

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: 767600_450MP

Luminaire Tested: **GMX45PXXARHS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 767600_450MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX45PXXARHS
Description: 400MH TYPE III VERTICAL AREA
WITH HOUSE SIDE SHIELD
Light Source: 450 WATT PULSE-START CLEAR ED-37 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 28273 lumens
Efficiency: 56.5%
Efficacy: 55.7 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type IV - Short - Cutoff
BUG Rating: B5 - U3 - G5

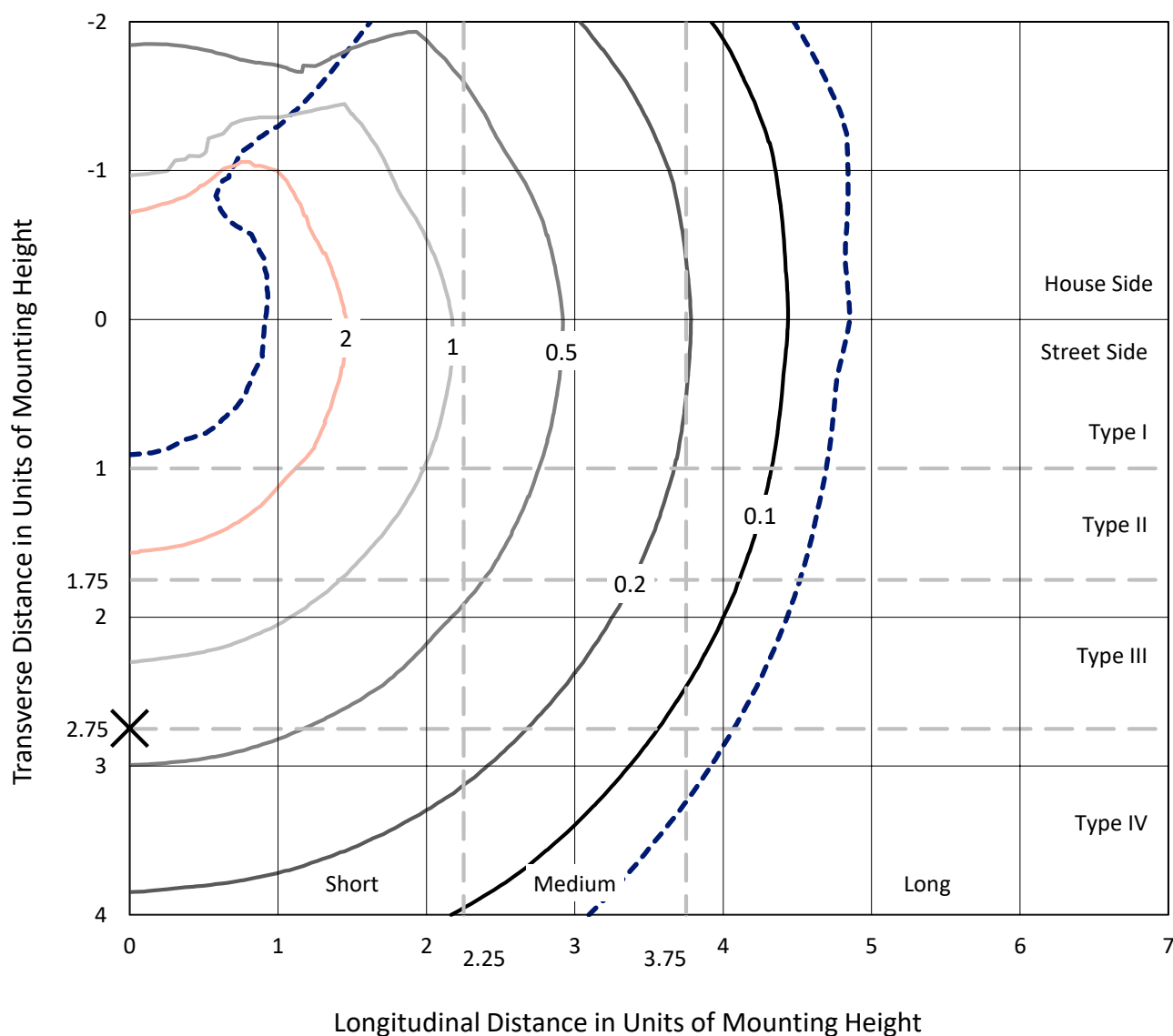
Input Watts (W): 508
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

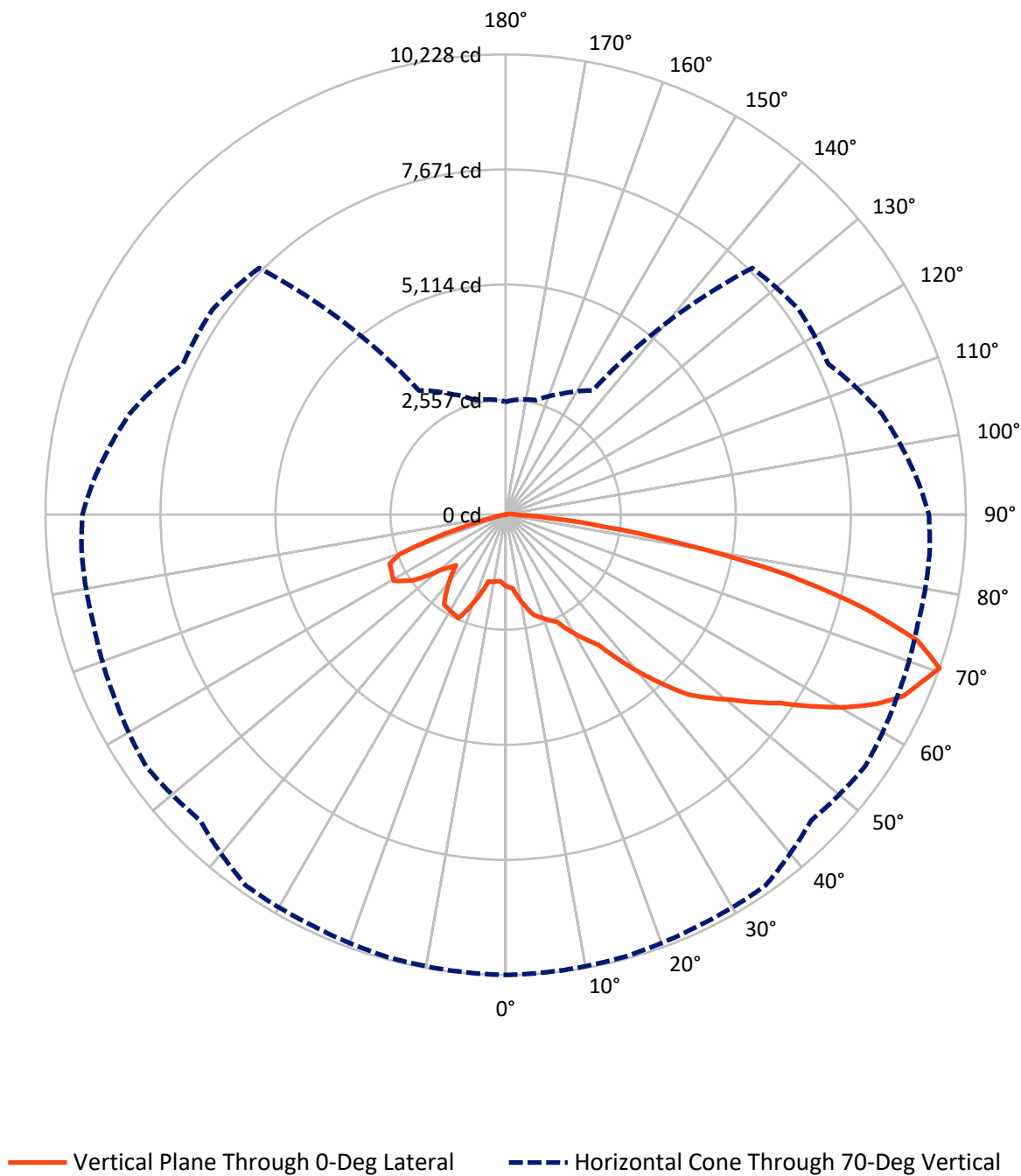
× Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Cutoff

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Luminous Intensity Polar Plot



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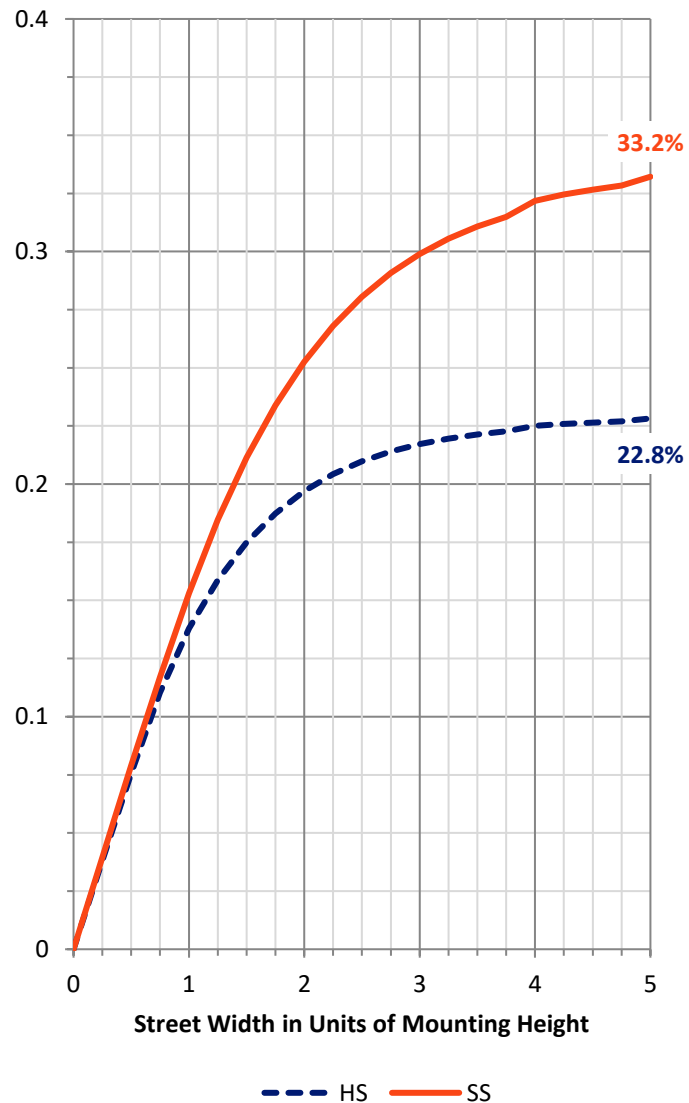
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11412.9	25.9	11438.8
	% Lamp	22.8	0.1	22.9
Street Side	Lumens	16763.4	70.7	16834.2
	% Lamp	33.5	0.1	33.7
Total	Lumens	28176.3	96.6	28273.0
	% Lamp	56.4	0.2	56.5

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	152.0	0.5	0.3
10°-20°	560.1	2.0	1.1
20°-30°	1204.5	4.3	2.4
30°-40°	2255.4	8.0	4.5
40°-50°	3805.7	13.5	7.6
50°-60°	5507.4	19.5	11.0
60°-70°	7302.8	25.8	14.6
70°-80°	6325.1	22.4	12.7
80°-90°	1113.7	3.9	2.2
90°-100°	81.4	0.3	0.2
100°-110°	23.1	0.1	0.0
110°-120°	1.4	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°	28176.3	99.7	56.4
0°-180°	28273.0	100.0	56.5

Coefficient of Utilization



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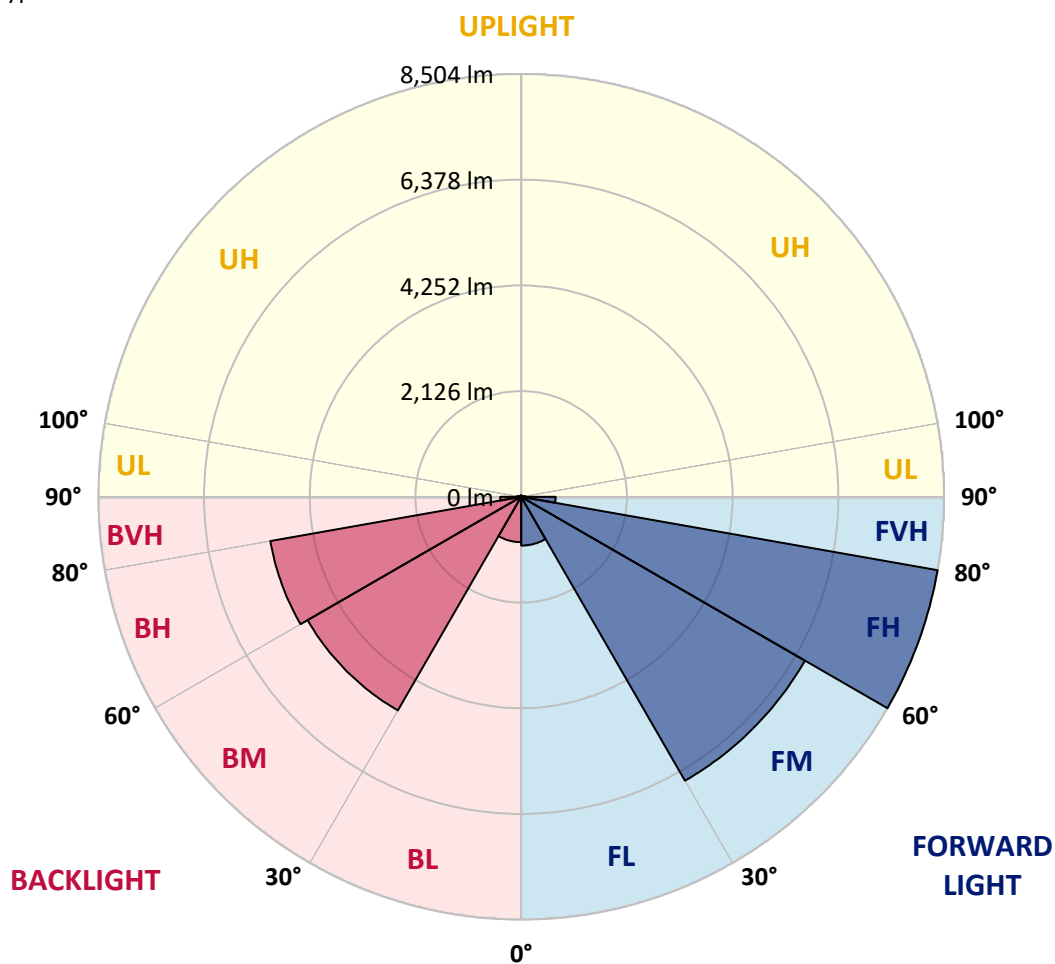
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	980.5	2.0			
FM	(30°-60°)	6591.4	13.2			
FH	(60°-80°)	8504.1	17.0			G4/12000
FVH	(80°-90°)	692.6	1.4			G4/750
BL	(0°-30°)	912.3	1.8	B2/1000		
BM	(30°-60°)	4960.5	9.9	B3/5000		
BH	(60°-80°)	5123.7	10.2	B5		G5
BVH	(80°-90°)	421.1	0.8			G3/500
UL	(90°-100°)	81.4	0.2		U3/500	
UH	(100°-180°)	25.9	0.1		U2/50	
Trapped Light		21727.0	43.5			

BUG Rating: B5-U3-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7
5°	1647.2	1583.3	1619.4	1609.7	1583.3	1537.5	1545.8	1537.5	777.8	1500.0	1500.0
15°	2305.6	2259.7	2359.7	2351.4	2186.1	2076.4	2058.3	1984.7	1902.8	1884.7	1866.7
25°	2634.7	2606.9	2626.4	2588.9	2552.8	2497.2	2543.1	2534.7	2470.8	2525.0	2525.0
35°	3550.0	3476.4	3531.9	3577.8	3512.5	3586.1	3486.1	3512.5	3476.4	3604.2	3631.9
45°	5708.3	5781.9	5708.3	5947.2	5572.2	5636.1	5498.6	5772.2	5544.4	5781.9	5636.1
50°	6459.7	6679.2	6531.9	6577.8	6613.9	6294.4	6633.3	6477.8	6504.2	6569.4	6659.7
55°	7391.7	7245.8	7319.4	7273.6	7163.9	6990.3	7118.1	6852.8	6861.1	6788.9	6779.2
60°	8691.7	8709.7	8654.2	8581.9	8490.3	8115.3	8187.5	7968.1	7804.2	7676.4	7602.8
62.5°	9258.3	9158.3	9140.3	9075.0	8947.2	8600.0	8681.9	8416.7	8306.9	8143.1	8059.7
65°	9716.7	9495.8	9561.1	9495.8	9258.3	9066.7	9002.8	8875.0	8700.0	8608.3	8480.6
67.5°	9954.2	9862.5	9880.6	9780.6	9643.1	9395.8	9331.9	9304.2	9075.0	9075.0	8984.7
70°	10227.8	10209.7	10173.6	10091.7	10063.9	9605.6	9752.8	9597.2	9477.8	9459.7	9405.6
72.5°	9569.4	9477.8	9605.6	9523.6	9579.2	9222.2	9304.2	9056.9	8984.7	8819.4	8855.6
75°	8161.1	8005.6	8179.2	8206.9	8233.3	8051.4	7950.0	7877.8	7812.5	7611.1	7620.8
77.5°	6348.6	6266.7	6394.4	6404.2	6422.2	6220.8	6047.2	5919.4	5745.8	5616.7	5718.1
80°	4062.5	4025.0	4044.4	3998.6	4044.4	3815.3	3713.9	3631.9	3631.9	3751.4	3952.8
82.5°	2213.9	2104.2	2076.4	2040.3	2068.1	1894.4	1930.6	1820.8	1894.4	1938.9	2004.2
85°	1006.9	897.2	941.7	887.5	951.4	813.9	859.7	795.8	805.6	831.9	859.7
87.5°	311.1	229.2	265.3	191.7	311.1	201.4	283.3	247.2	211.1	201.4	191.7
90°	219.4	137.5	173.6	109.7	219.4	119.4	211.1	173.6	145.8	127.8	119.4
95°	127.8	63.9	81.9	63.9	137.5	91.7	155.6	145.8	127.8	109.7	100.0
105°	18.1	9.7	9.7	9.7	0.0	0.0	9.7	9.7	9.7	9.7	9.7
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
166°	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°	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7	1591.7
5°	1491.7	1491.7	1527.8	1527.8	1527.8	1509.7	1518.1	1500.0	1500.0	1481.9
15°	1856.9	1811.1	1884.7	1958.3	1976.4	1875.0	1609.7	1563.9	1555.6	1537.5
25°	2497.2	2359.7	2277.8	2351.4	2488.9	2461.1	2561.1	2543.1	2561.1	2525.0
35°	3595.8	3458.3	3275.0	3458.3	3687.5	3713.9	3769.4	2845.8	2515.3	2415.3
45°	5488.9	5379.2	5177.8	5151.4	5462.5	5177.8	2772.2	1829.2	1601.4	1573.6
50°	6304.2	6193.1	5837.5	5883.3	6120.8	5754.2	2315.3	1966.7	1930.6	1884.7
55°	6595.8	6376.4	5993.1	6312.5	6477.8	5370.8	2754.2	2644.4	2552.8	2506.9
60°	7411.1	7062.5	6633.3	6944.4	7054.2	4180.6	3119.4	3037.5	2936.1	2891.7
62.5°	7850.0	7391.7	6888.9	7136.1	7236.1	3677.8	3101.4	2991.7	2936.1	2854.2
65°	8261.1	7722.2	7172.2	7301.4	7447.2	3394.4	3111.1	2927.8	2881.9	2818.1
67.5°	8719.4	8151.4	7529.2	7556.9	7611.1	3356.9	3129.2	2891.7	2800.0	2800.0
70°	9176.4	8654.2	7913.9	7950.0	7748.6	3366.7	2963.9	2634.7	2561.1	2506.9
72.5°	8673.6	8454.2	7804.2	7520.8	7126.4	3119.4	2552.8	1948.6	1673.6	1591.7
75°	7529.2	7529.2	7072.2	6413.9	5809.7	2845.8	2068.1	1188.9	731.9	676.4
77.5°	5708.3	5955.6	5700.0	5041.7	4318.1	2626.4	1629.2	612.5	320.8	275.0
80°	3879.2	4180.6	4144.4	3476.4	2918.1	1966.7	979.2	301.4	145.8	127.8
82.5°	1902.8	2150.0	2177.8	1902.8	1619.4	877.8	375.0	119.4	63.9	55.6
85°	741.7	877.8	905.6	823.6	676.4	283.3	119.4	45.8	27.8	18.1
87.5°	73.6	191.7	201.4	183.3	155.6	55.6	18.1	18.1	0.0	0.0
90°	45.8	100.0	91.7	91.7	63.9	36.1	9.7	0.0	0.0	0.0
95°	36.1	73.6	63.9	55.6	45.8	27.8	27.8	18.1	18.1	0.0
105°	0.0	9.7	9.7	9.7	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
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
166°	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)