

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: 765575_400MP

Luminaire Tested: **GMX40PXX2DF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 765575_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX40PXX2DF
Description: 400W MH TYPE II AREA
Light Source: 400 WATT PULSE-START CLEAR ED-37 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 31143.2 lumens
Efficiency: 77.9%
Efficacy: 68.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.81' x L: 1.81' x H: 0.83')
IES Classification: Type I - Short - Cutoff
BUG Rating: B4 - U2 - G4

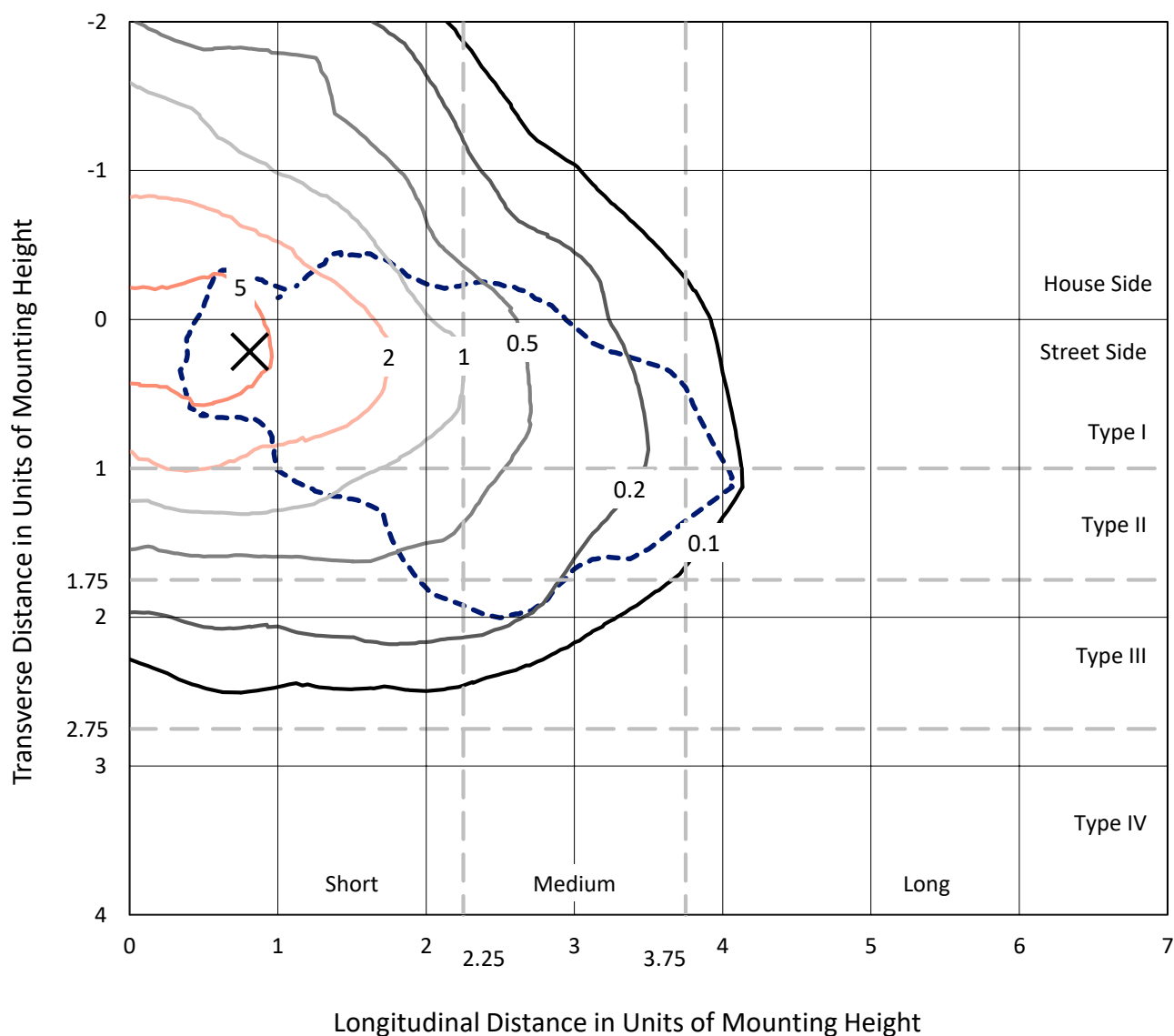
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

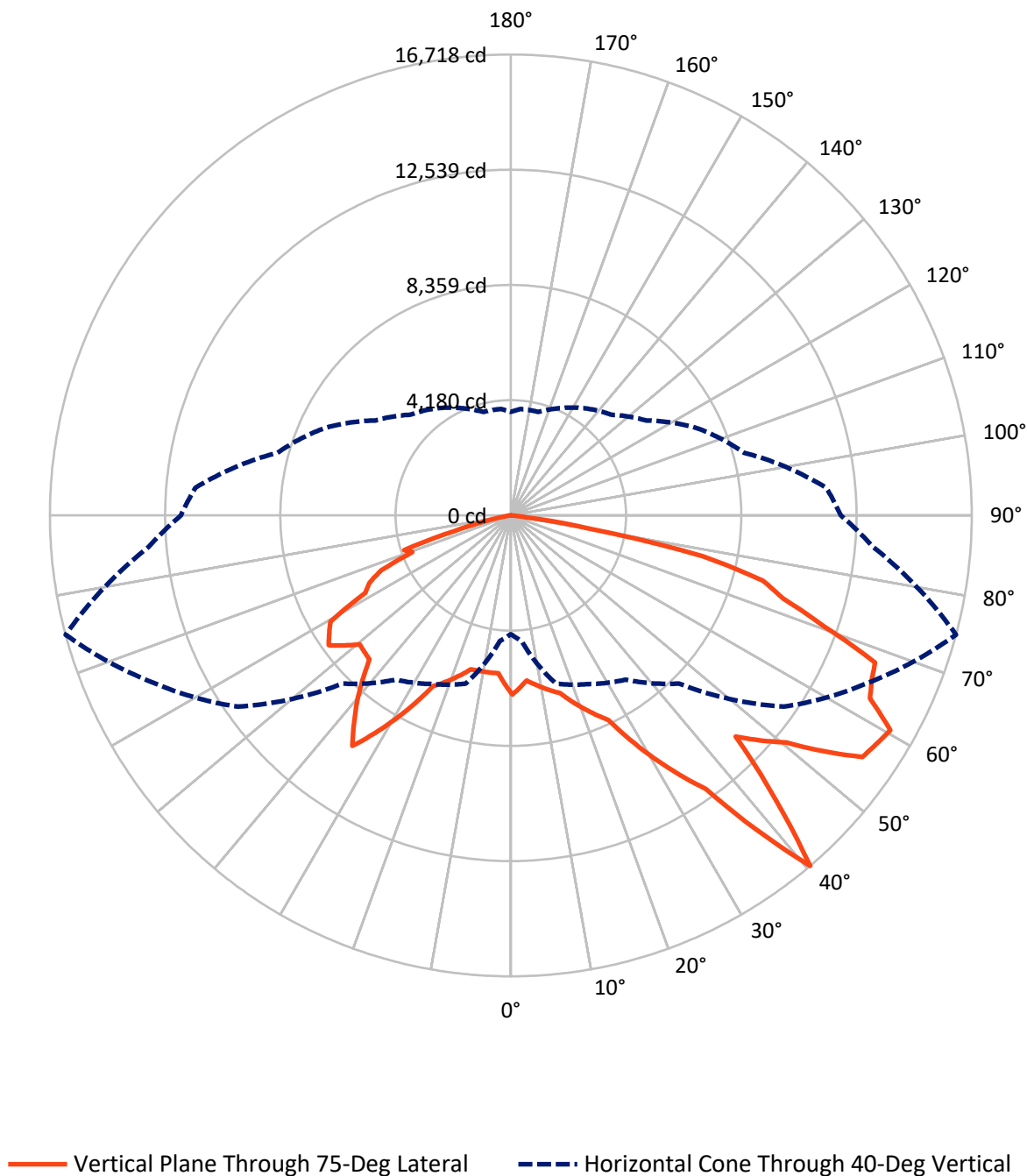
× Max cd
- - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.8 fc
Type I - Short - Cutoff

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Luminous Intensity Polar Plot



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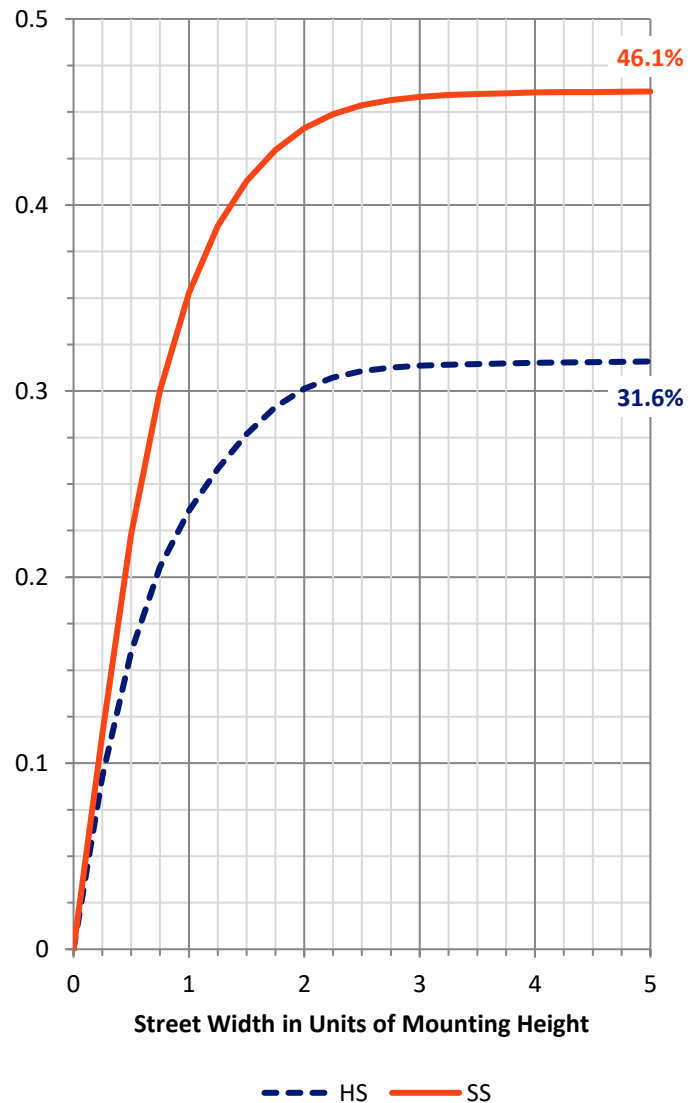
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12694.5	63.0	12757.5
	% Lamp	31.7	0.2	31.9
Street Side	Lumens	18384.0	1.6	18385.6
	% Lamp	46.0	0.0	46.0
Total	Lumens	31078.5	64.7	31143.2
	% Lamp	77.7	0.2	77.9

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	571.1	1.8	1.4
10°-20°	1714.3	5.5	4.3
20°-30°	3085.8	9.9	7.7
30°-40°	4784.0	15.4	12.0
40°-50°	5395.7	17.3	13.5
50°-60°	6478.0	20.8	16.2
60°-70°	6111.6	19.6	15.3
70°-80°	2764.2	8.9	6.9
80°-90°	152.7	0.5	0.4
90°-100°	23.7	0.1	0.1
100°-110°	21.8	0.1	0.1
110°-120°	14.9	0.0	0.0
120°-130°	4.6	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°	31078.5	99.8	77.7
0°-180°	31143.2	100.0	77.9

Coefficient of Utilization



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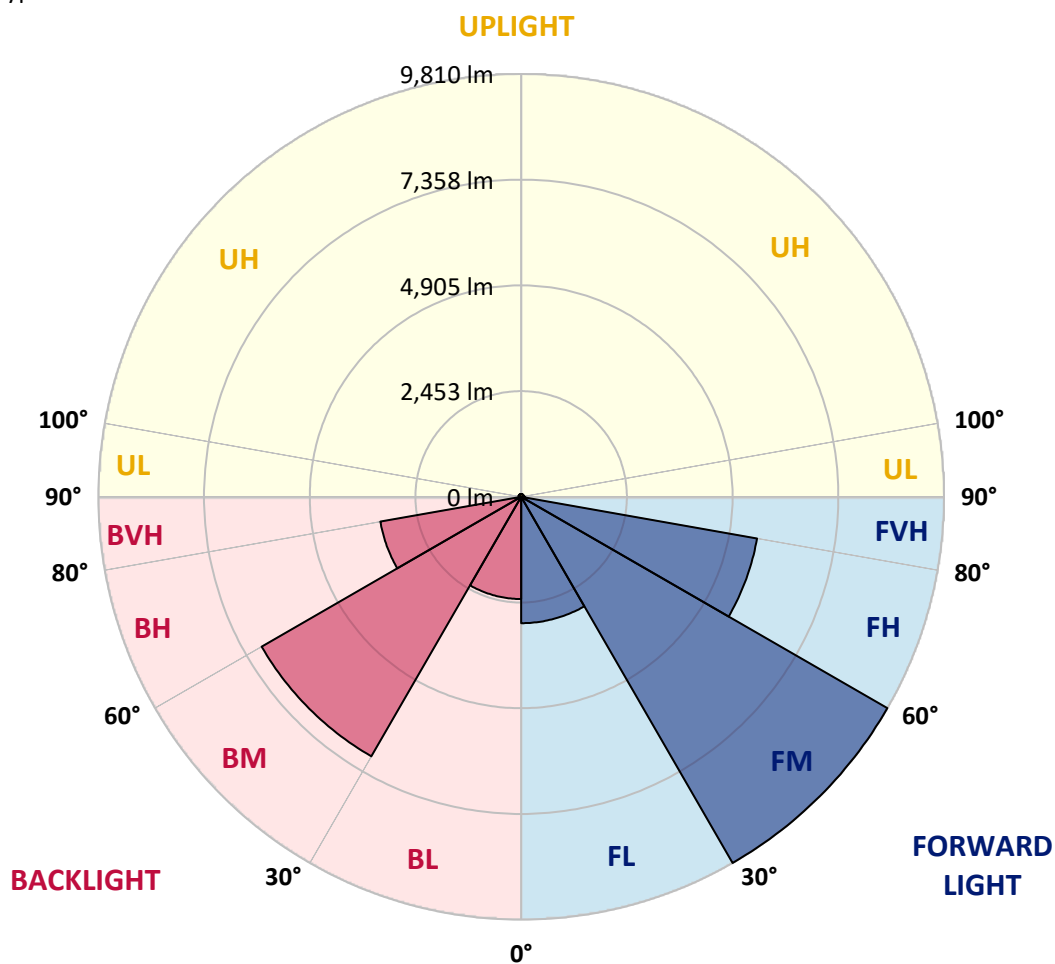
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2931.9	7.3			
FM	(30°-60°)	9810.2	24.5			
FH	(60°-80°)	5557.5	13.9			G3/7500
FVH	(80°-90°)	94.5	0.2			G1/100
BL	(0°-30°)	2371.0	5.9	B3/2500		
BM	(30°-60°)	6952.8	17.4	B4/8500		
BH	(60°-80°)	3318.2	8.3	B4/5000		G4/5000
BVH	(80°-90°)	58.2	0.1			G1/100
UL	(90°-100°)	23.7	0.1		U2/50	
UH	(100°-180°)	63.0	0.2		U3/500	
Trapped Light		8856.8	22.1			

BUG Rating: B4-U2-G4

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5
5°	6482.7	6451.2	6386.9	6366.3	6319.0	6257.1	6181.9	6103.1	6015.8	5929.7	5898.1
15°	6612.5	6607.6	6654.9	6766.5	6829.6	6852.6	6862.3	6886.6	6690.1	6386.9	6270.5
25°	5599.8	5565.8	5852.0	6236.5	6648.9	7164.3	7628.9	8081.3	8219.5	7947.8	7740.4
35°	4688.9	4954.5	6013.3	6066.7	7609.5	10420.9	10537.3	11784.1	12192.8	11421.5	11279.6
40°	4305.6	4574.9	6316.6	6748.3	7272.3	8623.4	12089.8	14334.7	16718.0	13192.2	11967.3
45°	4299.6	4116.4	5677.4	6561.6	6428.1	7052.8	8405.1	10792.0	11438.4	10010.9	9315.9
50°	3546.4	3508.8	4775.0	5758.6	6670.7	6855.1	8061.9	10686.5	12952.1	11887.2	10395.4
55°	3012.7	2899.9	3676.2	4695.0	6605.2	7943.0	9204.4	13060.0	15468.8	15032.1	13245.6
60°	2480.3	2428.1	2980.0	3634.9	5199.5	7462.7	8806.5	12844.1	15816.9	15182.5	12745.9
62.5°	2031.5	2000.0	2623.4	3123.1	4674.3	7112.2	8180.7	11603.4	14619.8	13161.9	10851.4
65°	1565.8	1724.7	2393.0	2784.7	4369.9	7046.7	8006.1	11087.9	14382.0	14101.9	10038.8
67.5°	1237.1	1463.9	2207.4	2550.6	4222.0	7109.8	8810.2	11024.9	14251.1	13212.9	11628.9
70°	926.6	1102.5	1770.8	2020.6	3659.2	6855.1	10253.5	10180.7	12049.7	9933.3	8619.8
72.5°	607.6	674.3	1138.9	1185.0	2396.6	5416.6	9651.9	8385.7	10332.3	8169.8	6955.7
75°	271.7	295.9	374.8	499.7	879.3	2234.1	5094.0	8025.5	9439.7	7690.7	6784.7
77.5°	167.4	162.5	162.5	167.4	326.3	805.3	1909.0	5206.8	7115.8	4393.0	3668.9
80°	107.9	97.0	94.6	104.3	169.8	291.1	676.8	2001.2	2859.9	1506.4	1415.4
82.5°	47.3	50.9	52.2	53.4	83.7	115.2	222.0	372.3	539.7	359.0	327.5
85°	15.8	25.5	26.7	19.4	27.9	37.6	66.7	83.7	109.2	97.0	89.8
87.5°	0.0	3.6	3.6	0.0	0.0	6.1	4.9	8.5	9.7	17.0	3.6
90°	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	12.1	19.4	12.1	1.2	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°	3.6	3.6	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°	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5	6498.5
5°	5853.2	5742.9	5655.5	5584.0	5530.6	5443.3	5437.2	5453.0	5454.2	5448.2
15°	6103.1	5761.1	5431.2	5199.5	5037.0	4926.6	4770.2	4657.4	4599.2	4559.1
25°	7457.9	6807.8	6373.6	5905.4	5301.4	4704.7	4638.0	5445.7	5208.0	5113.4
35°	10978.8	10146.8	8365.1	6981.2	6098.2	5918.7	4699.8	4476.7	3977.0	3910.2
40°	11485.7	8764.1	7476.0	5996.4	5161.9	4738.6	4292.3	3883.6	3872.7	3752.6
45°	8020.6	7314.7	6241.4	5115.8	4554.3	4144.3	3867.8	3986.7	4229.2	4382.0
50°	9023.7	7205.6	6549.4	5422.7	4739.8	4213.5	3898.1	3918.7	4785.9	5436.0
55°	10810.2	8110.4	7256.5	5462.7	4527.6	4263.2	4505.8	5168.0	5633.7	5882.4
60°	10827.2	7592.5	6158.9	4970.3	4468.2	5459.1	5421.5	4906.0	5152.2	6040.0
62.5°	8560.3	5973.3	5759.9	5089.1	4735.0	5945.4	5502.7	4074.0	4629.5	5575.5
65°	7770.8	5681.0	5691.9	5149.8	4942.4	6200.1	4338.4	3550.0	4042.4	4661.0
67.5°	8188.0	5106.1	3958.8	4419.6	4622.2	4902.4	3467.6	3046.7	2604.0	3286.8
70°	7214.1	3810.8	3243.2	3050.3	3582.8	2619.8	2114.0	1615.5	1267.4	1626.4
72.5°	6736.2	4070.3	2333.5	2094.6	1613.1	1115.8	910.9	739.8	665.9	784.7
75°	5126.7	2114.0	1100.1	1131.6	679.2	474.2	420.9	405.1	445.1	477.9
77.5°	2948.5	994.5	544.6	514.3	344.5	253.5	246.2	269.3	315.3	373.6
80°	998.2	436.6	271.7	266.8	191.6	144.3	171.0	180.7	151.6	164.9
82.5°	254.7	171.0	120.1	134.6	107.9	87.3	135.8	141.9	77.6	82.5
85°	69.1	50.9	40.0	53.4	46.1	42.4	100.7	151.6	57.0	44.9
87.5°	3.6	0.0	1.2	4.9	9.7	20.6	88.5	150.4	93.4	25.5
90°	0.0	0.0	1.2	1.2	6.1	8.5	77.6	131.0	146.8	41.2
95°	0.0	0.0	0.0	1.2	6.1	14.6	83.7	135.8	135.8	161.3
105°	0.0	0.0	1.2	4.9	9.7	19.4	76.4	161.3	77.6	78.8
115°	0.0	1.2	6.1	9.7	14.6	15.8	52.2	157.7	100.7	117.6
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)