

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: 767599_450MP

Luminaire Tested: **GSM-XX-450-MP-XX-AS-SG-XX-HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 767599_450MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-XX-450-MP-XX-AS-SG-XX-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION
Light Source: 450 WATT PULSE-START CLEAR ED-37 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 27746.4 lumens
Efficiency: 55.5%
Efficacy: 54.6 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B5 - U3 - G5

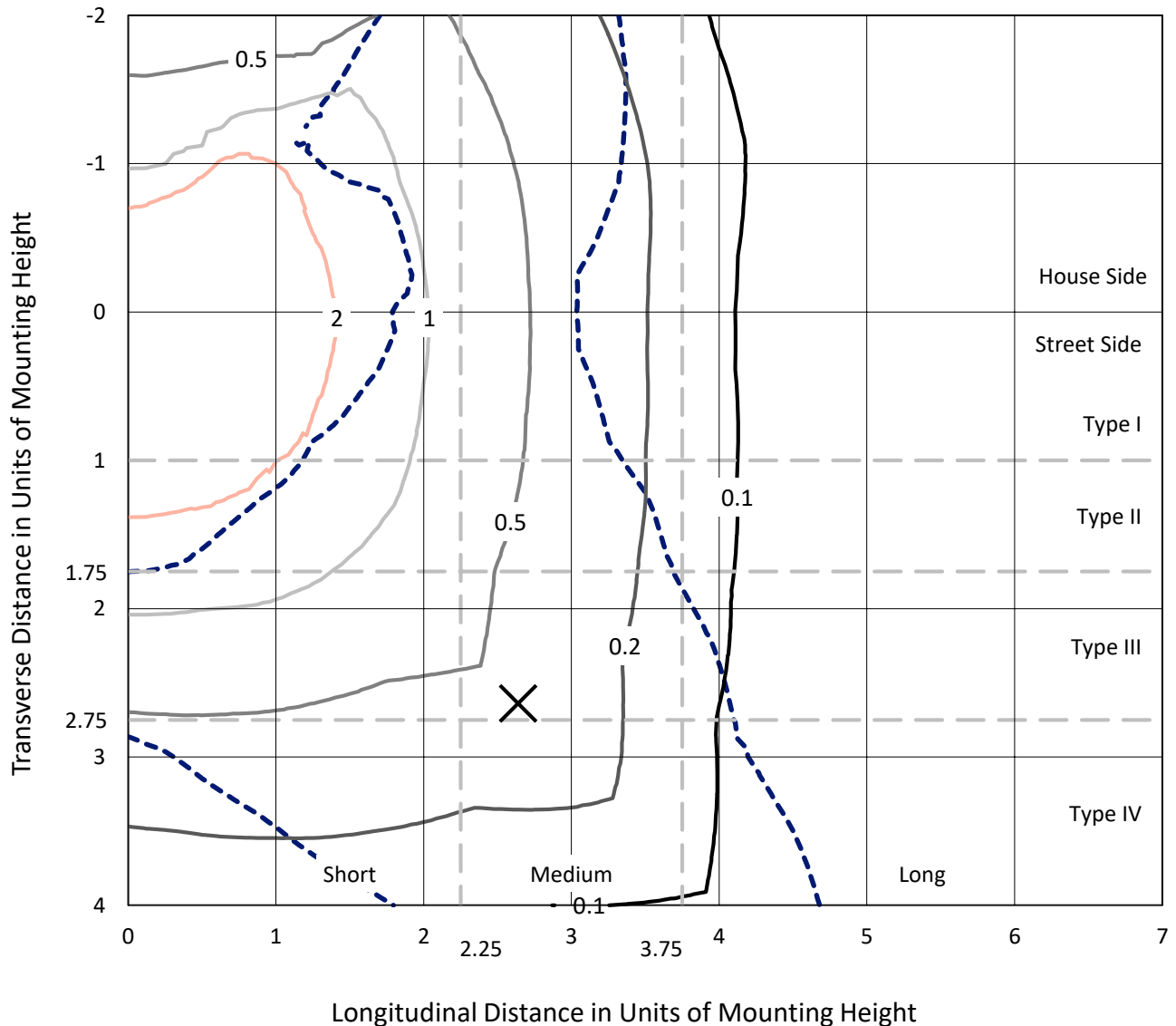
Input Watts (W): 508
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

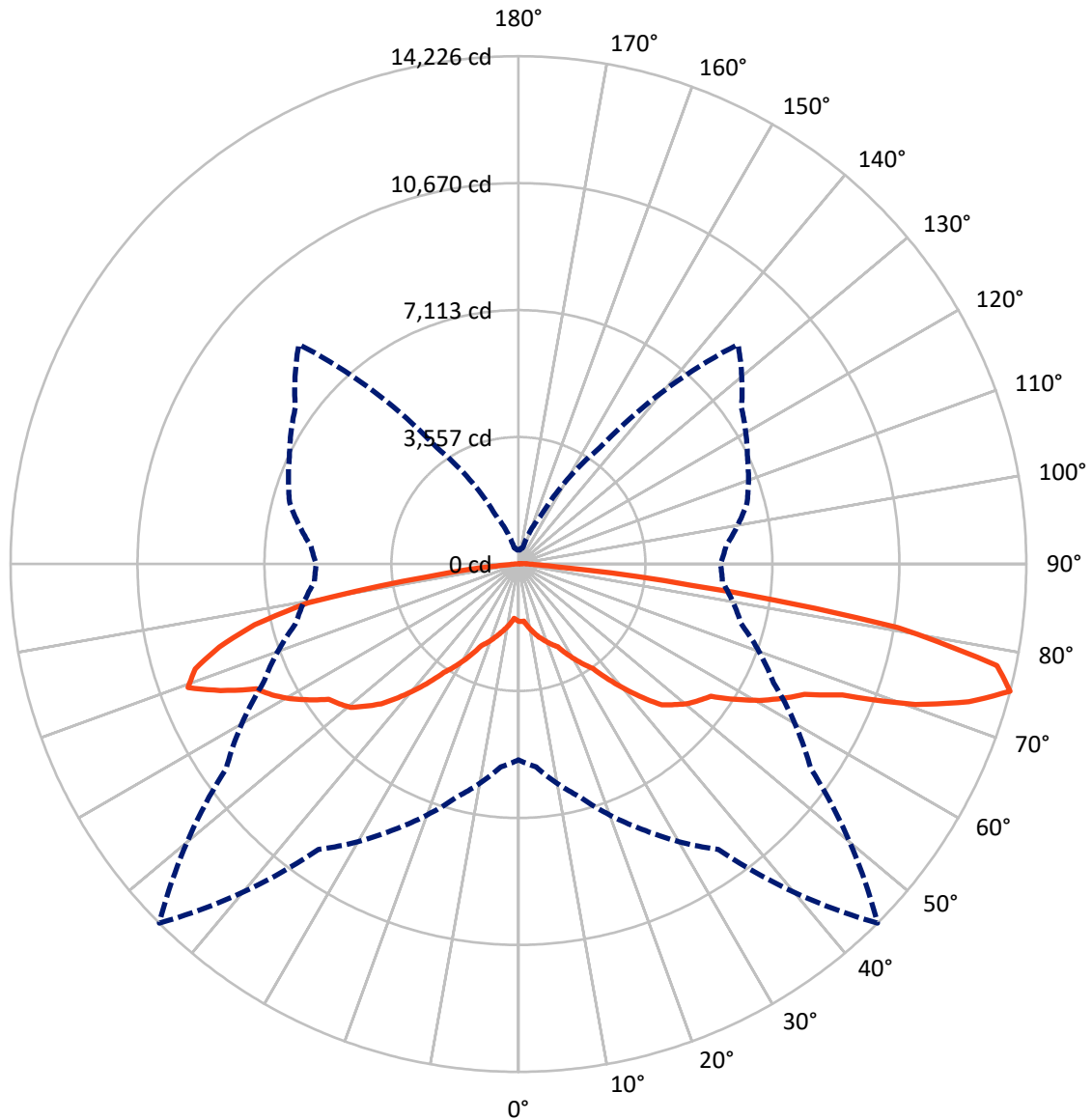
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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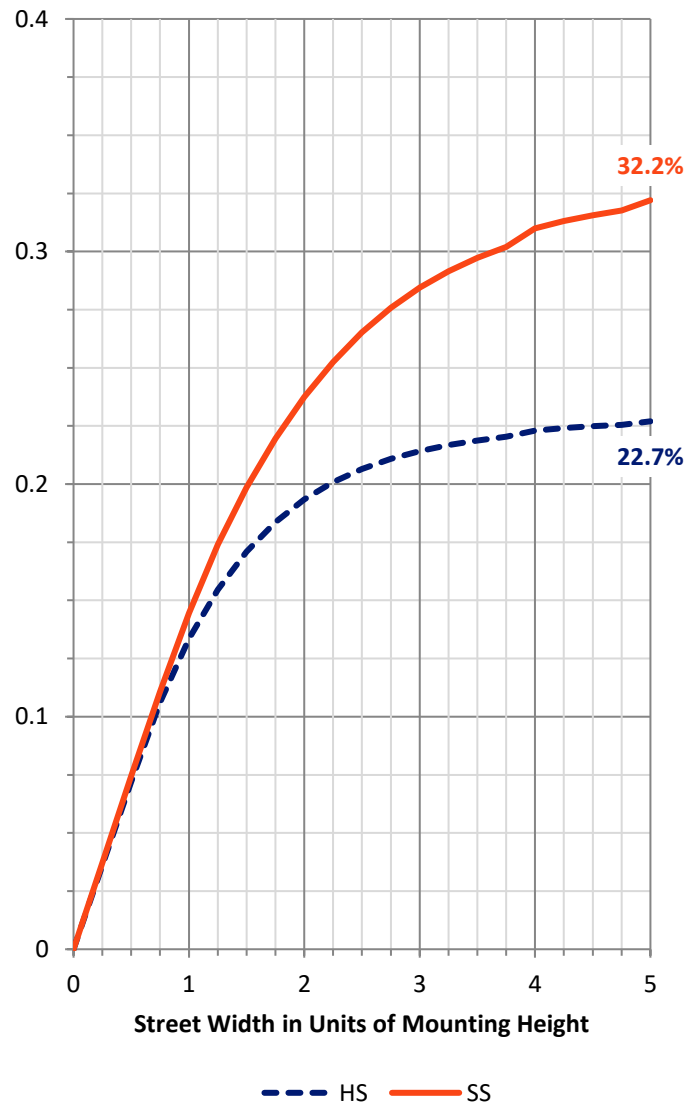
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11357.8	31.0	11388.8
	% Lamp	22.7	0.1	22.8
Street Side	Lumens	16271.9	85.7	16357.6
	% Lamp	32.5	0.2	32.7
Total	Lumens	27629.7	116.7	27746.4
	% Lamp	55.3	0.2	55.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	157.2	0.6	0.3
10°-20°	569.3	2.1	1.1
20°-30°	1211.6	4.4	2.4
30°-40°	2252.9	8.1	4.5
40°-50°	3742.5	13.5	7.5
50°-60°	5198.8	18.7	10.4
60°-70°	6788.4	24.5	13.6
70°-80°	6491.2	23.4	13.0
80°-90°	1248.3	4.5	2.5
90°-100°	97.5	0.4	0.2
100°-110°	27.3	0.1	0.1
110°-120°	2.1	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°	27629.7	99.6	55.3
0°-180°	27746.4	100.0	55.5



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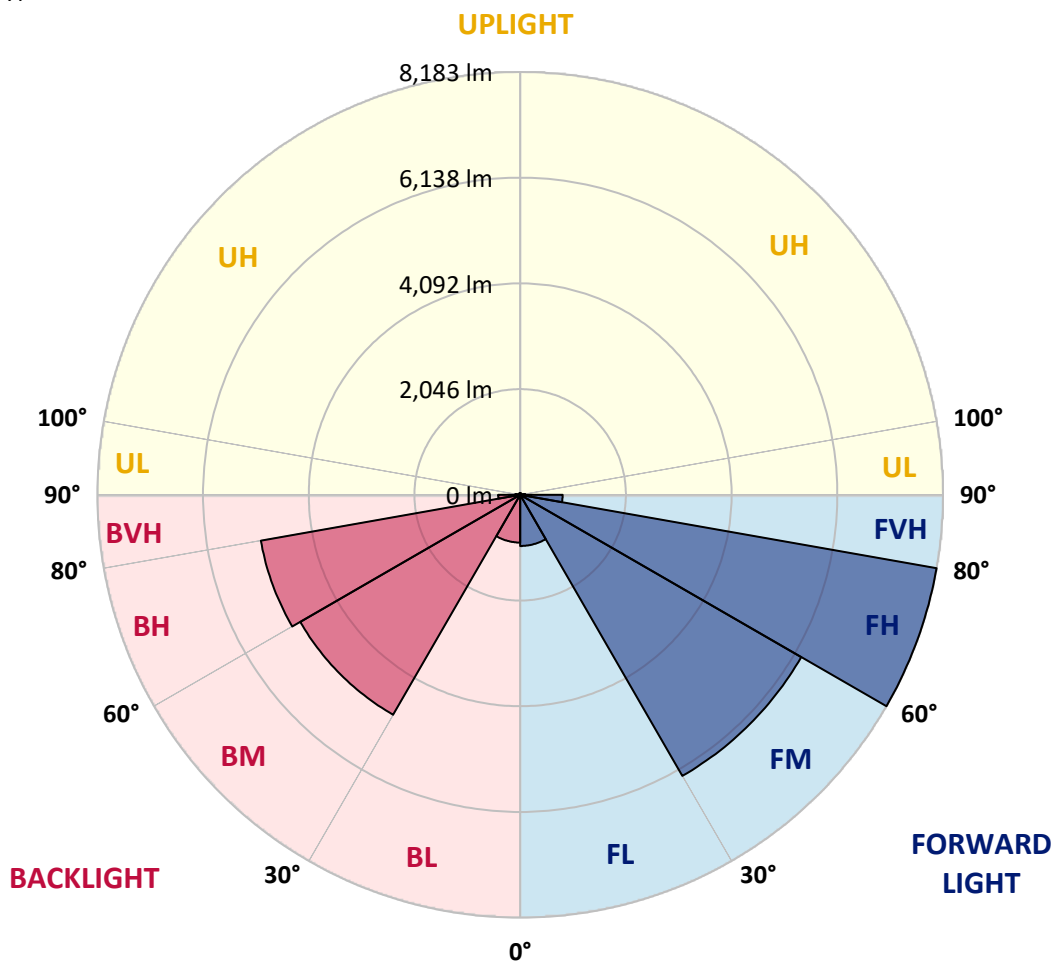
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	990.8	2.0			
FM (30°-60°)	6281.0	12.6			
FH (60°-80°)	8183.3	16.4			G4/12000
FVH (80°-90°)	821.9	1.6			G5
BL (0°-30°)	923.9	1.8	B2/1000		
BM (30°-60°)	4915.5	9.8	B3/5000		
BH (60°-80°)	5096.3	10.2	B5		G5
BVH (80°-90°)	426.4	0.9			G3/500
UL (90°-100°)	97.5	0.2		U3/500	
UH (100°-180°)	31.0	0.1		U2/50	
Trapped Light	22253.6	44.5			

BUG Rating: B5-U3-G5

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7
5°	1701.4	1683.3	1655.6	1647.2	1601.4	1609.7	1591.7	1563.9	1555.6	1537.5	1518.1
15°	2287.5	2295.8	2333.3	2323.6	2204.2	2113.9	2068.1	1930.6	1920.8	1894.4	1875.0
25°	2634.7	2606.9	2626.4	2626.4	2552.8	2570.8	2598.6	2488.9	2479.2	2534.7	2515.3
35°	3568.1	3595.8	3568.1	3641.7	3540.3	3595.8	3540.3	3458.3	3458.3	3558.3	3550.0
45°	5470.8	5580.6	5506.9	5845.8	5470.8	5626.4	5552.8	5763.9	5526.4	5718.1	5526.4
50°	5873.6	6111.1	5993.1	6212.5	6248.6	6148.6	6459.7	6294.4	6248.6	6330.6	6459.7
55°	6276.4	6258.3	6266.7	6513.9	6587.5	6541.7	6797.2	6459.7	6459.7	6440.3	6413.9
60°	7080.6	7080.6	7172.2	7538.9	7831.9	7758.3	7676.4	7429.2	7136.1	7008.3	7026.4
62.5°	7227.8	7291.7	7429.2	7995.8	8426.4	8288.9	8215.3	7812.5	7391.7	7200.0	7263.9
65°	7391.7	7419.4	7684.7	8454.2	8847.2	8809.7	8801.4	8151.4	7575.0	7401.4	7319.4
67.5°	7520.8	7511.1	7895.8	8911.1	9487.5	9788.9	9459.7	8673.6	7858.3	7556.9	7447.2
70°	7411.1	7638.9	8325.0	9377.8	10337.5	11793.1	10173.6	9268.1	8169.4	7694.4	7620.8
72.5°	6368.1	6697.2	7758.3	8837.5	10181.9	13193.1	10137.5	8809.7	7501.4	6906.9	6880.6
75°	5488.9	5708.3	6769.4	8197.2	9761.1	14226.4	10000.0	7886.1	6459.7	5736.1	5662.5
77.5°	4300.0	4419.4	5644.4	7054.2	8691.7	13705.6	8508.3	6102.8	4784.7	3961.1	3879.2
80°	2488.9	2736.1	4126.4	4529.2	5993.1	10777.8	5727.8	3879.2	3266.7	2213.9	2168.1
82.5°	1061.1	1244.4	2168.1	2425.0	3001.4	4866.7	2736.1	1948.6	1747.2	905.6	979.2
85°	530.6	604.2	979.2	969.4	1043.1	1116.7	969.4	841.7	795.8	420.8	375.0
87.5°	293.1	311.1	411.1	402.8	411.1	430.6	393.1	329.2	329.2	201.4	165.3
90°	183.3	183.3	219.4	229.2	237.5	247.2	237.5	191.7	183.3	109.7	91.7
95°	91.7	100.0	119.4	127.8	155.6	137.5	165.3	137.5	109.7	73.6	63.9
105°	18.1	18.1	18.1	18.1	9.7	9.7	18.1	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°	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7	1609.7
5°	1509.7	1491.7	1537.5	1545.8	1527.8	1537.5	1537.5	1527.8	1518.1	1537.5
15°	1856.9	1829.2	1902.8	1976.4	1994.4	1912.5	1665.3	1629.2	1573.6	1629.2
25°	2506.9	2415.3	2323.6	2397.2	2515.3	2534.7	2606.9	2606.9	2534.7	2598.6
35°	3522.2	3448.6	3293.1	3494.4	3687.5	3787.5	3751.4	2698.6	2295.8	2287.5
45°	5397.2	5325.0	5223.6	5361.1	5488.9	5315.3	2716.7	1856.9	1555.6	1591.7
50°	6038.9	5973.6	5827.8	6230.6	6184.7	5993.1	2506.9	1938.9	1775.0	1811.1
55°	6284.7	6212.5	5955.6	6413.9	6531.9	5351.4	2644.4	2351.4	2113.9	2104.2
60°	6916.7	6797.2	6834.7	7309.7	7429.2	4318.1	3009.7	2387.5	2058.3	2068.1
62.5°	7080.6	7100.0	7100.0	7638.9	7812.5	3979.2	3001.4	2250.0	1856.9	1848.6
65°	7245.8	7345.8	7401.4	7995.8	8123.6	3879.2	2945.8	2040.3	1573.6	1555.6
67.5°	7483.3	7648.6	7950.0	8498.6	9066.7	4044.4	3073.6	1838.9	1226.4	1208.3
70°	7611.1	7959.7	8416.7	8938.9	9880.6	4162.5	2936.1	1427.8	915.3	951.4
72.5°	6916.7	7602.8	7987.5	8480.6	9523.6	4016.7	2213.9	897.2	631.9	640.3
75°	5837.5	6633.3	7080.6	7630.6	8700.0	3970.8	1500.0	484.7	393.1	402.8
77.5°	4070.8	5151.4	5443.1	6248.6	7584.7	3869.4	1015.3	338.9	293.1	293.1
80°	2277.8	3412.5	3650.0	4172.2	5993.1	2818.1	658.3	293.1	347.2	456.9
82.5°	897.2	1583.3	1938.9	1912.5	2588.9	1125.0	329.2	265.3	137.5	145.8
85°	393.1	686.1	831.9	805.6	722.2	283.3	119.4	127.8	18.1	36.1
87.5°	127.8	247.2	255.6	255.6	219.4	119.4	55.6	27.8	9.7	36.1
90°	36.1	119.4	127.8	127.8	109.7	63.9	27.8	9.7	0.0	0.0
95°	18.1	73.6	81.9	81.9	55.6	55.6	27.8	18.1	9.7	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)