

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: ITL49959_400MP

Luminaire Tested: **GMX40PXX4SF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: ITL49959_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX40PXX4SF
Description: 400W MH TYPE IV AREA
Light Source: 400 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 29827.3 lumens
Efficiency: 74.6%
Efficacy: 66.0 lumens/watt
Luminous Opening: Rectangular (W 1.09' x L: 1.06' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

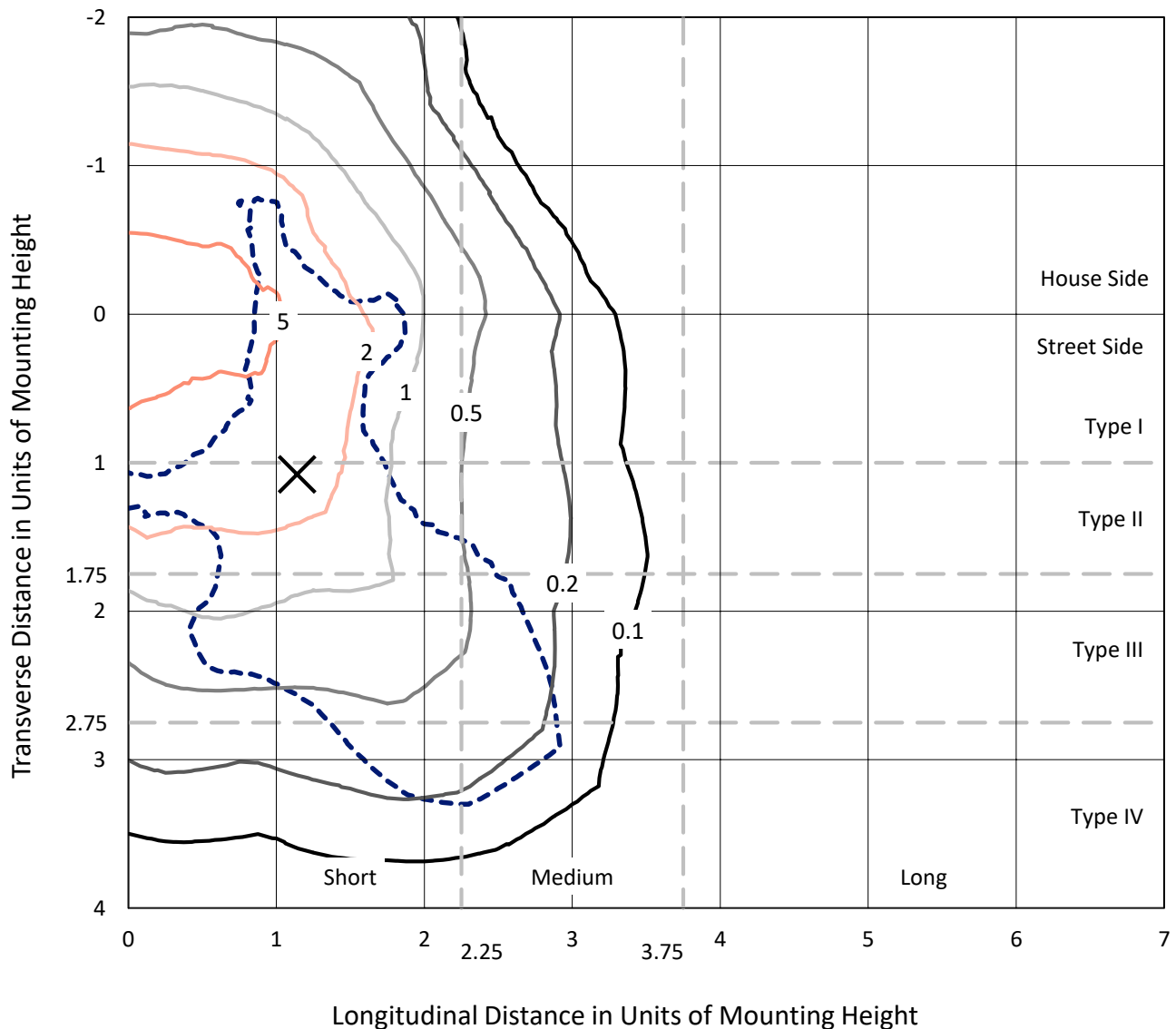
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

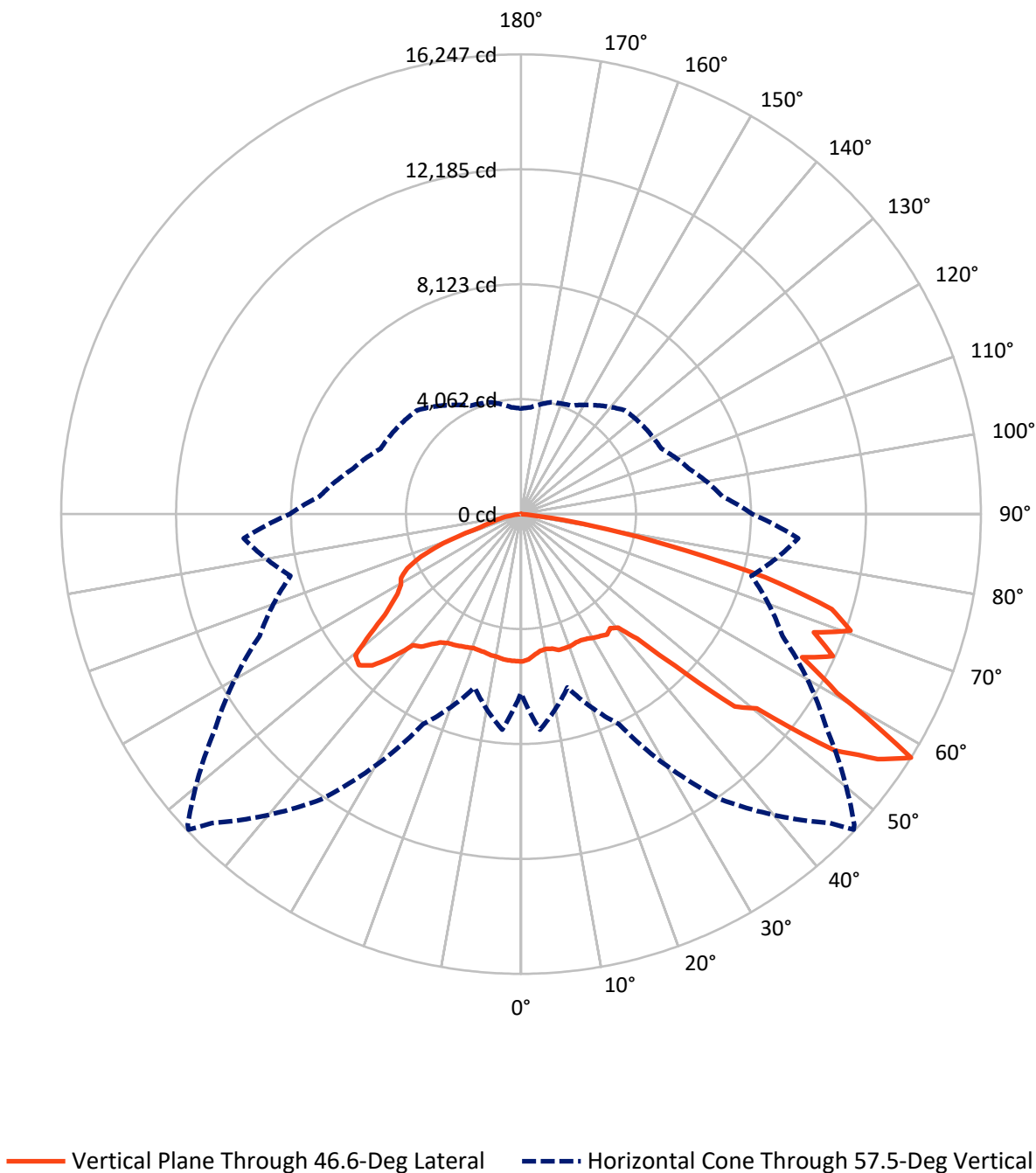
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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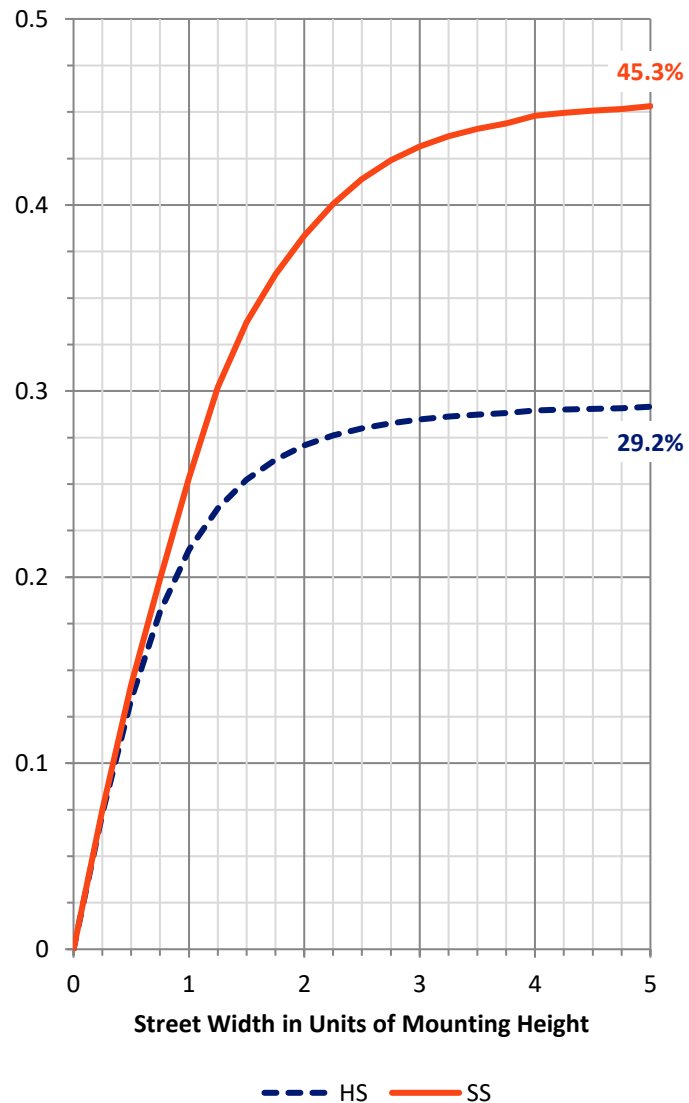
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11718.9	0.0	11718.9
	% Lamp	29.3	0.0	29.3
Street Side	Lumens	18108.4	0.0	18108.4
	% Lamp	45.3	0.0	45.3
Total	Lumens	29827.3	0.0	29827.3
	% Lamp	74.6	0.0	74.6

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	483.6	1.6	1.2
10°-20°	1414.7	4.7	3.5
20°-30°	2356.4	7.9	5.9
30°-40°	3499.8	11.7	8.7
40°-50°	5553.5	18.6	13.9
50°-60°	7044.2	23.6	17.6
60°-70°	5917.0	19.8	14.8
70°-80°	3217.7	10.8	8.0
80°-90°	340.2	1.1	0.9
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°	29827.3	100.0	74.6
0°-180°	29827.3	100.0	74.6

Coefficient of Utilization

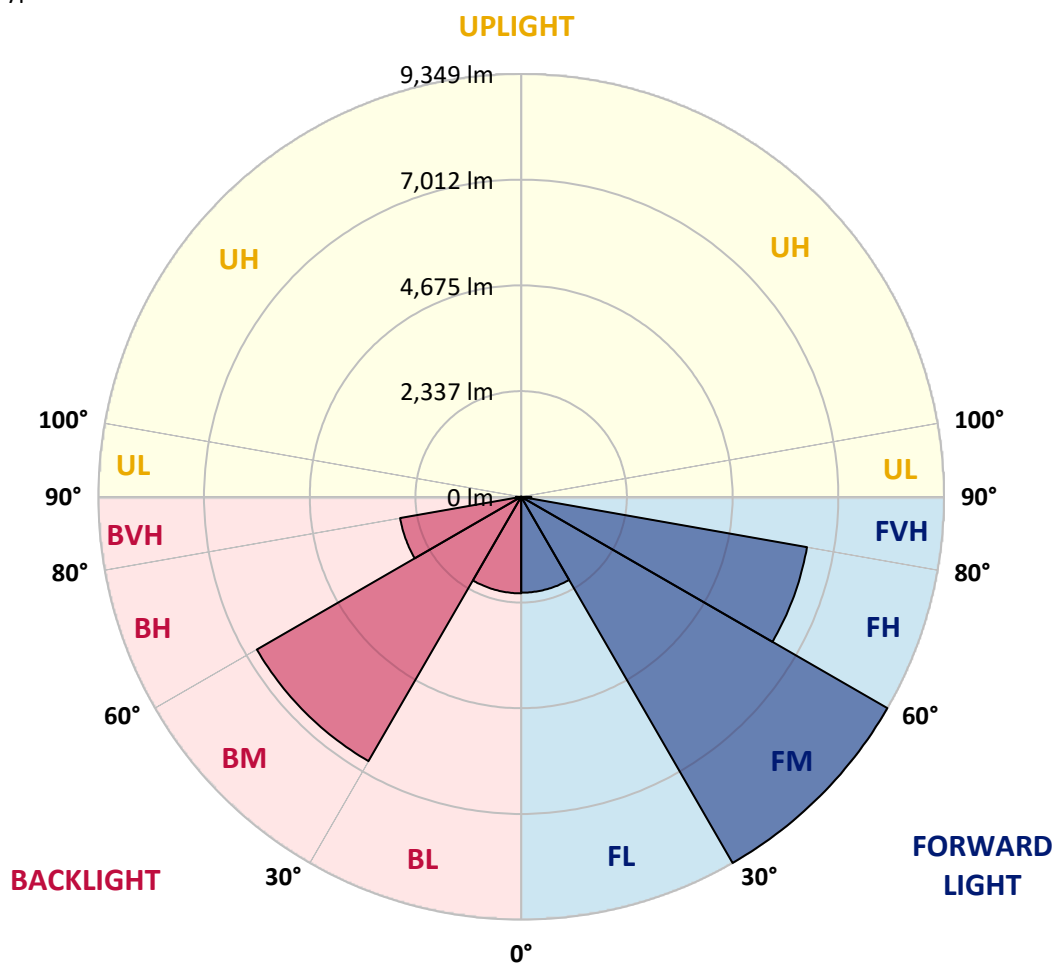


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2120.0	5.3			
FM	(30°-60°)	9349.1	23.4			
FH	(60°-80°)	6417.0	16.0			G3/7500
FVH	(80°-90°)	222.3	0.6			G2/225
BL	(0°-30°)	2134.8	5.3	B3/2500		
BM	(30°-60°)	6748.4	16.9	B4/8500		
BH	(60°-80°)	2717.8	6.8	B4/5000		G4/5000
BVH	(80°-90°)	117.9	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		10172.7	25.4			

BUG Rating: B4-U0-G4
Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46.6°	55°	65°	75°	85°
0°	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6
2.5°	5084.4	5106.7	5106.7	5141.1	5174.4	5174.4	5141.1	5174.4	5197.8	5185.6	5197.8
5°	4881.1	4903.3	4914.4	4948.9	4971.1	5005.6	4994.4	5027.8	5062.2	5084.4	5117.8
7.5°	4791.1	4824.4	4824.4	4846.7	4858.9	4892.2	4881.1	4914.4	4971.1	5016.7	5073.3
10°	4791.1	4791.1	4813.3	4824.4	4846.7	4858.9	4846.7	4892.2	4937.8	4982.2	5038.9
12.5°	4791.1	4802.2	4824.4	4870.0	4870.0	4881.1	4881.1	4926.7	4960.0	4960.0	4994.4
15°	4903.3	4881.1	4892.2	4881.1	4937.8	4960.0	4982.2	4948.9	4937.8	4948.9	4982.2
17.5°	5197.8	5152.2	5276.7	5163.3	4994.4	4982.2	4982.2	4982.2	4971.1	4971.1	5027.8
20°	5310.0	5321.1	4994.4	5027.8	5005.6	4971.1	4982.2	5016.7	5038.9	5062.2	5130.0
22.5°	5038.9	5038.9	4903.3	4960.0	4914.4	4937.8	4937.8	5038.9	5141.1	5185.6	5265.6
25°	4994.4	4926.7	4791.1	4881.1	4870.0	4937.8	4937.8	5073.3	5276.7	5298.9	5412.2
27.5°	4791.1	4846.7	4813.3	4824.4	4813.3	4937.8	4982.2	5208.9	5468.9	5491.1	5581.1
30°	4903.3	4813.3	4767.8	4914.4	4824.4	4982.2	5073.3	5377.8	5751.1	5581.1	5648.9
32.5°	5242.2	5276.7	4767.8	5016.7	4914.4	5084.4	5141.1	5920.0	5818.9	5502.2	5762.2
35°	5310.0	5377.8	5208.9	5038.9	4994.4	5106.7	5231.1	5740.0	6123.3	6033.3	6203.3
37.5°	5197.8	5344.4	5581.1	5310.0	5141.1	5050.0	5117.8	5762.2	6722.2	7073.3	6925.6
40°	5536.7	5784.4	6011.1	5660.0	5536.7	5197.8	5276.7	6044.4	7524.4	7581.1	7400.0
42.5°	6146.7	6315.6	6417.8	6055.6	5864.4	5807.8	6011.1	6564.4	8123.3	8078.9	8078.9
45°	7231.1	6892.2	6688.9	6394.4	7141.1	7660.0	7648.9	7355.6	8824.4	8700.0	9128.9
47.5°	7480.0	7784.4	7535.6	8146.7	8801.1	9908.9	10157.8	8214.4	9434.4	9513.3	9830.0
50°	8925.6	7987.8	8417.8	10112.2	9738.9	10564.4	10801.1	10247.8	10134.4	9671.1	9377.8
52.5°	7841.1	8066.7	7931.1	11106.7	10722.2	13242.2	13874.4	11795.6	10778.9	10134.4	10112.2
54°	6778.9	7570.0	7547.8	10180.0	11231.1	14100.0	14643.3	12744.4	11343.3	10564.4	10462.2
55°	6507.8	7287.8	7355.6	9264.4	11253.3	14451.1	15286.7	13140.0	11750.0	11027.8	10022.2
57.5°	6326.7	7648.9	6338.9	8191.1	12304.4	15445.6	16246.7	13174.4	10191.1	8428.9	9830.0
60°	6055.6	7174.4	6462.2	8350.0	10654.4	13083.3	12835.6	10530.0	7344.4	6846.7	8530.0
62.5°	5807.8	6518.9	7152.2	8857.8	9185.6	11614.4	11151.1	9343.3	6621.1	6632.2	7388.9
65°	5581.1	6665.6	8326.7	8530.0	8801.1	11581.1	12112.2	7897.8	6055.6	5864.4	5908.9
67.5°	5038.9	6326.7	8168.9	8564.4	10101.1	12405.6	11163.3	7355.6	6000.0	5174.4	4994.4
70°	4383.3	5366.7	6168.9	8044.4	10947.8	12823.3	12348.9	7841.1	5807.8	4734.4	3751.1
72.5°	3728.9	4146.7	4033.3	6688.9	12033.3	12134.4	11478.9	7400.0	5434.4	3344.4	2948.9
75°	2575.6	2846.7	3130.0	5740.0	9513.3	9637.8	8914.4	5242.2	4203.3	2406.7	2327.8
77.5°	1582.2	1875.6	1841.1	3073.3	5106.7	5987.8	5287.8	3401.1	3208.9	2192.2	1954.4
80°	858.9	870.0	915.6	1322.2	1672.2	2960.0	2575.6	1988.9	2225.6	1423.3	1558.9
82.5°	248.9	260.0	350.0	395.6	564.4	1016.7	780.0	972.2	903.3	610.0	847.8
85°	45.6	56.7	90.0	67.8	102.2	170.0	78.9	395.6	282.2	170.0	271.1
87.5°	0.0	0.0	0.0	0.0	0.0	11.1	0.0	11.1	11.1	22.2	22.2
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°	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6	5205.6
2.5°	5208.9	5197.8	5197.8	5185.6	5197.8	5197.8	5185.6	5174.4	5163.3	5174.4	5174.4
5°	5130.0	5152.2	5185.6	5197.8	5197.8	5185.6	5185.6	5220.0	5220.0	5208.9	5220.0
7.5°	5095.6	5117.8	5174.4	5174.4	5174.4	5163.3	5141.1	5174.4	5185.6	5174.4	5174.4
10°	5050.0	5084.4	5130.0	5174.4	5152.2	5106.7	5084.4	5095.6	5095.6	5073.3	5062.2
12.5°	5016.7	5038.9	5084.4	5130.0	5106.7	5095.6	5027.8	4994.4	4948.9	4903.3	4881.1
15°	5005.6	4994.4	5027.8	5038.9	5050.0	5050.0	5005.6	4903.3	4835.6	4824.4	4813.3
17.5°	5050.0	5050.0	5095.6	5117.8	5073.3	5027.8	4994.4	4870.0	4802.2	4802.2	4767.8
20°	5117.8	5130.0	5163.3	5163.3	5117.8	5005.6	4971.1	4846.7	4778.9	4756.7	4745.6
22.5°	5265.6	5287.8	5333.3	5242.2	5152.2	5062.2	4948.9	4835.6	4756.7	4734.4	4722.2
25°	5445.6	5445.6	5445.6	5344.4	5242.2	5106.7	4926.7	4824.4	4756.7	4722.2	4677.8
27.5°	5626.7	5604.4	5604.4	5502.2	5321.1	5163.3	4937.8	4802.2	4700.0	4643.3	4654.4
30°	5694.4	5683.3	5648.9	5660.0	5491.1	5185.6	4971.1	4756.7	4643.3	4610.0	4610.0
32.5°	5886.7	5920.0	5751.1	5818.9	5672.2	5287.8	4982.2	4734.4	4621.1	4564.4	4564.4
35°	6258.9	6225.6	6011.1	6271.1	6214.4	5445.6	4994.4	4734.4	4564.4	4496.7	4496.7
37.5°	6971.1	6903.3	6643.3	6518.9	6835.6	5683.3	5016.7	4734.4	4507.8	4440.0	4428.9
40°	7480.0	7445.6	7128.9	7016.7	6745.6	5864.4	5117.8	4722.2	4474.4	4395.6	4383.3
42.5°	8202.2	8168.9	7592.2	7626.7	7073.3	6745.6	5265.6	4734.4	4451.1	4372.2	4361.1
45°	9388.9	9332.2	8191.1	8157.8	7660.0	7456.7	5581.1	4734.4	4406.7	4350.0	4383.3
47.5°	9931.1	9592.2	8304.4	8168.9	7875.6	7818.9	5637.8	4711.1	4372.2	4350.0	4428.9
50°	9152.2	8892.2	8011.1	7648.9	7976.7	7637.8	5502.2	4632.2	4338.9	4304.4	4338.9
52.5°	9343.3	8564.4	7163.3	6180.0	7705.6	6361.1	5130.0	4531.1	4282.2	4428.9	4247.8
54°	9117.8	7954.4	6597.8	5716.7	6903.3	5807.8	4994.4	4451.1	4260.0	4553.3	4180.0
55°	8485.6	7423.3	6383.3	5615.6	6394.4	5604.4	4881.1	4406.7	4271.1	4428.9	4067.8
57.5°	8168.9	7141.1	6157.8	5468.9	5333.3	5185.6	4688.9	4225.6	4090.0	3784.4	3728.9
60°	8258.9	7648.9	6067.8	5287.8	5016.7	4903.3	4531.1	4011.1	3875.6	3276.7	3231.1
62.5°	7355.6	7185.6	5852.2	4982.2	4778.9	4802.2	4406.7	3807.8	3853.3	3016.7	3027.8
65°	6135.6	6597.8	5130.0	4327.8	4067.8	4518.9	4203.3	3581.1	3152.2	2778.9	2802.2
67.5°	5648.9	5502.2	3661.1	2802.2	2553.3	4078.9	3841.1	3310.0	2756.7	2677.8	2621.1
70°	4315.6	3468.9	2011.1	1615.6	1604.4	3174.4	3322.2	2892.2	2406.7	2496.7	2372.2
72.5°	2723.3	1965.6	1344.4	1084.4	1186.7	1558.9	2248.9	2236.7	1932.2	1965.6	2078.9
75°	1932.2	1446.7	1016.7	847.8	926.7	1084.4	1186.7	1276.7	1311.1	1536.7	1807.8
77.5°	1637.8	1175.6	791.1	644.4	700.0	858.9	780.0	813.3	858.9	926.7	1062.2
80°	1287.8	870.0	576.7	463.3	520.0	644.4	576.7	564.4	587.8	621.1	655.6
82.5°	688.9	474.4	350.0	293.3	327.8	384.4	350.0	350.0	373.3	361.1	406.7
85°	237.8	192.2	157.8	135.6	135.6	157.8	157.8	157.8	170.0	170.0	203.3
87.5°	22.2	22.2	34.4	22.2	22.2	22.2	34.4	34.4	34.4	22.2	45.6
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)