

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: 767435_320MP

Luminaire Tested: **OVX32PXX2DG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 767435_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVX32PXX2DG
Description: 400WATT MH TYPE II ROADWAY
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 23070.1 lumens
Efficiency: 76.9%
Efficacy: 65.9 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type II - Medium - Cutoff
BUG Rating: B3 - U3 - G3

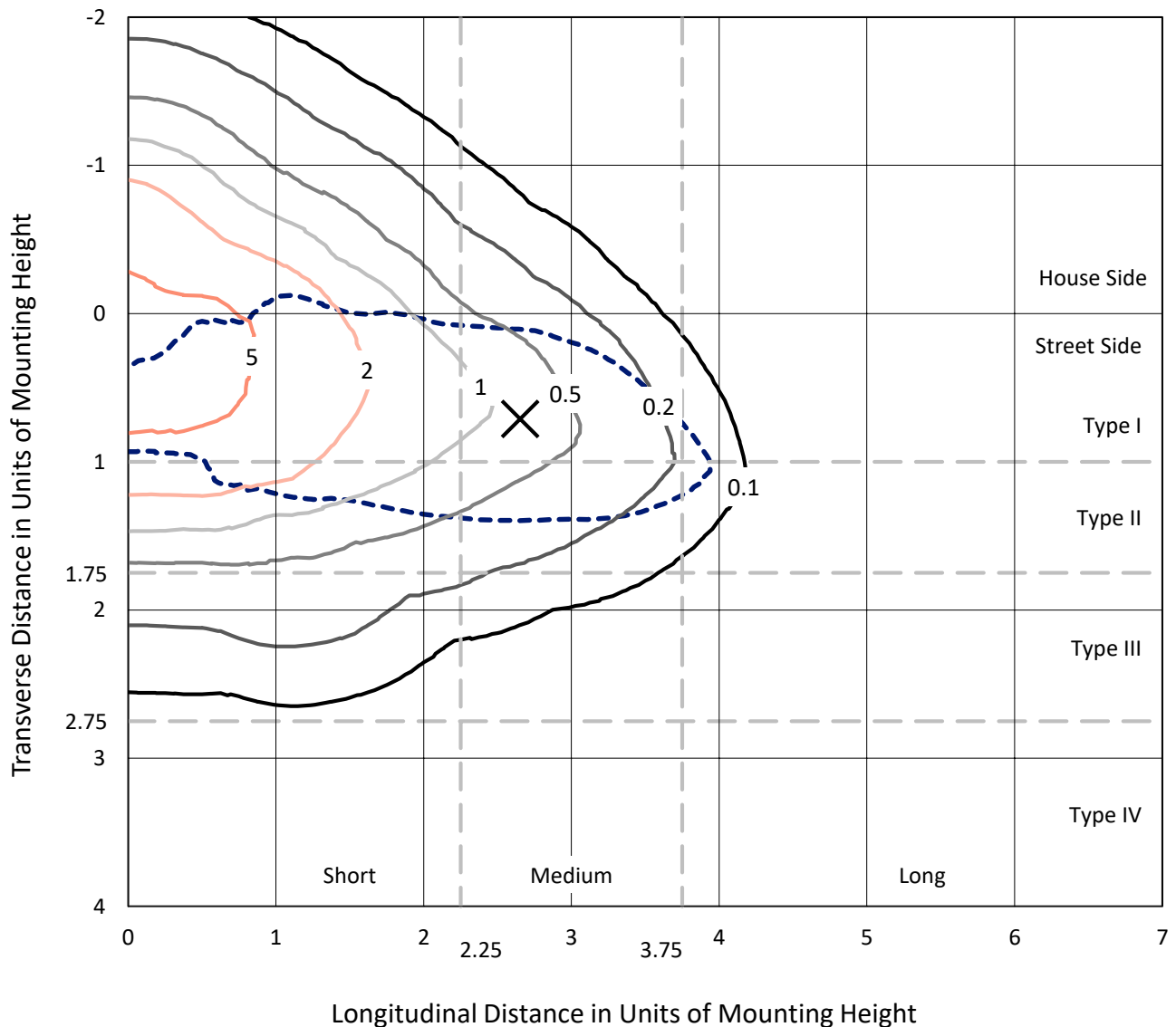
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

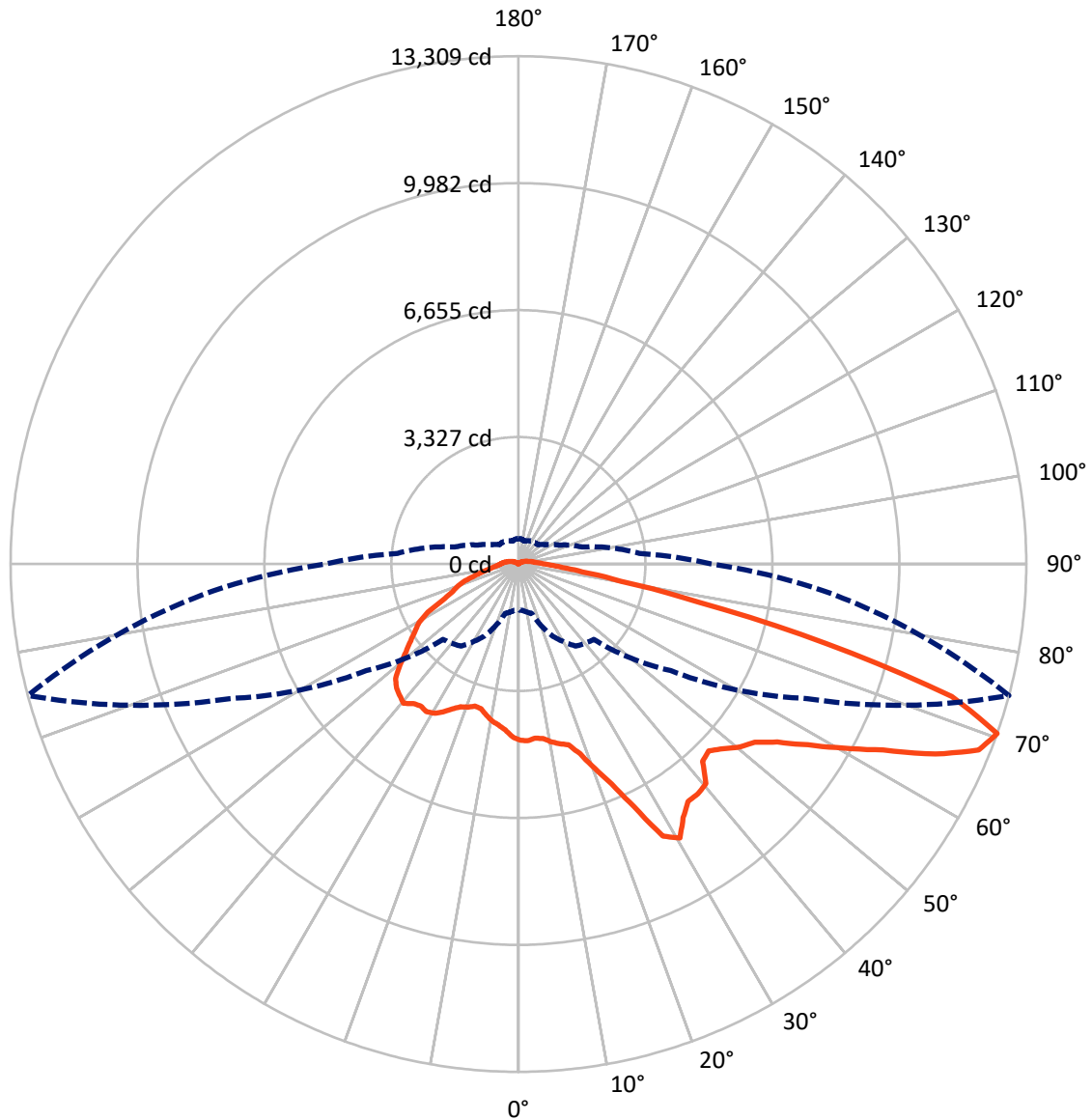
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type II - Medium - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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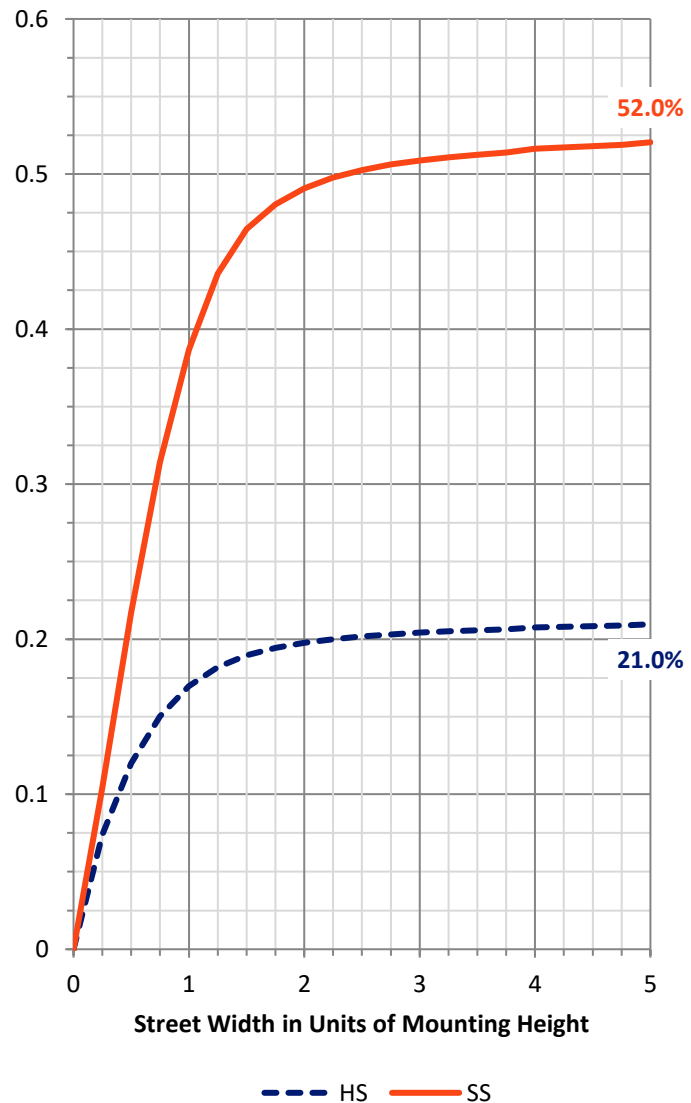
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6436.8	301.8	6738.6
	% Lamp	21.5	1.0	22.5
Street Side	Lumens	15813.6	517.9	16331.5
	% Lamp	52.7	1.7	54.4
Total	Lumens	22250.4	819.7	23070.1
	% Lamp	74.2	2.7	76.9

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	427.9	1.9	1.4
10°-20°	1309.0	5.7	4.4
20°-30°	2492.2	10.8	8.3
30°-40°	3543.8	15.4	11.8
40°-50°	4033.4	17.5	13.4
50°-60°	4087.7	17.7	13.6
60°-70°	3547.1	15.4	11.8
70°-80°	2072.6	9.0	6.9
80°-90°	736.8	3.2	2.5
90°-100°	403.1	1.7	1.3
100°-110°	247.8	1.1	0.8
110°-120°	127.7	0.6	0.4
120°-130°	47.3	0.2	0.2
130°-140°	8.8	0.0	0.0
140°-150°	0.2	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°	22250.4	96.4	74.2
0°-180°	23070.1	100.0	76.9

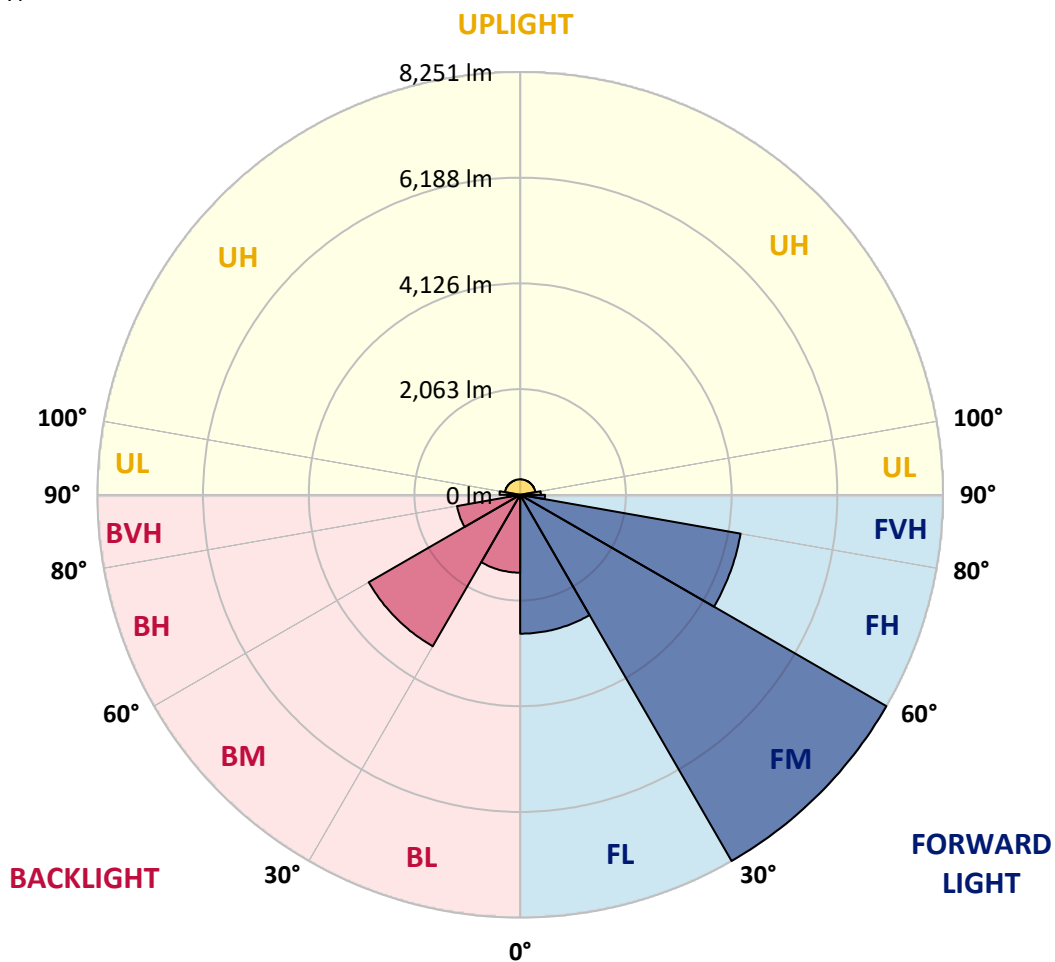


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2710.3	9.0			
FM	(30°-60°)	8251.2	27.5			
FH	(60°-80°)	4367.9	14.6			G2/5000
FVH	(80°-90°)	484.2	1.6			G3/500
BL	(0°-30°)	1518.8	5.1	B3/2500		
BM	(30°-60°)	3413.6	11.4	B3/5000		
BH	(60°-80°)	1251.8	4.2	B3/2500		G3/2500
BVH	(80°-90°)	252.6	0.8			G3/500
UL	(90°-100°)	403.1	1.3		U3/500	
UH	(100°-180°)	301.8	1.0		U3/500	
Trapped Light		6929.9	23.1			

BUG Rating: B3-U3-G3
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7
2.5°	4779.2	4806.7	4792.5	4779.2	4745.8	4738.3	4691.7	4677.5	4637.5	4616.7	4575.8
5°	4941.7	4928.3	4928.3	4867.5	4846.7	4779.2	4725.0	4657.5	4583.3	4521.7	4475.0
7.5°	5131.7	5131.7	5104.2	5030.0	4955.0	4854.2	4820.0	4705.0	4616.7	4488.3	4440.8
10°	5348.3	5388.3	5334.2	5240.0	5110.8	5023.3	4962.5	4874.2	4738.3	4549.2	4460.8
12.5°	5578.3	5611.7	5618.3	5524.2	5327.5	5232.5	5151.7	5070.0	4833.3	4603.3	4447.5
15°	5875.8	5862.5	5970.8	5869.2	5700.0	5490.0	5395.0	5205.8	4915.0	4623.3	4434.2
17.5°	6200.8	6214.2	6397.5	6350.0	6180.8	5936.7	5780.8	5564.2	5225.8	4765.8	4555.8
20°	6566.7	6627.5	6830.8	6870.8	6627.5	6499.2	6370.0	6180.8	5720.0	5050.0	4765.8
22.5°	6918.3	6993.3	7175.8	7135.0	6931.7	6985.8	7060.8	6877.5	6261.7	5388.3	4962.5
25°	7325.0	7365.0	7446.7	7338.3	7338.3	7527.5	7771.7	7750.8	7047.5	5842.5	5273.3
27.5°	7487.5	7514.2	7480.0	7514.2	7717.5	7988.3	8536.7	8875.0	8075.8	6343.3	5672.5
30°	7080.8	7128.3	7290.8	7670.0	8055.8	8441.7	9362.5	9653.3	8333.3	6451.7	5828.3
32.5°	6620.8	6675.0	6905.0	7765.0	8333.3	8942.5	9761.7	9545.0	7927.5	6322.5	5767.5
35°	6430.8	6437.5	6566.7	7642.5	8515.8	9111.7	9545.0	9105.0	7650.0	6261.7	5734.2
37.5°	6512.5	6478.3	6539.2	7534.2	8489.2	8820.8	9111.7	8543.3	7642.5	6545.8	6025.0
40°	6810.0	6729.2	6742.5	7405.8	8177.5	8610.8	8685.0	8110.0	7568.3	6965.8	6525.8
42.5°	6742.5	6708.3	6830.8	7148.3	7730.8	8495.8	8428.3	7405.8	7074.2	7054.2	6742.5
45°	6092.5	6092.5	6370.0	6681.7	7338.3	8340.0	8150.8	6945.8	6985.8	7676.7	7568.3
47.5°	5348.3	5395.0	5686.7	6309.2	6959.2	7947.5	8157.5	6918.3	7230.0	8374.2	8177.5
50°	5009.2	5023.3	5402.5	6315.8	6877.5	7906.7	8062.5	7256.7	7534.2	8164.2	7629.2
52.5°	4630.0	4630.0	5070.0	6309.2	7000.0	8509.2	8211.7	7724.2	7758.3	7947.5	7094.2
55°	3804.2	3851.7	4190.0	5605.0	6465.0	8935.8	8719.2	8157.5	8231.7	7758.3	6640.8
57.5°	2748.3	2789.2	3134.2	4345.8	5225.8	8190.8	8996.7	8766.7	8942.5	7622.5	6343.3
60°	2098.3	2139.2	2410.0	3310.0	4000.8	6803.3	8651.7	9666.7	9789.2	7920.0	6560.0
62.5°	1773.3	1794.2	2044.2	2815.8	3520.0	5320.8	7954.2	10405.0	10730.0	8455.0	6336.7
65°	1530.0	1550.0	1787.5	2626.7	3513.3	4352.5	7108.3	10370.8	12009.2	8190.8	5348.3
67.5°	1354.2	1380.8	1577.5	2490.8	3290.0	3628.3	6166.7	9633.3	13010.8	8211.7	5145.0
70°	1205.0	1218.3	1340.0	2065.0	2626.7	2795.8	4867.5	8340.0	13309.2	8021.7	5050.0
72.5°	1083.3	1096.7	1170.8	1516.7	1902.5	2105.0	3554.2	6790.0	11880.8	6640.8	4210.8
75°	988.3	995.0	1055.8	1185.0	1421.7	1712.5	2606.7	5178.3	8333.3	4475.0	3080.0
77.5°	880.0	880.0	954.2	995.0	1150.8	1428.3	2004.2	3554.2	4833.3	2761.7	2098.3
80°	771.7	785.0	873.3	860.0	975.0	1191.7	1510.0	2267.5	2715.0	1712.5	1394.2
82.5°	690.8	710.8	778.3	765.0	853.3	988.3	1130.8	1455.8	1685.8	1205.0	981.7
85°	622.5	629.2	683.3	683.3	745.0	805.8	873.3	1015.8	1170.8	927.5	745.0
87.5°	555.0	568.3	595.8	602.5	650.0	656.7	697.5	758.3	853.3	704.2	595.8
90°	500.8	514.2	521.7	535.0	561.7	555.0	575.0	595.8	650.0	575.0	514.2
95°	420.0	413.3	420.0	440.0	446.7	440.0	426.7	433.3	440.0	420.0	405.8
105°	284.2	290.8	297.5	311.7	311.7	290.8	277.5	270.8	257.5	257.5	257.5
115°	189.2	196.7	196.7	196.7	189.2	175.8	155.8	155.8	149.2	155.8	155.8
125°	95.0	88.3	67.5	54.2	40.8	47.5	60.8	74.2	80.8	74.2	74.2
135°	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
155°	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



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7	4616.7
2.5°	4583.3	4529.2	4495.0	4460.8	4325.8	4427.5	4406.7	4305.8	4393.3	4427.5
5°	4447.5	4360.0	4325.8	4251.7	4122.5	4190.0	4190.0	4061.7	4190.0	4183.3
7.5°	4352.5	4251.7	4129.2	4041.7	3865.8	3946.7	3973.3	3831.7	3973.3	3953.3
10°	4345.8	4170.0	3960.0	3845.0	3641.7	3757.5	3730.0	3628.3	3764.2	3764.2
12.5°	4332.5	4048.3	3838.3	3682.5	3472.5	3567.5	3547.5	3459.2	3587.5	3615.0
15°	4285.0	3912.5	3682.5	3520.0	3350.8	3425.0	3425.0	3350.8	3520.0	3520.0
17.5°	4325.8	3892.5	3580.8	3432.5	3296.7	3344.2	3350.8	3317.5	3493.3	3479.2
20°	4460.8	3980.8	3595.0	3398.3	3229.2	3270.0	3249.2	3263.3	3425.0	3452.5
22.5°	4630.0	4035.0	3655.8	3364.2	3127.5	3114.2	3093.3	3175.0	3249.2	3290.0
25°	4874.2	4170.0	3723.3	3324.2	3039.2	2965.0	2938.3	2999.2	3080.0	3100.8
27.5°	5124.2	4352.5	3723.3	3290.0	2951.7	2876.7	2843.3	2904.2	3005.8	3005.8
30°	5348.3	4495.0	3641.7	3188.3	2876.7	2822.5	2789.2	2876.7	2999.2	3019.2
32.5°	5429.2	4562.5	3554.2	3080.0	2850.0	2802.5	2795.8	2930.8	3066.7	3114.2
35°	5340.8	4515.0	3513.3	2945.0	2802.5	2769.2	2815.8	2985.0	3161.7	3209.2
37.5°	5496.7	4575.8	3418.3	2795.8	2667.5	2653.3	2748.3	2951.7	3188.3	3209.2
40°	5950.8	4731.7	3452.5	2680.8	2511.7	2525.0	2633.3	2850.0	3147.5	3155.0
42.5°	6174.2	4644.2	3350.8	2620.0	2362.5	2382.5	2505.0	2741.7	2985.0	3046.7
45°	6810.0	4555.8	3147.5	2505.0	2240.8	2193.3	2349.2	2538.3	2741.7	2789.2
47.5°	7054.2	4400.0	3032.5	2335.8	2037.5	2004.2	2173.3	2308.3	2477.5	2490.8
50°	6445.0	4075.0	2992.5	2206.7	1848.3	1841.7	2010.8	2105.0	2240.8	2234.2
52.5°	5977.5	3736.7	2856.7	2078.3	1679.2	1665.0	1827.5	1929.2	2004.2	2017.5
55°	5524.2	3465.8	2694.2	1861.7	1523.3	1462.5	1584.2	1733.3	1773.3	1773.3
57.5°	5240.0	3229.2	2450.8	1671.7	1367.5	1300.0	1347.5	1475.8	1536.7	1516.7
60°	5402.5	3019.2	2159.2	1502.5	1198.3	1144.2	1144.2	1239.2	1320.0	1300.0
62.5°	4935.0	2687.5	1881.7	1340.0	1062.5	1001.7	975.0	1029.2	1096.7	1096.7
65°	3919.2	2180.0	1604.2	1185.0	947.5	880.0	845.8	853.3	920.8	934.2
67.5°	3425.0	1888.3	1354.2	1042.5	832.5	791.7	771.7	737.5	791.7	799.2
70°	3181.7	1719.2	1170.8	880.0	717.5	704.2	676.7	622.5	663.3	663.3
72.5°	2748.3	1516.7	1062.5	778.3	629.2	636.7	609.2	548.3	568.3	568.3
75°	2173.3	1231.7	940.8	717.5	582.5	589.2	568.3	487.5	507.5	500.8
77.5°	1597.5	995.0	799.2	643.3	521.7	535.0	514.2	433.3	446.7	446.7
80°	1177.5	819.2	663.3	568.3	474.2	480.8	460.0	379.2	405.8	392.5
82.5°	886.7	690.8	575.0	507.5	420.0	440.0	420.0	338.3	351.7	351.7
85°	683.3	595.8	514.2	460.0	392.5	399.2	379.2	305.0	318.3	311.7
87.5°	555.0	521.7	474.2	426.7	351.7	372.5	345.0	264.2	284.2	270.8
90°	480.8	474.2	440.0	399.2	318.3	331.7	311.7	236.7	243.3	243.3
95°	399.2	405.8	372.5	338.3	250.8	264.2	230.0	169.2	182.5	189.2
105°	264.2	257.5	243.3	210.0	121.7	135.0	121.7	54.2	121.7	121.7
115°	155.8	149.2	115.0	80.8	20.0	26.7	34.2	20.0	20.0	0.0
125°	67.5	54.2	40.8	20.0	0.0	6.7	6.7	0.0	13.3	13.3
135°	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	6.7	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
165°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	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

(END OF REPORT)