

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: 767515_450MP

Luminaire Tested: **GSM-XX-450-MP-XX-3V-SG-XX-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 767515_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-3V-SG-XX-X
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-TYPE III DISTRIBUTION
Light Source: 450 WATT PULSE-START CLEAR ED-37 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 32391.7 lumens
Efficiency: 64.8%
Efficacy: 63.8 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Medium - Cutoff
BUG Rating: B5 - U3 - G5

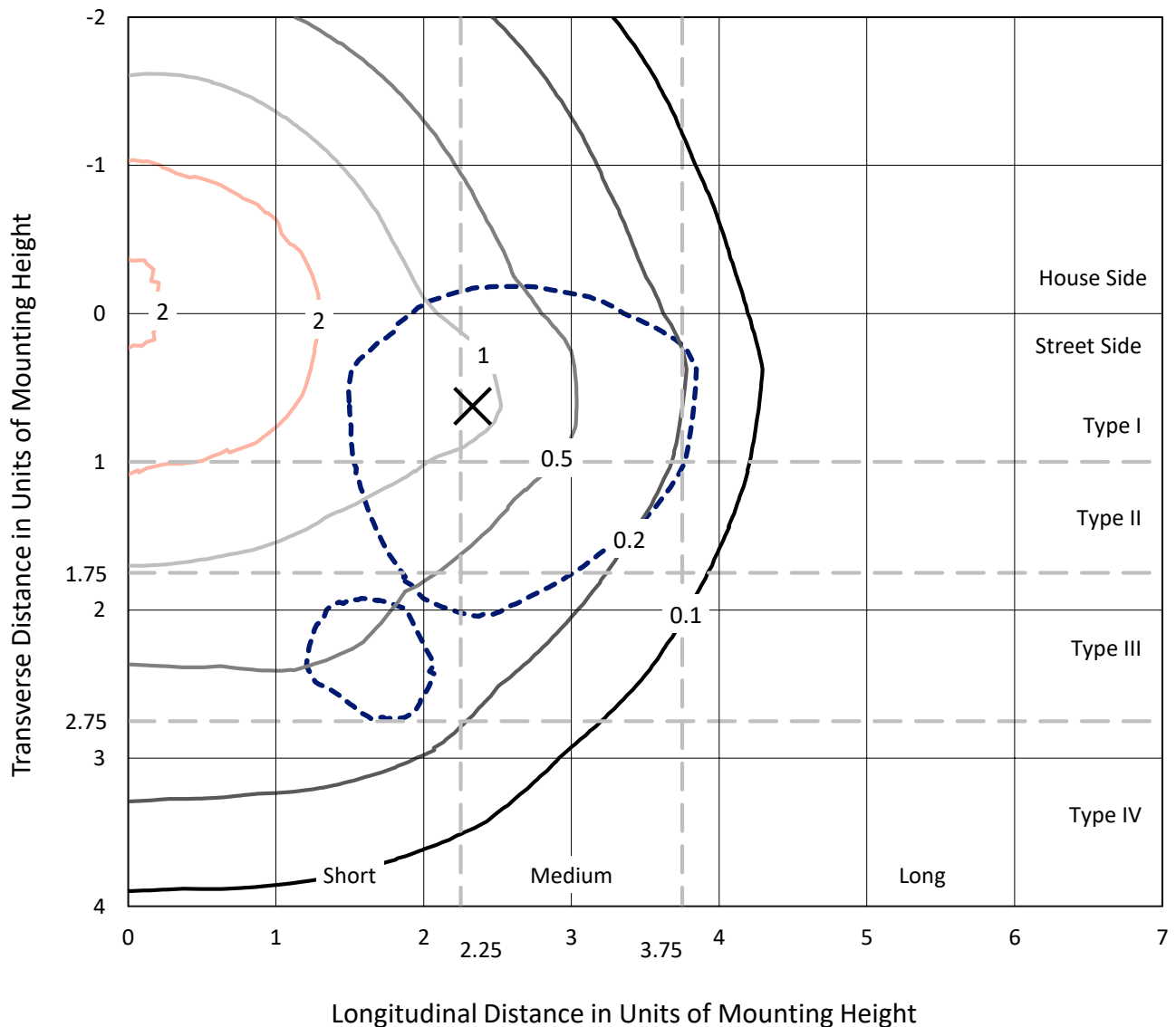
Input Watts (W): 508
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: 767515_450MP
 CATALOG NUMBER: GSM-XX-450-MP-XX-3V-SG-XX-X

Iso-Footcandle Lines of Horizontal Illumination

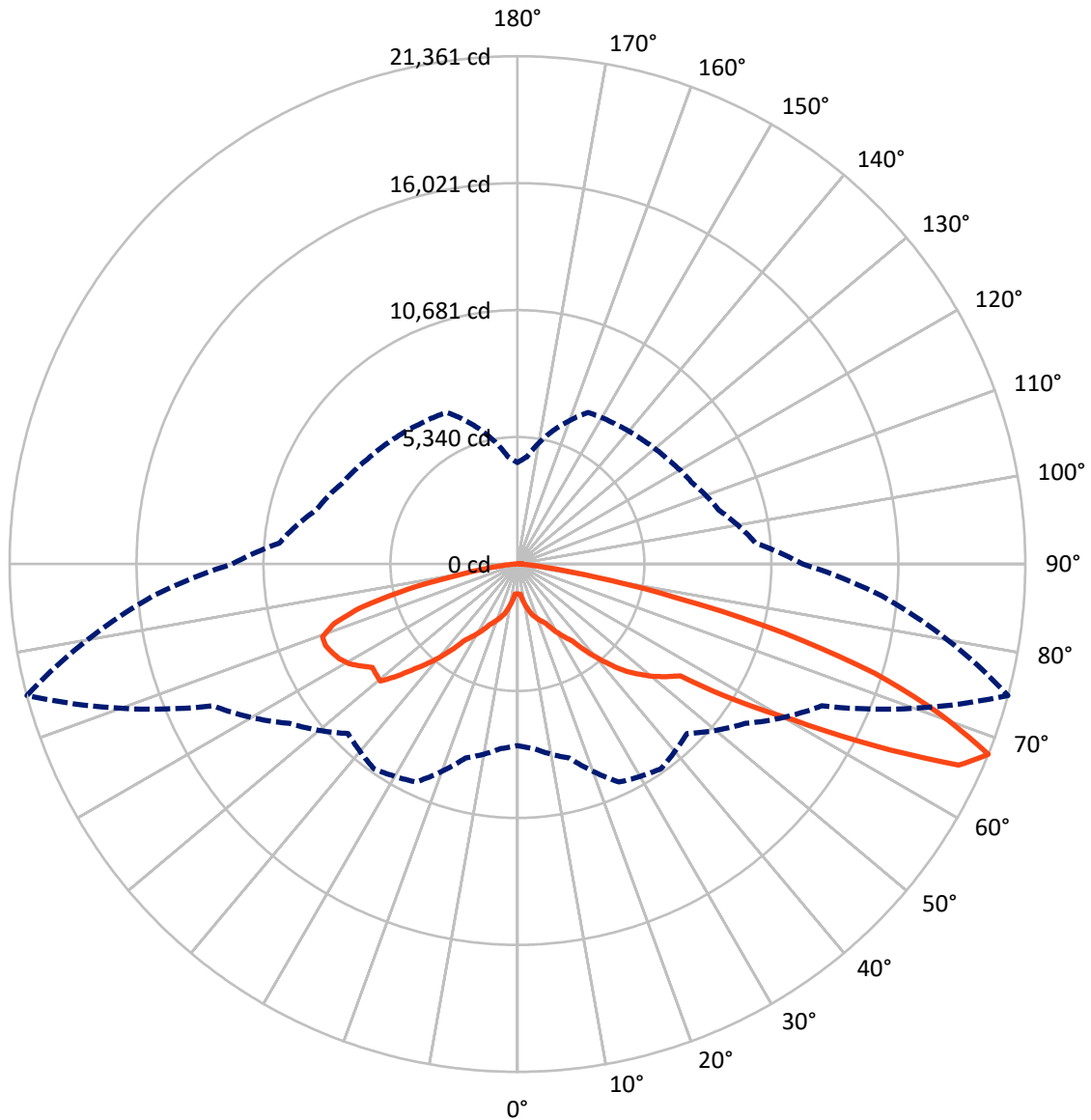
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.6 fc
 Type III - Medium - Cutoff

REPORT NUMBER: 767515_450MP
CATALOG NUMBER: GSM-XX-450-MP-XX-3V-SG-XX-X

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: 767515_450MP
 CATALOG NUMBER: GSM-XX-450-MP-XX-3V-SG-XX-X

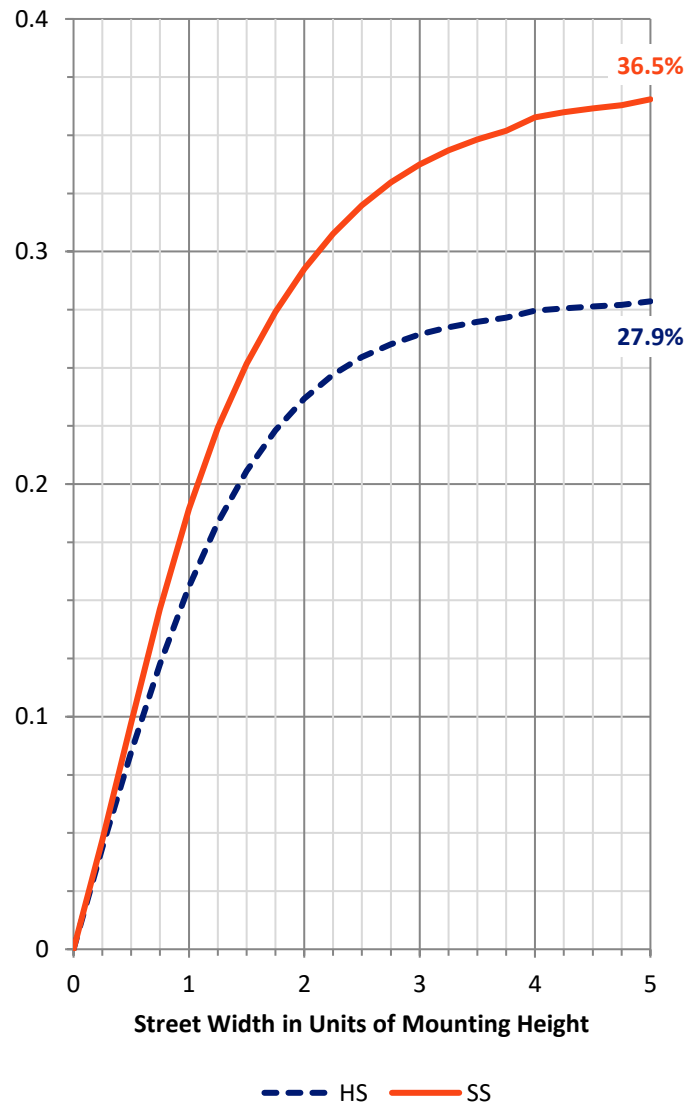
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13970.1	38.3	14008.4
	% Lamp	27.9	0.1	28.0
Street Side	Lumens	18307.8	75.4	18383.3
	% Lamp	36.6	0.2	36.8
Total	Lumens	32278.0	113.7	32391.7
	% Lamp	64.6	0.2	64.8

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	135.7	0.4	0.3
10°-20°	570.3	1.8	1.1
20°-30°	1271.8	3.9	2.5
30°-40°	2478.1	7.7	5.0
40°-50°	4424.1	13.7	8.8
50°-60°	6493.5	20.0	13.0
60°-70°	9185.2	28.4	18.4
70°-80°	6960.1	21.5	13.9
80°-90°	828.7	2.6	1.7
90°-100°	88.9	0.3	0.2
100°-110°	29.7	0.1	0.1
110°-120°	4.1	0.0	0.0
120°-130°	0.3	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°	32278.0	99.6	64.6
0°-180°	32391.7	100.0	64.8

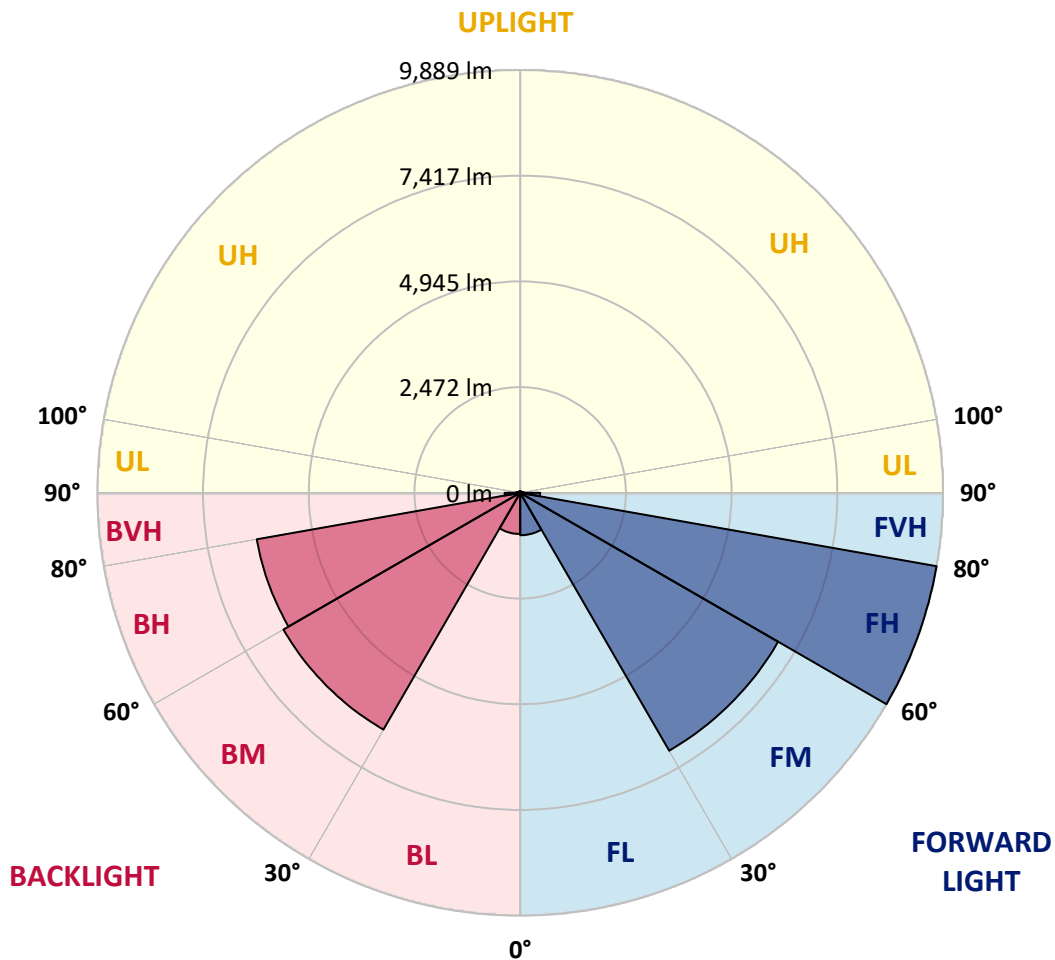


REPORT NUMBER: 767515_450MP
 CATALOG NUMBER: GSM-XX-450-MP-XX-3V-SG-XX-X

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	993.0	2.0			
FM (30°-60°)	6965.1	13.9			
FH (60°-80°)	9889.2	19.8			G4/12000
FVH (80°-90°)	466.4	0.9			G3/500
BL (0°-30°)	963.6	1.9	B2/1000		
BM (30°-60°)	6393.5	12.8	B4/8500		
BH (60°-80°)	6256.0	12.5	B5		G5
BVH (80°-90°)	362.3	0.7			G3/500
UL (90°-100°)	88.9	0.2		U3/500	
UH (100°-180°)	38.3	0.1		U2/50	
Trapped Light	17608.3	35.2			

BUG Rating: B5-U3-G5
 Type III Medium





REPORT NUMBER: 767515_450MP
 CATALOG NUMBER: GSM-XX-450-MP-XX-3V-SG-XX-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1
5°	1333.3	1326.4	1333.3	1326.4	1319.4	1333.3	1340.3	1311.1	1275.0	1254.2	1245.8
15°	2101.4	2101.4	2108.3	2123.6	2115.3	2166.7	2144.4	2261.1	2173.6	2101.4	2087.5
25°	2506.9	2486.1	2500.0	2500.0	2506.9	2594.4	2652.8	2709.7	2761.1	2833.3	2833.3
35°	3477.8	3463.9	3493.1	3506.9	3594.4	3754.2	3970.8	4006.9	3970.8	4137.5	4072.2
45°	5536.1	5290.3	5261.1	5506.9	5586.1	6304.2	6188.9	6666.7	6448.6	6398.6	6297.2
50°	6086.1	6043.1	6006.9	6333.3	6463.9	7123.6	7340.3	7651.4	7427.8	7695.8	7826.4
55°	6202.8	6159.7	6261.1	6500.0	6883.3	7463.9	8108.3	8231.9	8304.2	7811.1	7869.4
60°	6984.7	7006.9	7137.5	7448.6	7934.7	8586.1	9761.1	10963.9	13275.0	9876.4	9398.6
62.5°	7391.7	7391.7	7644.4	8209.7	8630.6	9180.6	10520.8	12500.0	16797.2	11826.4	10448.6
65°	7608.3	7666.7	8202.8	9202.8	9405.6	9673.6	11195.8	13695.8	20398.6	13876.4	11412.5
67.5°	7637.5	7790.3	8448.6	10115.3	10513.9	10079.2	11695.8	14122.2	21361.1	15376.4	11993.1
70°	7709.7	7869.4	8419.4	10347.2	11137.5	10297.2	11738.9	13651.4	18818.1	15455.6	11862.5
72.5°	7623.6	7565.3	8144.4	9608.3	11115.3	10006.9	10919.4	12159.7	15716.7	13927.8	11101.4
75°	6362.5	6275.0	6934.7	7956.9	8905.6	8608.3	9290.3	10108.3	11594.4	11318.1	9231.9
77.5°	4231.9	4470.8	5058.3	5477.8	6268.1	6268.1	6905.6	6905.6	6891.7	6745.8	6022.2
80°	1912.5	2130.6	2188.9	2623.6	2941.7	3261.1	3477.8	3304.2	3297.2	2948.6	2731.9
82.5°	898.6	970.8	920.8	1087.5	1281.9	1362.5	1448.6	1383.3	1268.1	1202.8	1180.6
85°	434.7	448.6	405.6	456.9	529.2	543.1	579.2	558.3	506.9	536.1	572.2
87.5°	159.7	159.7	173.6	188.9	195.8	195.8	209.7	231.9	209.7	195.8	195.8
90°	115.3	123.6	123.6	130.6	130.6	137.5	152.8	166.7	159.7	137.5	137.5
95°	101.4	87.5	87.5	101.4	108.3	101.4	130.6	144.4	188.9	115.3	115.3
105°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
115°	0.0	6.9	6.9	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



REPORT NUMBER: 767515_450MP
 CATALOG NUMBER: GSM-XX-450-MP-XX-3V-SG-XX-X

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1	1261.1
5°	1245.8	1261.1	1254.2	1238.9	1216.7	1216.7	1209.7	1195.8	1202.8	1202.8
15°	2079.2	2159.7	2173.6	2108.3	2079.2	1986.1	1912.5	1898.6	1855.6	1840.3
25°	2855.6	2797.2	2673.6	2579.2	2543.1	2529.2	2477.8	2448.6	2463.9	2493.1
35°	3963.9	3869.4	3738.9	3572.2	3565.3	3484.7	3456.9	3441.7	3448.6	3434.7
45°	6261.1	6188.9	5818.1	5673.6	5484.7	5398.6	5151.4	5195.8	5340.3	5318.1
50°	7818.1	7586.1	6752.8	6768.1	6311.1	6036.1	5869.4	5558.3	5558.3	5304.2
55°	7891.7	7493.1	6977.8	6725.0	6529.2	6275.0	6195.8	6159.7	6123.6	6130.6
60°	9043.1	8245.8	7725.0	7326.4	7022.2	6855.6	6725.0	6579.2	6304.2	6086.1
62.5°	9520.8	8477.8	8013.9	7608.3	7290.3	7036.1	6898.6	6752.8	5862.5	5594.4
65°	9905.6	8637.5	8130.6	7687.5	7419.4	7144.4	6970.8	6506.9	5238.9	4970.8
67.5°	10058.3	8768.1	8101.4	7695.8	7405.6	7180.6	7036.1	5811.1	4522.2	4261.1
70°	9948.6	8752.8	8086.1	7687.5	7195.8	6977.8	6456.9	4876.4	3745.8	3477.8
72.5°	9311.1	8101.4	7391.7	6847.2	6340.3	6000.0	5216.7	3709.7	2948.6	2811.1
75°	8065.3	6826.4	6281.9	5709.7	5318.1	4818.1	4065.3	2905.6	2500.0	2506.9
77.5°	5470.8	4731.9	4470.8	3977.8	3659.7	3180.6	2659.7	2058.3	1934.7	1927.8
80°	2695.8	2420.8	2319.4	1927.8	1754.2	1441.7	1268.1	1144.4	1087.5	1087.5
82.5°	1173.6	1137.5	1130.6	1065.3	1043.1	941.7	847.2	797.2	797.2	797.2
85°	565.3	551.4	615.3	680.6	775.0	761.1	615.3	500.0	470.8	463.9
87.5°	173.6	152.8	144.4	123.6	115.3	115.3	108.3	94.4	87.5	87.5
90°	123.6	101.4	87.5	72.2	72.2	72.2	65.3	58.3	58.3	58.3
95°	87.5	58.3	58.3	43.1	43.1	13.9	43.1	43.1	43.1	29.2
105°	13.9	13.9	13.9	13.9	6.9	13.9	13.9	13.9	13.9	13.9
115°	0.0	0.0	6.9	0.0	6.9	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)