43.9	57.8	89.7
89°	5.5	1.4	4.5	6.7	16.6	20.5	11.0	12.3	25.5	35.7	62.8



REPORT NUMBER: P1436731

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731

CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3677.5	3677.5	3677.5
1°	3771.6	3785.8	3792.3
2°	3880.4	3907.0	3916.7
3°	3997.7	4037.3	4052.1
4°	4127.8	4183.1	4200.9
5°	4265.3	4339.1	4363.2
6°	4418.2	4510.9	4541.6
7°	4581.0	4691.1	4730.3
8°	4754.3	4888.9	4936.6
9°	4942.2	5104.0	5161.2
10°	5141.5	5331.4	5396.0
11°	5360.4	5579.3	5651.1
12°	5590.4	5844.0	5927.9
13°	5840.2	6131.0	6222.3
14°	6102.3	6433.8	6542.5
15°	6383.5	6755.6	6885.0
16°	6666.0	7082.8	7238.3
17°	6956.3	7420.2	7586.0
18°	7246.8	7752.9	7932.6
19°	7526.3	8066.3	8254.4
20°	7794.3	8360.9	8549.1
21°	8047.1	8630.5	8813.4
22°	8280.9	8868.4	9043.4
23°	8503.8	9085.3	9246.9
24°	8711.7	9271.2	9424.7
25°	8900.0	9434.1	9578.6
26°	9070.6	9571.3	9708.6
27°	9224.6	9690.4	9817.9
28°	9360.8	9790.1	9908.1
29°	9479.0	9871.6	9982.9
30°	9582.5	9937.8	10039.4
31°	9670.3	9989.6	10083.5
32°	9742.2	10027.9	10110.4
33°	9799.7	10050.0	10123.8
34°	9846.7	10059.6	10124.8
35°	9880.3	10056.7	10113.3
36°	9900.4	10042.3	10091.2
37°	9908.1	10018.3	10057.6
38°	9905.2	9984.8	10015.5
39°	9889.9	9942.6	9963.7
40°	9864.0	9892.7	9904.2
41°	9829.5	9835.2	9833.3
42°	9784.4	9769.0	9751.8
43°	9727.8	9694.3	9658.8
44°	9660.7	9607.0	9554.0

REPORT NUMBER: P1436731

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

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	9587.3	9510.6	9435.4
46°	9504.3	9402.2	9299.6
47°	9410.0	9276.3	9156.6
48°	9307.7	9144.6	9006.0
49°	9190.5	8991.2	8835.1
50°	9060.2	8826.6	8645.4
51°	8911.7	8642.2	8440.2
52°	8746.6	8438.6	8219.3
53°	8563.0	8218.4	7984.1
54°	8366.9	7981.4	7731.2
55°	8159.5	7732.5	7473.4
56°	7931.6	7463.5	7194.7
57°	7695.9	7179.9	6917.3
58°	7447.8	6898.1	6628.8
59°	7188.3	6605.9	6327.8
60°	6916.8	6305.3	6006.1
61°	6639.0	5985.3	5662.4
62°	6356.7	5660.5	5303.3
63°	6075.8	5321.4	4926.9
64°	5798.2	4984.3	4562.6
65°	5515.4	4648.6	4232.2
66°	5230.5	4343.4	3941.8
67°	4946.4	4064.2	3703.1
68°	4666.1	3822.1	3446.8
69°	4399.8	3562.4	3070.6
70°	4149.6	3238.0	2518.8
71°	3891.6	2791.5	1793.2
72°	3605.7	2163.4	1141.3
73°	3263.0	1466.7	878.4
74°	2797.8	895.5	623.6
75°	2192.5	652.6	368.9
76°	1560.6	411.0	325.4
77°	1045.8	349.3	291.1
78°	816.5	307.4	263.1
79°	593.7	273.4	238.3
80°	370.9	244.4	215.8
81°	309.7	218.7	195.0
82°	266.8	195.5	175.7
83°	229.7	173.5	157.2
84°	194.1	153.3	139.3
85°	157.1	133.5	122.2
86°	128.0	115.2	105.2
87°	103.2	97.4	90.6
88°	84.5	82.6	76.0
89°	66.0	67.9	61.4



REPORT NUMBER: P1436731
CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731
CATALOG NUMBER: XAS180-SFPM (4000K-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: P1436731
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T4)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)