

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: ITL53963_320MP

Luminaire Tested: **GMX32PXX2SFHS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: ITL53963_320MP
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX32PXX2SFHS
Description: 400W MH TYPE II AREA
WITH HOUSE SIDE SHIELD
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 17557.7 lumens
Efficiency: 58.5%
Efficacy: 50.2 lumens/watt
Luminous Opening: Circular (Dia: 1.74' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

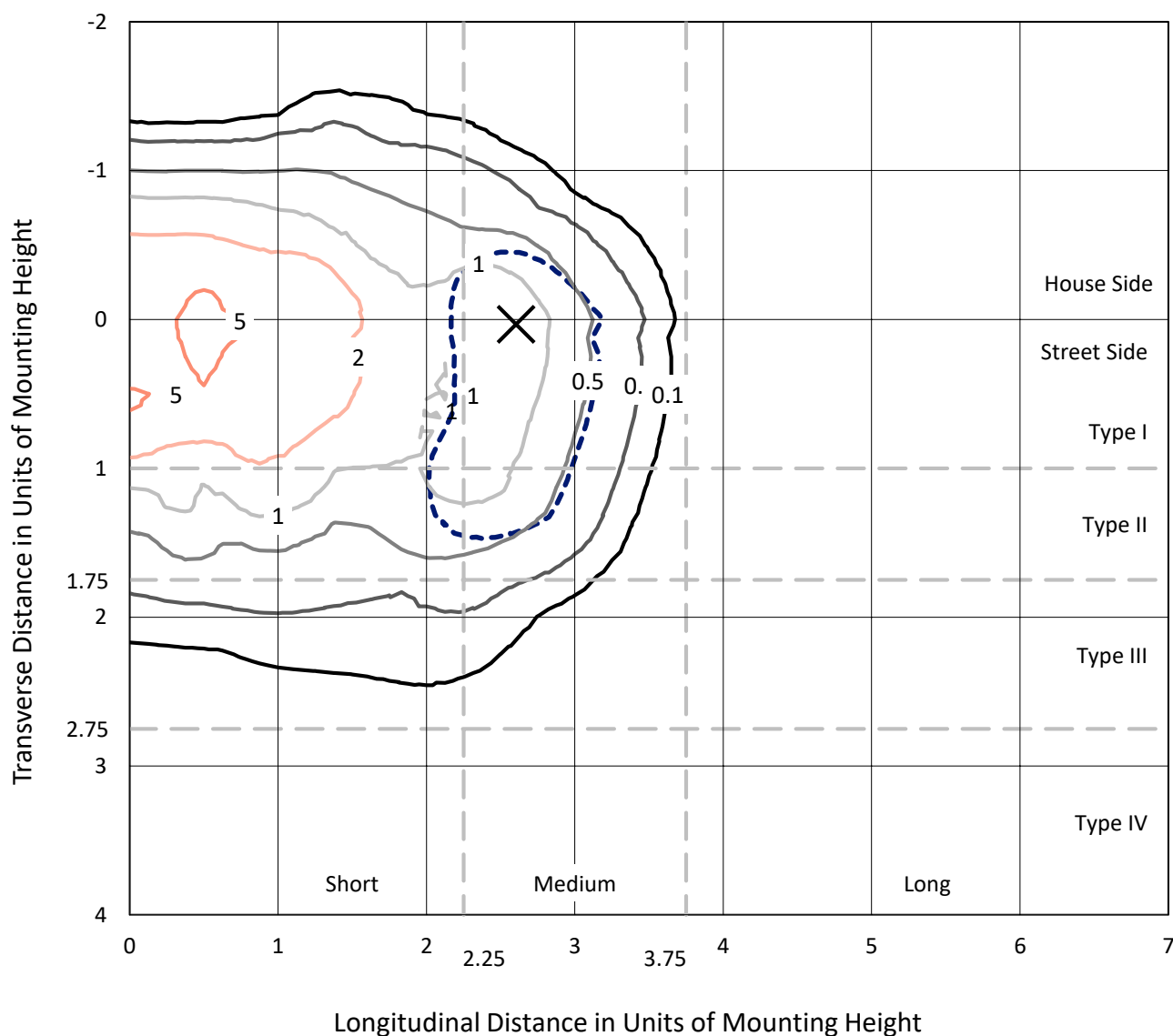
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

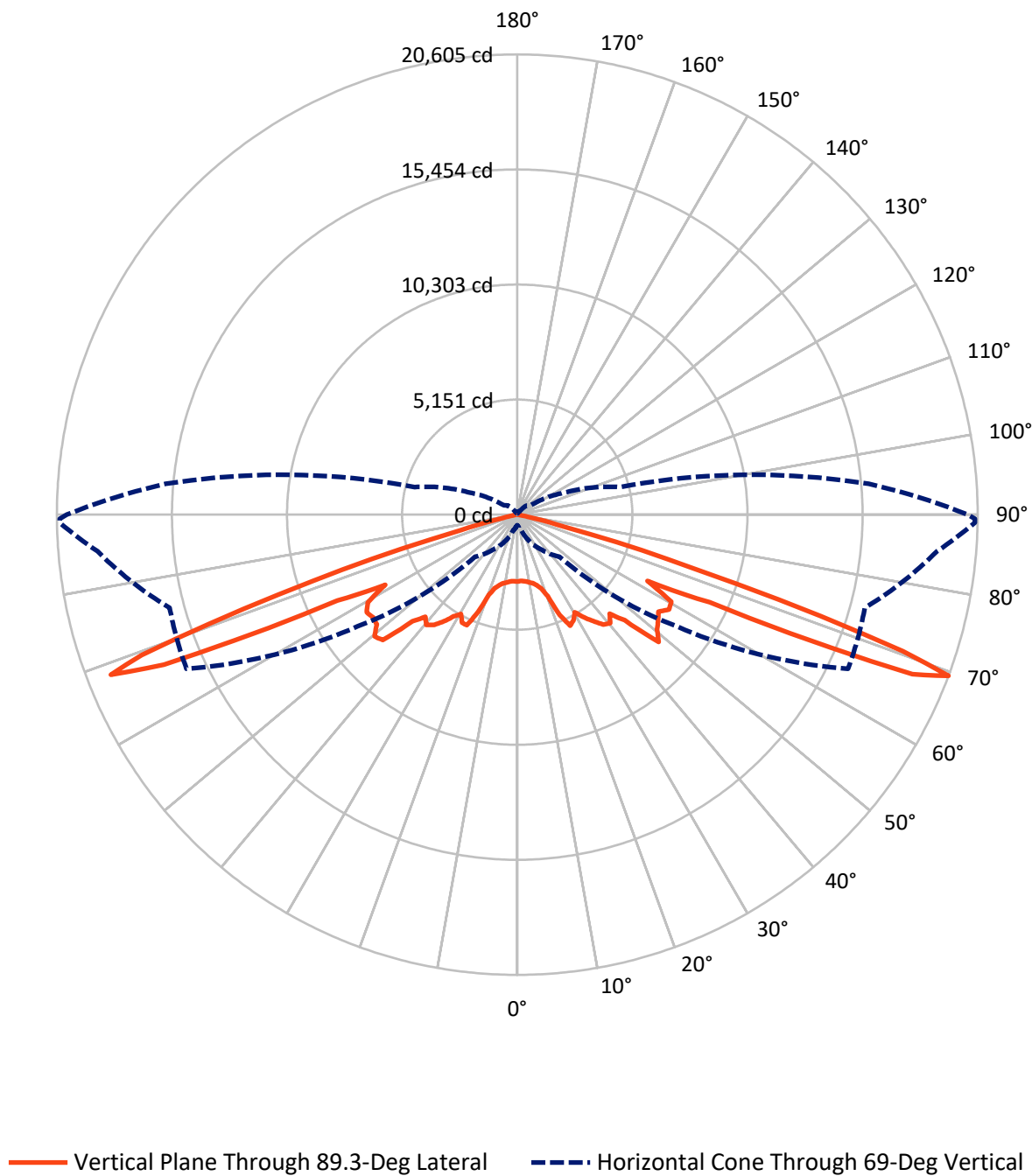
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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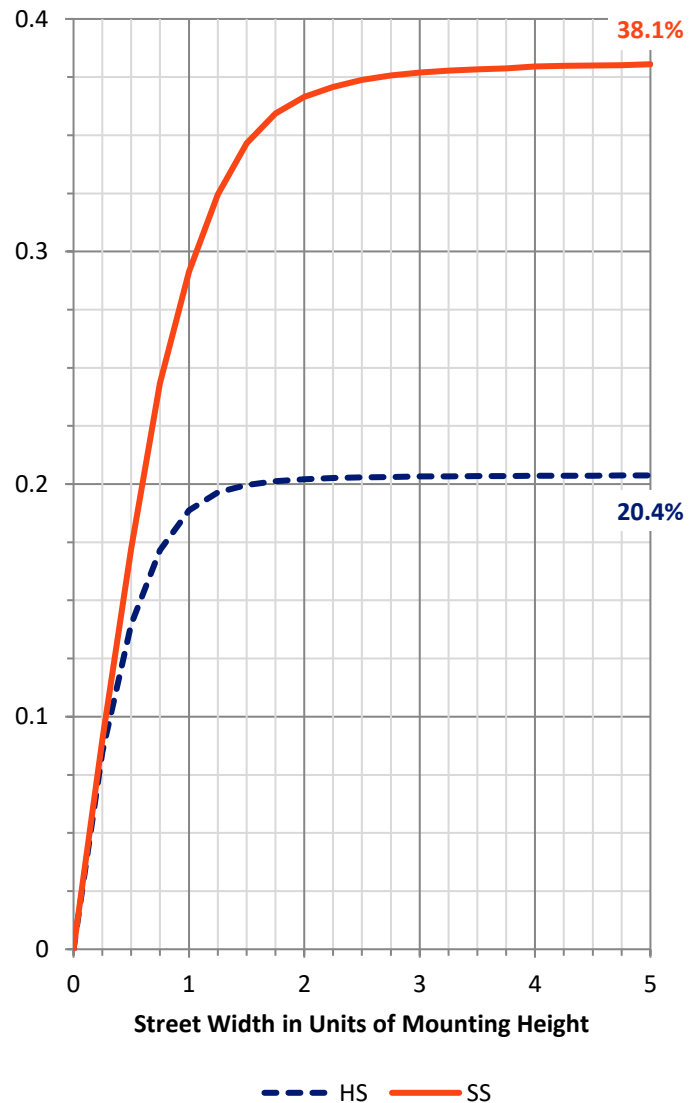
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6157.5	0.0	6157.5
	% Lamp	20.5	0.0	20.5
Street Side	Lumens	11400.2	0.0	11400.2
	% Lamp	38.0	0.0	38.0
Total	Lumens	17557.7	0.0	17557.7
	% Lamp	58.5	0.0	58.5

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	282.2	1.6	0.9
10°-20°	842.5	4.8	2.8
20°-30°	1703.5	9.7	5.7
30°-40°	2547.5	14.5	8.5
40°-50°	3055.2	17.4	10.2
50°-60°	3476.4	19.8	11.6
60°-70°	3870.9	22.0	12.9
70°-80°	1727.0	9.8	5.8
80°-90°	52.7	0.3	0.2
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°	17557.7	100.0	58.5
0°-180°	17557.7	100.0	58.5

Coefficient of Utilization



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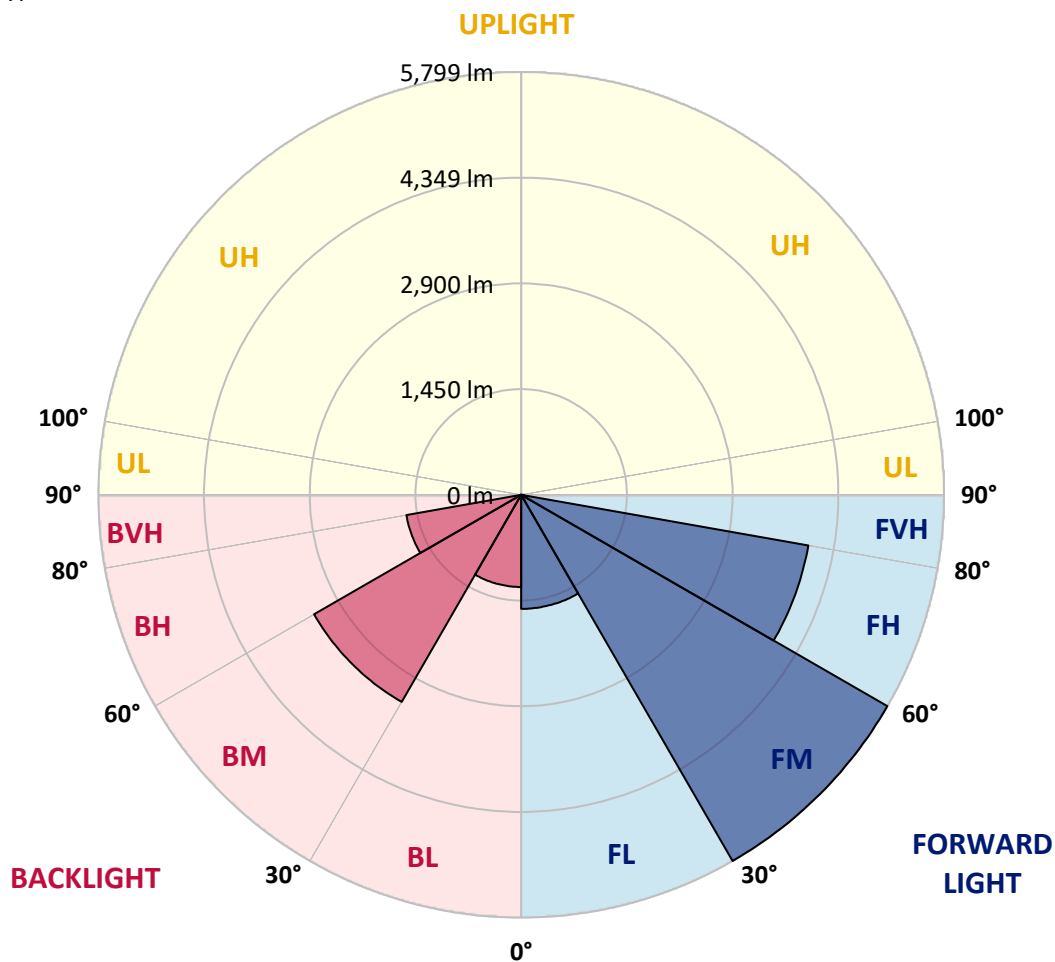
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1563.8	5.2			
FM	(30°-60°)	5799.1	19.3			
FH	(60°-80°)	3999.4	13.3			G2/5000
FVH	(80°-90°)	37.8	0.1			G1/100
BL	(0°-30°)	1264.3	4.2	B3/2500		
BM	(30°-60°)	3279.9	10.9	B3/5000		
BH	(60°-80°)	1598.4	5.3	B3/2500		G3/2500
BVH	(80°-90°)	14.8	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		12442.3	41.5			

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89.3°
0°	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8
2.5°	3007.5	2998.3	3007.5	2989.2	2980.0	2998.3	2998.3	2989.2	2980.0	2980.0	2970.8
5°	3025.8	3035.0	2989.2	2989.2	2989.2	3016.7	3016.7	3007.5	3007.5	2998.3	2989.2
7.5°	3044.2	3016.7	2980.0	3007.5	3025.8	3035.0	3025.8	3016.7	3007.5	3025.8	3025.8
10°	3007.5	3007.5	2989.2	3016.7	3035.0	3044.2	3044.2	3053.3	3061.7	3080.0	3089.2
12.5°	2952.5	2961.7	2970.8	3025.8	3025.8	3044.2	3107.5	3125.8	3135.0	3144.2	3153.3
15°	2898.3	2907.5	2952.5	2998.3	3016.7	3080.0	3162.5	3253.3	3271.7	3280.8	3280.8
17.5°	2880.0	2880.0	2925.0	2980.0	3035.0	3144.2	3290.0	3390.0	3445.0	3463.3	3472.5
20°	2880.0	2861.7	2898.3	2989.2	3098.3	3253.3	3417.5	3554.2	3709.2	3818.3	3891.7
22.5°	3171.7	3035.0	2980.0	3035.0	3171.7	3390.0	3663.3	4019.2	4392.5	4693.3	4885.0
25°	4338.3	4046.7	3563.3	3262.5	3290.0	3654.2	4210.0	4839.2	5276.7	5450.0	5504.2
27.5°	4994.2	4857.5	4529.2	4110.0	3609.2	4055.0	4911.7	5450.0	5568.3	5485.8	5358.3
30°	5176.7	5130.8	4820.8	4383.3	4110.0	4565.8	5385.8	5504.2	5331.7	5185.8	5066.7
32.5°	5049.2	5094.2	4811.7	3973.3	4510.8	5176.7	5404.2	5322.5	5358.3	5431.7	5485.8
35°	4775.0	4820.8	4192.5	3982.5	4720.8	5559.2	5240.0	5367.5	5714.2	5878.3	5850.8
37.5°	4338.3	4292.5	3463.3	3918.3	4720.8	5468.3	5304.2	5640.8	6115.0	6242.5	6242.5
40°	3755.0	3700.0	3070.8	3526.7	4283.3	5331.7	5805.0	6024.2	6415.8	6479.2	6397.5
42.5°	3171.7	3153.3	2779.2	2898.3	3764.2	5249.2	6297.5	6124.2	6251.7	6215.0	6069.2
45°	2625.0	2606.7	2505.8	2542.5	3308.3	5203.3	6388.3	6224.2	6598.3	6625.0	6744.2
47.5°	2241.7	2260.0	2241.7	2424.2	3426.7	5522.5	6279.2	6935.0	7737.5	8029.2	8511.7
50°	2023.3	2114.2	2989.2	2369.2	3809.2	6142.5	6534.2	7700.8	7837.5	8402.5	8110.8
52.5°	1804.2	1905.0	3299.2	2287.5	3982.5	6351.7	7327.5	8092.5	8192.5	7810.0	7892.5
55°	1622.5	1740.8	2451.7	2223.3	4656.7	4730.0	6680.0	7610.0	8247.5	7163.3	7664.2
57.5°	1458.3	1585.8	2770.8	2123.3	4620.8	6096.7	5130.8	7782.5	8502.5	7527.5	8010.8
60°	1257.5	1385.0	2205.0	2023.3	3645.0	4875.8	4857.5	8812.5	8502.5	8465.8	7919.2
62.5°	1057.5	1139.2	1430.8	1914.2	2806.7	3216.7	5103.3	8110.8	7335.8	7272.5	6534.2
65°	875.0	911.7	1102.5	1750.0	2324.2	2889.2	5795.8	8129.2	7618.3	8420.8	9468.3
67.5°	620.0	665.0	856.7	1485.8	2014.2	2734.2	8539.2	13679.2	12558.3	15848.3	19074.2
69°	474.2	537.5	747.5	1330.8	1931.7	2660.8	8721.7	16330.8	16103.3	18855.0	20605.0
70°	400.8	483.3	701.7	1185.0	1914.2	2597.5	7773.3	16504.2	16868.3	18472.5	18308.3
72.5°	200.8	273.3	665.0	537.5	1868.3	2970.8	3910.0	9377.5	9560.0	10161.7	8275.0
75°	72.5	127.5	492.5	210.0	1230.0	1940.8	1330.8	2524.2	2551.7	2625.0	2150.8
77.5°	36.7	64.2	155.0	100.0	765.8	701.7	455.8	555.8	592.5	610.8	537.5
80°	18.3	18.3	245.8	72.5	620.0	965.8	173.3	182.5	191.7	200.8	182.5
82.5°	0.0	0.0	173.3	45.8	127.5	218.3	282.5	72.5	64.2	90.8	72.5
85°	0.0	0.0	0.0	0.0	0.0	9.2	9.2	18.3	27.5	27.5	9.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	9.2	0.0	0.0
90°	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°	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8	2995.8
2.5°	2989.2	2970.8	2970.8	2961.7	2961.7	2961.7	2934.2	2943.3	2898.3	2925.0	2952.5
5°	2989.2	2989.2	2980.0	2961.7	2943.3	2925.0	2898.3	2870.8	2852.5	2852.5	2880.0
7.5°	3025.8	3025.8	2998.3	2970.8	2925.0	2880.0	2843.3	2797.5	2743.3	2761.7	2806.7
10°	3089.2	3089.2	3070.8	2998.3	2916.7	2834.2	2743.3	2697.5	2660.8	2679.2	2697.5
12.5°	3144.2	3144.2	3098.3	3007.5	2898.3	2788.3	2679.2	2597.5	2560.8	2551.7	2570.0
15°	3271.7	3253.3	3162.5	3035.0	2880.0	2743.3	2615.8	2524.2	2460.8	2433.3	2460.8
17.5°	3445.0	3390.0	3271.7	3089.2	2907.5	2715.8	2551.7	2433.3	2350.8	2324.2	2369.2
20°	3809.2	3772.5	3554.2	3253.3	2943.3	2679.2	2488.3	2342.5	2250.8	2223.3	2241.7
22.5°	4711.7	4638.3	4228.3	3627.5	3025.8	2660.8	2424.2	2269.2	2178.3	2141.7	2169.2
25°	5450.0	5367.5	5066.7	4183.3	3171.7	2633.3	2378.3	2223.3	2114.2	2068.3	2095.8
27.5°	5440.8	5376.7	5258.3	4410.8	3235.0	2633.3	2369.2	2169.2	2050.8	1986.7	2005.0
30°	5121.7	5066.7	4930.0	4210.0	3098.3	2642.5	2350.8	2114.2	1950.0	1877.5	1914.2
32.5°	5385.8	5267.5	4903.3	3945.8	2970.8	2642.5	2315.0	2041.7	1840.8	1759.2	1785.8
35°	5814.2	5668.3	5167.5	3910.0	2961.7	2633.3	2278.3	1950.0	1704.2	1613.3	1658.3
37.5°	6188.3	6087.5	5450.0	3910.0	2970.8	2625.0	2205.0	1813.3	1576.7	1467.5	1512.5
40°	6415.8	6315.8	5605.0	3790.8	2952.5	2560.8	2050.8	1658.3	1375.8	1257.5	1312.5
42.5°	6142.5	6160.8	5614.2	3681.7	2980.0	2470.0	1905.0	1476.7	1185.0	1066.7	1093.3
45°	6661.7	6871.7	5841.7	3609.2	2970.8	2305.8	1713.3	1266.7	993.3	865.8	893.3
47.5°	8201.7	8384.2	6798.3	3709.2	2870.8	2132.5	1494.2	1048.3	765.8	655.8	674.2
50°	8375.0	8548.3	6525.0	3910.0	2715.8	1914.2	1257.5	801.7	565.0	455.8	492.5
52.5°	7965.0	8029.2	6434.2	3864.2	2588.3	1713.3	975.0	555.8	364.2	282.5	310.0
55°	7883.3	8156.7	6096.7	3645.0	2633.3	1595.0	729.2	337.5	218.3	164.2	164.2
57.5°	8083.3	7746.7	4885.0	3353.3	2505.8	1494.2	537.5	236.7	173.3	136.7	127.5
60°	7883.3	7035.8	3982.5	3153.3	2378.3	1102.5	364.2	210.0	136.7	118.3	127.5
62.5°	6716.7	6479.2	4401.7	3344.2	1950.0	1194.2	328.3	182.5	118.3	90.8	90.8
65°	8903.3	9040.0	5094.2	3070.8	1321.7	792.5	273.3	155.0	100.0	72.5	72.5
67.5°	17479.2	15319.2	5185.8	2734.2	1093.3	820.0	218.3	127.5	81.7	64.2	72.5
69°	20158.3	15793.3	4757.5	2315.0	729.2	555.8	182.5	118.3	72.5	55.0	55.0
70°	18664.2	13596.7	4110.0	1685.8	592.5	410.0	182.5	118.3	90.8	72.5	72.5
72.5°	10088.3	6707.5	2005.0	838.3	346.7	218.3	109.2	81.7	55.0	45.8	36.7
75°	2697.5	2214.2	884.2	537.5	218.3	136.7	72.5	45.8	36.7	27.5	36.7
77.5°	655.8	574.2	319.2	310.0	136.7	90.8	36.7	27.5	18.3	9.2	18.3
80°	227.5	255.0	136.7	182.5	72.5	81.7	36.7	18.3	18.3	18.3	18.3
82.5°	100.0	100.0	64.2	81.7	36.7	55.0	18.3	18.3	18.3	9.2	18.3
85°	36.7	27.5	18.3	36.7	18.3	18.3	9.2	0.0	0.0	0.0	0.0
87.5°	0.0	18.3	9.2	9.2	9.2	0.0	0.0	0.0	0.0	0.0	0.0
90°	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)