

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: ITL52706_400MP

Luminaire Tested: **GMX40PXX2SF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: ITL52706_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX40PXX2SF
Description: 400W MH TYPE II AREA
Light Source: 400 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 26743 lumens
Efficiency: 66.9%
Efficacy: 59.2 lumens/watt
Luminous Opening: Rectangular (W 1.03' x L: 1.01' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

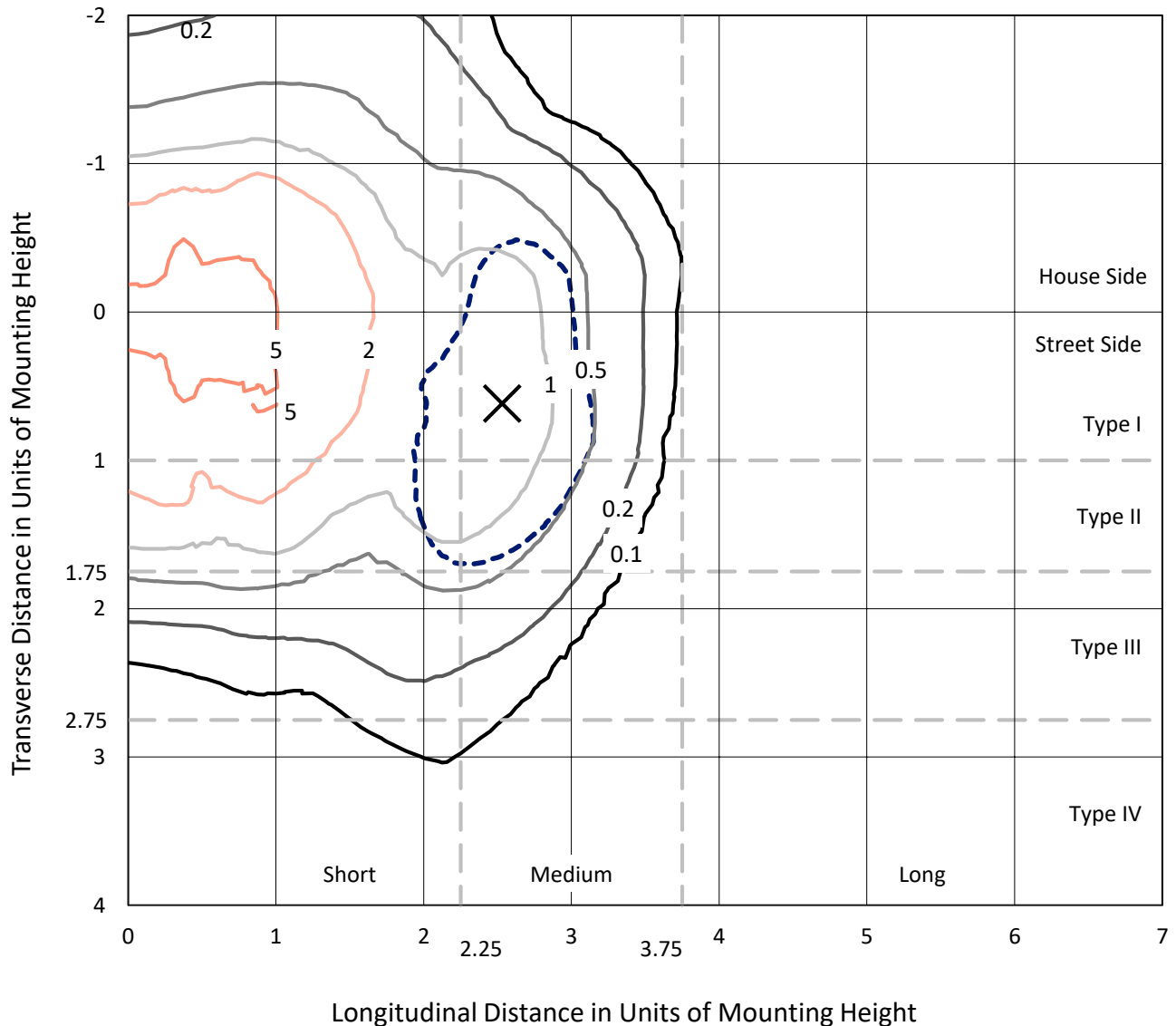
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

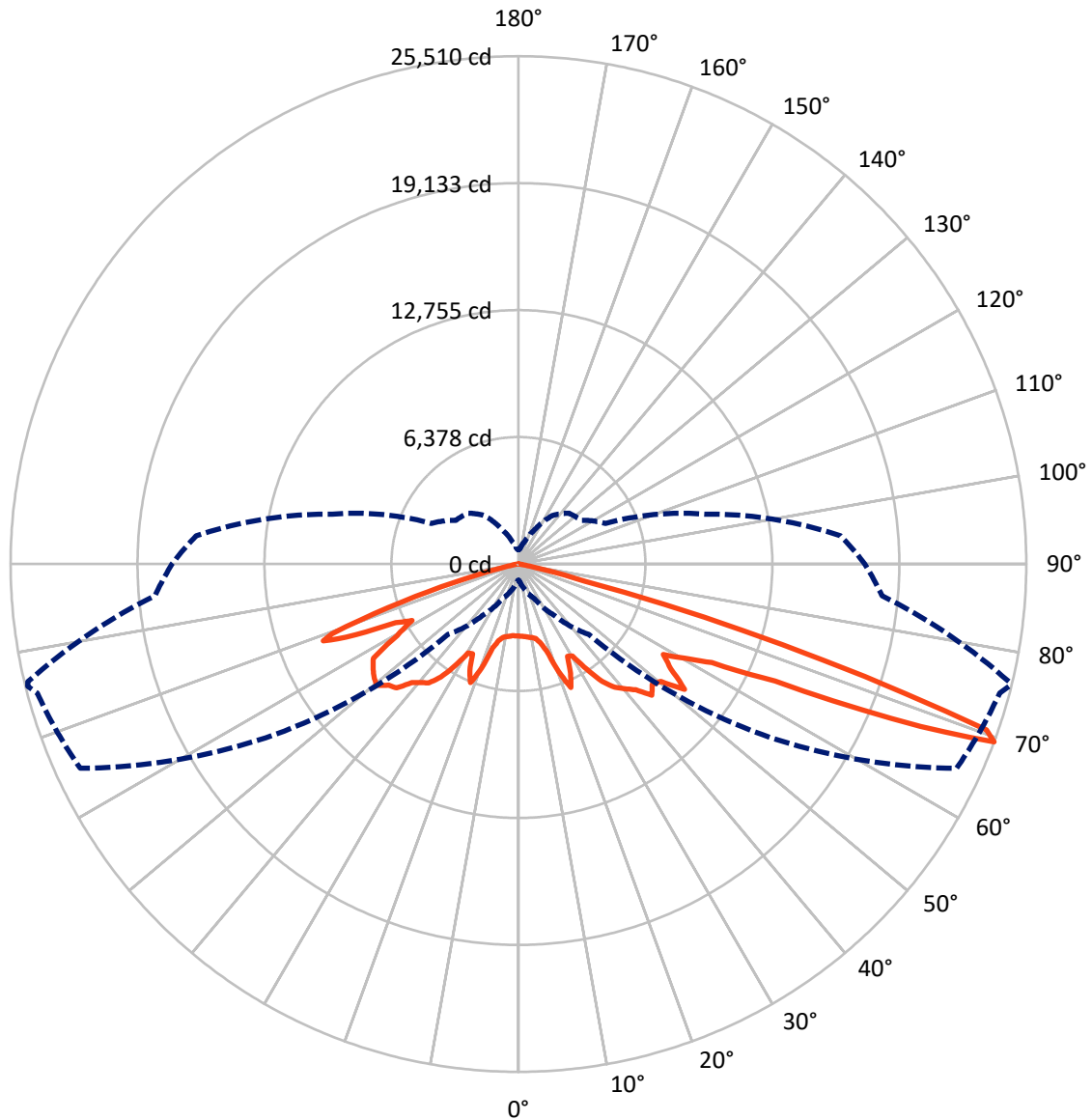
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 76.3-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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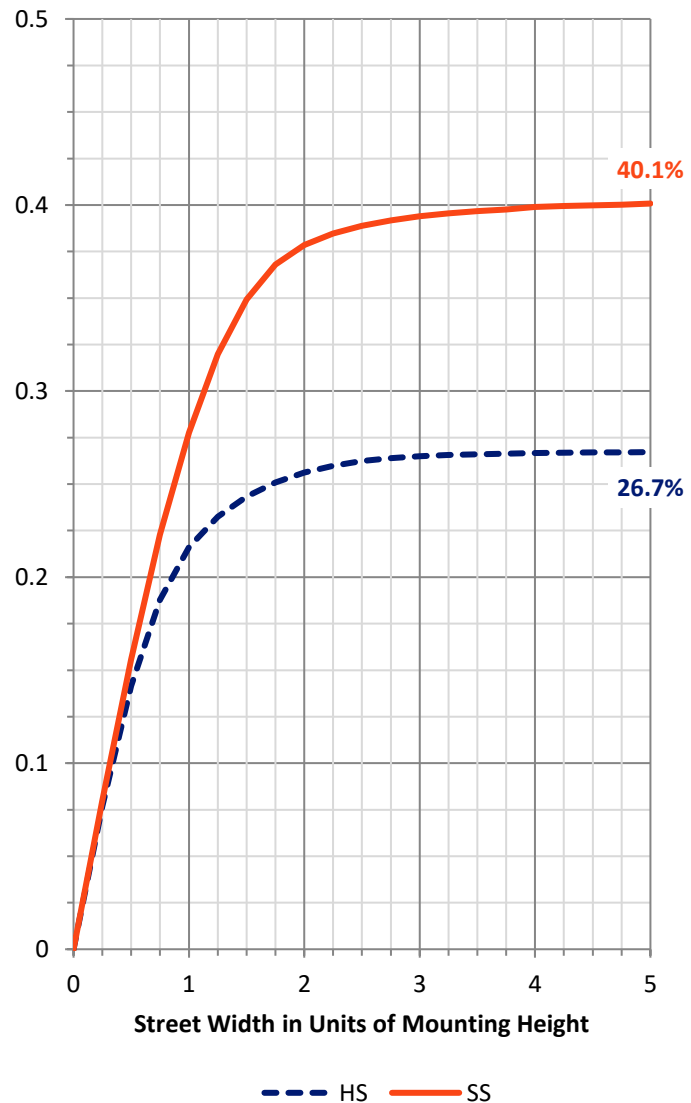
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10724.5	0.0	10724.5
	% Lamp	26.8	0.0	26.8
Street Side	Lumens	16018.5	0.0	16018.5
	% Lamp	40.0	0.0	40.0
Total	Lumens	26743.0	0.0	26743.0
	% Lamp	66.9	0.0	66.9

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	342.2	1.3	0.9
10°-20°	1064.3	4.0	2.7
20°-30°	2168.4	8.1	5.4
30°-40°	3256.6	12.2	8.1
40°-50°	4794.4	17.9	12.0
50°-60°	5857.9	21.9	14.6
60°-70°	6114.1	22.9	15.3
70°-80°	3038.5	11.4	7.6
80°-90°	106.7	0.4	0.3
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°	26743.0	100.0	66.9
0°-180°	26743.0	100.0	66.9

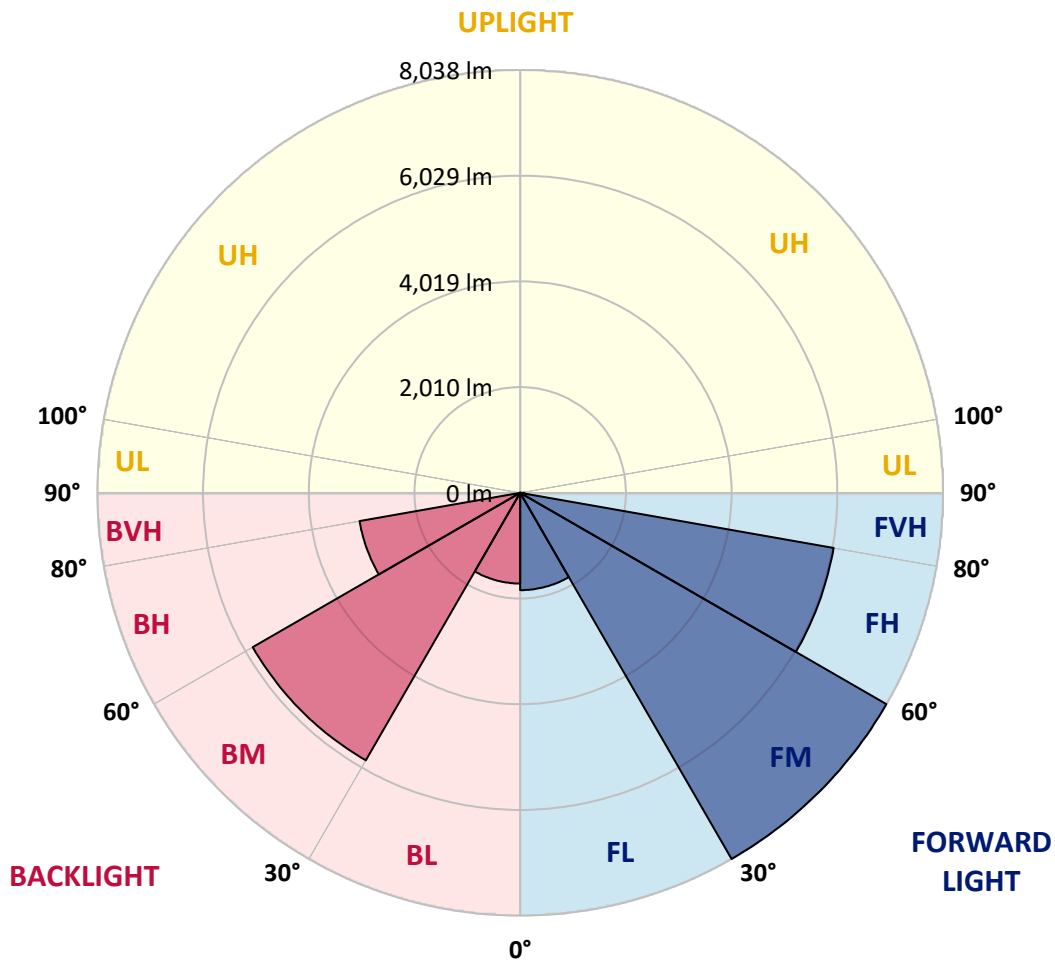


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1850.3	4.6			
FM	(30°-60°)	8038.0	20.1			
FH	(60°-80°)	6050.7	15.1			G3/7500
FVH	(80°-90°)	79.5	0.2			G1/100
BL	(0°-30°)	1724.6	4.3	B3/2500		
BM	(30°-60°)	5870.8	14.7	B4/8500		
BH	(60°-80°)	3101.8	7.8	B4/5000		G4/5000
BVH	(80°-90°)	27.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		13257.0	33.1			

BUG Rating: B4-U0-G4
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76.3°	85°
0°	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9
2.5°	3643.3	3652.2	3687.8	3634.4	3634.4	3652.2	3643.3	3643.3	3634.4	3634.4	3643.3
5°	3606.7	3625.6	3615.6	3606.7	3615.6	3661.1	3670.0	3687.8	3678.9	3661.1	3652.2
7.5°	3606.7	3643.3	3597.8	3606.7	3643.3	3670.0	3687.8	3705.6	3723.3	3714.4	3723.3
10°	3606.7	3606.7	3606.7	3625.6	3661.1	3687.8	3714.4	3742.2	3777.8	3760.0	3777.8
12.5°	3517.8	3517.8	3544.4	3588.9	3634.4	3678.9	3751.1	3786.7	3848.9	3840.0	3848.9
15°	3392.2	3410.0	3526.7	3634.4	3634.4	3723.3	3831.1	3912.2	4055.6	4101.1	4136.7
17.5°	3337.8	3373.3	3481.1	3544.4	3652.2	3795.6	3938.9	4198.9	4468.9	4576.7	4621.1
20°	3302.2	3382.2	3481.1	3535.6	3705.6	3903.3	4343.3	4898.9	5536.7	5770.0	5814.4
22.5°	3247.8	3302.2	3436.7	3544.4	3795.6	4441.1	5446.7	6254.4	6702.2	6738.9	6721.1
25°	3284.4	3247.8	3373.3	3580.0	4118.9	5464.4	6523.3	6585.6	6307.8	6074.4	6038.9
27.5°	3230.0	3275.6	3355.6	3597.8	4827.8	6514.4	6604.4	5832.2	5392.2	5248.9	5266.7
30°	3212.2	3293.3	3355.6	3714.4	5554.4	6730.0	5886.7	5266.7	5312.2	5356.7	5491.1
32.5°	3212.2	3238.9	3373.3	4002.2	6047.8	6245.6	5365.6	5634.4	6137.8	6307.8	6505.6
35°	3104.4	3131.1	3445.6	4630.0	6352.2	5500.0	5805.6	6487.8	7106.7	7241.1	7564.4
37.5°	3068.9	3122.2	3571.1	5231.1	6120.0	5312.2	6442.2	7366.7	7752.2	7860.0	7985.6
40°	3194.4	3571.1	4405.6	5275.6	5527.8	5770.0	7025.6	7950.0	8201.1	8236.7	8174.4
42.5°	3768.9	4450.0	5294.4	5096.7	5365.6	6397.8	7483.3	8291.1	8542.2	8632.2	8650.0
45°	4522.2	5006.7	4872.2	4638.9	5114.4	6926.7	8291.1	9143.3	9358.9	9394.4	9071.1
47.5°	4773.3	5070.0	4674.4	4898.9	5240.0	8120.0	10875.6	10453.3	9251.1	9044.4	8192.2
50°	4665.6	5257.8	5715.6	4361.1	7276.7	10112.2	12068.9	10920.0	9196.7	9268.9	9090.0
52.5°	4971.1	5105.6	6523.3	4315.6	9385.6	10301.1	12176.7	10838.9	10363.3	10453.3	9995.6
55°	5186.7	4997.8	5554.4	4262.2	8757.8	8910.0	11503.3	10381.1	9574.4	9277.8	8775.6
57.5°	4288.9	4495.6	4603.3	4172.2	7914.4	8478.9	8740.0	9376.7	8524.4	8586.7	8650.0
60°	3033.3	3346.7	4055.6	5006.7	7591.1	8003.3	8227.8	9520.0	9457.8	9592.2	9044.4
62.5°	1992.2	2072.2	2781.1	4845.6	7025.6	6640.0	7833.3	9843.3	10004.4	10902.2	9260.0
65°	1400.0	1444.4	1812.2	3051.1	4361.1	5158.9	7958.9	11664.4	12750.0	14176.7	11018.9
67.5°	986.7	1076.7	1400.0	2225.6	3256.7	4818.9	12346.7	20897.8	20871.1	21794.4	16133.3
69°	807.8	915.6	1363.3	1928.9	3158.9	5006.7	14940.0	24280.0	25025.6	25510.0	18331.1
70°	717.8	816.7	1382.2	1723.3	3392.2	5437.8	15253.3	23150.0	24693.3	24935.6	17954.4
72.5°	466.7	574.4	1228.9	1103.3	4073.3	5841.1	9475.6	12947.8	14590.0	13863.3	10283.3
75°	341.1	403.3	1041.1	691.1	3597.8	3625.6	3625.6	3678.9	3848.9	3436.7	3311.1
77.5°	215.6	268.9	825.6	493.3	2207.8	2351.1	1704.4	1131.1	995.6	816.7	942.2
80°	107.8	125.6	511.1	295.6	1327.8	1471.1	1014.4	350.0	305.6	242.2	350.0
82.5°	35.6	44.4	180.0	161.1	422.2	412.2	358.9	152.2	143.3	107.8	143.3
85°	0.0	8.9	8.9	35.6	44.4	53.3	53.3	72.2	53.3	26.7	63.3
87.5°	0.0	0.0	0.0	0.0	0.0	8.9	8.9	8.9	17.8	0.0	8.9
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°	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9	3618.9
2.5°	3634.4	3643.3	3615.6	3597.8	3580.0	3553.3	3535.6	3517.8	3517.8	3535.6	3535.6
5°	3634.4	3625.6	3597.8	3553.3	3535.6	3490.0	3463.3	3418.9	3401.1	3418.9	3445.6
7.5°	3705.6	3696.7	3652.2	3588.9	3535.6	3463.3	3436.7	3364.4	3337.8	3382.2	3445.6
10°	3760.0	3751.1	3687.8	3634.4	3544.4	3445.6	3355.6	3337.8	3275.6	3346.7	3265.6
12.5°	3857.8	3848.9	3760.0	3652.2	3517.8	3410.0	3337.8	3275.6	3194.4	3167.8	3176.7
15°	4110.0	4091.1	3956.7	3768.9	3625.6	3481.1	3328.9	3230.0	3185.6	3104.4	3122.2
17.5°	4647.8	4585.6	4370.0	4046.7	3813.3	3544.4	3337.8	3185.6	3140.0	3051.1	3033.3
20°	5787.8	5832.2	5508.9	5006.7	4387.8	3768.9	3364.4	3140.0	3060.0	2978.9	2996.7
22.5°	6631.1	6541.1	6406.7	6021.1	5365.6	4396.7	3526.7	3131.1	2978.9	2916.7	2906.7
25°	5922.2	5841.1	5895.6	6101.1	5931.1	5222.2	3938.9	3122.2	2888.9	2800.0	2800.0
27.5°	5186.7	5114.4	5052.2	5347.8	5688.9	5634.4	4621.1	3230.0	2844.4	2701.1	2710.0
30°	5437.8	5347.8	5096.7	4953.3	5015.6	5464.4	5078.9	3418.9	2781.1	2637.8	2637.8
32.5°	6514.4	6388.9	5975.6	5330.0	4683.3	4997.8	5024.4	3562.2	2683.3	2494.4	2494.4
35°	7411.1	7250.0	6827.8	6208.9	5105.6	4486.7	4702.2	3705.6	2602.2	2395.6	2386.7
37.5°	7905.6	7788.9	7430.0	6585.6	5760.0	4468.9	4262.2	3705.6	2521.1	2278.9	2278.9
40°	8147.8	8040.0	7663.3	7071.1	6128.9	4808.9	3804.4	3535.6	2450.0	2188.9	2188.9
42.5°	8641.1	8478.9	7941.1	7510.0	6281.1	4935.6	3472.2	3185.6	2351.1	2082.2	2082.2
45°	9008.9	8973.3	8694.4	8362.2	6595.6	4953.3	3311.1	2826.7	2252.2	1965.6	1955.6
47.5°	8156.7	8245.6	9026.7	8991.1	7591.1	5330.0	3203.3	2530.0	2144.4	1848.9	1812.2
50°	9178.9	8973.3	9430.0	8927.8	7895.6	5886.7	3158.9	2476.7	2072.2	1758.9	1723.3
52.5°	9788.9	9438.9	9170.0	9358.9	7393.3	5904.4	3212.2	2413.3	1965.6	1651.1	1615.6
55°	8784.4	8757.8	9000.0	8667.8	6468.9	4656.7	3167.8	2351.1	1857.8	1534.4	1507.8
57.5°	9152.2	9322.2	8595.6	7672.2	5284.4	3947.8	3033.3	2324.4	1767.8	1444.4	1400.0
60°	9026.7	8883.3	6801.1	6585.6	4916.7	3930.0	3023.3	2287.8	1668.9	1345.6	1292.2
62.5°	8425.6	8236.7	5715.6	5168.9	4370.0	3867.8	2978.9	2287.8	1552.2	1202.2	1148.9
65°	9546.7	8568.9	6576.7	4720.0	4101.1	3876.7	3131.1	2144.4	1400.0	1032.2	986.7
67.5°	14643.3	13755.6	8766.7	4997.8	4127.8	4235.6	3033.3	1992.2	1256.7	843.3	807.8
69°	17397.8	16250.0	9682.2	4827.8	3831.1	3606.7	2970.0	1866.7	1148.9	753.3	717.8
70°	17146.7	16078.9	9080.0	4055.6	3472.2	3373.3	2853.3	1750.0	1067.8	682.2	645.6
72.5°	9878.9	9995.6	5527.8	2100.0	1857.8	2906.7	1884.4	1382.2	834.4	511.1	484.4
75°	3247.8	3876.7	2503.3	1004.4	878.9	1004.4	717.8	610.0	493.3	350.0	341.1
77.5°	933.3	1228.9	834.4	511.1	475.6	376.7	233.3	206.7	188.9	161.1	197.8
80°	332.2	376.7	305.6	251.1	233.3	152.2	98.9	81.1	72.2	63.3	53.3
82.5°	143.3	152.2	134.4	134.4	107.8	63.3	44.4	35.6	35.6	35.6	35.6
85°	53.3	53.3	44.4	44.4	44.4	17.8	17.8	0.0	0.0	8.9	17.8
87.5°	8.9	8.9	8.9	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)