

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: P1444997

Luminaire Tested: XAS180-SFPM (4000K-144W-T3-HSS)

Issue Date: 5/5/2026

Test Information

Test Method: LM-79-2024
Report Number: P1444997
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-T3-HSS)
Description: XAS180 ALL-SELECTABLE AREA SITE LUMINAIRE.
LUMEN OUTPUT - 80% (144W)
OPTICS - TYPE 3 WITH HOUSE SIDE SHIELD
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 24407 (1 lamp)
Luminaire Lumens: 19950.9 lumens
Efficiency: 81.7%
Efficacy: 141.0 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): 141.5
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

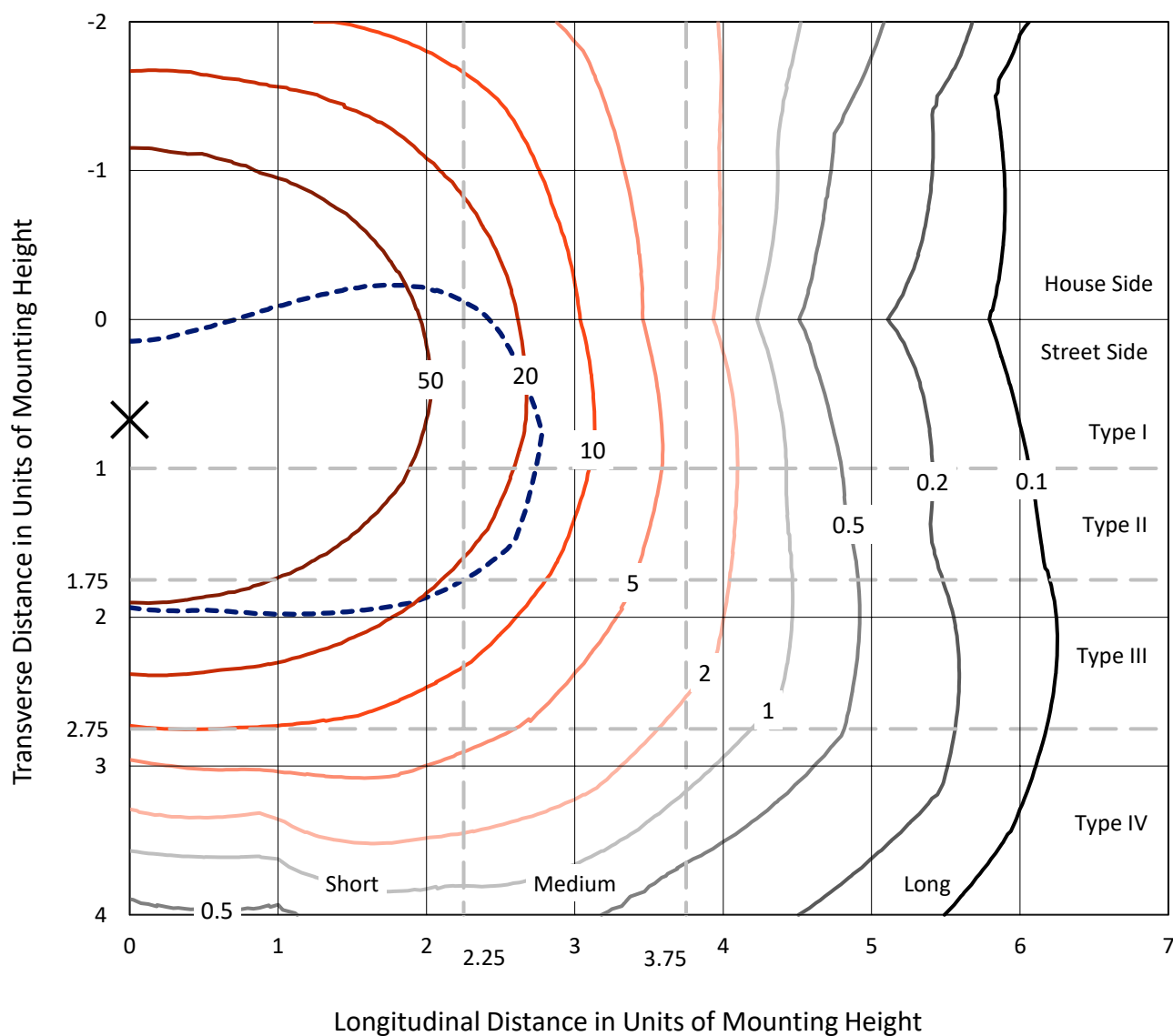
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

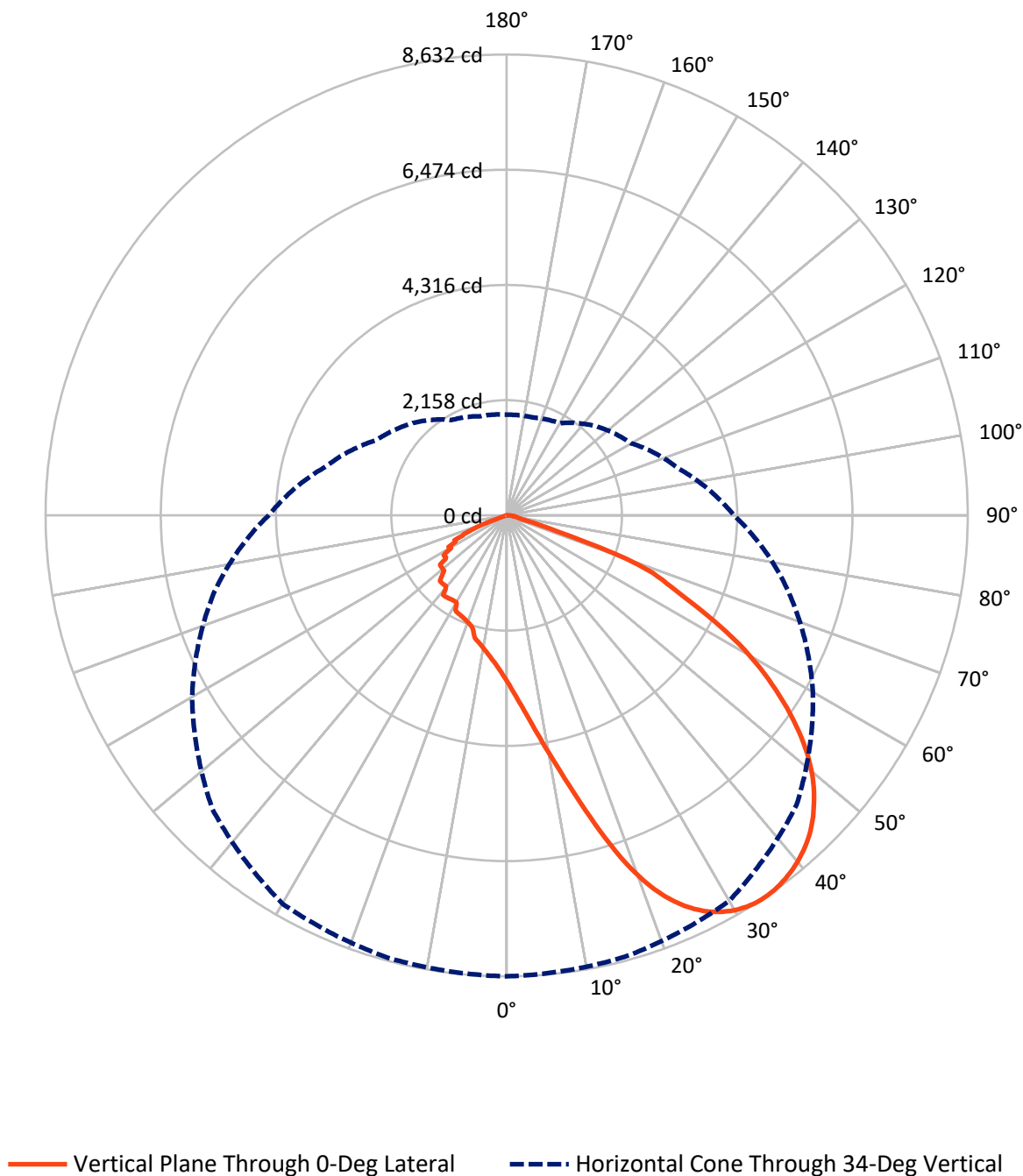


Based on 3 foot mounting height. Maximum calculated value = 676.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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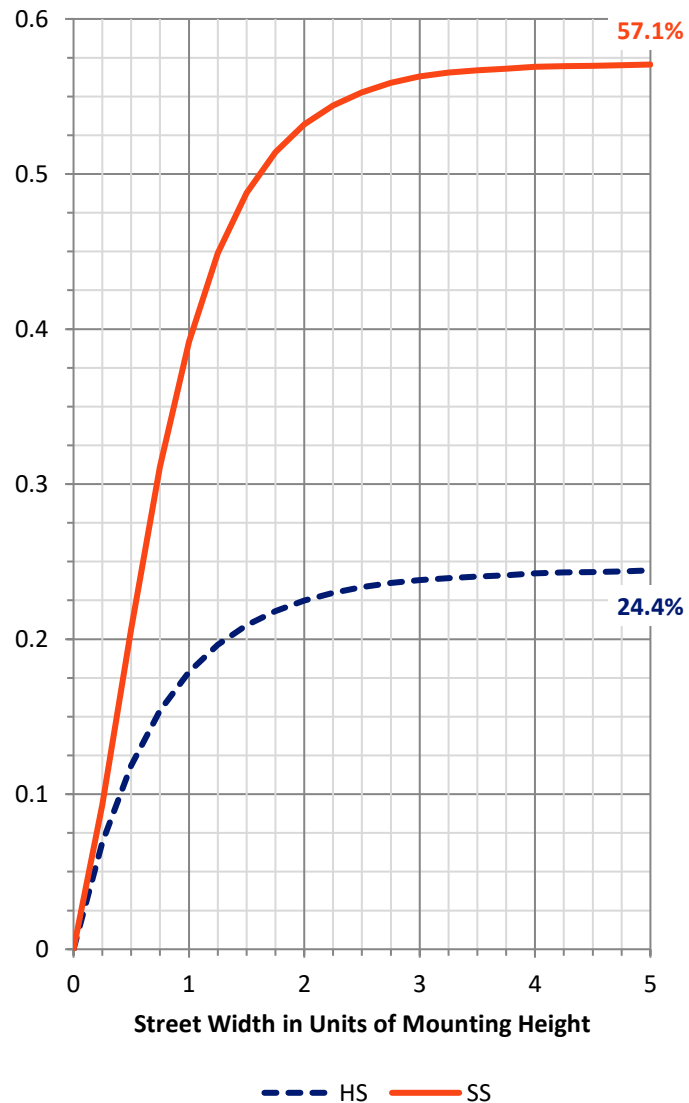
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6000.2	0.0	6000.2
	% Lamp	24.6	0.0	24.6
Street Side	Lumens	13950.7	0.0	13950.7
	% Lamp	57.2	0.0	57.2
Total	Lumens	19950.9	0.0	19950.9
	% Lamp	81.7	0.0	81.7

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	313.4	1.6	1.3
10°-20°	1088.5	5.5	4.5
20°-30°	2111.9	10.6	8.7
30°-40°	3104.8	15.6	12.7
40°-50°	3852.6	19.3	15.8
50°-60°	4105.0	20.6	16.8
60°-70°	3568.7	17.9	14.6
70°-80°	1650.9	8.3	6.8
80°-90°	155.1	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°	19950.9	100.0	81.7
0°-180°	19950.9	100.0	81.7

Coefficient of Utilization



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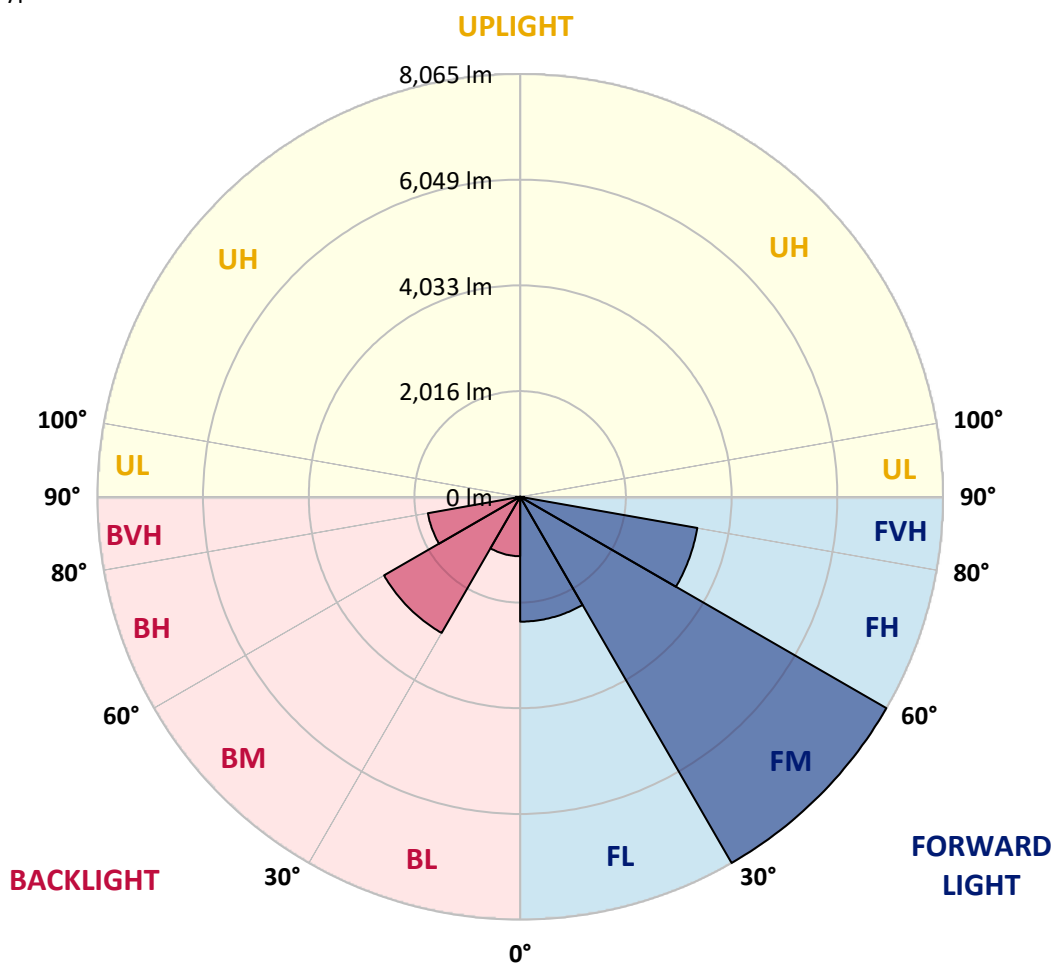
CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-HSS)

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2381.1	9.8			
FM	(30°-60°)	8065.3	33.0			
FH	(60°-80°)	3431.6	14.1			G2/5000
FVH	(80°-90°)	72.8	0.3			G1/100
BL	(0°-30°)	1132.7	4.6	B3/2500		
BM	(30°-60°)	2997.1	12.3	B3/5000		
BH	(60°-80°)	1788.0	7.3	B3/2500		G3/2500
BVH	(80°-90°)	82.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		4456.1	18.3			

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°	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3
1°	3233.1	3231.3	3223.4	3208.7	3189.0	3166.1	3124.6	3103.1	3083.7	3068.3	3057.0
2°	3339.2	3334.8	3313.9	3281.9	3239.5	3191.8	3126.1	3081.6	3042.2	3011.0	2986.4
3°	3454.7	3443.1	3410.5	3359.4	3295.7	3223.0	3131.1	3064.9	3006.1	2958.2	2922.8
4°	3581.5	3564.5	3518.2	3445.9	3355.3	3256.4	3138.6	3050.6	2973.4	2910.3	2865.4
5°	3719.9	3698.2	3633.4	3539.2	3419.8	3293.5	3148.9	3038.3	2943.9	2867.9	2814.5
6°	3871.9	3840.6	3760.9	3640.7	3492.3	3334.0	3161.2	3029.4	2916.6	2830.2	2767.9
7°	4032.8	3994.6	3896.7	3749.3	3568.1	3379.0	3178.5	3024.7	2894.6	2795.7	2723.7
8°	4208.7	4164.4	4044.5	3865.4	3650.2	3427.4	3199.0	3023.1	2875.6	2764.1	2684.4
9°	4400.2	4347.1	4201.9	3990.8	3737.5	3479.3	3221.4	3022.8	2860.6	2735.3	2647.2
10°	4600.4	4536.4	4370.5	4121.2	3830.2	3535.9	3247.4	3025.8	2846.6	2710.7	2612.3
11°	4817.9	4744.5	4549.8	4261.9	3928.4	3595.9	3275.9	3031.2	2835.2	2688.2	2580.8
12°	5053.9	4967.5	4739.1	4413.1	4030.9	3658.9	3306.3	3038.4	2826.6	2667.6	2552.6
13°	5304.9	5203.6	4944.4	4570.6	4140.5	3726.0	3338.6	3046.9	2819.3	2648.5	2526.6
14°	5577.8	5465.1	5164.6	4737.8	4254.7	3795.1	3370.6	3055.7	2812.7	2631.4	2502.1
15°	5869.9	5738.4	5398.0	4915.8	4374.7	3866.2	3406.1	3066.1	2807.6	2615.5	2477.6
16°	6171.1	6022.5	5639.8	5104.9	4500.1	3940.0	3443.6	3078.6	2803.7	2600.5	2455.4
17°	6467.5	6304.3	5877.3	5299.3	4632.8	4016.7	3482.3	3091.6	2801.0	2586.7	2433.0
18°	6763.0	6581.0	6116.0	5490.8	4772.3	4096.4	3521.5	3103.0	2799.0	2574.0	2398.7
19°	7037.3	6847.6	6351.2	5679.7	4915.9	4178.9	3548.9	3105.8	2793.3	2562.5	2318.4
20°	7288.6	7094.1	6579.7	5868.3	5059.1	4257.2	3583.2	3113.6	2780.5	2551.1	2261.5
21°	7514.0	7319.8	6794.6	6050.1	5204.7	4328.5	3618.0	3131.1	2770.8	2538.4	2246.3
22°	7710.1	7522.2	6996.9	6225.6	5346.7	4412.8	3663.5	3149.4	2772.4	2493.1	2232.5
23°	7883.5	7705.6	7181.6	6394.9	5487.7	4494.4	3711.7	3165.9	2774.2	2435.3	2220.8
24°	8035.1	7866.6	7356.2	6553.3	5611.7	4588.9	3756.7	3175.8	2770.5	2389.2	2211.9
25°	8166.3	8007.8	7513.7	6706.0	5730.9	4687.6	3794.6	3189.7	2766.6	2381.6	2203.4
26°	8277.2	8129.6	7657.3	6846.3	5848.7	4784.3	3834.6	3203.2	2764.3	2372.6	2196.6
27°	8370.4	8235.5	7790.2	6984.0	5962.2	4879.0	3879.3	3224.6	2769.7	2360.5	2189.2
28°	8447.2	8323.0	7905.6	7113.3	6067.9	4963.1	3925.3	3245.9	2777.8	2351.8	2182.5
29°	8511.0	8394.1	8006.6	7231.7	6171.7	5042.6	3979.4	3267.3	2784.8	2351.6	2177.2
30°	8559.2	8452.9	8096.3	7344.2	6277.0	5125.5	4033.6	3290.3	2775.5	2353.5	2172.0
31°	8596.8	8497.9	8173.5	7446.4	6374.6	5209.2	4090.0	3313.8	2734.1	2356.5	2162.1
32°	8619.7	8530.6	8237.1	7531.0	6466.1	5289.3	4145.8	3334.4	2725.4	2359.2	2148.8
33°	8631.1	8550.2	8291.9	7606.1	6549.3	5373.1	4202.1	3340.6	2692.7	2361.9	2065.0
34°	8631.9	8558.4	8334.4	7673.8	6622.0	5455.0	4256.5	3347.2	2696.3	2362.1	1992.8
35°	8622.1	8557.6	8366.3	7738.2	6686.8	5533.0	4296.5	3363.8	2701.7	2360.2	1988.5
36°	8603.3	8547.7	8385.1	7794.7	6747.5	5607.8	4329.6	3382.9	2708.6	2359.2	1990.1
37°	8574.7	8528.9	8394.1	7841.9	6806.9	5679.4	4367.4	3403.0	2720.7	2362.5	1991.5
38°	8538.8	8501.2	8394.9	7878.1	6864.9	5750.5	4414.3	3425.9	2728.2	2363.3	1990.1
39°	8494.6	8467.6	8385.9	7908.2	6916.3	5815.0	4456.5	3450.5	2730.1	2250.5	1988.8
40°	8443.9	8426.0	8365.5	7931.7	6965.9	5868.7	4501.8	3468.5	2741.9	2198.8	1993.8
41°	8383.4	8375.3	8338.5	7950.1	7008.9	5906.8	4545.3	3484.7	2759.9	2206.3	1998.6
42°	8314.0	8318.9	8301.7	7966.0	7054.5	5943.9	4589.9	3499.0	2777.9	2216.8	2004.1
43°	8234.7	8252.7	8255.9	7970.8	7097.5	5982.0	4631.8	3507.0	2797.0	2228.8	2006.1
44°	8145.3	8179.1	8202.8	7965.4	7136.1	6023.7	4666.9	3531.2	2817.6	2241.7	1941.6

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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	8044.2	8094.7	8139.4	7948.7	7170.3	6063.8	4694.6	3564.8	2839.0	2252.8	1853.7
46°	7928.5	7999.2	8069.4	7922.6	7202.3	6103.5	4719.8	3599.3	2848.0	2252.6	1856.0
47°	7806.5	7890.0	7990.5	7885.1	7229.7	6141.2	4735.8	3635.1	2846.9	2258.4	1861.4
48°	7678.1	7772.6	7902.2	7837.9	7250.3	6172.4	4747.6	3672.4	2856.6	2271.7	1864.0
49°	7532.4	7637.8	7802.7	7784.0	7262.1	6203.2	4772.3	3704.3	2807.2	2280.0	1861.7
50°	7370.7	7493.0	7689.4	7719.8	7262.7	6231.8	4806.4	3711.1	2763.2	2207.8	1862.0
51°	7195.7	7331.0	7561.0	7642.6	7249.1	6250.0	4840.6	3687.0	2722.5	2119.3	1864.9
52°	7007.4	7155.1	7421.2	7553.6	7230.2	6259.7	4871.5	3709.3	2742.8	2126.2	1781.3
53°	6806.9	6964.0	7265.8	7455.4	7200.0	6264.0	4898.7	3716.6	2761.1	2139.4	1691.1
54°	6591.3	6756.2	7099.2	7342.6	7160.2	6263.1	4922.9	3712.6	2770.9	2157.3	1699.7
55°	6371.5	6542.2	6918.7	7218.0	7107.3	6245.9	4942.6	3734.8	2786.4	2167.1	1711.8
56°	6133.9	6317.5	6723.4	7082.7	7047.8	6215.8	4946.8	3749.2	2811.5	2174.2	1725.6
57°	5897.4	6082.3	6522.7	6932.8	6979.2	6177.3	4941.9	3749.1	2831.7	2171.1	1738.9
58°	5651.5	5840.7	6312.1	6770.5	6897.6	6141.7	4922.3	3762.0	2840.8	2054.7	1745.8
59°	5394.8	5595.5	6090.7	6601.4	6802.1	6104.2	4903.7	3774.2	2859.7	2027.1	1607.7
60°	5120.6	5339.1	5863.7	6416.7	6689.1	6058.1	4886.2	3765.0	2782.3	2054.9	1619.2
61°	4827.5	5068.4	5626.0	6224.5	6560.7	6001.2	4855.3	3732.6	2738.4	2087.9	1624.0
62°	4521.4	4786.9	5386.2	6020.3	6424.5	5928.7	4820.7	3722.6	2756.3	2123.2	1576.9
63°	4200.5	4492.5	5142.9	5806.7	6271.5	5839.4	4772.8	3695.9	2769.8	2150.1	1530.0
64°	3889.9	4202.2	4899.5	5588.6	6100.7	5733.9	4706.8	3653.4	2780.0	2049.8	1519.8
65°	3608.2	3912.7	4647.0	5363.9	5917.2	5609.0	4626.1	3604.1	2766.6	2060.5	1536.9
66°	3360.6	3650.7	4400.6	5135.8	5721.3	5463.6	4520.2	3530.8	2690.9	2086.8	1447.0
67°	3157.1	3411.8	4155.7	4909.3	5511.5	5294.4	4408.7	3453.6	2607.3	2069.9	1426.1
68°	2938.6	3202.3	3917.2	4676.8	5275.1	5105.2	4241.5	3340.1	2627.6	2018.7	1462.3
69°	2617.9	2981.6	3693.1	4450.3	5025.3	4878.1	3988.5	3205.1	2639.7	2032.6	1337.7
70°	2147.4	2690.0	3484.0	4221.2	4769.2	4596.8	3622.4	3023.1	2645.1	1978.2	1331.7
71°	1528.8	2282.8	3274.4	3993.5	4479.1	4263.2	3202.3	2785.7	2591.2	1982.7	1152.6
72°	973.1	1728.7	3038.7	3757.1	4157.1	3871.2	2842.3	2521.4	2493.0	1971.5	1111.4
73°	748.9	1144.3	2755.9	3513.8	3797.2	3446.0	2500.2	2290.0	2395.1	1942.2	1031.0
74°	531.7	695.6	2374.0	3239.4	3415.3	3014.2	2023.4	2119.1	2288.6	1958.7	934.4
75°	314.5	512.6	1844.3	2888.3	2999.5	2549.0	1546.5	1792.7	2167.1	1918.0	899.9
76°	277.4	334.9	1287.4	2454.9	2570.9	1969.8	1069.3	1466.3	2060.1	1865.6	877.1
77°	248.2	287.7	839.8	1918.1	2125.7	1296.2	584.0	1139.1	1971.4	1687.2	827.7
78°	224.3	254.0	656.6	1280.2	1650.2	745.6	304.6	657.3	1713.9	1508.8	746.7
79°	203.2	226.8	481.6	698.1	1147.8	517.2	249.2	481.5	1456.5	1328.6	634.0
80°	184.0	203.3	306.6	481.9	717.5	290.7	193.7	305.6	1195.0	1084.0	543.0
81°	166.3	182.2	259.2	274.8	471.0	245.4	139.0	132.7	663.5	811.1	490.8
82°	149.8	162.7	224.8	235.0	229.1	209.7	117.2	103.0	486.3	646.2	488.9
83°	134.0	144.4	194.6	205.1	177.9	170.2	97.7	79.6	309.1	511.9	401.5
84°	118.8	127.3	164.7	178.2	144.5	129.1	79.3	62.3	132.5	365.5	298.8
85°	104.2	111.3	133.1	152.6	115.1	98.5	61.3	48.1	116.4	270.5	211.1
86°	89.7	96.1	108.5	127.8	89.7	76.3	45.0	36.5	93.2	175.4	123.8
87°	77.2	81.7	87.8	100.7	70.1	57.5	34.5	28.3	69.1	81.5	76.0
88°	64.8	69.6	72.0	77.4	50.7	38.8	24.1	20.1	52.4	55.5	51.8
89°	52.4	57.5	56.2	54.1	31.2	22.6	13.6	11.9	35.7	29.4	27.6



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CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-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: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997
CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3	3135.3
1°	3051.8	3052.0	3056.4	3067.8	3082.7	3102.2	3123.2	3129.7	3154.7	3178.0	3198.5
2°	2974.5	2972.4	2981.5	3000.7	3029.2	3064.7	3107.0	3136.8	3186.1	3233.9	3276.1
3°	2904.3	2899.5	2911.2	2938.5	2979.9	3032.3	3093.9	3147.7	3221.0	3292.4	3356.6
4°	2840.7	2835.7	2848.7	2882.1	2934.7	3003.5	3084.7	3160.8	3259.2	3355.9	3446.0
5°	2784.5	2777.4	2792.1	2832.1	2894.1	2978.3	3078.4	3177.0	3301.5	3426.4	3542.1
6°	2731.2	2722.5	2740.2	2786.3	2859.0	2955.4	3074.3	3196.0	3347.7	3503.3	3647.0
7°	2682.5	2671.9	2691.4	2743.4	2826.1	2936.8	3073.8	3219.6	3397.0	3584.0	3759.1
8°	2637.6	2624.8	2646.6	2704.9	2796.6	2920.3	3075.7	3243.3	3450.4	3670.0	3879.6
9°	2594.8	2580.1	2604.5	2668.9	2770.6	2906.7	3079.2	3270.5	3508.6	3762.4	4009.2
10°	2555.0	2539.1	2565.9	2636.0	2745.8	2894.8	3084.5	3300.7	3568.8	3859.9	4144.6
11°	2518.3	2500.5	2530.0	2606.3	2725.1	2885.2	3092.5	3334.8	3635.1	3964.1	4290.4
12°	2484.7	2465.7	2495.6	2578.2	2706.3	2877.6	3103.3	3370.2	3702.0	4074.6	4444.9
13°	2454.1	2432.5	2465.0	2552.6	2689.6	2872.7	3116.0	3408.2	3773.9	4190.3	4610.5
14°	2424.5	2400.4	2435.7	2528.7	2675.2	2869.5	3130.0	3447.0	3848.1	4310.7	4785.9
15°	2395.6	2369.1	2406.9	2505.8	2662.1	2868.7	3144.7	3488.5	3925.8	4442.0	4974.2
16°	2362.3	2299.2	2374.9	2484.1	2649.3	2869.0	3160.0	3531.9	4006.7	4576.7	5172.2
17°	2271.5	2220.8	2288.6	2462.6	2637.7	2869.5	3178.4	3575.4	4091.2	4721.2	5371.9
18°	2207.6	2179.8	2223.1	2429.2	2627.8	2871.4	3196.8	3620.8	4178.6	4870.3	5574.2
19°	2184.2	2156.0	2198.3	2355.5	2617.7	2871.7	3204.1	3659.8	4268.8	5021.9	5778.3
20°	2164.1	2134.5	2178.0	2300.3	2607.9	2862.6	3216.8	3695.8	4363.3	5175.7	5976.2
21°	2146.5	2116.7	2160.0	2279.7	2596.4	2856.6	3235.4	3736.6	4449.2	5331.4	6166.2
22°	2132.2	2100.4	2145.8	2267.4	2551.9	2860.9	3259.3	3786.4	4536.3	5487.3	6345.9
23°	2119.8	2086.8	2134.4	2256.6	2498.5	2866.9	3283.1	3840.3	4635.7	5636.6	6512.7
24°	2108.3	2074.2	2123.7	2248.2	2459.5	2873.1	3303.8	3895.5	4734.7	5783.8	6671.9
25°	2098.1	2062.1	2113.5	2241.3	2448.9	2871.4	3318.5	3947.7	4841.9	5911.2	6820.6
26°	2087.7	2052.2	2104.9	2235.8	2444.5	2871.2	3337.4	3991.9	4949.6	6027.9	6962.2
27°	2079.1	2044.0	2096.9	2231.0	2434.4	2872.8	3355.3	4041.5	5058.3	6143.7	7095.4
28°	2072.1	2036.8	2090.5	2226.2	2427.1	2882.6	3381.5	4093.1	5160.0	6254.6	7222.3
29°	2064.9	2006.6	2083.5	2222.5	2426.3	2892.0	3408.4	4150.8	5249.6	6353.7	7338.0
30°	2008.8	1897.4	2036.3	2219.5	2430.2	2884.7	3435.6	4210.9	5339.9	6454.9	7447.7
31°	1914.1	1876.4	1940.0	2210.5	2434.9	2861.6	3462.2	4271.3	5430.0	6551.9	7550.1
32°	1898.5	1877.0	1922.7	2200.1	2441.1	2839.2	3487.9	4332.7	5514.4	6643.5	7642.7
33°	1897.1	1879.5	1921.9	2137.3	2447.1	2817.4	3499.3	4393.4	5597.4	6725.6	7720.0
34°	1898.0	1884.2	1922.8	2061.9	2453.1	2818.3	3510.8	4454.9	5681.1	6798.6	7786.2
35°	1899.6	1890.4	1925.3	2051.6	2454.1	2825.0	3530.1	4506.9	5761.0	6861.7	7844.4
36°	1902.5	1895.8	1929.0	2054.3	2454.6	2833.3	3551.8	4547.2	5835.7	6920.2	7899.5
37°	1903.6	1900.5	1931.5	2058.3	2455.2	2844.1	3576.0	4590.3	5906.5	6977.7	7947.4
38°	1903.9	1904.7	1933.1	2057.8	2455.6	2856.5	3602.9	4638.4	5974.2	7033.6	7987.2
39°	1903.4	1905.0	1934.5	2057.0	2363.4	2861.7	3632.0	4684.9	6037.9	7083.2	8015.8
40°	1899.5	1800.4	1932.2	2061.2	2309.3	2870.7	3659.6	4734.0	6093.5	7128.9	8040.0
41°	1792.1	1746.6	1838.0	2067.8	2310.4	2890.6	3678.5	4780.9	6133.9	7172.0	8054.7
42°	1732.8	1747.4	1768.6	2074.7	2320.6	2911.6	3693.1	4826.2	6167.2	7215.7	8063.0
43°	1731.8	1750.3	1767.8	2079.6	2332.5	2933.7	3702.5	4873.0	6201.7	7252.8	8063.5
44°	1733.3	1752.5	1770.9	2035.6	2346.2	2956.7	3730.8	4917.3	6234.2	7286.9	8056.2

REPORT NUMBER: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1735.4	1752.5	1774.4	1936.8	2359.2	2978.7	3766.5	4950.5	6268.6	7314.3	8035.6
46°	1737.3	1749.9	1777.2	1931.9	2362.5	2990.4	3803.5	4975.4	6303.0	7338.5	8001.5
47°	1738.4	1687.0	1779.3	1938.1	2365.9	2992.0	3840.8	4990.9	6332.1	7357.3	7954.6
48°	1680.8	1624.0	1779.1	1941.5	2381.5	3003.7	3877.6	4999.4	6358.4	7367.7	7901.0
49°	1623.2	1562.2	1675.0	1938.3	2390.6	2995.3	3913.2	5021.6	6377.3	7370.7	7836.9
50°	1565.9	1558.7	1599.9	1937.9	2342.0	2928.6	3935.5	5049.8	6391.3	7358.4	7766.7
51°	1571.8	1556.9	1605.0	1941.9	2235.6	2888.7	3917.9	5074.8	6398.8	7330.3	7685.7
52°	1580.2	1557.2	1612.9	1878.6	2236.8	2902.6	3906.6	5097.6	6397.5	7294.6	7593.0
53°	1589.2	1556.7	1621.4	1772.4	2253.5	2923.3	3920.9	5115.2	6385.6	7248.8	7488.9
54°	1596.4	1549.6	1583.3	1781.5	2274.6	2933.7	3915.3	5126.8	6365.9	7194.0	7369.7
55°	1599.7	1402.9	1545.0	1795.1	2287.1	2940.5	3912.4	5134.5	6329.6	7130.7	7243.3
56°	1461.1	1380.0	1506.9	1811.3	2297.5	2967.4	3917.3	5126.2	6275.4	7060.9	7103.5
57°	1435.5	1386.3	1475.7	1827.9	2295.9	2987.3	3909.1	5101.6	6216.4	6983.7	6956.1
58°	1441.8	1393.4	1482.4	1839.8	2196.8	2993.6	3909.3	5064.6	6155.8	6890.0	6795.6
59°	1451.2	1332.0	1490.7	1705.4	2163.6	3006.2	3911.2	5028.5	6097.4	6787.8	6624.9
60°	1345.9	1210.3	1396.5	1707.3	2194.0	2942.1	3888.3	4988.9	6030.4	6669.6	6438.7
61°	1283.0	1223.7	1329.1	1716.8	2227.4	2869.9	3839.7	4938.9	5949.1	6537.0	6239.8
62°	1298.5	1236.3	1346.3	1735.1	2261.9	2871.8	3817.0	4880.3	5856.6	6391.4	6037.9
63°	1314.6	1082.4	1360.4	1629.4	2289.4	2873.1	3787.1	4812.2	5750.7	6226.4	5824.4
64°	1144.2	1068.4	1185.2	1615.8	2190.1	2873.6	3731.4	4720.8	5629.0	6053.3	5608.0
65°	1155.1	1081.5	1190.4	1585.2	2192.3	2854.8	3673.9	4606.5	5488.0	5863.8	5380.5
66°	1163.1	903.4	1205.6	1554.6	2206.1	2785.2	3589.5	4478.6	5320.3	5665.7	5145.7
67°	963.1	874.1	999.6	1525.8	2191.0	2678.1	3494.0	4324.7	5138.8	5447.7	4912.9
68°	979.4	674.8	1011.2	1558.9	2134.4	2684.8	3353.5	4094.8	4921.2	5209.0	4676.5
69°	783.2	608.7	813.7	1433.8	2130.9	2684.2	3171.5	3766.3	4662.1	4952.2	4449.4
70°	748.0	416.6	768.0	1419.6	2079.7	2677.9	2935.0	3332.7	4340.4	4667.5	4207.4
71°	495.3	224.5	496.9	1237.0	2056.9	2614.2	2661.8	2922.4	3955.7	4350.1	3958.1
72°	307.3	34.2	290.8	1195.5	2042.3	2496.8	2393.6	2558.4	3521.0	3997.5	3704.6
73°	253.7	0.4	231.3	1084.7	1999.1	2376.2	2147.3	2175.6	3072.8	3610.4	3430.2
74°	229.0	0.3	213.3	964.8	1995.1	2256.4	1843.3	1741.9	2630.0	3193.6	3128.5
75°	188.0	0.3	182.6	907.4	1893.3	2127.7	1539.2	1204.5	2154.0	2739.4	2754.7
76°	147.1	0.3	151.9	875.8	1737.0	1983.1	1233.9	700.1	1569.6	2287.6	2309.7
77°	106.5	0.3	121.2	824.9	1580.7	1738.2	760.4	464.1	963.3	1857.2	1768.2
78°	79.3	0.3	97.8	743.0	1424.1	1493.3	396.6	231.2	729.1	1404.9	1164.2
79°	78.2	0.4	97.7	628.9	1232.4	1243.0	266.2	180.7	502.2	937.7	861.8
80°	106.6	0.4	119.4	548.6	1017.1	752.9	139.0	152.8	275.4	697.8	567.1
81°	131.5	0.5	125.5	511.6	769.4	543.6	110.0	130.2	235.8	460.4	272.4
82°	118.5	0.5	77.1	481.4	594.2	334.3	89.4	109.3	201.5	223.1	234.8
83°	73.5	0.6	54.4	400.9	423.2	127.7	72.2	90.2	164.4	174.5	206.1
84°	40.1	0.7	31.6	287.8	305.2	108.0	57.4	73.4	127.9	142.2	178.9
85°	29.9	0.8	9.0	174.7	187.1	85.8	45.0	56.6	97.6	112.6	152.8
86°	19.6	0.9	8.0	64.3	72.0	63.2	34.2	39.8	77.5	87.1	127.4
87°	9.6	1.0	8.0	44.7	36.9	45.2	25.9	26.2	57.4	68.1	99.4
88°	6.6	1.1	6.9	25.0	25.6	31.4	17.6	15.1	37.4	49.3	76.4
89°	4.7	1.2	3.8	5.7	14.2	17.5	9.4	10.5	21.7	30.5	53.5

REPORT NUMBER: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997
CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	3135.3	3135.3	3135.3
1°	3215.5	3227.6	3233.1
2°	3308.3	3331.0	3339.2
3°	3408.3	3442.1	3454.7
4°	3519.2	3566.3	3581.5
5°	3636.5	3699.3	3719.9
6°	3766.7	3845.8	3871.9
7°	3905.5	3999.5	4032.8
8°	4053.3	4168.1	4208.7
9°	4213.5	4351.4	4400.2
10°	4383.4	4545.3	4600.4
11°	4570.0	4756.6	4817.9
12°	4766.1	4982.3	5053.9
13°	4979.1	5227.1	5304.9
14°	5202.5	5485.2	5577.8
15°	5442.3	5759.5	5869.9
16°	5683.2	6038.5	6171.1
17°	5930.6	6326.2	6467.5
18°	6178.3	6609.8	6763.0
19°	6416.6	6877.0	7037.3
20°	6645.1	7128.1	7288.6
21°	6860.6	7358.0	7514.0
22°	7060.0	7560.8	7710.1
23°	7250.0	7745.8	7883.5
24°	7427.2	7904.2	8035.1
25°	7587.8	8043.2	8166.3
26°	7733.2	8160.0	8277.2
27°	7864.5	8261.7	8370.4
28°	7980.6	8346.7	8447.2
29°	8081.4	8416.1	8511.0
30°	8169.6	8472.5	8559.2
31°	8244.5	8516.7	8596.8
32°	8305.8	8549.4	8619.7
33°	8354.8	8568.2	8631.1
34°	8394.9	8576.4	8631.9
35°	8423.5	8573.9	8622.1
36°	8440.7	8561.6	8603.3
37°	8447.2	8541.2	8574.7
38°	8444.8	8512.6	8538.8
39°	8431.7	8476.6	8494.6
40°	8409.6	8434.1	8443.9
41°	8380.2	8385.1	8383.4
42°	8341.8	8328.7	8314.0
43°	8293.5	8264.9	8234.7
44°	8236.3	8190.5	8145.3

REPORT NUMBER: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	8173.7	8108.3	8044.2
46°	8103.0	8015.9	7928.5
47°	8022.6	7908.6	7806.5
48°	7935.3	7796.3	7678.1
49°	7835.5	7665.5	7532.4
50°	7724.4	7525.2	7370.7
51°	7597.7	7368.0	7195.7
52°	7457.0	7194.4	7007.4
53°	7300.4	7006.7	6806.9
54°	7133.3	6804.6	6591.3
55°	6956.5	6592.4	6371.5
56°	6762.2	6363.0	6133.9
57°	6561.2	6121.2	5897.4
58°	6349.7	5881.0	5651.5
59°	6128.4	5631.9	5394.8
60°	5896.9	5375.6	5120.6
61°	5660.1	5102.8	4827.5
62°	5419.5	4825.9	4521.4
63°	5180.0	4536.8	4200.5
64°	4943.3	4249.4	3889.9
65°	4702.2	3963.2	3608.2
66°	4459.3	3703.0	3360.6
67°	4217.1	3465.0	3157.1
68°	3978.1	3258.6	2938.6
69°	3751.1	3037.1	2617.9
70°	3537.8	2760.6	2147.4
71°	3317.8	2379.9	1528.8
72°	3074.1	1844.4	973.1
73°	2781.9	1250.4	748.9
74°	2385.3	763.5	531.7
75°	1869.2	556.4	314.5
76°	1330.5	350.4	277.4
77°	891.6	297.8	248.2
78°	696.1	262.1	224.3
79°	506.2	233.1	203.2
80°	316.2	208.3	184.0
81°	264.0	186.4	166.3
82°	227.5	166.7	149.8
83°	195.9	148.0	134.0
84°	165.5	130.7	118.8
85°	134.0	113.8	104.2
86°	109.1	98.2	89.7
87°	88.0	83.0	77.2
88°	72.1	70.4	64.8
89°	56.3	57.9	52.4

REPORT NUMBER: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-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: P1444997

CATALOG NUMBER: XAS180-SFPM (4000K-144W-T3-HSS)

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

(END OF REPORT)