

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: 769016_400MP

Luminaire Tested: **GSM-XX-400-MP-XX-1F-SG-XX-HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769016_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-XX-400-MP-XX-1F-SG-XX-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-TYPE I
DISTRIBUTION
WITH HOUSE-SIDE SHIELD
Light Source: 400 WATT PULSE-START CLEAR ED-37 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 24590.4 lumens
Efficiency: 61.5%
Efficacy: 54.4 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type II - Medium - Cutoff
BUG Rating: B4 - U1 - G4

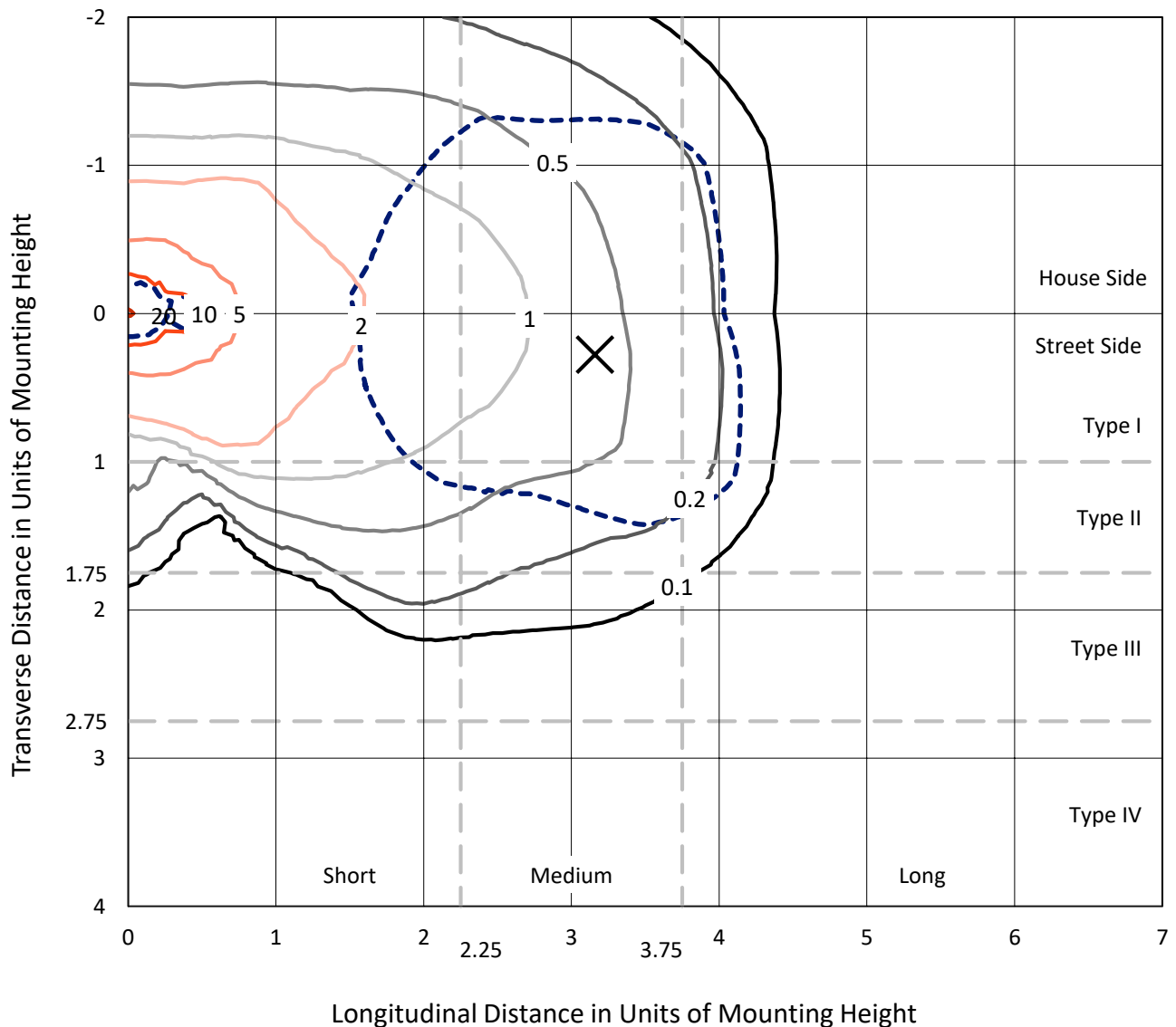
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

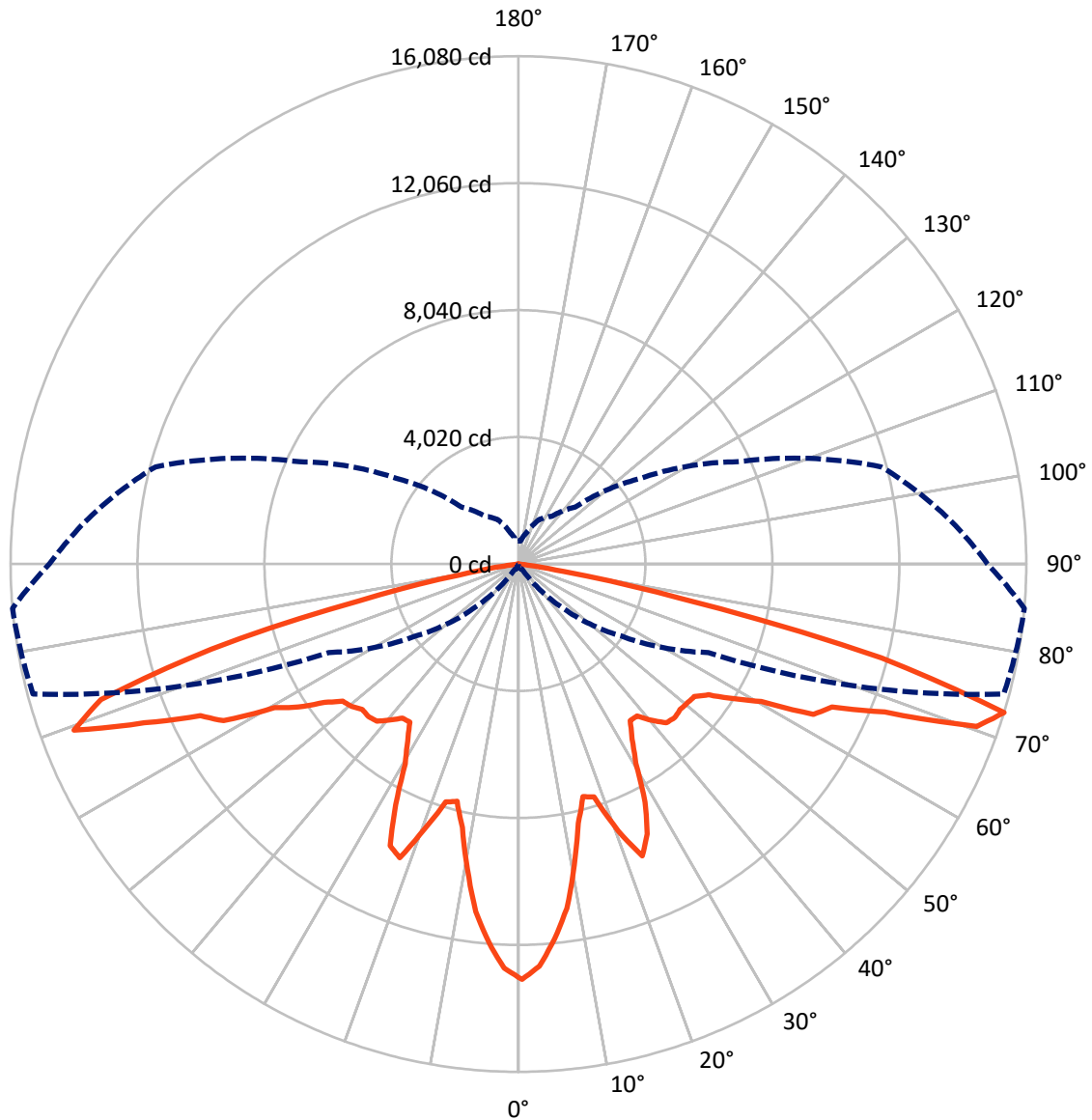
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 21 fc
 Type II - Medium - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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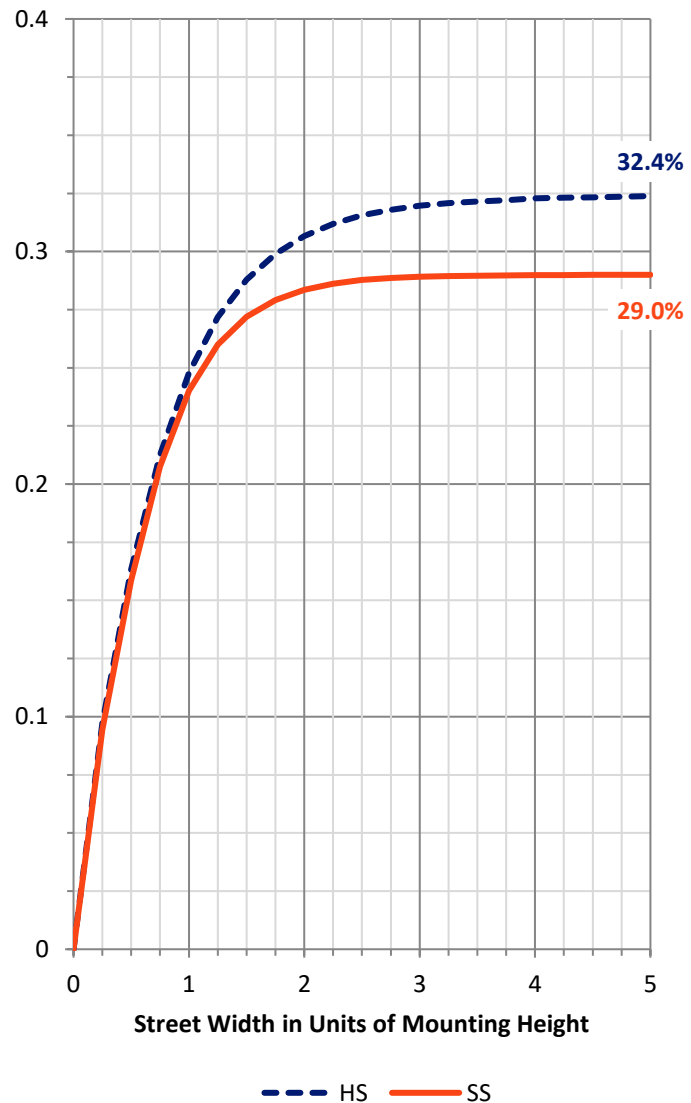
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13010.4	3.0	13013.4
	% Lamp	32.5	0.0	32.5
Street Side	Lumens	11576.8	0.1	11576.9
	% Lamp	28.9	0.0	28.9
Total	Lumens	24587.2	3.1	24590.4
	% Lamp	61.5	0.0	61.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	1019.6	4.1	2.5
10°-20°	1978.4	8.0	4.9
20°-30°	2644.8	10.8	6.6
30°-40°	2816.1	11.5	7.0
40°-50°	3414.1	13.9	8.5
50°-60°	3792.5	15.4	9.5
60°-70°	4993.6	20.3	12.5
70°-80°	3754.7	15.3	9.4
80°-90°	173.5	0.7	0.4
90°-100°	3.0	0.0	0.0
100°-110°	0.2	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°	24587.2	100.0	61.5
0°-180°	24590.4	100.0	61.5



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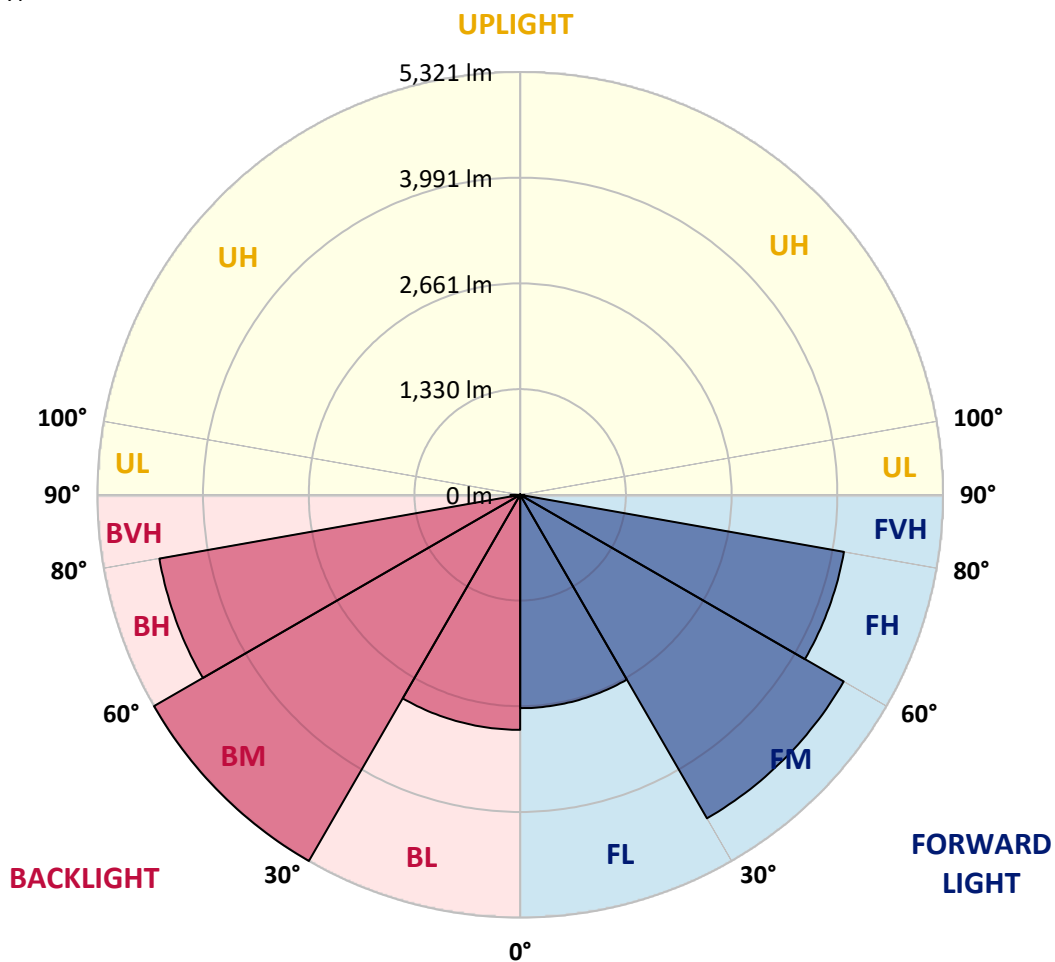
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2685.2	6.7			
FM (30°-60°)	4701.3	11.8			
FH (60°-80°)	4137.6	10.3			G2/5000
FVH (80°-90°)	52.7	0.1			G1/100
BL (0°-30°)	2957.6	7.4	B4/5000		
BM (30°-60°)	5321.4	13.3	B4/8500		
BH (60°-80°)	4610.6	11.5	B4/5000		G4/5000
BVH (80°-90°)	120.7	0.3			G2/225
UL (90°-100°)	3.0	0.0		U1/10	
UH (100°-180°)	3.0	0.0		U1/10	
Trapped Light	15409.6	38.5			

BUG Rating: B4-U1-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2
2.5°	12357.8	12357.8	12388.9	12418.9	12467.8	12498.9	12577.8	12663.3	12718.9	12748.9	12780.0
5°	10426.7	10438.9	10555.6	10707.8	10952.2	11184.4	11423.3	11661.1	11844.4	11924.4	11978.9
7.5°	8434.4	8458.9	8635.6	8916.7	9295.6	9700.0	10157.8	10512.2	10830.0	11007.8	11062.2
10°	7187.8	7205.6	7334.4	7560.0	7945.6	8464.4	8990.0	9307.8	9546.7	9700.0	9773.3
12.5°	6356.7	6368.9	6417.8	6582.2	6887.8	7297.8	7694.4	8092.2	8317.8	8422.2	8495.6
15°	5501.1	5525.6	5665.6	5880.0	6161.1	6332.2	6674.4	7077.8	7401.1	7640.0	7755.6
17.5°	4681.1	4712.2	5024.4	5360.0	5543.3	5635.6	6020.0	6650.0	7376.7	7755.6	7884.4
20°	4118.9	4150.0	4448.9	4846.7	5054.4	5146.7	5550.0	6503.3	8251.1	9021.1	9038.9
22.5°	3715.6	3746.7	3996.7	4406.7	4706.7	4902.2	5293.3	6386.7	8556.7	10042.2	10286.7
25°	3446.7	3471.1	3666.7	4070.0	4424.4	4743.3	5232.2	6301.1	8134.4	9467.8	9822.2
27.5°	3275.6	3275.6	3514.4	3825.6	4162.2	4595.6	5207.8	6320.0	7542.2	8537.8	8708.9
30°	3031.1	3067.8	3446.7	3600.0	4008.9	4338.9	4767.8	5782.2	6570.0	7315.6	7432.2
32.5°	2701.1	2786.7	3336.7	3556.7	3930.0	4027.8	4277.8	4993.3	5928.9	6606.7	6698.9
35°	2126.7	2231.1	2957.8	3453.3	4180.0	4094.4	4241.1	4828.9	5574.4	6093.3	6148.9
37.5°	1491.1	1613.3	2390.0	3270.0	4510.0	4333.3	4345.6	4951.1	5641.1	6100.0	6124.4
40°	1038.9	1204.4	1686.7	2860.0	4773.3	4804.4	4626.7	5220.0	6063.3	6508.9	6472.2
42.5°	831.1	1038.9	1051.1	2334.4	4822.2	5250.0	5024.4	5482.2	6576.7	6870.0	6790.0
45°	977.8	1124.4	776.7	1723.3	4577.8	5488.9	5281.1	5672.2	6698.9	6936.7	6887.8
47.5°	1112.2	1197.8	696.7	1173.3	3954.4	5562.2	5268.9	5562.2	6466.7	6887.8	6870.0
50°	1161.1	1148.9	672.2	788.9	3287.8	5305.6	5115.6	5494.4	6313.3	6924.4	6997.8
52.5°	1307.8	1124.4	630.0	544.4	2896.7	4767.8	5360.0	5616.7	6374.4	6973.3	7046.7
55°	1112.2	837.8	415.6	403.3	2517.8	4321.1	5787.8	5818.9	6674.4	7310.0	7456.7
57.5°	867.8	660.0	330.0	317.8	2102.2	4070.0	6020.0	6185.6	7615.6	8048.9	8232.2
60°	660.0	507.8	330.0	268.9	1747.8	3886.7	6038.9	6912.2	8678.9	8831.1	8923.3
62.5°	501.1	440.0	324.4	232.2	1265.6	3752.2	6112.2	7828.9	10084.4	10482.2	10506.7
65°	342.2	354.4	317.8	195.6	850.0	3617.8	6087.8	8630.0	10494.4	10910.0	10915.6
67.5°	171.1	190.0	268.9	190.0	556.7	3520.0	6056.7	8928.9	11508.9	12511.1	12675.6
70°	0.0	12.2	110.0	195.6	312.2	3318.9	5623.3	8244.4	14075.6	15395.6	15432.2
72.5°	0.0	0.0	24.4	171.1	195.6	1937.8	3972.2	6631.1	15908.9	16080.0	14852.2
75°	0.0	0.0	0.0	73.3	122.2	727.8	3458.9	6313.3	13073.3	11875.6	10396.7
77.5°	0.0	0.0	0.0	0.0	61.1	336.7	2530.0	4272.2	5965.6	5225.6	4804.4
80°	0.0	0.0	0.0	0.0	18.9	165.6	892.2	1155.6	1448.9	1436.7	1534.4
82.5°	0.0	0.0	0.0	0.0	0.0	24.4	116.7	183.3	226.7	293.3	361.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	18.9	36.7	43.3
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	6.7	0.0	0.0	0.0	0.0
95°	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
115°	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
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°	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2	13152.2
2.5°	12804.4	12871.1	12914.4	12963.3	13030.0	13078.9	13091.1	13122.2	13134.4	13115.6
5°	12003.3	12034.4	12058.9	12052.2	12040.0	12040.0	12022.2	12046.7	12058.9	12076.7
7.5°	11086.7	11020.0	10940.0	10824.4	10695.6	10548.9	10421.1	10390.0	10377.8	10390.0
10°	9785.6	9742.2	9644.4	9436.7	9246.7	9045.6	8911.1	8850.0	8862.2	8874.4
12.5°	8532.2	8488.9	8410.0	8275.6	8048.9	7835.6	7713.3	7682.2	7676.7	7688.9
15°	7762.2	7584.4	7486.7	7327.8	7187.8	6997.8	6845.6	6826.7	6802.2	6821.1
17.5°	7877.8	7511.1	6985.6	6618.9	6508.9	6454.4	6246.7	6154.4	6100.0	6075.6
20°	8892.2	8067.8	6943.3	6203.3	6020.0	5934.4	5738.9	5647.8	5494.4	5476.7
22.5°	10030.0	8550.0	6918.9	5922.2	5586.7	5482.2	5317.8	5158.9	4975.6	4963.3
25°	9797.8	8440.0	6698.9	5660.0	5298.9	5158.9	5024.4	4773.3	4528.9	4497.8
27.5°	8550.0	7670.0	6337.8	5366.7	4968.9	4883.3	4767.8	4480.0	4150.0	4118.9
30°	7273.3	6704.4	5806.7	4920.0	4644.4	4651.1	4565.6	4204.4	3905.6	3850.0
32.5°	6606.7	6148.9	5330.0	4558.9	4260.0	4296.7	4211.1	3991.1	3703.3	3642.2
35°	6068.9	5775.6	5078.9	4431.1	4247.8	4265.6	3996.7	3727.8	3507.8	3483.3
37.5°	6105.6	5726.7	5024.4	4443.3	4400.0	4357.8	3825.6	3507.8	3318.9	3287.8
40°	6405.6	6026.7	5176.7	4620.0	4694.4	4443.3	3654.4	3306.7	3135.6	3116.7
42.5°	6692.2	6283.3	5384.4	4883.3	5024.4	4485.6	3465.6	3111.1	2976.7	2957.8
45°	6777.8	6350.0	5525.6	5146.7	5232.2	4412.2	3257.8	2908.9	2768.9	2774.4
47.5°	6753.3	6307.8	5525.6	5335.6	5317.8	4228.9	3074.4	2720.0	2578.9	2554.4
50°	6943.3	6393.3	5470.0	5201.1	5244.4	3972.2	2903.3	2530.0	2383.3	2358.9
52.5°	7058.9	6454.4	5616.7	5237.8	4968.9	3710.0	2744.4	2341.1	2200.0	2187.8
55°	7535.6	6686.7	5806.7	5433.3	4663.3	3465.6	2615.6	2175.6	2047.8	2041.1
57.5°	8317.8	7285.6	6081.1	5611.1	4406.7	3275.6	2493.3	2028.9	1931.1	1931.1
60°	8965.6	7890.0	6606.7	5775.6	4223.3	3123.3	2414.4	1943.3	1821.1	1821.1
62.5°	10567.8	9197.8	7407.8	6100.0	4101.1	2940.0	2328.9	1894.4	1674.4	1698.9
65°	11154.4	9968.9	7987.8	6320.0	4064.4	2866.7	2218.9	1833.3	1510.0	1503.3
67.5°	12871.1	11416.7	8740.0	6381.1	3966.7	2720.0	2053.3	1717.8	1290.0	1222.2
70°	15023.3	12956.7	9148.9	6276.7	3850.0	2548.9	1864.4	1461.1	1057.8	1002.2
72.5°	13897.8	11893.3	7657.8	4724.4	2548.9	1845.6	1552.2	1038.9	727.8	733.3
75°	10091.1	9651.1	6447.8	3881.1	1448.9	691.1	642.2	635.6	550.0	550.0
77.5°	5195.6	5775.6	4443.3	2915.6	960.0	336.7	244.4	287.8	373.3	403.3
80°	1906.7	2432.2	2163.3	1613.3	586.7	226.7	165.6	165.6	202.2	232.2
82.5°	446.7	574.4	562.2	471.1	202.2	104.4	104.4	92.2	128.9	146.7
85°	48.9	43.3	36.7	24.4	18.9	31.1	55.6	67.8	92.2	97.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	18.9	48.9	80.0	85.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	18.9	55.6	85.6	97.8
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	12.2
105°	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
125°	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
145°	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
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)