

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: 766032_450MP

Luminaire Tested: **GMX45PXXAS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 766032_450MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX45PXXAS
Description: 400MH TYPE VERTICAL AREA SQUARE
Light Source: 450 WATT PULSE-START CLEAR ED-37 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 33760.3 lumens
Efficiency: 67.5%
Efficacy: 66.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.81' x L: 1.81' x H: 0.83')
IES Classification: Type V - Medium - Non-Cutoff
BUG Rating: B5 - U3 - G5

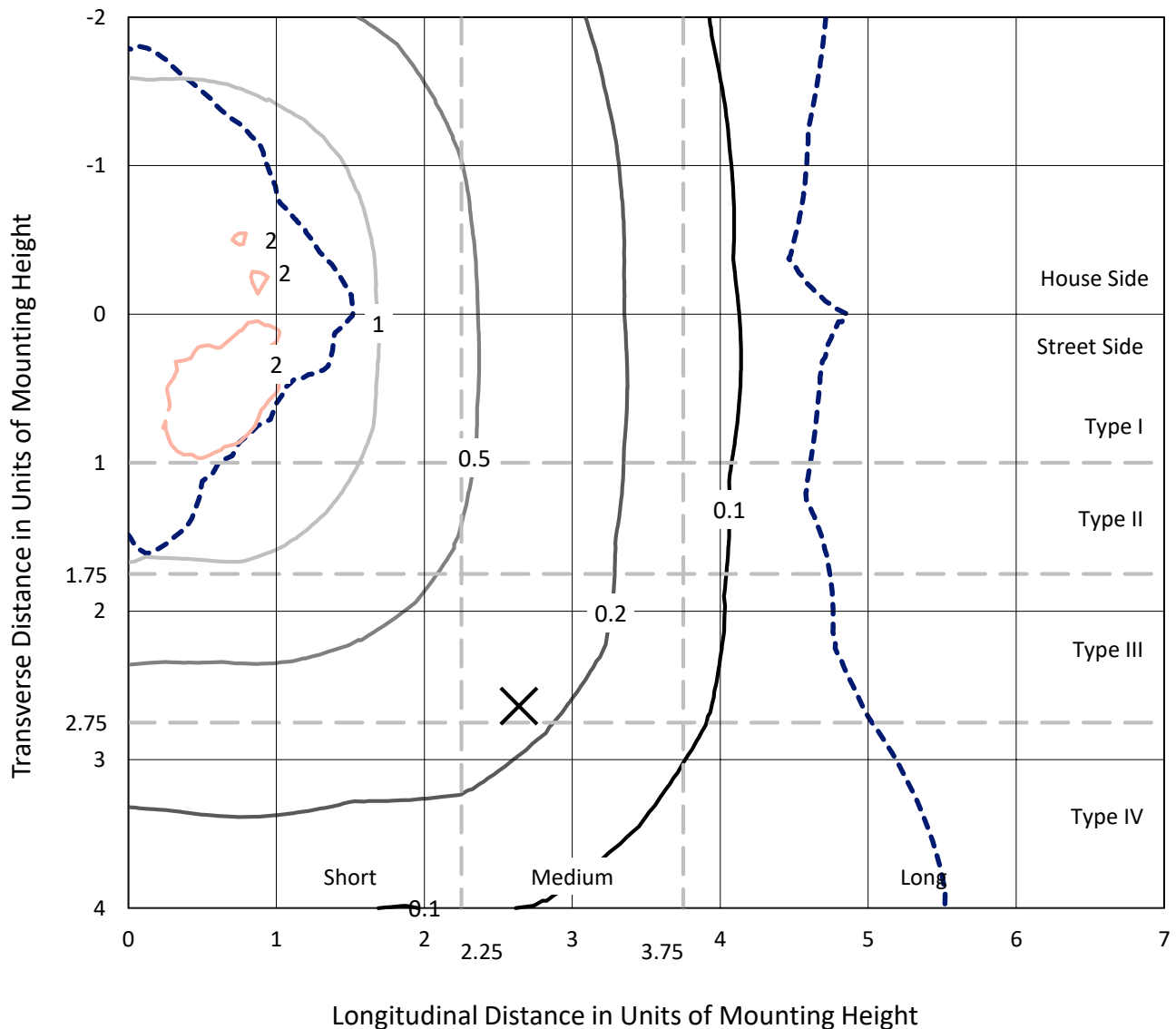
Input Watts (W): 508
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

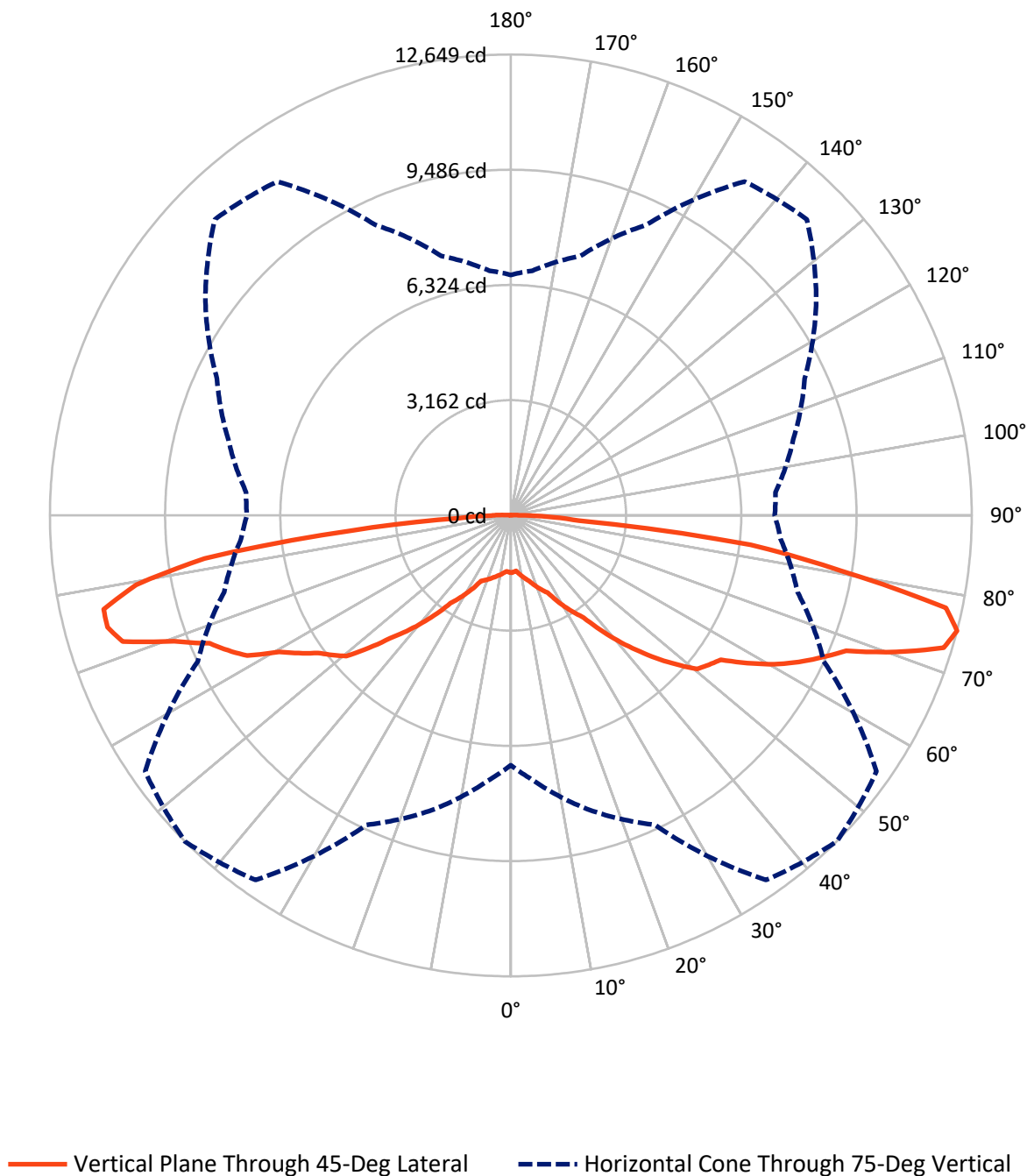
× Max cd
- - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.3 fc
Type V - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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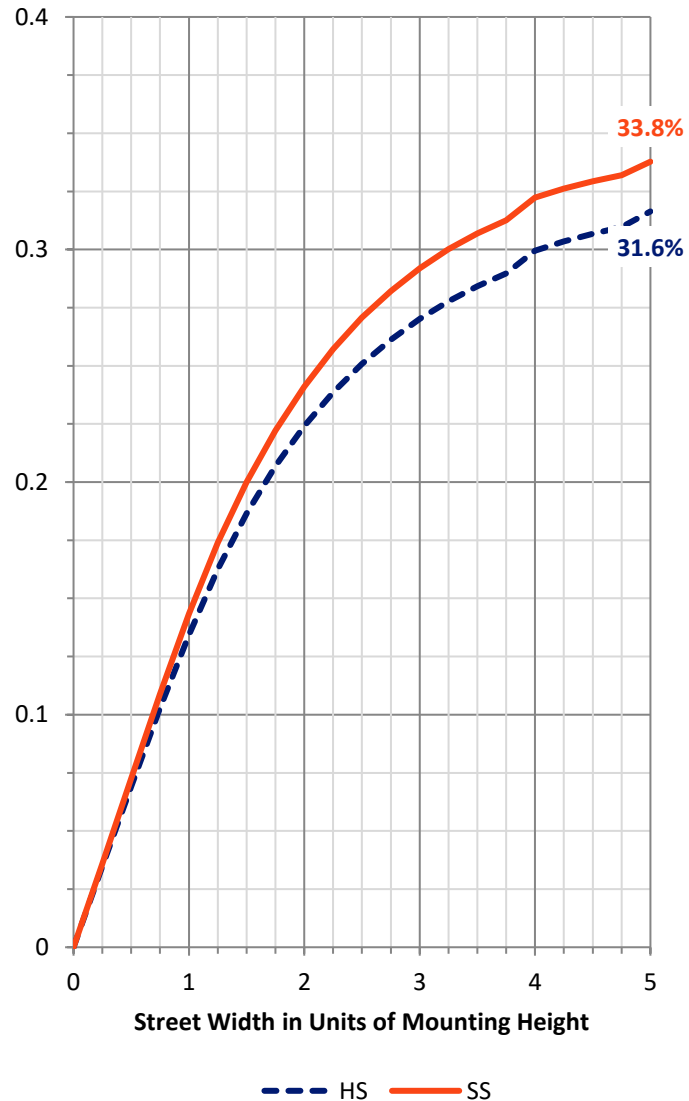
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16343.5	99.3	16442.8
	% Lamp	32.7	0.2	32.9
Street Side	Lumens	17245.4	72.0	17317.5
	% Lamp	34.5	0.1	34.6
Total	Lumens	33588.9	171.3	33760.3
	% Lamp	67.2	0.3	67.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	151.3	0.4	0.3
10°-20°	506.9	1.5	1.0
20°-30°	1040.2	3.1	2.1
30°-40°	2062.3	6.1	4.1
40°-50°	3842.3	11.4	7.7
50°-60°	5830.4	17.3	11.7
60°-70°	8086.4	24.0	16.2
70°-80°	9257.5	27.4	18.5
80°-90°	2922.2	8.7	5.8
90°-100°	141.6	0.4	0.3
100°-110°	32.8	0.1	0.1
110°-120°	5.6	0.0	0.0
120°-130°	0.7	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°	33588.9	99.5	67.2
0°-180°	33760.3	100.0	67.5

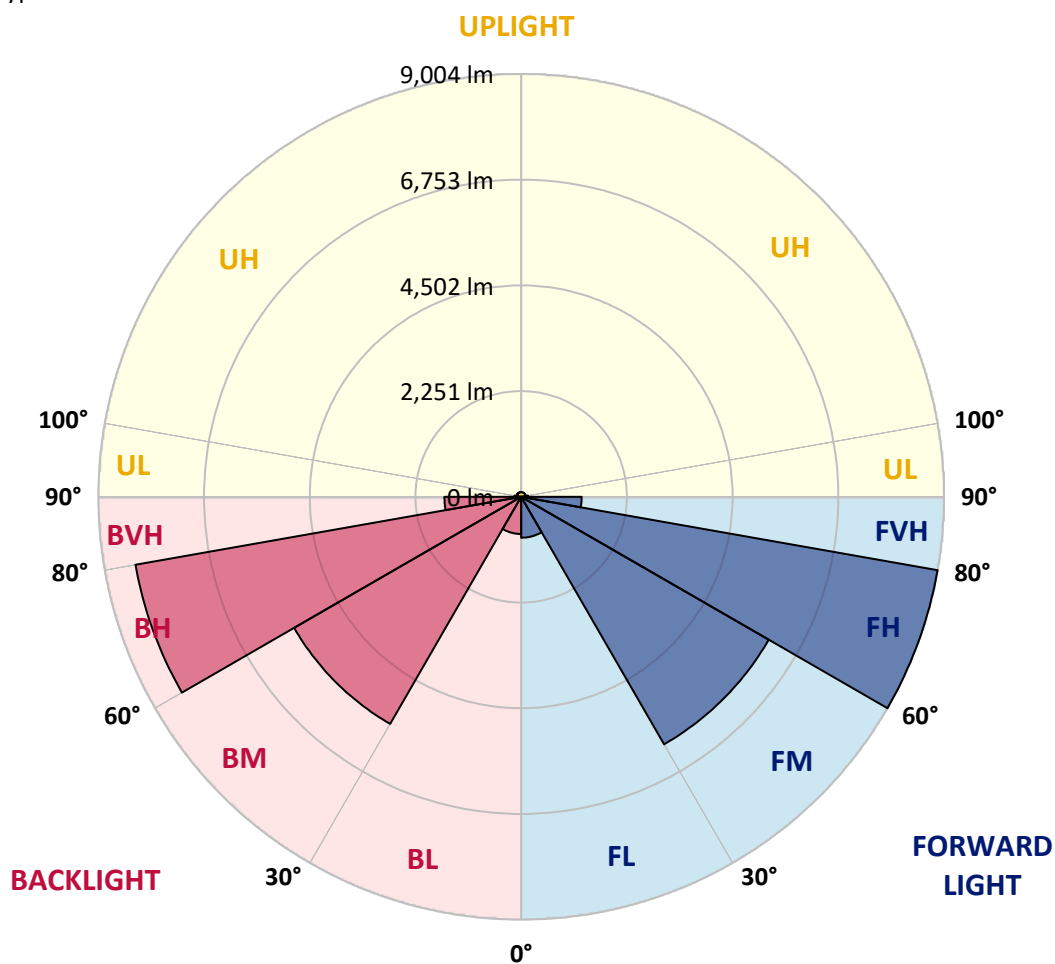


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	871.3	1.7			
FM	(30°-60°)	6087.1	12.2			
FH	(60°-80°)	9004.3	18.0			G4/12000
FVH	(80°-90°)	1287.9	2.6			G5
BL	(0°-30°)	791.6	1.6	B2/1000		
BM	(30°-60°)	5582.7	11.2	B4/8500		
BH	(60°-80°)	8339.5	16.7	B5		G4/12000
BVH	(80°-90°)	1634.3	3.3			G5
UL	(90°-100°)	141.6	0.3		U3/500	
UH	(100°-180°)	99.3	0.2		U3/500	
Trapped Light		16239.7	32.5			

BUG Rating: B5-U3-G5
Type V Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2
5°	1555.6	1490.3	1511.1	1511.1	1498.6	1531.9	1550.0	1527.8	1536.1	1522.2	1562.5
15°	1680.6	1659.7	1808.3	1909.7	1844.4	1863.9	1872.2	1829.2	1766.7	1780.6	1788.9
25°	2070.8	2040.3	2095.8	2234.7	2320.8	2351.4	2365.3	2304.2	2269.4	2151.4	2109.7
35°	3026.4	2894.4	3061.1	3281.9	3444.4	3444.4	3351.4	3347.2	3154.2	3091.7	3068.1
45°	4734.7	4797.2	4765.3	5356.9	5323.6	5586.1	5426.4	5512.5	5080.6	5237.5	4773.6
50°	5731.9	5413.9	5595.8	6315.3	6481.9	6626.4	6363.9	6556.9	5920.8	5963.9	5779.2
55°	6215.3	5751.4	6108.3	6779.2	6937.5	6990.3	6937.5	6858.3	6370.8	6354.2	6070.8
60°	6716.7	6568.1	7008.3	7897.2	8243.1	8297.2	7966.7	7769.4	7169.4	6927.8	6851.4
62.5°	7143.1	7027.8	7473.6	8484.7	8865.3	8865.3	8715.3	8412.5	7726.4	7340.3	7201.4
65°	7430.6	7312.5	7827.8	8893.1	9279.2	9387.5	9266.7	8743.1	7997.2	7502.8	7395.8
67.5°	7616.7	7509.7	8051.4	9266.7	9851.4	9923.6	9751.4	9145.8	8197.2	7740.3	7633.3
70°	7881.9	7868.1	8684.7	9805.6	10829.2	11223.6	10909.7	9605.6	8602.8	7952.8	7895.8
72.5°	7751.4	7925.0	9252.8	10068.1	11925.0	12423.6	12036.1	10106.9	8819.4	8193.1	7930.6
75°	6855.6	7311.1	8370.8	9369.4	12212.5	12648.6	12248.6	9476.4	8145.8	7429.2	7243.1
77.5°	6131.9	6215.3	6312.5	8052.8	12030.6	12209.7	11316.7	8418.1	6730.6	6744.4	6619.4
80°	4488.9	4479.2	4708.3	5638.9	8865.3	9162.5	8183.3	5356.9	4897.2	4469.4	5758.3
82.5°	3304.2	2959.7	2963.9	3437.5	4825.0	6623.6	5194.4	3952.8	2833.3	2797.2	3947.2
85°	937.5	1227.8	1355.6	1677.8	1861.1	1884.7	2077.8	1652.8	1225.0	1188.9	1431.9
87.5°	390.3	425.0	575.0	636.1	809.7	998.6	934.7	791.7	556.9	418.1	462.5
90°	138.9	141.7	187.5	229.2	234.7	238.9	301.4	252.8	208.3	169.4	162.5
95°	37.5	45.8	87.5	93.1	113.9	79.2	118.1	86.1	69.4	45.8	34.7
105°	4.2	6.9	20.8	30.6	16.7	9.7	9.7	20.8	13.9	4.2	2.8
115°	4.2	4.2	4.2	4.2	4.2	4.2	2.8	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
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°	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2	1572.2
5°	1556.9	1555.6	1545.8	1541.7	1538.9	1548.6	1590.3	1562.5	1577.8	1559.7
15°	1768.1	1805.6	1791.7	1770.8	1743.1	1681.9	1636.1	1584.7	1525.0	1504.2
25°	2105.6	2044.4	2020.8	2009.7	1977.8	1947.2	1894.4	1854.2	1740.3	1750.0
35°	2991.7	2961.1	2936.1	2977.8	2919.4	2840.3	2743.1	2666.7	2559.7	2525.0
45°	4898.6	5138.9	4694.4	5131.9	4720.8	4555.6	4427.8	4469.4	4281.9	4256.9
50°	5769.4	5963.9	5948.6	6212.5	5943.1	5679.2	5451.4	5261.1	5184.7	4990.3
55°	6108.3	6375.0	6593.1	6626.4	6498.6	6166.7	6098.6	5734.7	5581.9	5644.4
60°	6802.8	7050.0	7254.2	7463.9	7377.8	7159.7	6902.8	6627.8	6150.0	6229.2
62.5°	7173.6	7387.5	7713.9	8048.6	8197.2	7909.7	7551.4	6976.4	6627.8	6520.8
65°	7436.1	7658.3	8172.2	8418.1	8598.6	8270.8	7854.2	7225.0	6727.8	6716.7
67.5°	7619.4	7888.9	8529.2	8784.7	8983.3	8612.5	8173.6	7319.4	6811.1	6776.4
70°	7916.7	8183.3	8875.0	9383.3	9861.1	9575.0	8677.8	7613.9	7043.1	7008.3
72.5°	8020.8	8538.9	9459.7	10366.7	11200.0	10873.6	9336.1	7916.7	7236.1	7013.9
75°	7290.3	8023.6	8898.6	10230.6	11486.1	11181.9	8795.8	7368.1	6740.3	6600.0
77.5°	6273.6	6873.6	7827.8	9625.0	11466.7	11306.9	7883.3	6298.6	5779.2	5709.7
80°	4520.8	4644.4	5547.2	8143.1	10456.9	9501.4	6115.3	4950.0	4801.4	4455.6
82.5°	3154.2	3552.8	4243.1	6084.7	8488.9	6893.1	4669.4	3666.7	3943.1	3797.2
85°	1272.2	1573.6	2241.7	2950.0	4419.4	3247.2	2650.0	1930.6	2013.9	1819.4
87.5°	526.4	840.3	1055.6	1534.7	1400.0	1601.4	1255.6	906.9	819.4	822.2
90°	176.4	252.8	369.4	408.3	536.1	445.8	443.1	338.9	301.4	236.1
95°	48.6	86.1	97.2	131.9	109.7	116.7	113.9	93.1	58.3	55.6
105°	4.2	18.1	25.0	23.6	16.7	18.1	27.8	23.6	9.7	4.2
115°	2.8	2.8	2.8	4.2	4.2	4.2	4.2	4.2	2.8	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
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)