

Scaled data based on original data using
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: P10821_320MP

Luminaire Tested: **OVX32PXX3EF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: P10821_320MP
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVX32PXX3EF
Description: 400 WATT MH TYPE III ROADWAY
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 23240.8 lumens
Efficiency: 77.5%
Efficacy: 66.4 lumens/watt
Luminous Opening: Rectangular (W 0.92' x L: 1.12' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U2 - G3

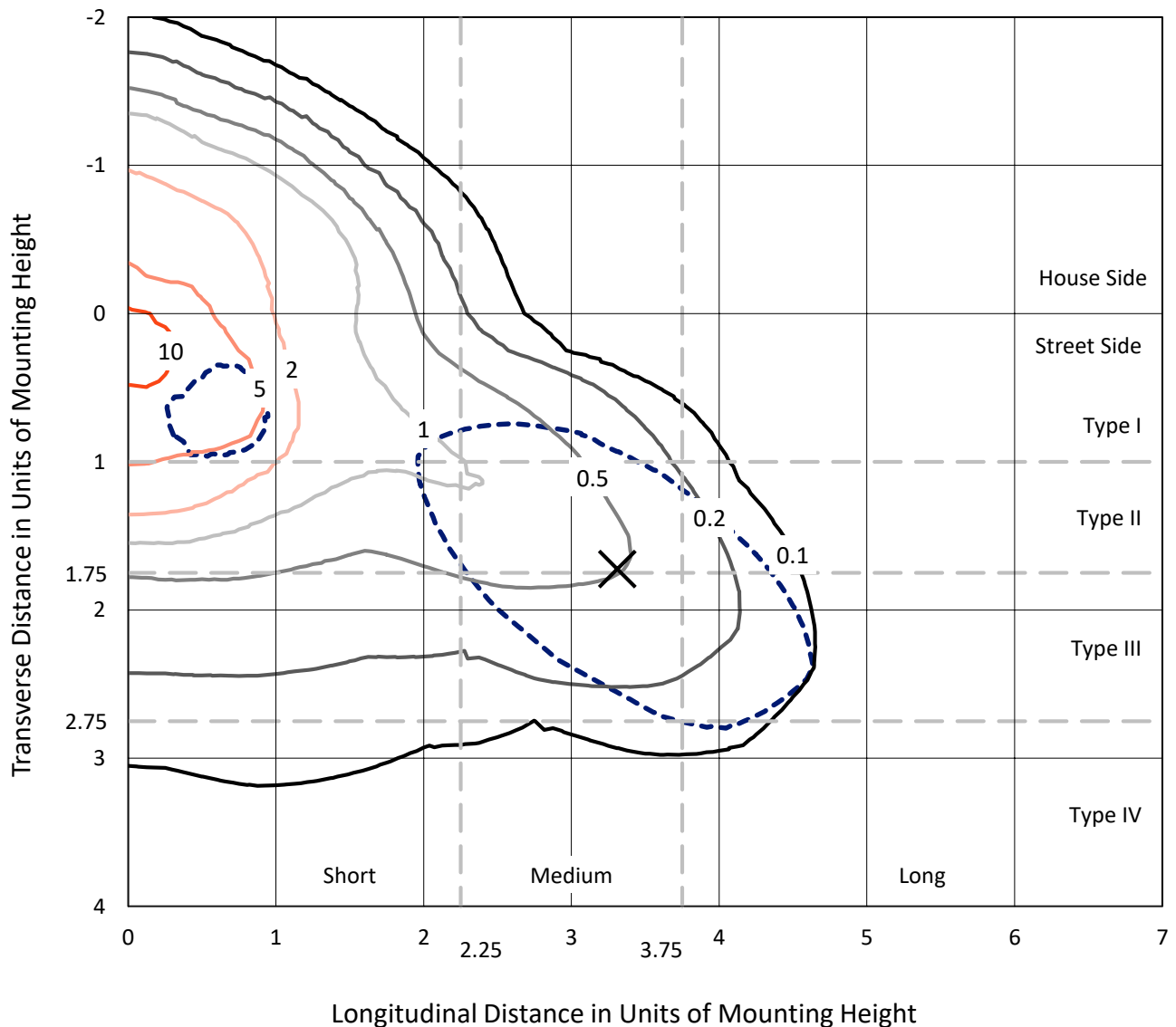
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

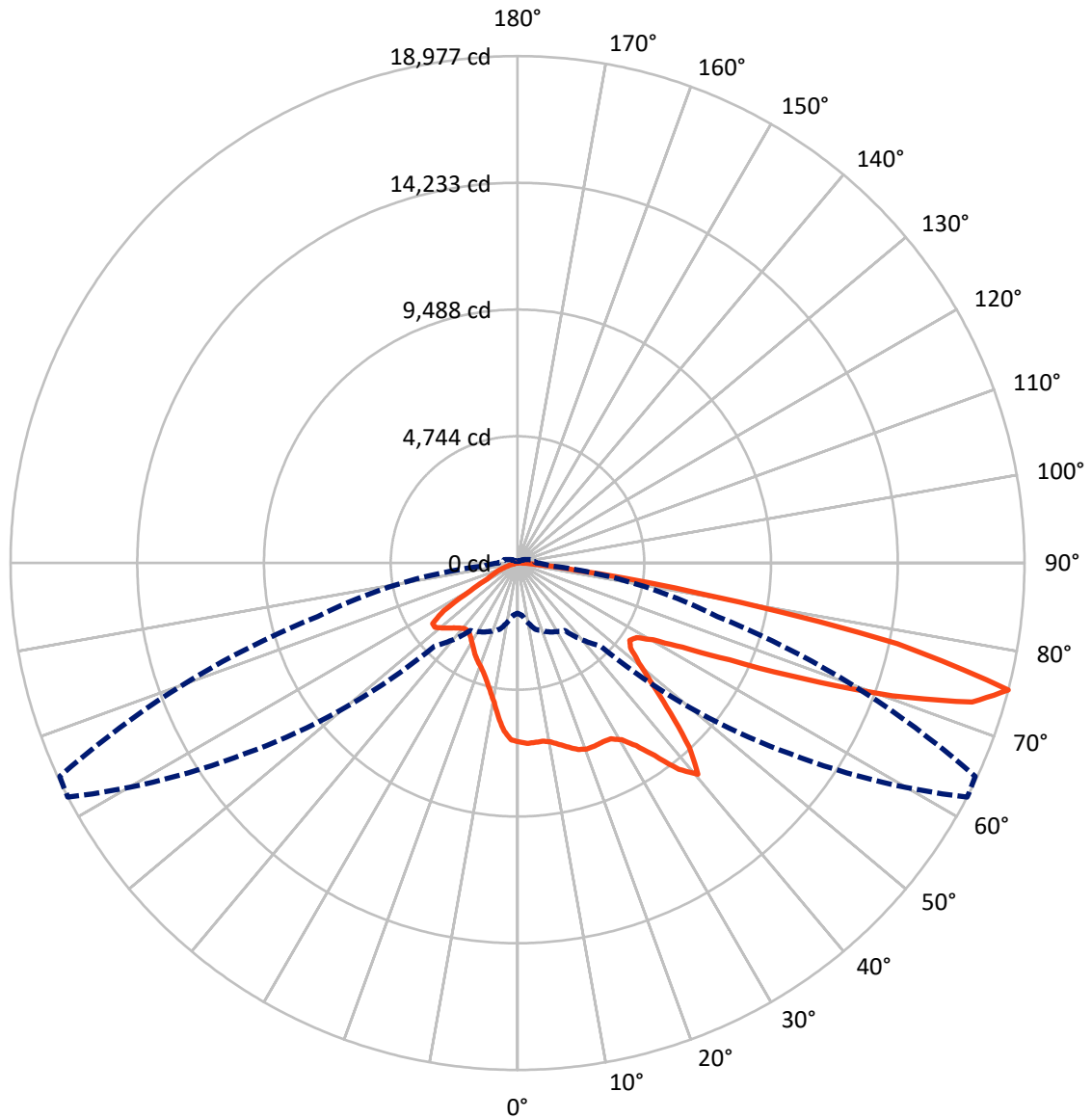
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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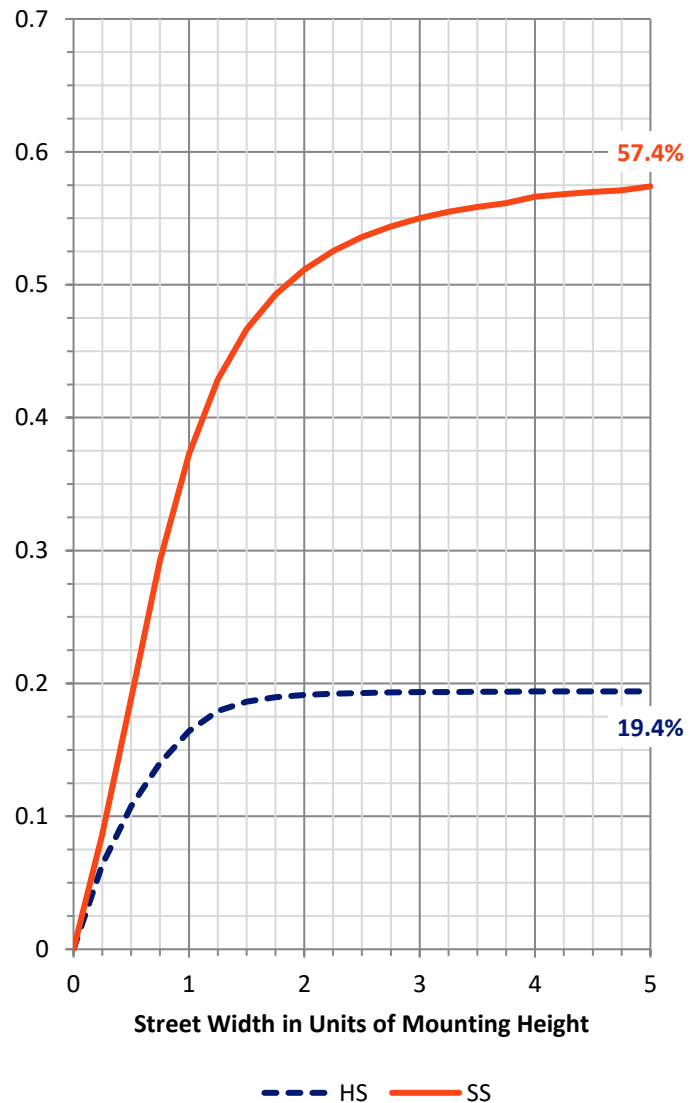
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5854.9	5.2	5860.1
	% Lamp	19.5	0.0	19.5
Street Side	Lumens	17364.3	16.4	17380.7
	% Lamp	57.9	0.1	57.9
Total	Lumens	23219.2	21.6	23240.8
	% Lamp	77.4	0.1	77.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	601.7	2.6	2.0
10°-20°	1660.5	7.1	5.5
20°-30°	2622.1	11.3	8.7
30°-40°	3636.1	15.6	12.1
40°-50°	4633.9	19.9	15.4
50°-60°	3695.3	15.9	12.3
60°-70°	2924.6	12.6	9.7
70°-80°	2982.4	12.8	9.9
80°-90°	462.5	2.0	1.5
90°-100°	20.2	0.1	0.1
100°-110°	1.4	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°	23219.2	99.9	77.4
0°-180°	23240.8	100.0	77.5

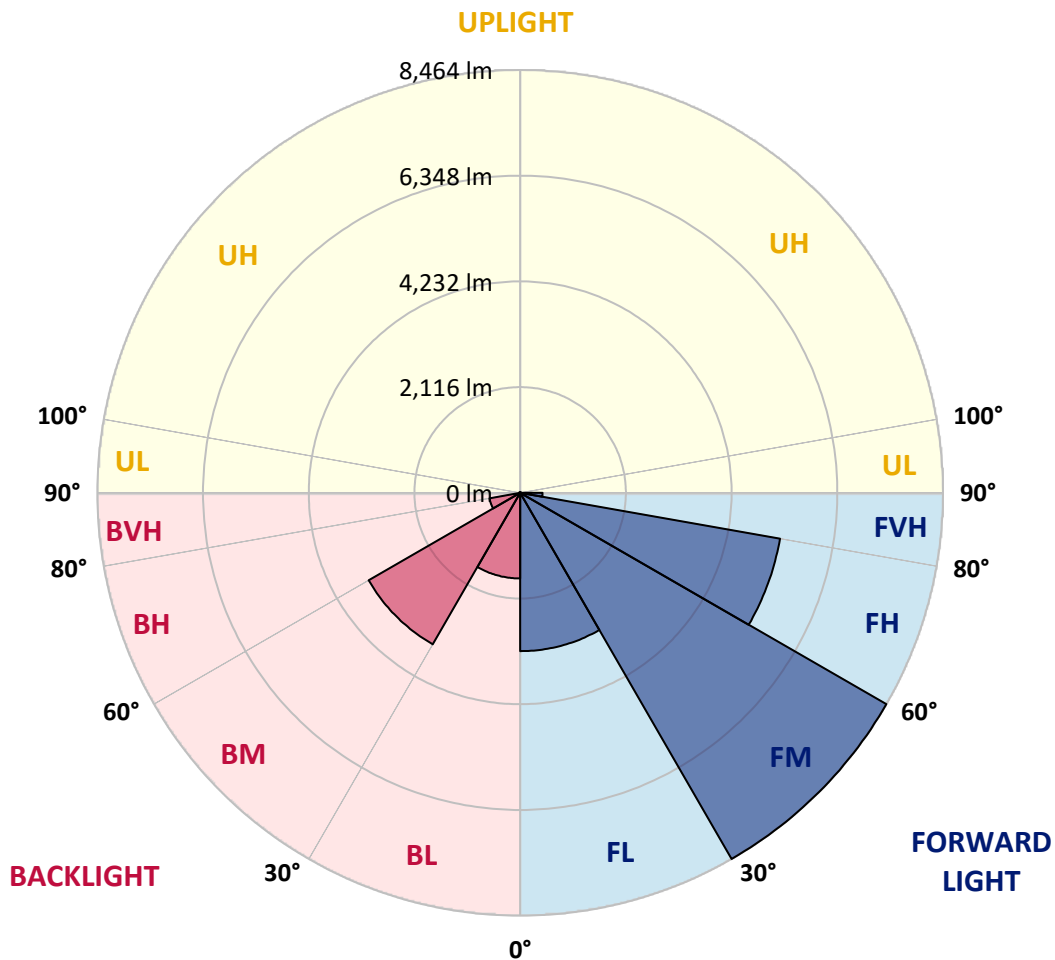


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3169.7	10.6			
FM (30°-60°)	8463.6	28.2			
FH (60°-80°)	5282.5	17.6			G3/7500
FVH (80°-90°)	448.5	1.5			G3/500
BL (0°-30°)	1714.5	5.7	B3/2500		
BM (30°-60°)	3501.8	11.7	B3/5000		
BH (60°-80°)	624.5	2.1	B2/1000		G2/1000
BVH (80°-90°)	14.0	0.0			G1/100
UL (90°-100°)	20.2	0.1		U2/50	
UH (100°-180°)	5.2	0.0		U1/10	
Trapped Light	6759.2	22.5			

BUG Rating: B3-U2-G3
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3
2.5°	6743.3	6765.0	6767.5	6759.2	6759.2	6767.5	6767.5	6760.0	6757.5	6745.0	6732.5
5°	6743.3	6757.5	6757.5	6747.5	6746.7	6743.3	6749.2	6750.8	6736.7	6720.8	6679.2
7.5°	6910.8	6937.5	6929.2	6906.7	6884.2	6835.0	6775.0	6732.5	6702.5	6638.3	6553.3
10°	7226.7	7241.7	7236.7	7196.7	7118.3	7006.7	6892.5	6810.8	6766.7	6628.3	6484.2
12.5°	7543.3	7559.2	7528.3	7468.3	7355.0	7217.5	7080.8	6970.8	6925.8	6720.0	6507.5
15°	7790.8	7805.8	7767.5	7712.5	7587.5	7420.0	7289.2	7153.3	7115.8	6873.3	6590.8
17.5°	7975.0	7994.2	7976.7	7919.2	7783.3	7623.3	7469.2	7339.2	7295.0	7016.7	6626.7
20°	8103.3	8130.0	8159.2	8145.8	8002.5	7759.2	7559.2	7430.8	7383.3	7063.3	6556.7
22.5°	8271.7	8311.7	8370.8	8421.7	8203.3	7855.8	7604.2	7431.7	7385.8	6945.0	6315.8
25°	8493.3	8525.8	8653.3	8718.3	8386.7	7935.8	7655.0	7418.3	7323.3	6721.7	5962.5
27.5°	8728.3	8768.3	8922.5	8989.2	8585.0	8098.3	7765.8	7451.7	7335.8	6537.5	5633.3
30°	8945.0	8980.0	9195.8	9182.5	8843.3	8465.8	8088.3	7679.2	7496.7	6413.3	5327.5
32.5°	9053.3	9069.2	9281.7	9343.3	9195.0	9120.8	8817.5	8148.3	7828.3	6303.3	4820.8
35°	9080.8	9110.8	9275.8	9449.2	9660.0	10017.5	9985.8	8849.2	8312.5	6119.2	4092.5
37.5°	9049.2	9065.0	9200.8	9547.5	10254.2	11268.3	11722.5	9795.0	8892.5	5289.2	3856.7
40°	9090.0	9112.5	9100.0	9576.7	10901.7	12649.2	13478.3	10400.0	8900.8	4822.5	3750.0
42.5°	9219.2	9221.7	9061.7	9520.0	11391.7	13898.3	14310.0	9422.5	7743.3	4600.0	3655.8
45°	9183.3	9256.7	9027.5	9340.8	11348.3	14430.0	13380.0	8036.7	6805.8	4302.5	3526.7
47.5°	8743.3	8844.2	8719.2	8903.3	10410.0	13177.5	10877.5	6795.0	5881.7	4012.5	3510.0
50°	7830.0	7845.8	7980.8	8112.5	8758.3	10321.7	8507.5	5895.0	5290.8	3947.5	3591.7
52.5°	6580.8	6614.2	6858.3	7038.3	7100.8	7846.7	6866.7	5296.7	4937.5	4043.3	3720.8
55°	5155.0	5143.3	5503.3	5720.0	5641.7	6435.8	6000.0	5102.5	4930.0	4226.7	3806.7
57.5°	3466.7	3580.0	4229.2	4552.5	4929.2	5726.7	5675.8	5259.2	5197.5	4565.0	3899.2
60°	2706.7	2765.8	3272.5	3919.2	4456.7	5235.8	5828.3	5834.2	5825.8	5081.7	4013.3
62.5°	2480.0	2495.8	2699.2	3400.8	4053.3	4950.8	6297.5	6931.7	7014.2	5938.3	3948.3
65°	2352.5	2358.3	2510.0	3010.8	3723.3	4747.5	7120.8	8730.0	8991.7	7046.7	3122.5
67.5°	2256.7	2275.0	2488.3	2857.5	3511.7	4675.8	8380.0	11545.8	11878.3	7791.7	2456.7
70°	2148.3	2186.7	2539.2	2875.0	3353.3	4728.3	10229.2	14885.8	15234.2	8979.2	2192.5
72.5°	2036.7	2093.3	2555.0	2901.7	3261.7	4806.7	11952.5	17795.8	18375.8	9624.2	1769.2
75°	1876.7	1970.0	2565.0	2845.8	3085.8	4398.3	12442.5	18976.7	18904.2	7744.2	1241.7
77.5°	1636.7	1752.5	2410.8	2630.0	2683.3	2800.8	11078.3	14545.0	13341.7	4203.3	748.3
80°	1440.0	1530.8	2175.8	2245.0	1689.2	1561.7	6664.2	6911.7	5867.5	1795.0	427.5
82.5°	1181.7	1270.0	1709.2	1157.5	560.8	870.0	2325.8	2213.3	1936.7	709.2	227.5
85°	794.2	835.8	875.8	427.5	278.3	375.8	733.3	704.2	614.2	274.2	98.3
87.5°	380.0	390.8	357.5	217.5	147.5	162.5	220.0	220.0	193.3	85.8	39.2
90°	150.8	158.3	156.7	111.7	79.2	79.2	76.7	60.0	51.7	31.7	24.2
92.5°	75.0	77.5	75.0	56.7	38.3	34.2	27.5	23.3	23.3	14.2	5.0
95°	40.0	40.8	36.7	27.5	18.3	15.0	14.2	6.7	5.0	5.0	5.0
97.5°	23.3	23.3	20.0	14.2	9.2	4.2	4.2	5.0	5.0	5.0	5.8
100°	20.0	20.0	16.7	11.7	7.5	5.8	5.8	5.8	5.8	5.8	6.7
102.5°	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
107.5°	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



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
112.5°	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
117.5°	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
122.5°	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
127.5°	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
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	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
142.5°	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
147.5°	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
152.5°	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
157.5°	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
162.5°	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
167.5°	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
172.5°	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
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3	6693.3
2.5°	6709.2	6710.8	6671.7	6637.5	6595.0	6567.5	6540.8	6497.5	6476.7	6463.3	6455.0
5°	6630.0	6599.2	6464.2	6344.2	6219.2	6122.5	6029.2	5962.5	5924.2	5906.7	5914.2
7.5°	6464.2	6359.2	6124.2	5868.3	5672.5	5494.2	5387.5	5323.3	5280.8	5295.0	5285.8
10°	6360.0	6194.2	5805.8	5391.7	4995.8	4739.2	4627.5	4597.5	4599.2	4627.5	4624.2
12.5°	6340.0	6120.8	5612.5	5037.5	4484.2	4105.8	3936.7	3940.8	4069.2	4173.3	4189.2
15°	6381.7	6118.3	5476.7	4729.2	4109.2	3713.3	3545.0	3572.5	3753.3	3945.8	3969.2
17.5°	6390.8	6095.8	5342.5	4469.2	3859.2	3481.7	3351.7	3376.7	3529.2	3802.5	3860.8
20°	6267.5	5965.0	5172.5	4260.0	3666.7	3336.7	3225.8	3189.2	3296.7	3562.5	3633.3
22.5°	6002.5	5690.8	4911.7	4097.5	3561.7	3259.2	3084.2	3005.0	3048.3	3257.5	3300.8
25°	5625.0	5304.2	4539.2	3896.7	3509.2	3199.2	2959.2	2819.2	2816.7	3003.3	3060.8
27.5°	5238.3	4908.3	4068.3	3650.0	3477.5	3122.5	2795.0	2646.7	2645.8	2821.7	2895.0
30°	4832.5	4265.0	3605.8	3455.8	3398.3	3045.8	2685.8	2541.7	2543.3	2717.5	2805.8
32.5°	4062.5	3692.5	3395.8	3300.8	3288.3	2997.5	2653.3	2525.8	2525.8	2733.3	2841.7
35°	3705.0	3488.3	3275.0	3187.5	3195.8	2991.7	2690.8	2601.7	2630.0	2856.7	2990.0
37.5°	3570.0	3404.2	3205.8	3139.2	3145.8	3017.5	2805.0	2821.7	2849.2	3033.3	3200.0
40°	3510.0	3349.2	3197.5	3170.8	3165.8	3105.0	2981.7	3022.5	3025.0	3101.7	3245.8
42.5°	3431.7	3329.2	3250.0	3269.2	3292.5	3244.2	3111.7	3075.0	3098.3	3154.2	3252.5
45°	3420.0	3402.5	3400.0	3410.0	3375.0	3384.2	3172.5	3052.5	3202.5	3330.0	3408.3
47.5°	3514.2	3550.0	3590.8	3605.8	3455.0	3451.7	3220.0	3047.5	3448.3	3735.8	3748.3
50°	3651.7	3690.0	3762.5	3793.3	3573.3	3413.3	3145.0	2855.0	3377.5	3940.8	3875.8
52.5°	3760.8	3800.8	3975.0	4029.2	3568.3	3175.8	2750.8	2326.7	2626.7	3277.5	3299.2
55°	3822.5	3918.3	4205.0	4115.0	3266.7	2690.0	2171.7	1715.8	1775.8	2273.3	2401.7
57.5°	3892.5	4055.0	4185.0	3542.5	2525.0	1996.7	1559.2	1202.5	1201.7	1505.0	1579.2
60°	3900.8	3899.2	3365.8	2226.7	1501.7	1219.2	983.3	817.5	857.5	1067.5	1085.8
62.5°	3424.2	2995.8	2125.8	1400.0	1000.8	808.3	695.8	643.3	662.5	799.2	815.0
65°	2289.2	1946.7	1504.2	1093.3	809.2	642.5	540.0	480.0	485.0	590.0	595.8
67.5°	1702.5	1495.8	1237.5	914.2	659.2	490.8	379.2	330.0	329.2	420.0	427.5
70°	1402.5	1191.7	980.0	704.2	474.2	325.0	237.5	203.3	205.0	272.5	285.0
72.5°	1051.7	892.5	715.8	483.3	298.3	195.8	145.0	124.2	120.0	153.3	175.8
75°	721.7	620.0	480.8	300.0	169.2	113.3	82.5	66.7	59.2	75.0	84.2
77.5°	470.0	406.7	293.3	168.3	97.5	64.2	45.0	35.0	27.5	25.0	25.8
80°	292.5	250.8	167.5	90.8	51.7	35.8	28.3	24.2	20.0	17.5	16.7
82.5°	155.0	123.3	75.0	41.7	33.3	26.7	10.0	1.7	0.8	0.0	0.0
85°	69.2	50.0	35.8	31.7	13.3	5.8	3.3	2.5	0.8	0.0	0.0
87.5°	31.7	29.2	20.8	10.0	10.0	6.7	3.3	2.5	0.8	0.0	0.0
90°	15.8	8.3	9.2	12.5	11.7	7.5	4.2	2.5	0.8	0.0	0.0
92.5°	5.8	6.7	10.8	15.8	14.2	8.3	4.2	2.5	1.7	0.0	0.0
95°	5.8	7.5	12.5	18.3	16.7	9.2	4.2	2.5	1.7	0.0	0.0
97.5°	5.8	8.3	15.0	20.8	18.3	10.0	5.0	3.3	1.7	0.0	0.0
100°	7.5	9.2	17.5	24.2	20.8	12.5	5.8	4.2	2.5	1.7	1.7
102.5°	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
107.5°	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



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 CATALOG NUMBER: OVX32PXX3EF

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	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
117.5°	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
122.5°	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
127.5°	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
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	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
142.5°	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
147.5°	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
152.5°	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
157.5°	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
162.5°	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
167.5°	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
172.5°	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
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)