

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: 765579_400MP

Luminaire Tested: **GMX40PXX3DF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 765579_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX40PXX3DF
Description: 400W MH TYPE III AREA
Light Source: 400 WATT PULSE-START CLEAR ED-37 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 31261.4 lumens
Efficiency: 78.2%
Efficacy: 69.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.81' x L: 1.81' x H: 0.83')
IES Classification: Type II - Short - Cutoff
BUG Rating: B4 - U2 - G4

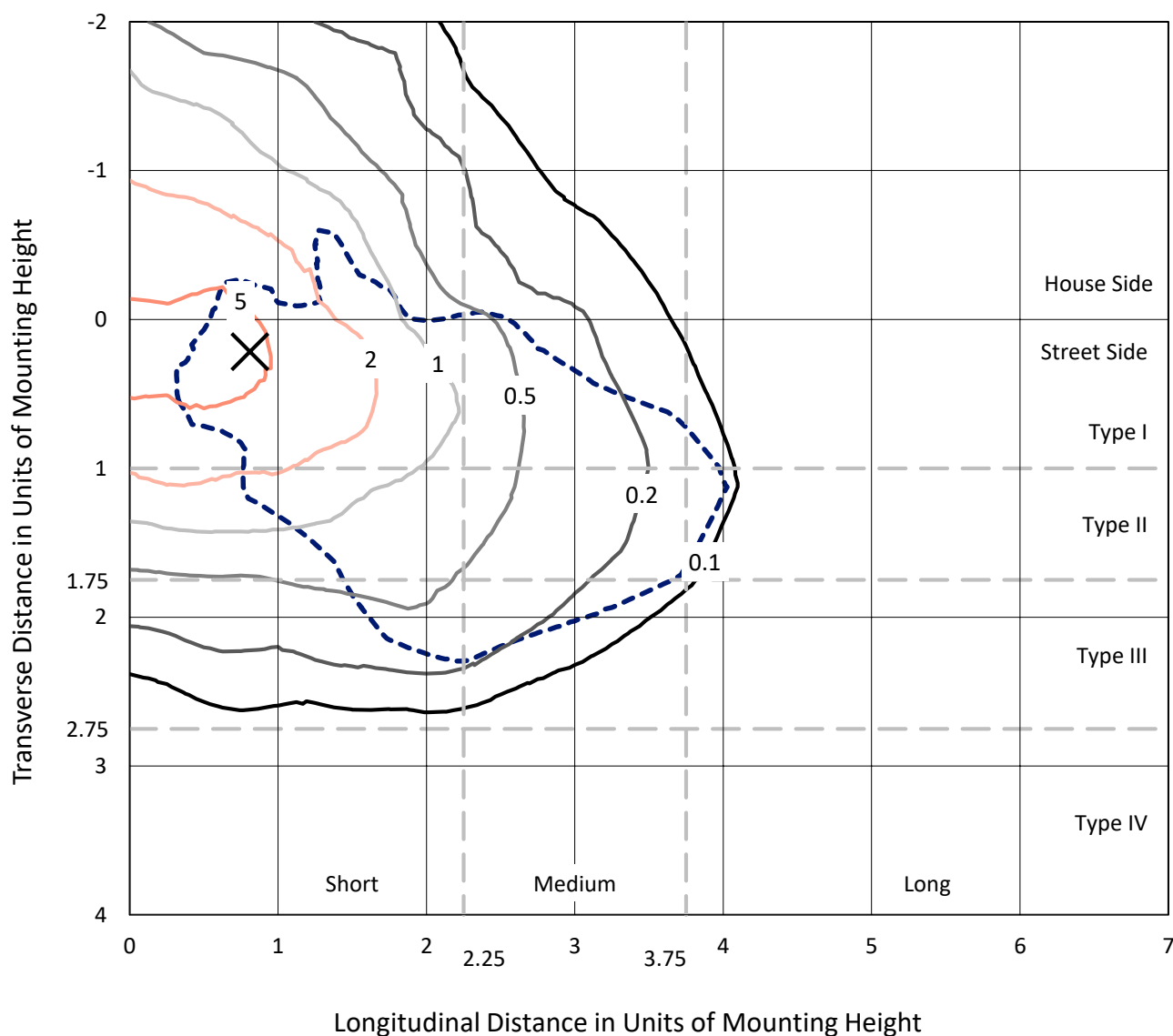
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

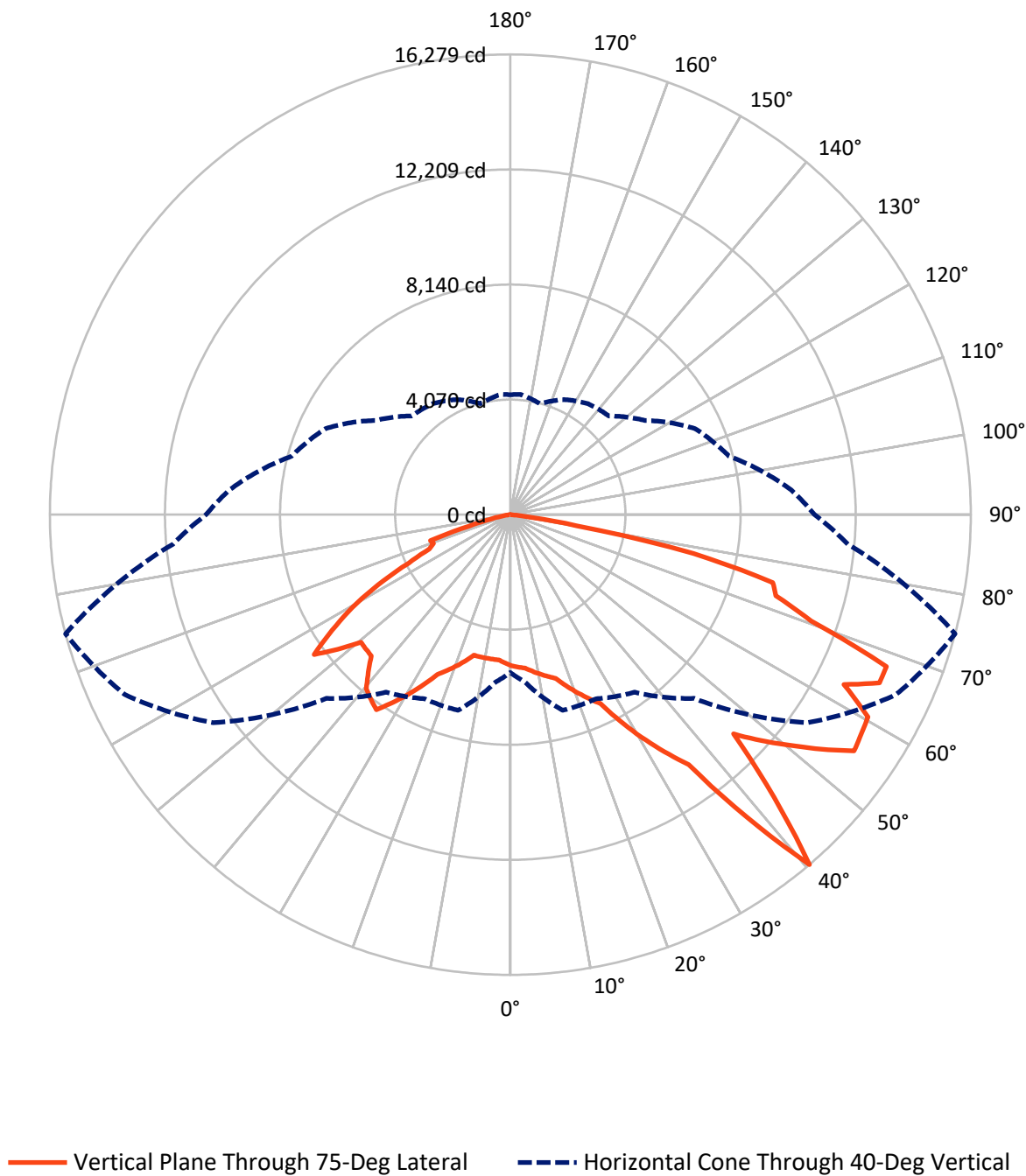
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Short - Cutoff

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Luminous Intensity Polar Plot



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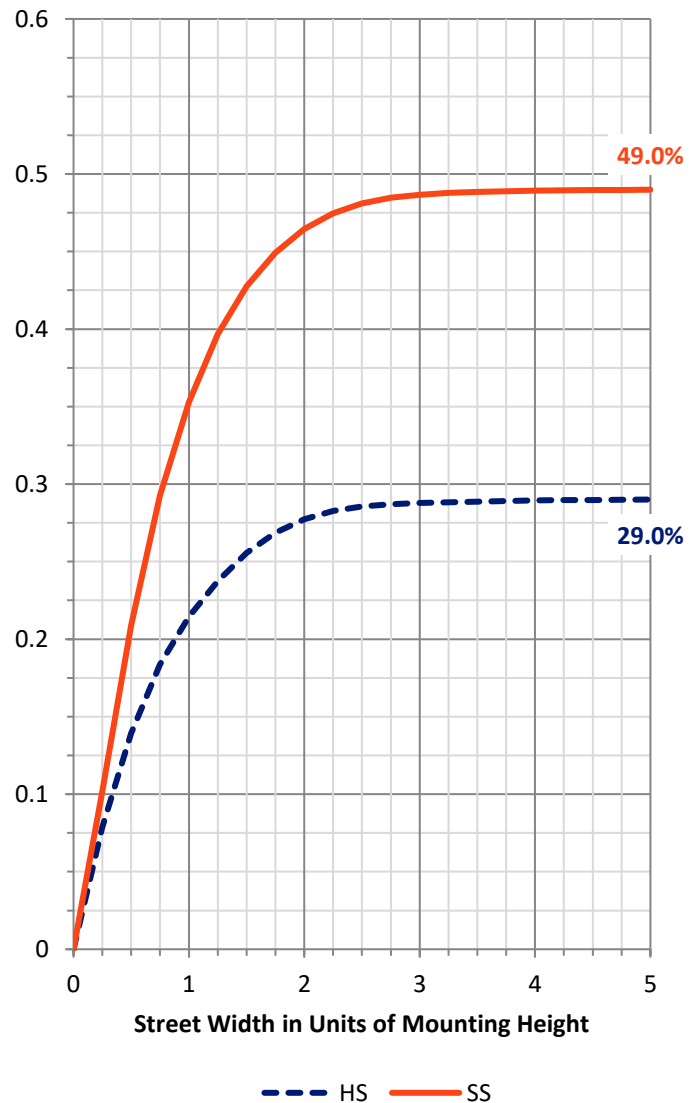
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11652.0	64.4	11716.4
	% Lamp	29.1	0.2	29.3
Street Side	Lumens	19545.0	0.0	19545.0
	% Lamp	48.9	0.0	48.9
Total	Lumens	31197.0	64.4	31261.4
	% Lamp	78.0	0.2	78.2

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	515.1	1.6	1.3
10°-20°	1604.5	5.1	4.0
20°-30°	2950.5	9.4	7.4
30°-40°	4720.0	15.1	11.8
40°-50°	5662.8	18.1	14.2
50°-60°	6835.4	21.9	17.1
60°-70°	6057.1	19.4	15.1
70°-80°	2758.2	8.8	6.9
80°-90°	128.3	0.4	0.3
90°-100°	23.4	0.1	0.1
100°-110°	21.9	0.1	0.1
110°-120°	14.7	0.0	0.0
120°-130°	4.3	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°	31197.0	99.8	78.0
0°-180°	31261.4	100.0	78.2

Coefficient of Utilization



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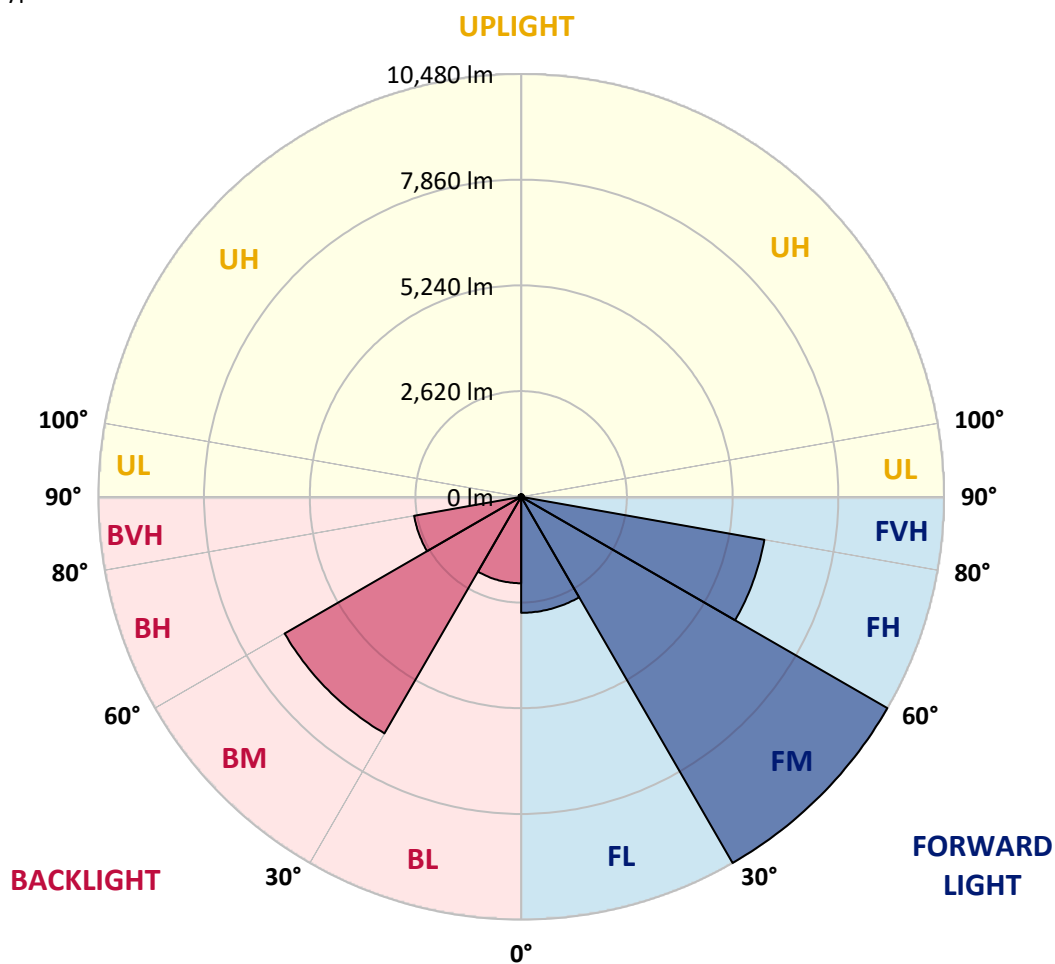
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2874.5	7.2			
FM	(30°-60°)	10480.0	26.2			
FH	(60°-80°)	6120.3	15.3			G3/7500
FVH	(80°-90°)	80.0	0.2			G1/100
BL	(0°-30°)	2142.3	5.4	B3/2500		
BM	(30°-60°)	6771.0	16.9	B4/8500		
BH	(60°-80°)	2695.0	6.7	B4/5000		G4/5000
BVH	(80°-90°)	48.3	0.1			G1/100
UL	(90°-100°)	23.4	0.1		U2/50	
UH	(100°-180°)	64.4	0.2		U3/500	
Trapped Light		8738.6	21.8			

BUG Rating: B4-U2-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5
5°	6144.3	6064.3	5986.7	5920.0	5846.0	5741.7	5677.4	5562.2	5454.2	5364.5	5308.7
15°	6944.8	6881.7	6810.2	6861.1	6805.3	6596.7	6488.8	6298.4	6009.7	5691.9	5534.3
25°	6809.0	6475.4	6667.1	6846.6	6973.9	7283.2	7468.8	7581.6	7403.3	7006.7	6739.8
35°	5562.2	5733.2	6469.4	6545.8	8525.2	11102.5	10599.2	11238.3	10857.5	9792.6	9651.9
40°	5587.6	5940.6	7164.3	7183.7	7667.7	9189.8	12829.6	15049.1	16279.0	11974.5	10758.0
45°	5373.0	5761.1	7153.4	7172.8	7183.7	8093.4	9362.0	11896.9	11064.9	9359.6	8753.2
50°	4926.6	5022.4	6340.8	6907.2	7286.8	7738.0	9786.5	12497.3	12821.1	10262.0	8465.7
55°	4037.6	4236.5	5159.5	6400.2	7964.8	9941.8	11847.2	15683.4	14745.9	11793.8	9097.6
60°	3221.3	3322.0	3944.2	5089.1	7064.9	9158.3	10355.4	15026.1	14527.6	11556.1	8892.7
62.5°	2588.2	2639.2	3396.0	4217.1	6699.8	8977.6	9746.5	13497.9	13233.5	10160.1	7478.5
65°	1879.9	2074.0	3077.0	3598.5	6456.0	8851.4	10316.6	12970.3	14339.6	9969.7	7799.9
67.5°	1512.4	1664.0	2732.6	3239.5	6234.1	10041.2	11170.4	13334.1	14342.0	11215.3	8692.5
70°	1081.9	1191.0	2148.0	2593.1	5315.9	11533.1	12245.0	12698.6	11279.6	8055.8	6459.7
72.5°	715.6	707.1	1045.5	1507.6	3379.0	8437.8	10577.3	10867.2	9816.9	6852.6	6103.1
75°	294.7	287.4	352.9	508.2	1415.4	2942.4	6819.9	9757.4	9586.4	5957.6	4674.3
77.5°	151.6	151.6	145.5	206.2	419.6	1015.2	2137.1	5734.4	6616.1	2940.0	2120.1
80°	76.4	76.4	71.6	103.1	192.8	374.8	685.3	2104.3	2363.9	970.3	653.7
82.5°	31.5	25.5	26.7	37.6	84.9	144.3	197.7	384.5	417.2	265.6	169.8
85°	0.0	0.0	0.0	0.0	19.4	44.9	48.5	66.7	78.8	60.6	32.7
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
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
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°	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5	5347.5
5°	5251.7	5154.6	5077.0	4995.8	4923.0	4892.7	4869.6	4876.9	4876.9	4872.0
15°	5411.8	5135.2	4908.4	4710.7	4505.8	4340.8	4208.6	4107.9	4023.0	4021.8
25°	6561.6	6207.4	5816.9	5420.3	4804.1	4361.4	4378.4	5138.9	4952.1	4806.5
35°	9164.3	8368.7	7644.6	6383.3	5482.1	5222.6	4417.2	4491.2	4388.1	4167.4
40°	9974.5	7998.8	7204.4	5805.9	4931.5	4790.8	4491.2	4059.4	4263.2	4242.6
45°	7791.4	7006.7	6157.7	5282.0	4886.6	4471.8	4220.7	4241.4	4725.3	4872.0
50°	7340.2	6943.6	6409.9	6018.2	5214.1	4511.8	4292.3	4451.2	5274.7	5258.9
55°	8237.7	8519.1	8160.1	5888.4	4876.9	4733.8	5375.4	5696.8	5636.1	5882.4
60°	8328.7	6498.5	5956.3	5130.4	4559.1	5345.1	5102.5	4442.7	5483.3	6875.7
62.5°	6440.3	5292.9	5347.5	4624.6	4521.5	5062.5	4471.8	4035.2	5084.3	6232.9
65°	5613.1	3990.3	4818.7	3983.0	4319.0	4402.7	3719.8	3581.6	4350.5	5072.2
67.5°	4864.8	3112.2	3605.8	2644.0	3779.3	2853.9	2507.0	2583.4	2582.2	3176.5
70°	3730.7	2903.6	2826.0	2350.5	3312.3	1924.8	1466.3	1237.1	1174.0	1240.8
72.5°	5061.2	2971.5	2018.2	1730.7	1406.9	937.5	722.9	658.6	676.8	670.7
75°	3675.0	1501.5	966.6	868.4	570.0	365.1	416.0	539.7	452.4	464.5
77.5°	1601.0	731.4	390.5	477.9	265.6	203.8	269.3	331.1	316.6	391.8
80°	567.6	357.8	196.5	319.0	146.8	109.2	203.8	190.4	129.8	149.2
82.5°	185.6	149.2	87.3	78.8	74.0	60.6	173.4	156.5	53.4	60.6
85°	36.4	37.6	20.6	30.3	31.5	17.0	155.2	145.5	46.1	19.4
87.5°	0.0	0.0	0.0	0.0	4.9	1.2	137.1	151.6	92.2	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	126.1	133.4	137.1	3.6
95°	0.0	0.0	6.1	0.0	1.2	1.2	128.6	150.4	121.3	72.8
105°	0.0	0.0	0.0	1.2	3.6	3.6	120.1	161.3	82.5	84.9
115°	0.0	0.0	0.0	3.6	8.5	9.7	72.8	166.2	87.3	88.5
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
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)