

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: ITL53976_400MP

Luminaire Tested: **GMX40PXX4SFH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: ITL53976_400MP
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX40PXX4SFH
Description: 400W MH TYPE IV AREA
WITH HOUSE SIDE SHIELD
Light Source: 400 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 16405.3 lumens
Efficiency: 41.0%
Efficacy: 36.3 lumens/watt
Luminous Opening: Circular (Dia: 1.74' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

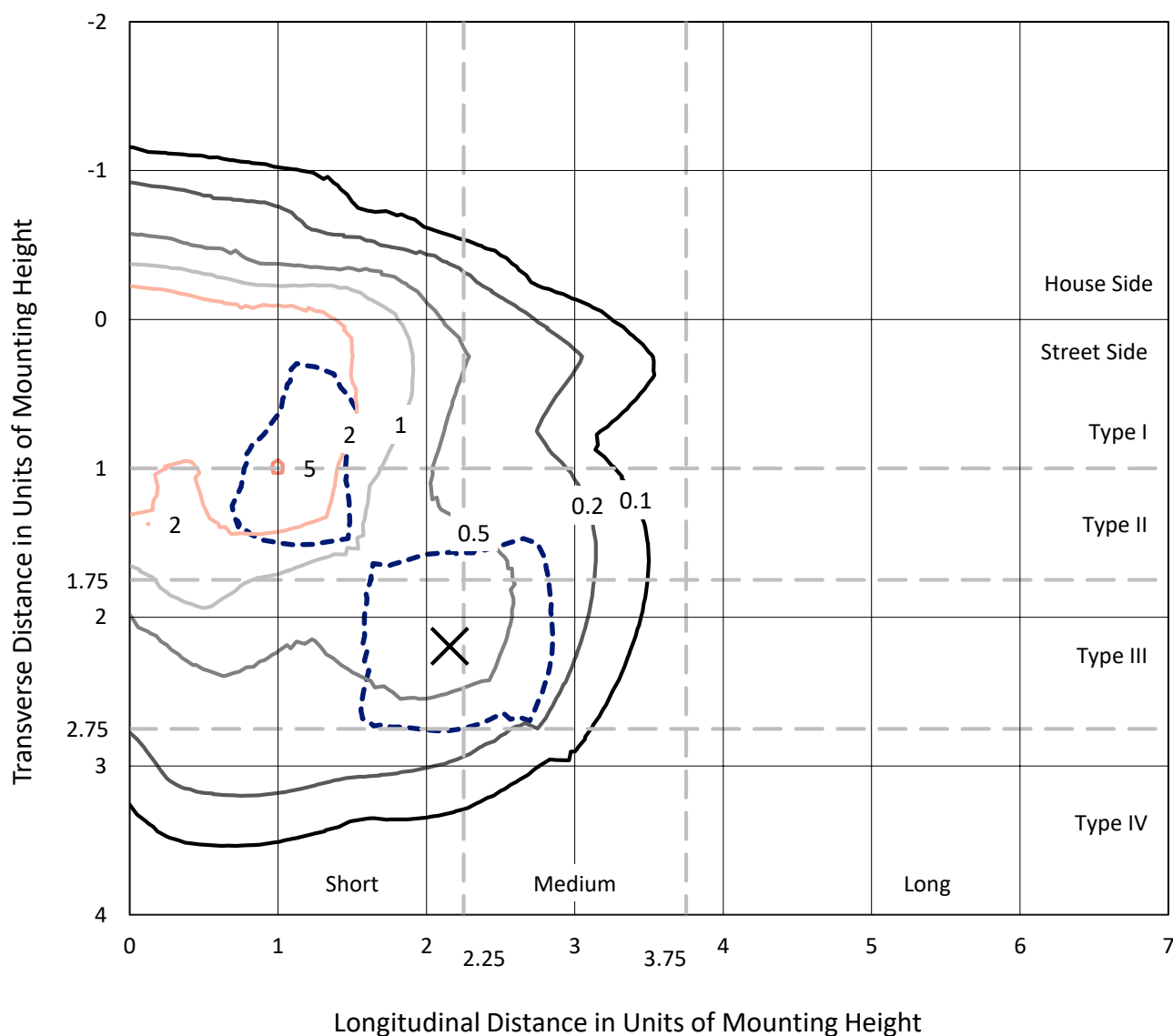
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

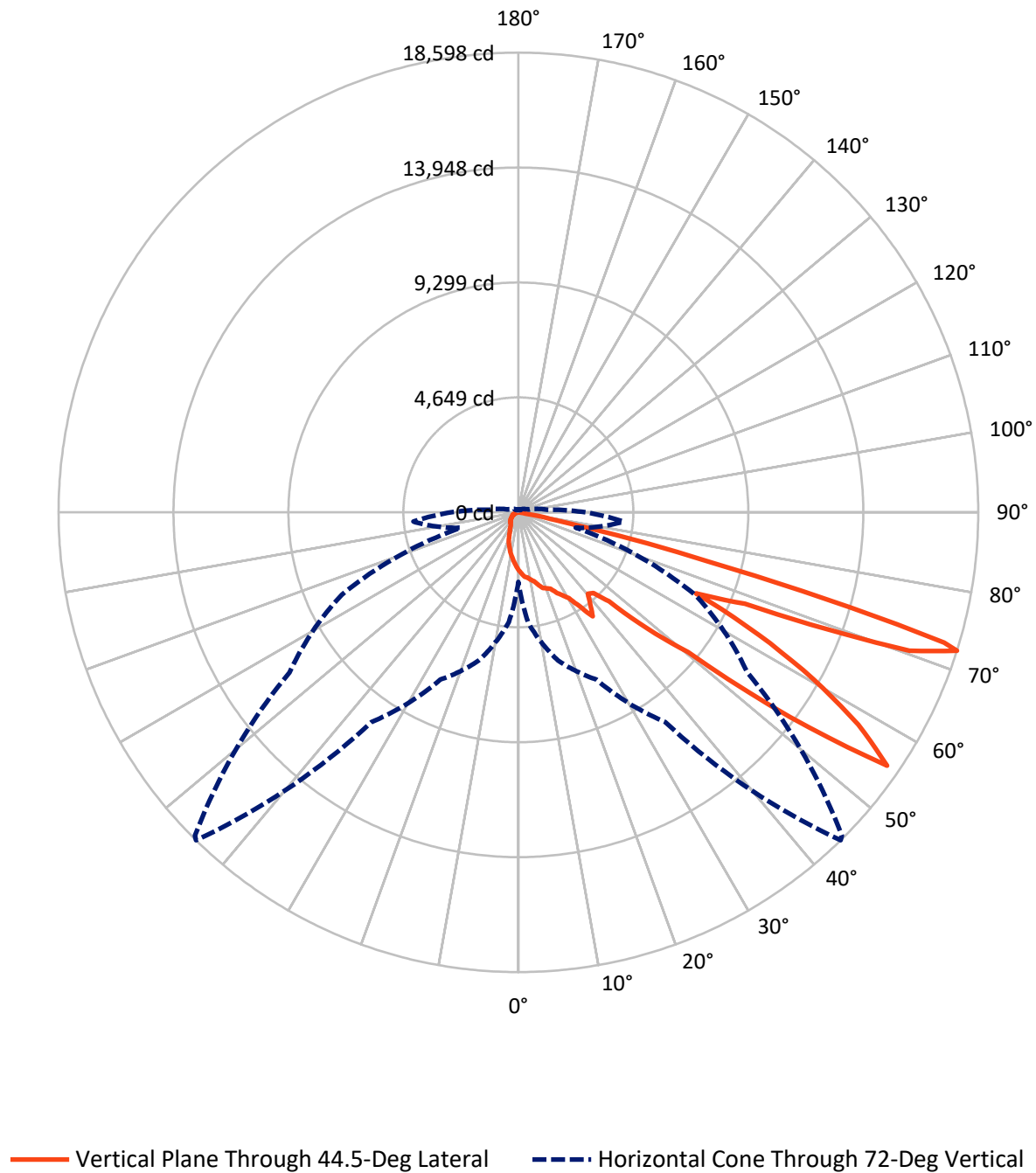
× Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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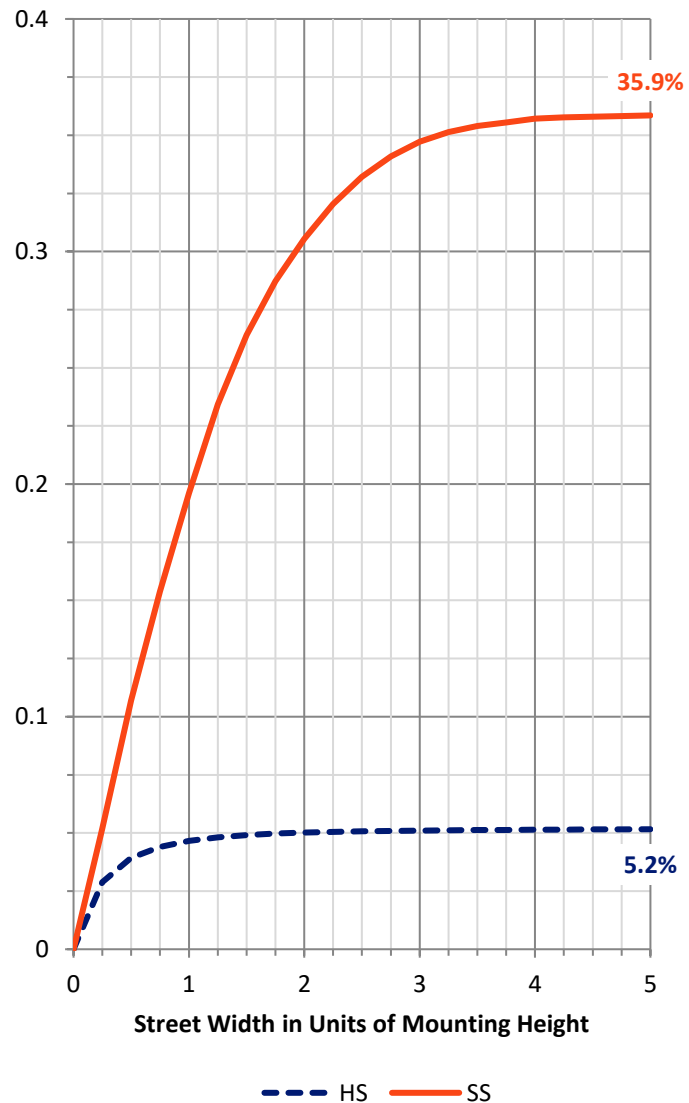
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2081.7	0.0	2081.7
	% Lamp	5.2	0.0	5.2
Street Side	Lumens	14323.6	0.0	14323.6
	% Lamp	35.8	0.0	35.8
Total	Lumens	16405.3	0.0	16405.3
	% Lamp	41.0	0.0	41.0

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	220.0	1.3	0.5
10°-20°	639.5	3.9	1.6
20°-30°	1078.5	6.6	2.7
30°-40°	1600.7	9.8	4.0
40°-50°	2507.6	15.3	6.3
50°-60°	4377.5	26.7	10.9
60°-70°	3522.6	21.5	8.8
70°-80°	2402.7	14.6	6.0
80°-90°	56.3	0.3	0.1
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°	16405.3	100.0	41.0
0°-180°	16405.3	100.0	41.0

Coefficient of Utilization

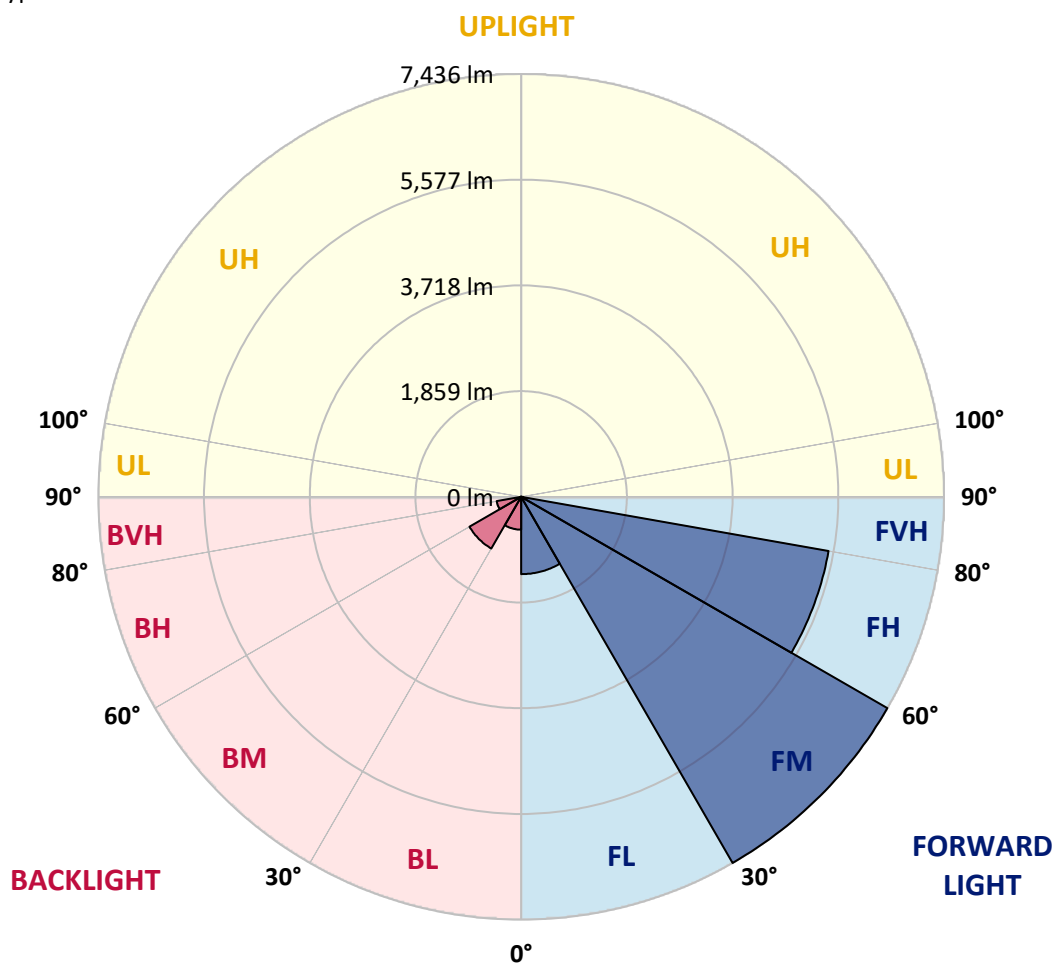


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1360.2	3.4			
FM	(30°-60°)	7436.5	18.6			
FH	(60°-80°)	5488.5	13.7			G3/7500
FVH	(80°-90°)	38.4	0.1			G1/100
BL	(0°-30°)	577.8	1.4	B2/1000		
BM	(30°-60°)	1049.4	2.6	B2/2500		
BH	(60°-80°)	436.7	1.1	B1/500		G1/500
BVH	(80°-90°)	17.8	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		23594.7	59.0			

BUG Rating: B2-U0-G3
Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44.5°	45°	55°	65°	75°	85°
0°	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6
2.5°	2555.6	2518.9	2518.9	2506.7	2483.3	2483.3	2483.3	2471.1	2434.4	2422.2	2374.4
5°	2724.4	2700.0	2675.6	2651.1	2640.0	2615.6	2603.3	2567.8	2518.9	2458.9	2398.9
7.5°	2747.8	2724.4	2724.4	2712.2	2700.0	2663.3	2675.6	2627.8	2578.9	2506.7	2411.1
10°	2868.9	2844.4	2856.7	2832.2	2807.8	2772.2	2772.2	2724.4	2663.3	2591.1	2483.3
12.5°	2988.9	2965.6	3037.8	2953.3	2928.9	2868.9	2881.1	2844.4	2796.7	2687.8	2518.9
15°	3157.8	3145.6	3182.2	3073.3	3073.3	3048.9	3025.6	2988.9	2856.7	2700.0	2506.7
17.5°	3254.4	3326.7	3338.9	3254.4	3182.2	3217.8	3217.8	3061.1	2904.4	2760.0	2543.3
20°	3326.7	3411.1	3338.9	3338.9	3338.9	3278.9	3314.4	3157.8	3085.6	2928.9	2675.6
22.5°	3302.2	3411.1	3374.4	3398.9	3458.9	3362.2	3386.7	3435.6	3290.0	3133.3	2832.2
25°	3230.0	3242.2	3351.1	3411.1	3495.6	3603.3	3555.6	3615.6	3567.8	3458.9	3122.2
27.5°	3230.0	3242.2	3362.2	3435.6	3580.0	3796.7	3784.4	4001.1	4013.3	4157.8	3676.7
30°	3157.8	3182.2	3326.7	3471.1	3664.4	4025.6	4037.8	4483.3	4701.1	4965.6	4423.3
32.5°	3110.0	3110.0	3302.2	3495.6	3784.4	4507.8	4495.6	5255.6	5580.0	5375.6	4242.2
35°	3133.3	3170.0	3266.7	3483.3	3965.6	5171.1	5086.7	5905.6	5507.8	3990.0	3230.0
37.5°	3037.8	3085.6	3592.2	3483.3	4206.7	4724.4	4953.3	5917.8	4652.2	4146.7	3712.2
40°	2988.9	2976.7	3362.2	3712.2	4471.1	4326.7	4411.1	4917.8	4942.2	4990.0	4532.2
42.5°	2941.1	3037.8	3868.9	3953.3	4218.9	4460.0	4387.8	4652.2	5592.2	6303.3	6171.1
45°	4627.8	3784.4	3796.7	3555.6	4965.6	5134.4	5158.9	5231.1	6737.8	7991.1	7702.2
47.5°	6460.0	5338.9	3217.8	3640.0	6508.9	7026.7	6521.1	6484.4	8160.0	8774.4	8220.0
50°	6267.8	5447.8	3122.2	5146.7	7098.9	8895.6	8762.2	8811.1	9654.4	9232.2	7737.8
52.5°	5062.2	5833.3	3338.9	6701.1	7725.6	13752.2	13028.9	12233.3	10474.4	9015.6	8026.7
55°	5833.3	6496.7	4073.3	7593.3	11510.0	18091.1	17730.0	11342.2	10798.9	8991.1	7677.8
57.5°	5495.6	6086.7	6616.7	7858.9	11655.6	16211.1	16536.7	11112.2	11390.0	7388.9	7075.6
60°	3471.1	4953.3	8473.3	7171.1	10087.8	13727.8	14090.0	9316.7	7653.3	7051.1	8123.3
62.5°	3446.7	5002.2	7461.1	6303.3	8147.8	10907.8	11040.0	7075.6	6954.4	7183.3	6111.1
65°	3326.7	4001.1	6460.0	5327.8	5664.4	7894.4	8195.6	5338.9	5327.8	4784.4	4808.9
67.5°	3760.0	4146.7	6062.2	5616.7	5568.9	9883.3	9196.7	6472.2	3893.3	4278.9	5110.0
70°	3230.0	4182.2	5725.6	6508.9	8461.1	16777.8	15620.0	8871.1	5628.9	3772.2	4520.0
72°	2820.0	4460.0	6206.7	7461.1	10353.3	18597.8	18501.1	11305.6	7882.2	2398.9	4266.7
72.5°	2675.6	4375.6	5977.8	7315.6	10353.3	18006.7	18151.1	11365.6	7424.4	2302.2	4110.0
75°	1518.9	2350.0	2953.3	3230.0	6280.0	7882.2	9931.1	7098.9	4604.4	1638.9	2976.7
77.5°	554.4	783.3	674.4	831.1	1277.8	1578.9	1964.4	1795.6	1277.8	807.8	1735.6
80°	120.0	156.7	144.4	216.7	313.3	301.1	397.8	434.4	313.3	313.3	771.1
82.5°	72.2	60.0	36.7	60.0	84.4	72.2	96.7	96.7	84.4	108.9	228.9
85°	0.0	0.0	0.0	0.0	24.4	12.2	36.7	36.7	47.8	47.8	60.0
87.5°	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6	2345.6
2.5°	2362.2	2337.8	2302.2	2265.6	2217.8	2193.3	2170.0	2157.8	2133.3	2133.3	2170.0
5°	2362.2	2326.7	2242.2	2170.0	2085.6	2036.7	2001.1	1964.4	1940.0	1916.7	1952.2
7.5°	2350.0	2290.0	2181.1	2061.1	1964.4	1880.0	1832.2	1783.3	1747.8	1723.3	1760.0
10°	2422.2	2362.2	2170.0	2001.1	1867.8	1760.0	1663.3	1603.3	1554.4	1531.1	1542.2
12.5°	2446.7	2337.8	2108.9	1916.7	1735.6	1603.3	1482.2	1397.8	1337.8	1313.3	1350.0
15°	2398.9	2277.8	2036.7	1832.2	1626.7	1446.7	1302.2	1205.6	1145.6	1121.1	1156.7
17.5°	2434.4	2290.0	2001.1	1735.6	1506.7	1313.3	1133.3	1012.2	940.0	904.4	940.0
20°	2518.9	2326.7	1952.2	1626.7	1374.4	1156.7	964.4	843.3	783.3	771.1	771.1
22.5°	2603.3	2362.2	1892.2	1542.2	1241.1	976.7	831.1	735.6	663.3	651.1	674.4
25°	2807.8	2446.7	1807.8	1397.8	1072.2	831.1	686.7	614.4	566.7	542.2	554.4
27.5°	3182.2	2651.1	1760.0	1313.3	952.2	747.8	626.7	566.7	517.8	517.8	530.0
30°	3652.2	2820.0	1700.0	1193.3	807.8	626.7	542.2	506.7	457.8	445.6	457.8
32.5°	3362.2	2603.3	1651.1	1096.7	711.1	578.9	506.7	457.8	434.4	422.2	434.4
35°	2796.7	2337.8	1591.1	988.9	663.3	542.2	457.8	422.2	397.8	373.3	385.6
37.5°	3182.2	2531.1	1542.2	892.2	638.9	530.0	434.4	385.6	361.1	350.0	361.1
40°	3736.7	2760.0	1482.2	783.3	663.3	517.8	397.8	350.0	337.8	325.6	337.8
42.5°	4796.7	3085.6	1434.4	711.1	663.3	494.4	361.1	337.8	313.3	301.1	313.3
45°	5664.4	3351.1	1385.6	674.4	638.9	457.8	337.8	313.3	276.7	276.7	288.9
47.5°	5990.0	3580.0	1337.8	674.4	626.7	434.4	313.3	276.7	241.1	228.9	241.1
50°	5773.3	3941.1	1290.0	663.3	591.1	385.6	288.9	241.1	204.4	193.3	216.7
52.5°	6315.6	4460.0	1241.1	626.7	530.0	361.1	265.6	216.7	181.1	168.9	168.9
55°	6195.6	4676.7	1205.6	578.9	494.4	337.8	241.1	193.3	168.9	156.7	168.9
57.5°	5845.6	4435.6	1205.6	517.8	457.8	313.3	216.7	193.3	168.9	156.7	168.9
60°	6123.3	4001.1	1168.9	482.2	434.4	288.9	216.7	168.9	156.7	156.7	144.4
62.5°	4447.8	3398.9	1024.4	445.6	397.8	265.6	193.3	168.9	156.7	144.4	144.4
65°	3808.9	2724.4	820.0	410.0	350.0	241.1	181.1	156.7	144.4	132.2	144.4
67.5°	3700.0	2121.1	651.1	385.6	313.3	216.7	168.9	144.4	132.2	132.2	144.4
70°	3025.6	1470.0	530.0	337.8	265.6	193.3	144.4	120.0	108.9	108.9	120.0
72°	2712.2	1181.1	445.6	301.1	241.1	168.9	120.0	108.9	108.9	96.7	96.7
72.5°	2567.8	1133.3	422.2	288.9	216.7	156.7	120.0	96.7	96.7	84.4	96.7
75°	1807.8	795.6	325.6	228.9	168.9	132.2	96.7	96.7	84.4	84.4	96.7
77.5°	1061.1	506.7	204.4	156.7	120.0	96.7	72.2	60.0	60.0	60.0	47.8
80°	530.0	288.9	132.2	108.9	96.7	60.0	47.8	47.8	36.7	36.7	47.8
82.5°	181.1	120.0	72.2	60.0	47.8	47.8	36.7	24.4	12.2	24.4	24.4
85°	60.0	47.8	47.8	47.8	24.4	24.4	24.4	12.2	12.2	12.2	24.4
87.5°	0.0	0.0	0.0	0.0	0.0	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)