

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: **GMX40PXX1DF**

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: GMX40PXX1DF
Description: 400W MH TYPE I AREA
Light Source: 400 WATT PULSE-START CLEAR ED-37 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 26136.2 lumens
Efficiency: 65.3%
Efficacy: 57.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.81' x L: 1.81' x H: 0.83')
IES Classification: Type II - Medium - Cutoff
BUG Rating: B4 - U2 - G4

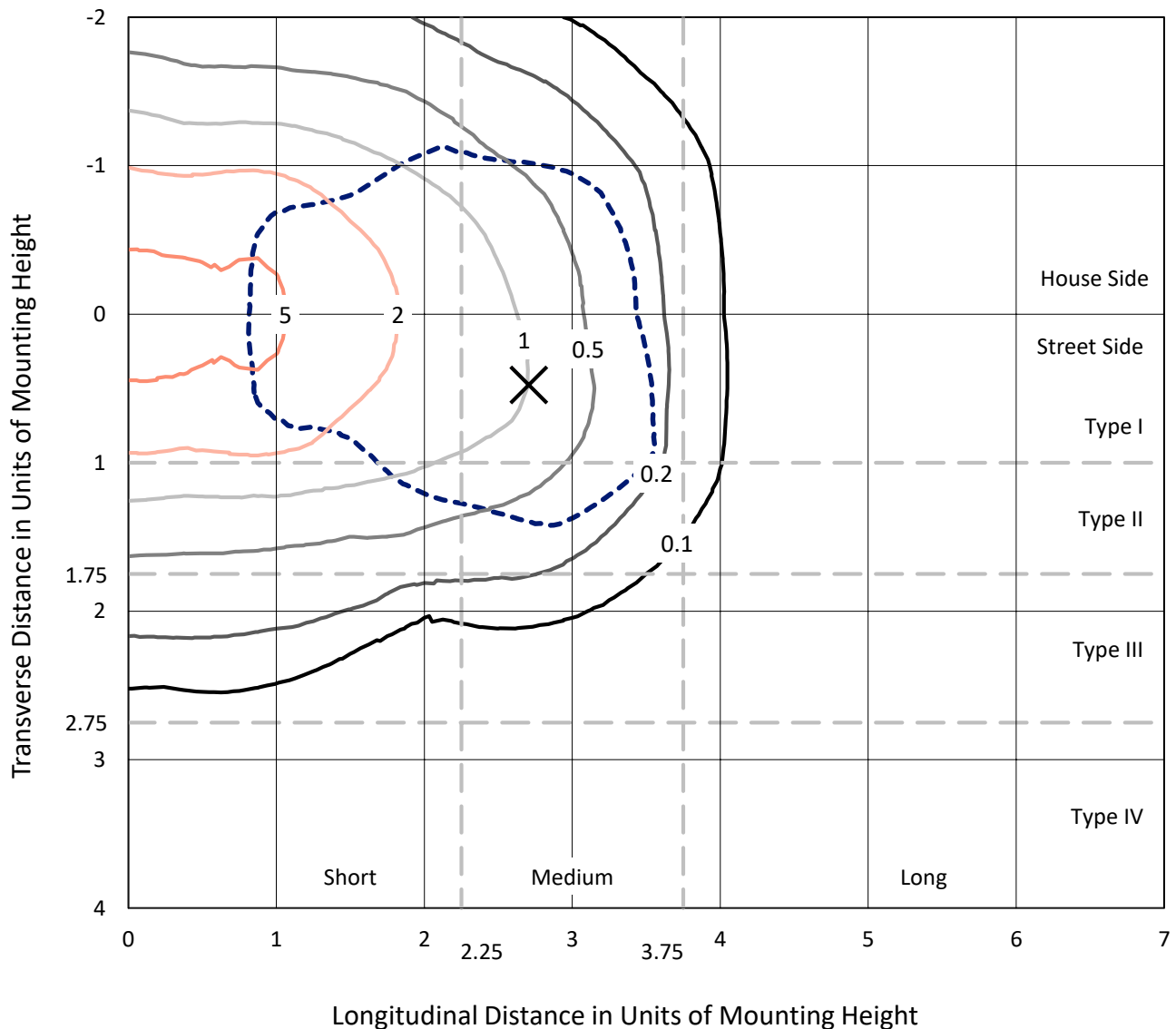
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

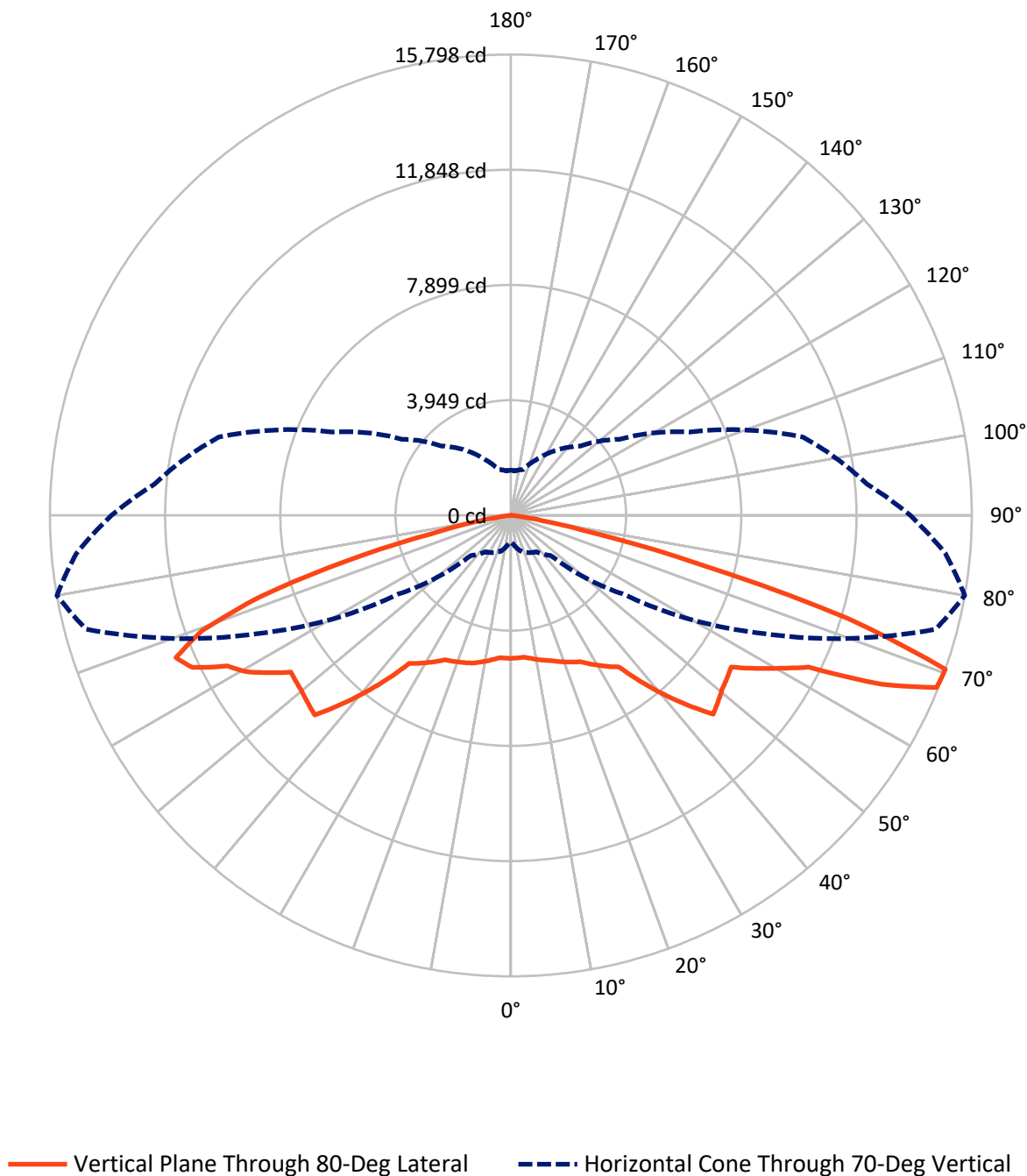
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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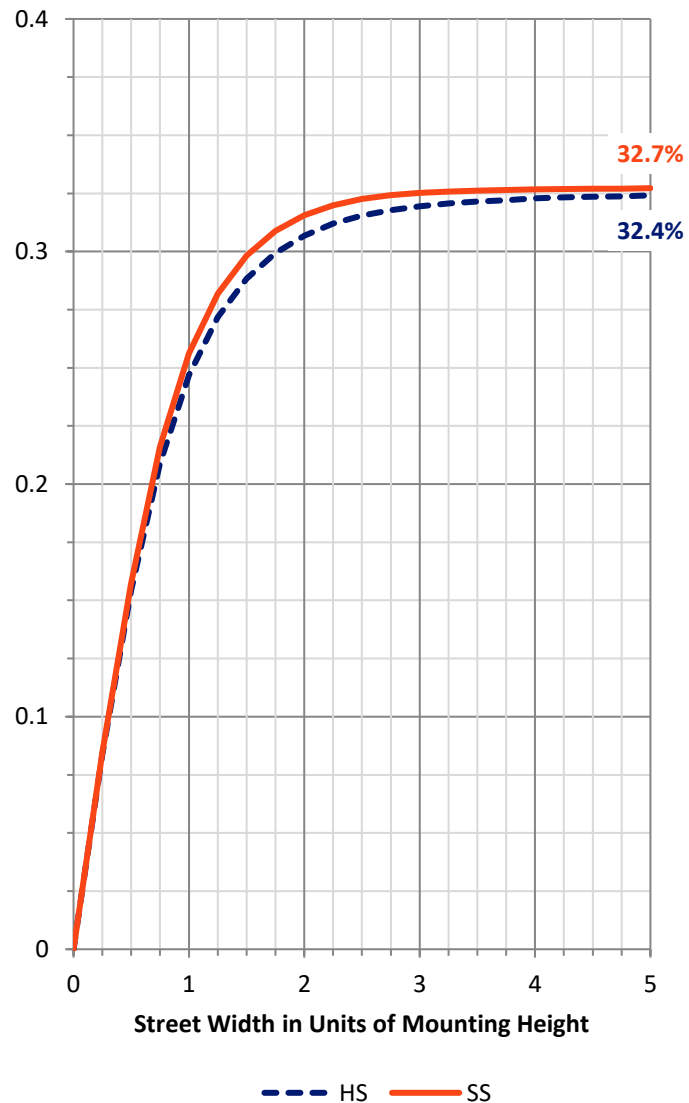
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13020.2	38.5	13058.6
	% Lamp	32.6	0.1	32.6
Street Side	Lumens	13067.2	10.4	13077.6
	% Lamp	32.7	0.0	32.7
Total	Lumens	26087.3	48.9	26136.2
	% Lamp	65.2	0.1	65.3

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	464.1	1.8	1.2
10°-20°	1354.8	5.2	3.4
20°-30°	2202.5	8.4	5.5
30°-40°	3252.8	12.4	8.1
40°-50°	4522.7	17.3	11.3
50°-60°	5261.8	20.1	13.2
60°-70°	5894.7	22.6	14.7
70°-80°	2896.9	11.1	7.2
80°-90°	192.7	0.7	0.5
90°-100°	21.6	0.1	0.1
100°-110°	16.8	0.1	0.0
110°-120°	8.8	0.0	0.0
120°-130°	2.2	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°	26087.3	99.8	65.2
0°-180°	26136.2	100.0	65.3

Coefficient of Utilization



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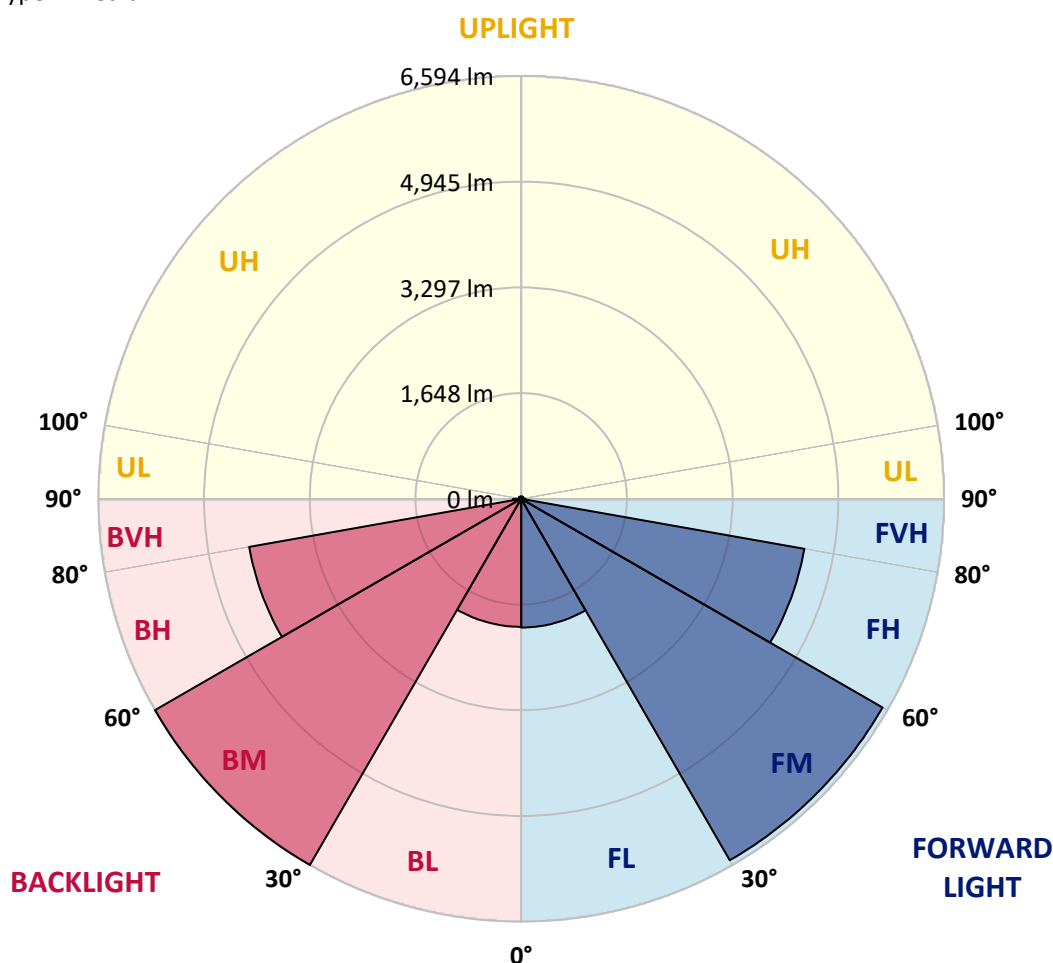
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2007.4	5.0			
FM	(30°-60°)	6508.0	16.3			
FH	(60°-80°)	4484.2	11.2			G2/5000
FVH	(80°-90°)	68.8	0.2			G1/100
BL	(0°-30°)	1996.1	5.0	B3/2500		
BM	(30°-60°)	6593.9	16.5	B4/8500		
BH	(60°-80°)	4307.4	10.8	B4/5000		G4/5000
BVH	(80°-90°)	123.9	0.3			G2/225
UL	(90°-100°)	21.6	0.1		U2/50	
UH	(100°-180°)	38.5	0.1		U2/50	
Trapped Light		13863.8	34.7			

BUG Rating: B4-U2-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3
5°	4895.1	4875.7	4856.3	4858.7	4834.4	4842.9	4858.7	4872.0	4892.7	4879.3	4897.5
15°	4388.1	4346.9	4383.3	4453.6	4600.4	4710.7	4844.1	4978.8	5109.8	5165.6	5212.9
25°	4063.1	4070.3	4231.7	4283.8	4329.9	4487.6	4812.6	5212.9	5518.5	5557.3	5593.7
35°	3650.7	3824.1	3887.2	4140.7	4777.4	5030.9	5000.6	5467.6	6166.2	6379.6	6502.1
45°	3060.0	3101.3	3182.5	3403.3	4560.3	6420.9	7608.2	8493.6	9403.3	9723.5	9715.0
50°	2688.9	2692.5	2702.2	3092.8	4097.0	6169.8	8177.1	8491.2	9129.2	9380.2	9366.9
55°	2332.3	2327.5	2389.3	2895.1	3681.0	5463.9	7740.4	8240.1	8904.8	9169.2	9246.8
60°	2116.4	2106.7	2241.4	2625.8	3269.9	4548.2	6794.4	8559.1	10139.5	10628.3	10906.0
62.5°	1945.4	1970.9	2121.3	2418.4	3073.4	4188.0	6735.0	9054.0	10889.0	11456.6	11315.9
65°	1721.0	1778.0	1977.0	2211.0	2823.5	4002.4	6750.8	10057.0	13265.0	13950.3	13483.3
67.5°	1423.9	1354.8	1690.7	1992.7	2434.2	3607.0	6242.6	10168.6	14935.1	15744.1	15085.5
70°	901.2	992.1	1257.7	1406.9	1524.6	1947.8	4693.8	9591.3	15069.7	15797.5	14948.5
72.5°	499.7	513.0	654.9	613.7	685.3	1329.3	4180.7	8652.5	11871.4	12111.6	10567.6
75°	224.4	212.2	270.5	264.4	362.6	867.2	2941.2	5011.5	7530.6	6642.8	6450.0
77.5°	133.4	133.4	140.7	150.4	222.0	528.8	1550.0	2713.2	2807.8	2823.5	2442.7
80°	88.5	82.5	83.7	88.5	134.6	260.8	590.7	789.6	1238.3	1077.0	1142.5
82.5°	47.3	48.5	40.0	55.8	84.9	120.1	197.7	321.4	343.2	360.2	342.0
85°	25.5	26.7	24.3	21.8	32.7	46.1	67.9	105.5	141.9	151.6	144.3
87.5°	12.1	12.1	9.7	9.7	9.7	12.1	17.0	19.4	30.3	31.5	42.4
90°	12.1	10.9	9.7	6.1	4.9	3.6	1.2	3.6	3.6	3.6	3.6
95°	12.1	14.6	17.0	21.8	27.9	12.1	3.6	1.2	1.2	1.2	0.0
105°	9.7	10.9	9.7	6.1	4.9	4.9	3.6	0.0	0.0	0.0	0.0
115°	12.1	10.9	10.9	9.7	8.5	6.1	4.9	1.2	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3	4896.3
5°	4904.8	4881.7	4904.8	4906.0	4884.2	4875.7	4866.0	4869.6	4887.8	4895.1	4885.4
15°	5243.2	5239.5	5215.3	5063.7	4901.2	4775.0	4636.7	4606.4	4544.6	4515.5	4515.5
25°	5567.0	5511.2	5363.3	5102.5	4795.6	4471.8	4205.0	4065.5	3996.4	3992.7	3955.1
35°	6475.4	6254.7	6057.0	5556.1	5131.6	4782.3	4372.3	4003.6	3871.4	3535.5	3457.9
45°	9761.1	9803.5	9376.6	8510.6	7366.9	6032.7	4611.3	3650.7	3326.9	3369.3	3455.4
50°	9336.6	9360.8	9387.5	8920.6	7951.5	6226.8	4476.7	3398.4	3051.5	3267.4	3366.9
55°	9292.9	9366.9	9138.9	8477.9	7397.2	5739.2	4174.7	3176.5	2745.9	2883.0	2971.5
60°	11067.3	10958.2	10135.8	8272.9	6743.5	5144.9	3801.1	2907.2	2436.6	2584.6	2631.9
62.5°	11326.9	11493.0	10500.9	8471.8	6589.4	4879.3	3591.3	2777.4	2275.3	2395.4	2468.2
65°	13560.9	12889.0	11311.1	8674.3	6466.9	4653.7	3275.9	2516.7	2105.5	2207.4	2268.0
67.5°	14252.3	13588.8	11351.1	8565.2	6180.7	4288.7	3087.9	2312.9	1883.6	1900.5	1872.7
70°	13689.5	12260.8	10365.1	6760.5	4549.4	3363.3	2725.3	2118.9	1627.7	1529.4	1553.7
72.5°	9725.9	9809.6	8327.5	5930.9	3480.9	2018.2	1358.4	1497.9	1351.1	1121.9	1217.7
75°	5952.7	5773.2	5973.3	4058.2	2863.6	1399.6	832.0	762.9	701.0	656.2	658.6
77.5°	2345.7	2754.4	2830.8	2687.7	1776.8	982.4	493.6	419.6	426.9	363.9	395.4
80°	1131.6	1185.0	1456.6	1531.8	1100.1	588.2	346.9	258.3	270.5	230.4	218.3
82.5°	442.7	426.9	437.8	497.3	508.2	344.5	207.4	155.2	177.1	156.5	141.9
85°	149.2	183.1	175.9	197.7	157.7	118.9	103.1	94.6	124.9	89.8	72.8
87.5°	27.9	26.7	52.2	30.3	52.2	46.1	52.2	48.5	84.9	53.4	78.8
90°	4.9	3.6	4.9	4.9	6.1	15.8	26.7	31.5	77.6	83.7	149.2
95°	0.0	0.0	0.0	0.0	3.6	14.6	27.9	31.5	105.5	87.3	151.6
105°	0.0	0.0	0.0	1.2	6.1	15.8	21.8	26.7	140.7	41.2	31.5
115°	0.0	0.0	1.2	3.6	6.1	10.9	14.6	17.0	40.0	27.9	31.5
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

(END OF REPORT)