

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: 766034\_450MP

Luminaire Tested: **GSM-XX-450-MP-XX-RW-SG-XX-X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 766034\_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-RW-SG-XX-X  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-RECTANGULAR DISTRIBUTION  
Light Source: 450 WATT PULSE-START CLEAR ED-37 VBU BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 33807.7 lumens  
Efficiency: 67.6%  
Efficacy: 66.6 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 1.81' x L: 1.81' x H: 0.83')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U3 - G5

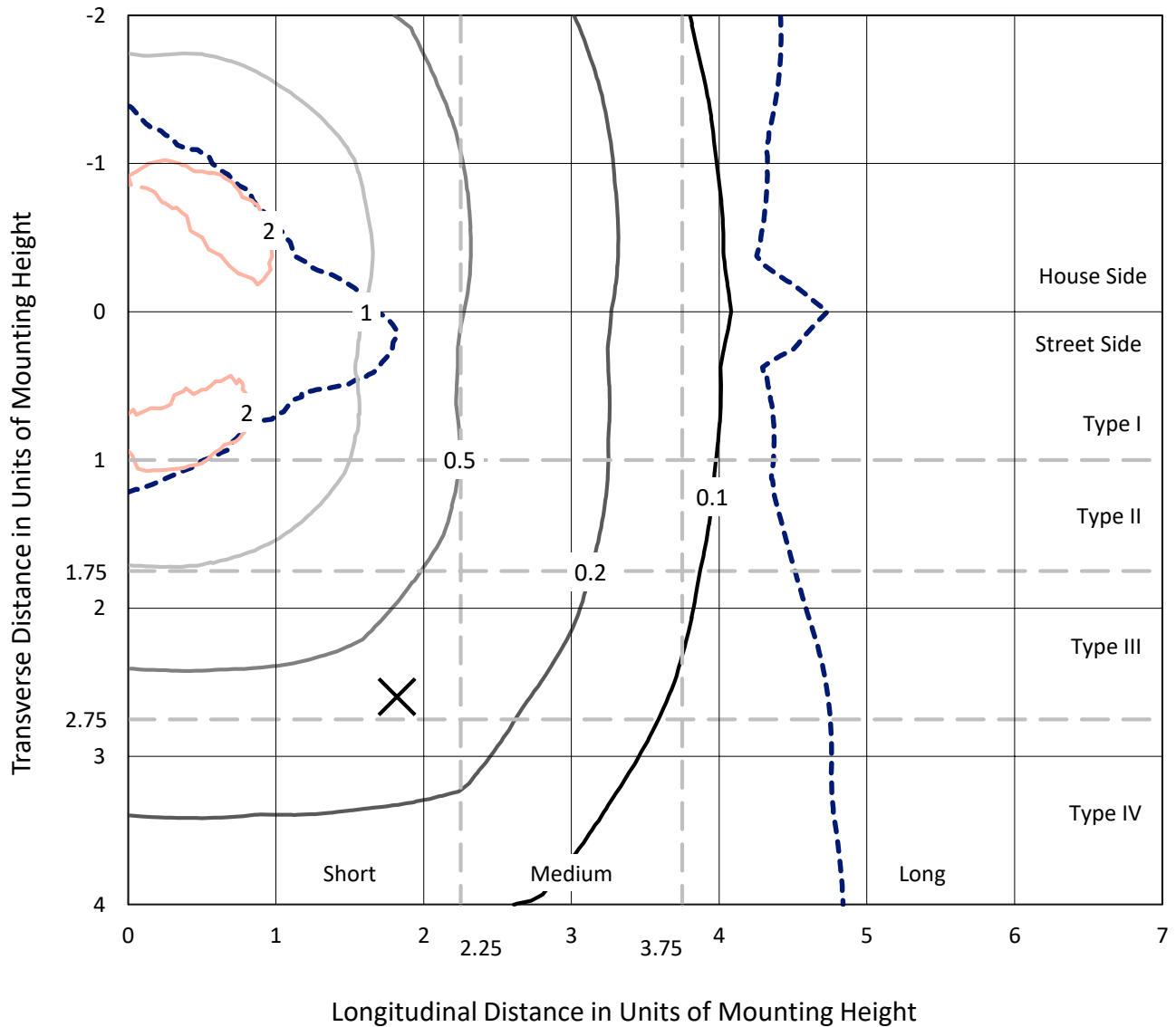
Input Watts (W): 508  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: 766034\_450MP  
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### Iso-Footcandle Lines of Horizontal Illumination

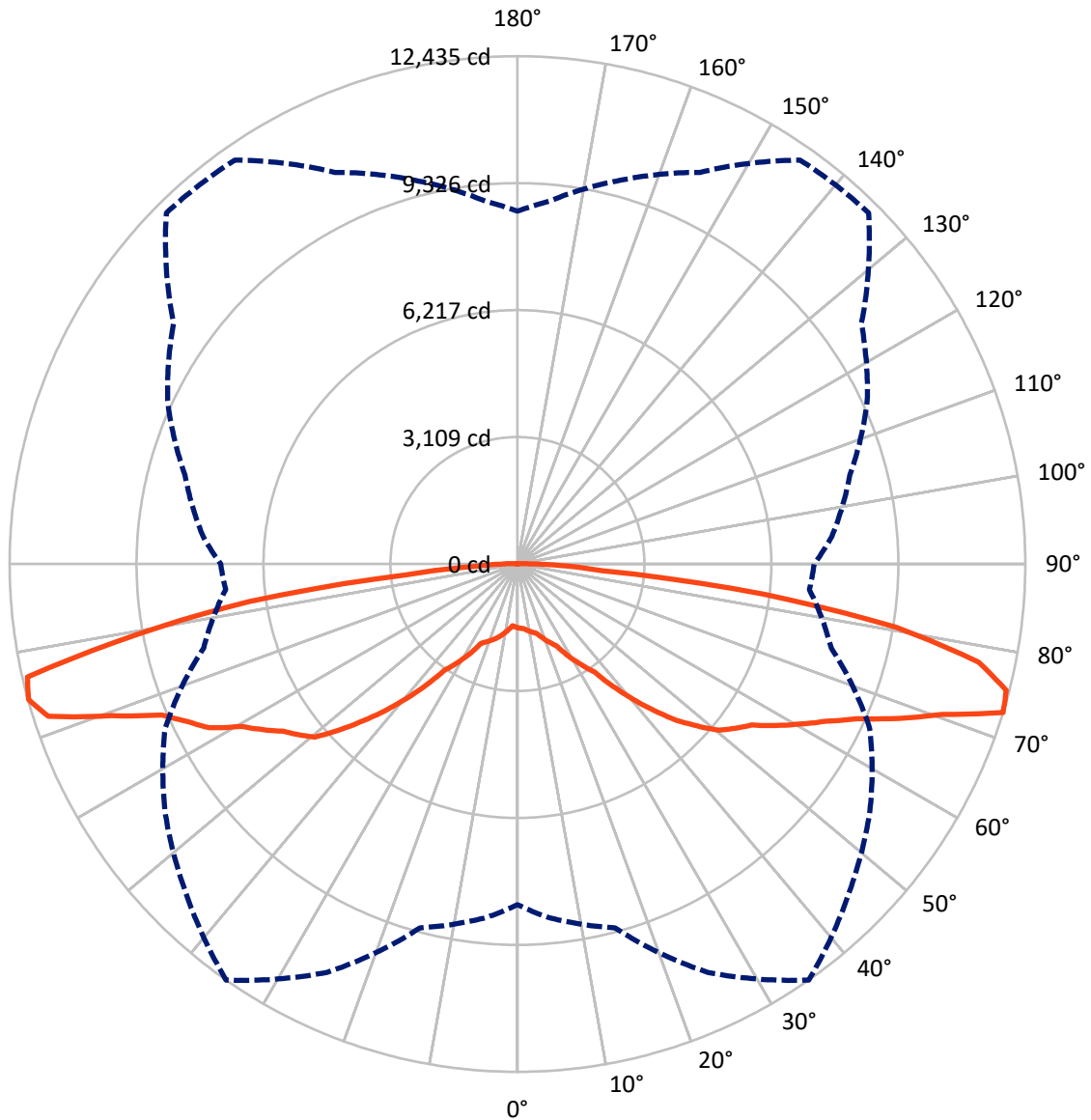
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.2 fc  
 Type V - Short - Semi-Cutoff

REPORT NUMBER: 766034\_450MP  
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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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CATALOG NUMBER: GSM-XX-450-MP-XX-RW-SG-XX-X

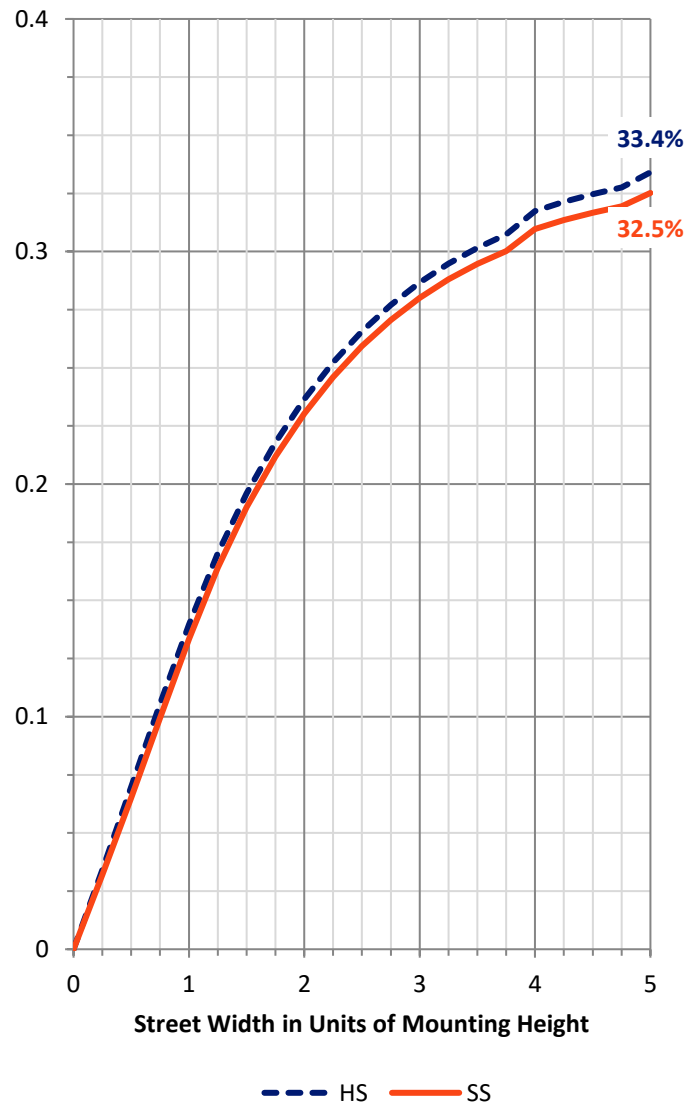
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17024.0	95.1	17119.1
	% Lamp	34.0	0.2	34.2
<b>Street Side</b>	Lumens	16616.5	72.1	16688.6
	% Lamp	33.2	0.1	33.4
<b>Total</b>	Lumens	33640.5	167.2	33807.7
	% Lamp	67.3	0.3	67.6

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	151.3	0.4	0.3
10°-20°	507.4	1.5	1.0
20°-30°	1042.3	3.1	2.1
30°-40°	2093.7	6.2	4.2
40°-50°	3976.5	11.8	8.0
50°-60°	6013.5	17.8	12.0
60°-70°	8249.0	24.4	16.5
70°-80°	9190.3	27.2	18.4
80°-90°	2540.4	7.5	5.1
90°-100°	134.1	0.4	0.3
100°-110°	35.1	0.1	0.1
110°-120°	6.5	0.0	0.0
120°-130°	0.8	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°	33640.5	99.5	67.3
0°-180°	33807.7	100.0	67.6



REPORT NUMBER: 766034\_450MP

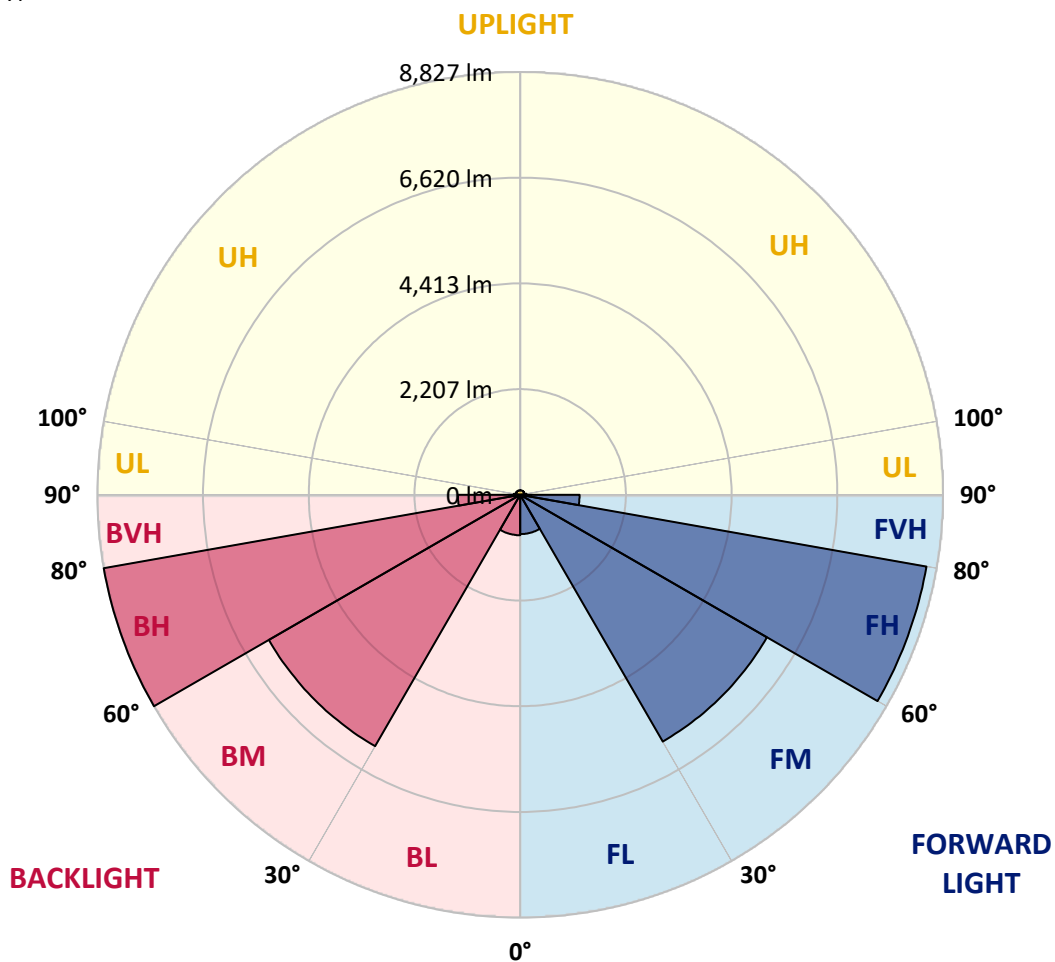
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	820.7	1.6			
FM (30°-60°)	5948.3	11.9			
FH (60°-80°)	8612.6	17.2			G4/12000
FVH (80°-90°)	1239.8	2.5			G5
BL (0°-30°)	843.7	1.7	B2/1000		
BM (30°-60°)	6058.1	12.1	B4/8500		
BH (60°-80°)	8826.7	17.7	B5		G4/12000
BVH (80°-90°)	1300.5	2.6			G5
UL (90°-100°)	134.1	0.3		U3/500	
UH (100°-180°)	95.1	0.2		U3/500	
Trapped Light	16192.3	32.4			

**BUG Rating: B5-U3-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5
5°	1625.0	1629.2	1605.6	1611.1	1590.3	1570.8	1577.8	1550.0	1543.1	1508.3	1525.0
15°	1694.4	1698.6	1688.9	1736.1	1761.1	1725.0	1652.8	1625.0	1570.8	1601.4	1640.3
25°	2186.1	2204.2	2209.7	2227.8	2218.1	2155.6	2088.9	1993.1	1850.0	1861.1	1902.8
35°	3226.4	3191.7	3213.9	3240.3	3241.7	3195.8	3063.9	2919.4	2638.9	2680.6	2822.2
45°	4984.7	5336.1	5351.4	5419.4	5454.2	5312.5	5022.2	4931.9	4375.0	4581.9	4595.8
50°	6252.8	6277.8	6409.7	6613.9	6398.6	6734.7	6091.7	5929.2	5070.8	5305.6	5479.2
55°	6451.4	6688.9	6997.2	7155.6	6959.7	7020.8	6668.1	6600.0	5516.7	5623.6	5962.5
60°	6994.4	7113.9	7459.7	7677.8	7955.6	7872.2	7712.5	7104.2	6250.0	5922.2	6222.2
62.5°	7481.9	7481.9	7930.6	8377.8	8480.6	8495.8	8422.2	7593.1	6612.5	6356.9	6593.1
65°	7333.3	7795.8	8312.5	8919.4	9131.9	9076.4	8847.2	8072.2	6894.4	6568.1	6802.8
67.5°	8002.8	8101.4	8605.6	9362.5	10083.3	9687.5	9398.6	8495.8	7125.0	6688.9	6951.4
70°	8401.4	8419.4	9152.8	10241.7	11030.6	10541.7	10102.8	8841.7	7540.3	6951.4	7163.9
72.5°	8341.7	8686.1	9222.2	11030.6	12434.7	11455.6	10536.1	9518.1	7952.8	7173.6	7266.7
75°	7547.2	7626.4	8461.1	10104.2	12362.5	10770.8	9984.7	8466.7	7487.5	6679.2	6876.4
77.5°	5908.3	5945.8	7298.6	9016.7	11545.8	9913.9	8668.1	7143.1	6177.8	6036.1	6458.3
80°	3601.4	4005.6	4644.4	6191.7	9405.6	7629.2	6363.9	5486.1	4186.1	4500.0	5263.9
82.5°	2023.6	2483.3	2638.9	3694.4	6080.6	5434.7	4538.9	3472.2	3147.2	2959.7	3105.6
85°	913.9	829.2	1152.8	1708.3	2086.1	1954.2	2220.8	1429.2	1245.8	1320.8	1570.8
87.5°	334.7	380.6	550.0	798.6	1033.3	951.4	884.7	863.9	511.1	466.7	436.1
90°	87.5	127.8	151.4	222.2	293.1	313.9	293.1	259.7	218.1	144.4	144.4
95°	31.9	44.4	58.3	80.6	95.8	86.1	93.1	97.2	83.3	55.6	52.8
105°	9.7	13.9	16.7	20.8	9.7	11.1	18.1	30.6	23.6	9.7	4.2
115°	0.0	0.0	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2	4.2
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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CATALOG NUMBER: GSM-XX-450-MP-XX-RW-SG-XX-X

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5	1562.5
5°	1534.7	1504.2	1505.6	1497.2	1490.3	1515.3	1490.3	1494.4	1525.0	1470.8
15°	1691.7	1830.6	1858.3	1908.3	1940.3	1850.0	1898.6	1854.2	1833.3	1861.1
25°	1981.9	2133.3	2113.9	2154.2	2165.3	2127.8	2072.2	2086.1	2047.2	2098.6
35°	2909.7	2909.7	3191.7	3163.9	3251.4	3154.2	3081.9	3023.6	2902.8	2988.9
45°	4855.6	5094.4	5251.4	5295.8	5251.4	5375.0	5187.5	5236.1	5061.1	5026.4
50°	5597.2	6147.2	6316.7	6672.2	6530.6	6527.8	6294.4	6295.8	6038.9	5886.1
55°	5869.4	6533.3	6702.8	7043.1	6941.7	7050.0	6786.1	6527.8	6409.7	6211.1
60°	6509.7	7036.1	7430.6	8097.2	7918.1	7834.7	7820.8	7672.2	7150.0	7277.8
62.5°	6958.3	7412.5	7941.7	8509.7	8615.3	8543.1	8531.9	8259.7	7723.6	7663.9
65°	7104.2	7679.2	8276.4	8961.1	9131.9	8954.2	9030.6	8461.1	8018.1	7955.6
67.5°	7266.7	7854.2	8588.9	9363.9	9729.2	9456.9	9563.9	9004.2	8280.6	8308.3
70°	7551.4	8065.3	8988.9	9730.6	10933.3	10605.6	10047.2	9462.5	8547.2	8475.0
72.5°	7726.4	8426.4	9450.0	10280.6	12158.3	12072.2	10577.8	9726.4	8913.9	8637.5
75°	7001.4	7612.5	8575.0	9538.9	12063.9	12423.6	9740.3	8891.7	8013.9	7654.2
77.5°	5879.2	6125.0	6934.7	8480.6	11320.8	12313.9	8698.6	7561.1	7345.8	7125.0
80°	4462.5	4502.8	4827.8	5893.1	8772.2	9484.7	6284.7	5087.5	5175.0	5101.4
82.5°	2719.4	2743.1	2926.4	3641.7	5569.4	6637.5	3745.8	3511.1	2836.1	2784.7
85°	1276.4	1315.3	1668.1	1954.2	2559.7	2725.0	2193.1	1408.3	1311.1	1179.2
87.5°	459.7	584.7	815.3	981.9	930.6	968.1	868.1	556.9	463.9	431.9
90°	145.8	200.0	293.1	377.8	383.3	391.7	325.0	273.6	158.3	144.4
95°	59.7	109.7	116.7	131.9	113.9	123.6	127.8	97.2	79.2	59.7
105°	9.7	25.0	31.9	20.8	16.7	18.1	30.6	23.6	13.9	9.7
115°	4.2	4.2	4.2	4.2	6.9	6.9	6.9	2.8	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)