

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: 767514_450MP

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 767514_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-HS
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: 28644.2 lumens
Efficiency: 57.3%
Efficacy: 56.4 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Medium - Cutoff
BUG Rating: B4 - U3 - G4

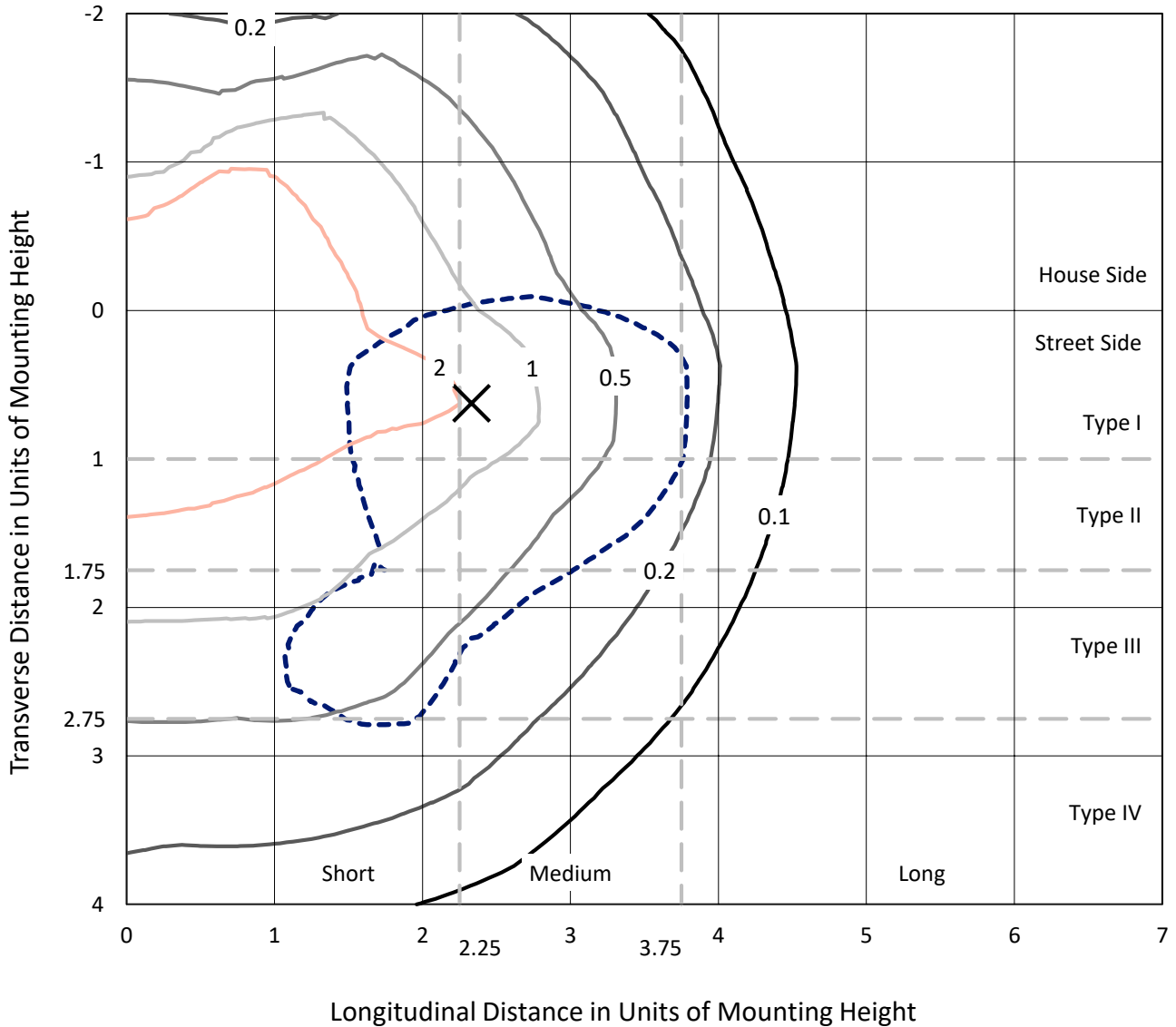
Input Watts (W): 508
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

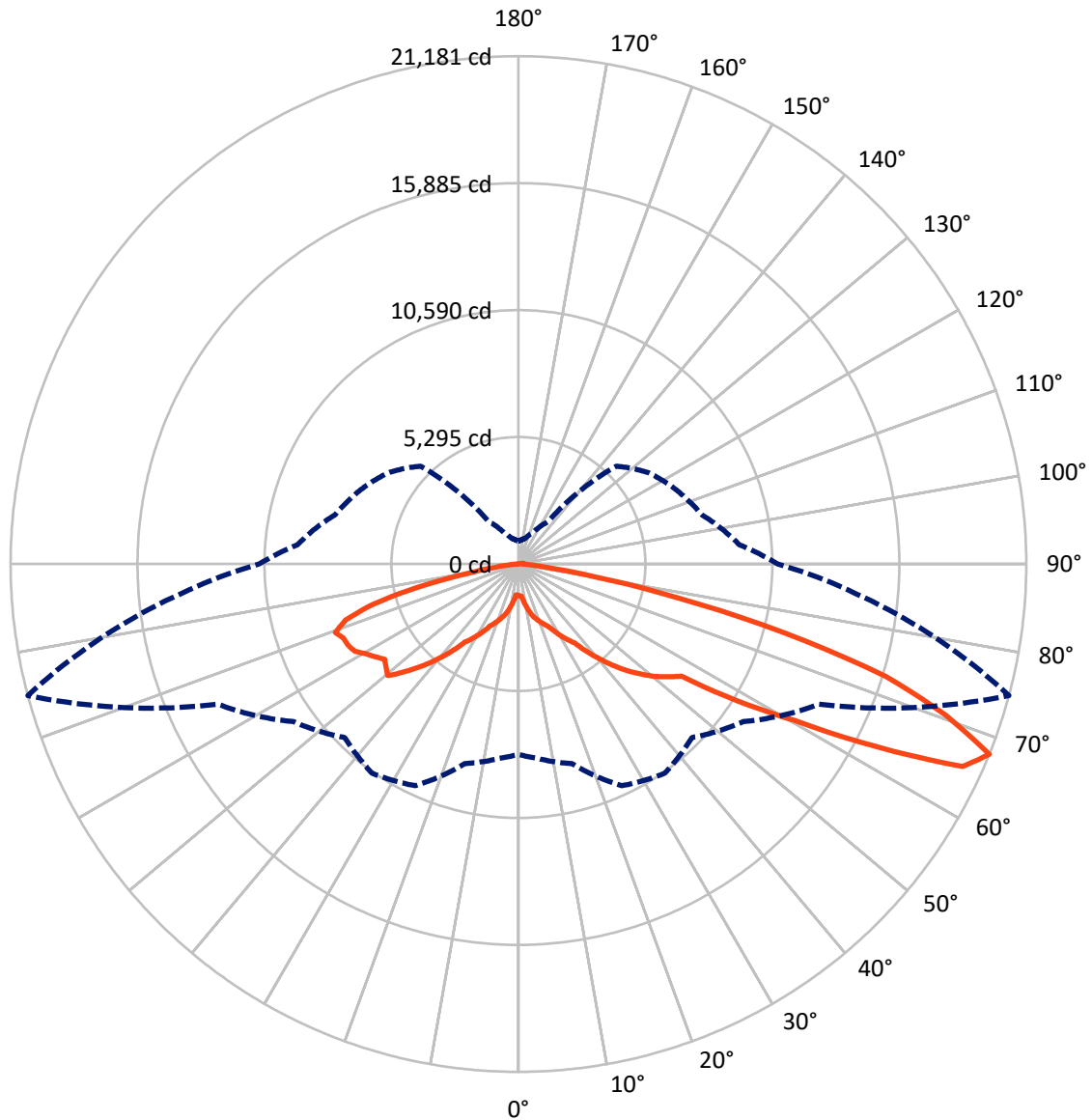
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type III - Medium - Cutoff

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Luminous Intensity Polar Plot



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

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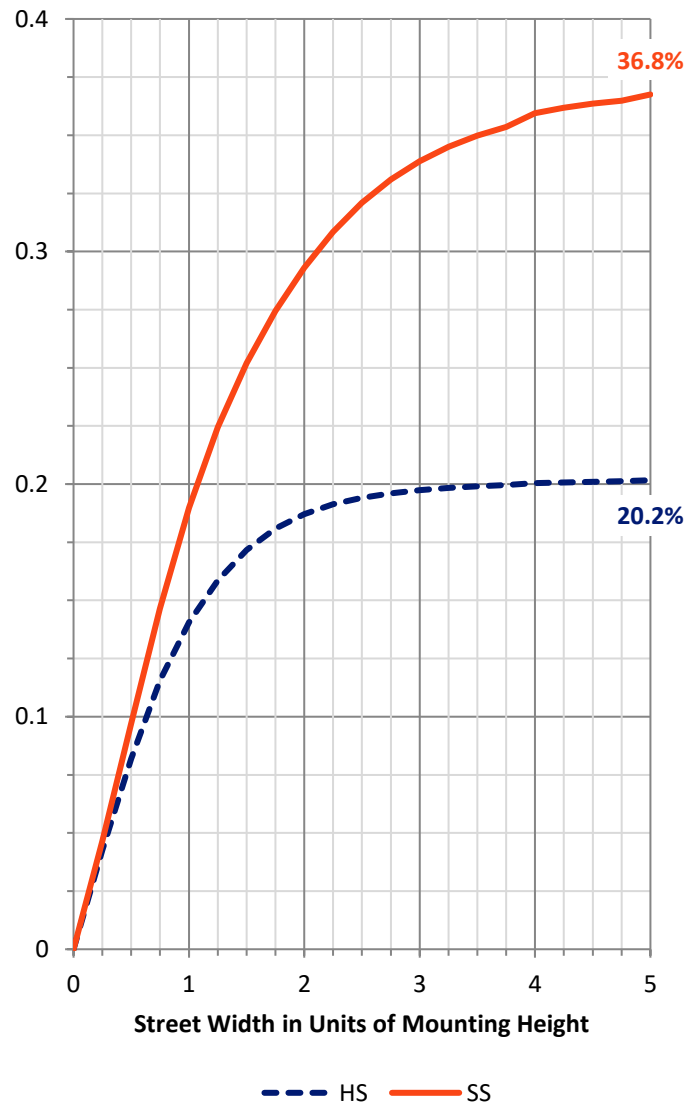
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10105.0	15.0	10120.0
	% Lamp	20.2	0.0	20.2
Street Side	Lumens	18434.6	89.5	18524.1
	% Lamp	36.9	0.2	37.0
Total	Lumens	28539.6	104.6	28644.2
	% Lamp	57.1	0.2	57.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	142.7	0.5	0.3
10°-20°	590.6	2.1	1.2
20°-30°	1292.3	4.5	2.6
30°-40°	2364.4	8.3	4.7
40°-50°	3956.0	13.8	7.9
50°-60°	5600.4	19.6	11.2
60°-70°	7865.5	27.5	15.7
70°-80°	6075.8	21.2	12.2
80°-90°	699.5	2.4	1.4
90°-100°	84.6	0.3	0.2
100°-110°	25.7	0.1	0.1
110°-120°	2.9	0.0	0.0
120°-130°	0.2	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°	28539.6	99.6	57.1
0°-180°	28644.2	100.0	57.3



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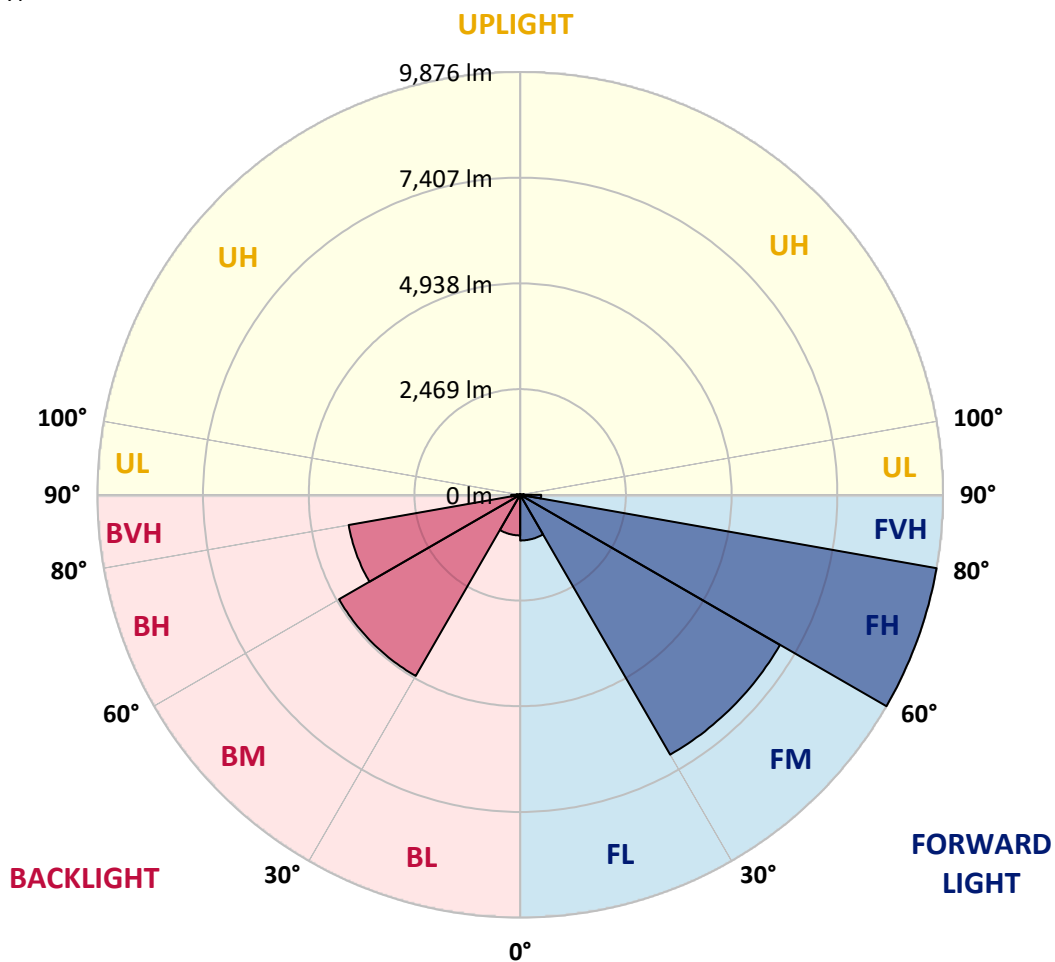
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1067.5	2.1			
FM (30°-60°)	7007.7	14.0			
FH (60°-80°)	9875.5	19.8			G4/12000
FVH (80°-90°)	489.4	1.0			G3/500
BL (0°-30°)	948.6	1.9	B2/1000		
BM (30°-60°)	4884.0	9.8	B3/5000		
BH (60°-80°)	4065.8	8.1	B4/5000		G4/5000
BVH (80°-90°)	210.1	0.4			G2/225
UL (90°-100°)	84.6	0.2		U3/500	
UH (100°-180°)	15.0	0.0		U2/50	
Trapped Light	21355.8	42.7			

BUG Rating: B4-U3-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4
5°	1522.2	1506.9	1500.0	1470.8	1456.9	1441.7	1412.5	1376.4	1347.2	1319.4	1319.4
15°	2448.6	2434.7	2441.7	2434.7	2369.4	2355.6	2275.0	2369.4	2254.2	2166.7	2159.7
25°	2840.3	2826.4	2797.2	2754.2	2716.7	2754.2	2761.1	2847.2	2876.4	2920.8	2963.9
35°	3651.4	3637.5	3644.4	3644.4	3738.9	3869.4	4029.2	4101.4	4050.0	4225.0	4202.8
45°	5608.3	5383.3	5347.2	5565.3	5695.8	6333.3	6195.8	6615.3	6340.3	6333.3	6304.2
50°	6144.4	6058.3	6029.2	6412.5	6493.1	7180.6	7275.0	7615.3	7369.4	7680.6	7659.7
55°	6275.0	6261.1	6326.4	6513.9	6977.8	7500.0	8101.4	8187.5	8252.8	7558.3	7536.1
60°	7144.4	7108.3	7252.8	7608.3	8050.0	8615.3	9666.7	10934.7	13268.1	9362.5	8854.2
62.5°	7565.3	7500.0	7826.4	8281.9	8745.8	9209.7	10405.6	12659.7	16797.2	11013.9	9644.4
65°	7898.6	7891.7	8347.2	9130.6	9579.2	9702.8	11108.3	13775.0	20361.1	12622.2	10318.1
67.5°	7941.7	8115.3	8615.3	10202.8	10651.4	10238.9	11455.6	13833.3	21180.6	14115.3	10811.1
70°	7956.9	8101.4	8594.4	10687.5	11252.8	10826.4	11500.0	12948.6	18912.5	14811.1	10984.7
72.5°	7869.4	7680.6	8326.4	9826.4	11245.8	10484.7	10869.4	11847.2	16013.9	13513.9	10441.7
75°	6651.4	6281.9	7144.4	8086.1	9130.6	8811.1	9245.8	10144.4	11463.9	10752.8	8818.1
77.5°	4536.1	4448.6	5238.9	5702.8	6594.4	6463.9	6847.2	6855.6	6761.1	6441.7	5745.8
80°	2013.9	2072.2	2333.3	2745.8	3094.4	3318.1	3333.3	3261.1	3180.6	2761.1	2579.2
82.5°	1000.0	1029.2	1036.1	1216.7	1369.4	1441.7	1355.6	1362.5	1254.2	1159.7	1079.2
85°	522.2	543.1	506.9	558.3	630.6	623.6	522.2	594.4	529.2	529.2	565.3
87.5°	261.1	261.1	268.1	281.9	290.3	275.0	173.6	290.3	261.1	202.8	188.9
90°	202.8	195.8	202.8	202.8	209.7	202.8	101.4	231.9	209.7	144.4	137.5
95°	115.3	115.3	115.3	123.6	137.5	144.4	51.4	209.7	218.1	123.6	108.3
105°	13.9	22.2	13.9	13.9	13.9	6.9	0.0	13.9	29.2	13.9	22.2
115°	0.0	0.0	0.0	0.0	6.9	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°	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4	1319.4
5°	1319.4	1290.3	1319.4	1304.2	1281.9	1268.1	1254.2	1254.2	1245.8	1245.8
15°	2137.5	2166.7	2216.7	2152.8	2101.4	1912.5	1536.1	1493.1	1493.1	1493.1
25°	2948.6	2833.3	2768.1	2652.8	2594.4	2513.9	2456.9	2470.8	2500.0	2506.9
35°	4058.3	3956.9	3847.2	3659.7	3601.4	3513.9	3123.6	2130.6	1833.3	1768.1
45°	6209.7	6086.1	5804.2	5470.8	5180.6	4666.7	2376.4	1522.2	1412.5	1405.6
50°	7477.8	7166.7	6477.8	6202.8	5752.8	4500.0	2123.6	1702.8	1666.7	1666.7
55°	7463.9	6847.2	6405.6	6108.3	5811.1	4079.2	2173.6	2087.5	2050.0	2058.3
60°	8427.8	7369.4	6833.3	6391.7	5984.7	3543.1	2000.0	1869.4	1840.3	1840.3
62.5°	8833.3	7738.9	7094.4	6536.1	6058.3	3029.2	1775.0	1608.3	1579.2	1579.2
65°	9101.4	7869.4	7245.8	6594.4	5977.8	2543.1	1506.9	1297.2	1245.8	1261.1
67.5°	9245.8	7919.4	7281.9	6630.6	5768.1	2152.8	1448.6	1108.3	993.1	956.9
70°	9391.7	8151.4	7405.6	6651.4	5268.1	1659.7	1144.4	869.4	775.0	695.8
72.5°	8790.3	7586.1	6869.4	5797.2	4202.8	1333.3	819.4	608.3	405.6	347.2
75°	7572.2	6297.2	5855.6	4688.9	3173.6	1202.8	637.5	355.6	275.0	261.1
77.5°	5188.9	4333.3	4065.3	3108.3	2108.3	948.6	486.1	268.1	166.7	144.4
80°	2513.9	2115.3	2029.2	1398.6	1036.1	506.9	254.2	144.4	72.2	72.2
82.5°	1072.2	956.9	1013.9	826.4	637.5	355.6	188.9	94.4	51.4	43.1
85°	536.1	448.6	565.3	529.2	506.9	202.8	101.4	43.1	13.9	13.9
87.5°	166.7	79.2	115.3	87.5	65.3	29.2	6.9	0.0	0.0	0.0
90°	108.3	36.1	72.2	51.4	29.2	13.9	6.9	0.0	0.0	0.0
95°	79.2	22.2	29.2	13.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	13.9	0.0	6.9	6.9	0.0	6.9	6.9	0.0	0.0	0.0
115°	6.9	0.0	0.0	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)