

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: INVUE

Report Number: P596612

Luminaire Tested: **MSA-SA2C-827-U-SL2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596612  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2C-827-U-SL2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9009 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G2

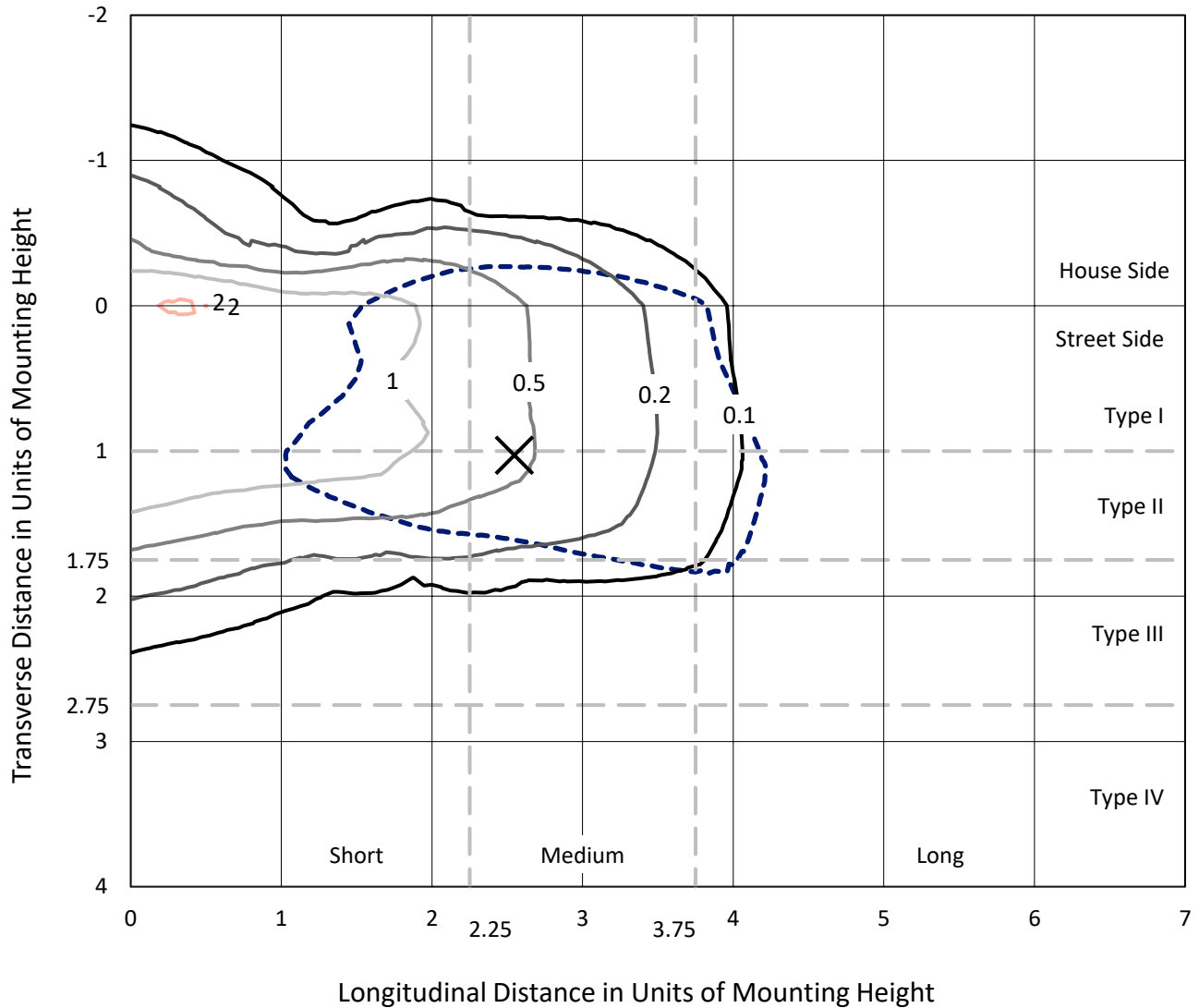
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

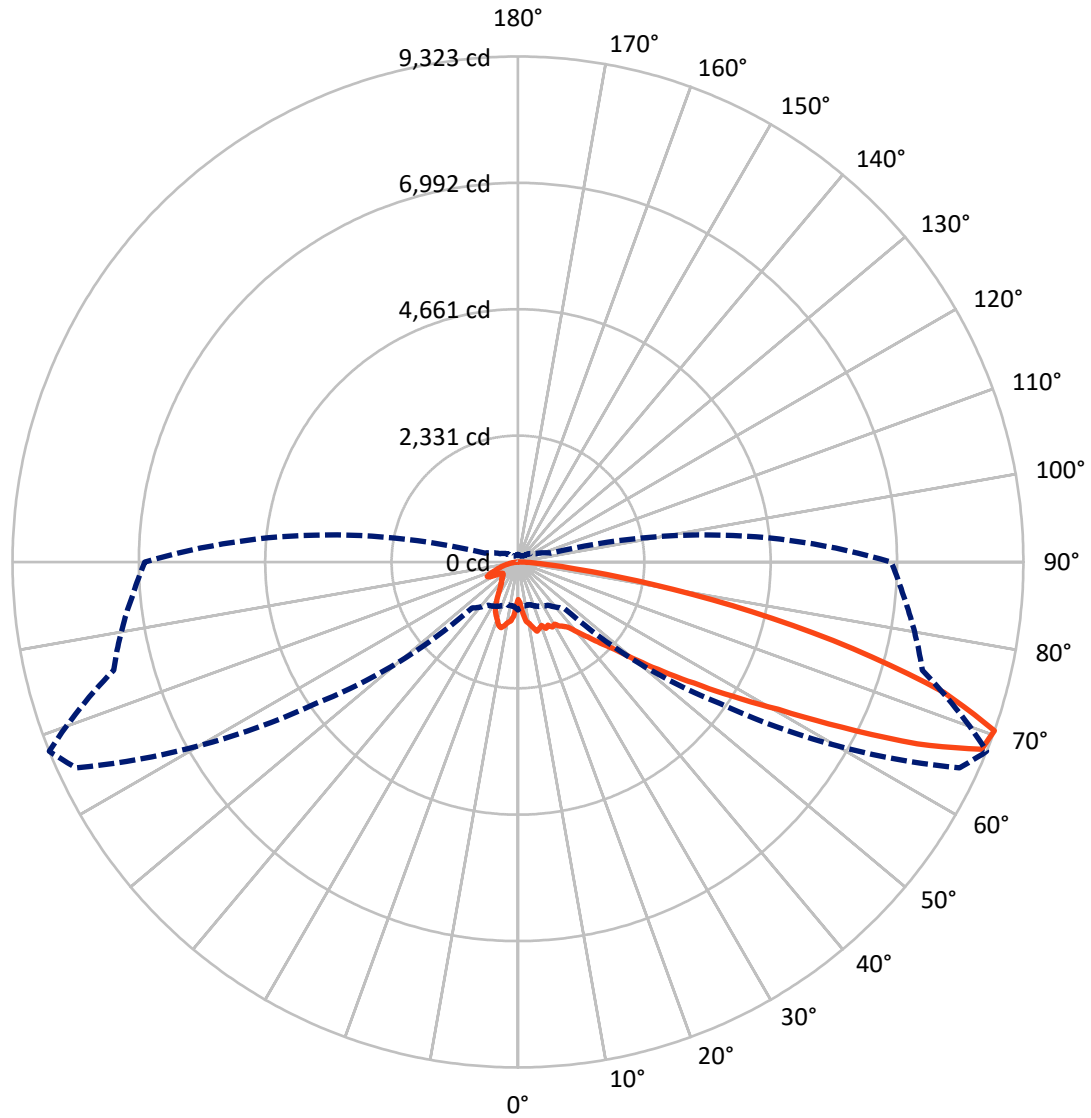
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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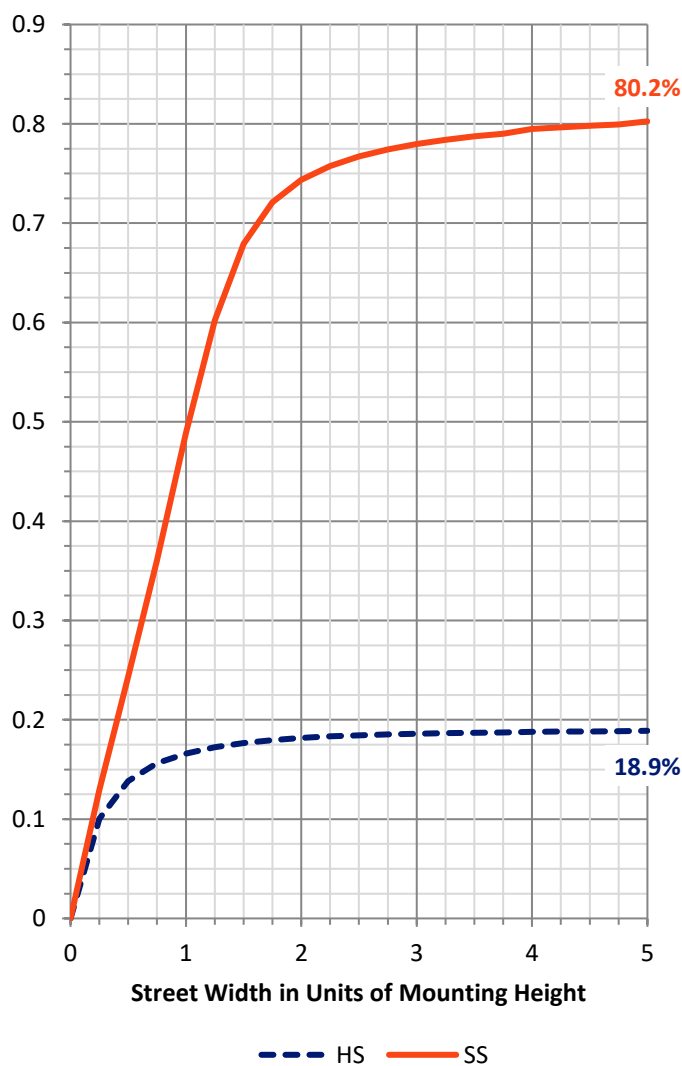
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1720.0	0.0	1720.0
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	7289.0	0.0	7289.0
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	9009.0	0.0	9009.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.2	1.0
10°-20°	300.7	3.3
20°-30°	457.4	5.1
30°-40°	698.6	7.8
40°-50°	1201.3	13.3
50°-60°	1988.4	22.1
60°-70°	2451.4	27.2
70°-80°	1574.7	17.5
80°-90°	244.3	2.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	9009.0	100.0
0°-180°	9009.0	100.0

**Coefficient of Utilization**



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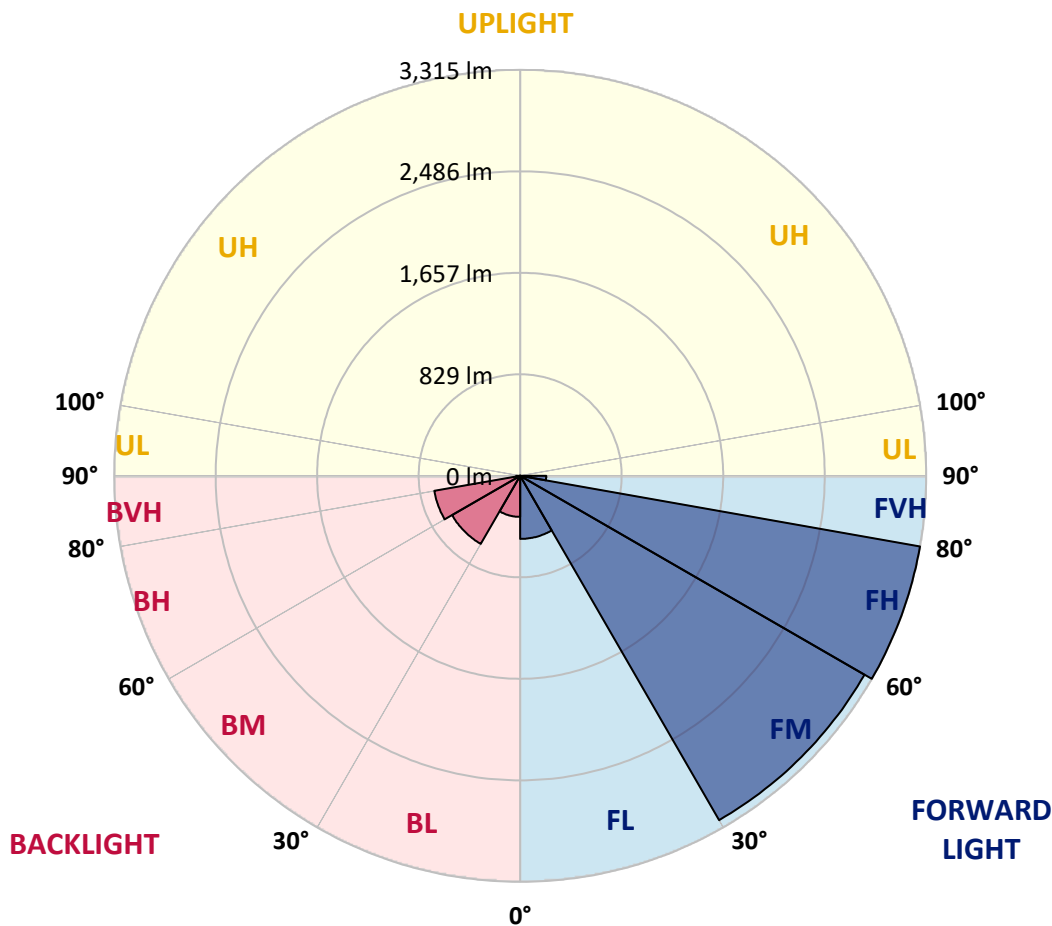
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	515.2	5.7			
FM (30°-60°)	3246.3	36.0			
FH (60°-80°)	3314.6	36.8			G2/5000
FVH (80°-90°)	212.9	2.4			G2/225
BL (0°-30°)	335.2	3.7	B1/500		
BM (30°-60°)	642.0	7.1	B1/1000		
BH (60°-80°)	711.5	7.9	B2/1000		G2/1000
BVH (80°-90°)	31.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8
2.5°	793.7	761.6	729.2	745.0	770.3	792.6	788.0	790.7	760.1	756.0	836.3
5°	935.1	880.0	878.9	879.7	881.9	856.3	918.9	951.3	958.5	991.6	1070.4
7.5°	984.1	961.8	939.2	950.5	921.9	924.5	1001.4	1085.9	1105.9	1130.0	1237.8
10°	973.9	952.8	959.6	961.5	966.8	1009.4	1058.8	1139.8	1156.8	1233.7	1261.6
12.5°	975.4	971.7	1003.3	1004.5	1061.0	1137.6	1157.2	1231.8	1238.6	1295.2	1411.7
15°	1027.1	1053.1	1035.4	1044.8	1055.7	1147.4	1175.6	1282.7	1323.4	1396.2	1483.7
17.5°	1127.8	1135.3	1082.1	1068.2	1104.0	1131.9	1196.4	1242.8	1285.4	1488.6	1609.2
20°	1151.1	1171.5	1108.1	1036.1	1111.9	1150.8	1195.6	1216.7	1249.9	1502.2	1673.3
22.5°	1251.4	1209.2	1132.7	1070.1	1094.9	1132.7	1165.1	1244.6	1331.7	1463.3	1737.4
25°	1308.4	1283.8	1215.6	1148.5	1127.4	1128.5	1191.1	1262.4	1292.5	1520.3	1750.3
27.5°	1446.0	1406.8	1253.3	1240.5	1160.9	1099.1	1195.2	1306.1	1358.9	1475.8	1812.8
30°	1618.3	1588.5	1387.2	1370.2	1248.8	1140.9	1248.0	1338.5	1331.0	1504.8	1856.2
32.5°	1757.8	1807.6	1604.3	1470.5	1384.1	1280.8	1231.4	1332.9	1407.9	1572.3	1929.7
35°	1956.9	2003.6	1773.6	1683.1	1495.7	1345.7	1347.2	1410.5	1456.9	1651.1	2011.9
37.5°	2301.5	2260.4	2075.3	1932.4	1812.5	1588.5	1521.4	1499.1	1536.5	1747.6	2172.9
40°	2550.0	2515.3	2297.4	2215.9	1982.5	1852.4	1668.4	1647.3	1713.3	1847.2	2304.5
42.5°	2844.5	2782.6	2579.8	2512.6	2268.7	2034.2	1848.7	1860.7	1892.8	2034.9	2482.5
45°	3144.2	2994.1	2879.1	2873.9	2711.0	2387.1	2137.9	2128.1	2129.2	2311.3	2682.3
47.5°	3382.1	3247.1	3115.5	3053.0	2970.8	2997.5	2557.9	2442.9	2408.2	2589.6	2982.1
50°	3543.1	3387.8	3238.8	3224.1	3443.6	3588.0	2952.3	2829.4	2850.9	2987.7	3381.7
52.5°	3546.5	3362.1	3206.8	3309.7	3826.7	4033.3	3631.7	3288.2	3356.9	3450.0	3903.2
55°	3299.9	3108.8	3007.7	3242.2	3976.3	4561.5	4586.4	4023.5	3944.3	3978.6	4526.5
57.5°	2780.0	2586.9	2528.1	2809.0	3692.4	5070.9	5739.4	4902.0	4669.7	4526.5	5165.2
60°	2092.6	1925.6	1889.0	2068.1	3061.3	4921.2	6673.0	5995.4	5522.2	5138.4	5805.8
62.5°	1569.3	1449.4	1394.3	1420.0	2118.3	4434.5	7286.1	7376.9	6706.9	5806.5	6431.7
65°	1275.2	1178.3	1129.3	1096.1	1317.4	3428.9	7175.2	8539.8	8090.7	6508.2	6918.8
67.5°	1065.2	979.2	956.6	989.0	1041.4	1989.3	6308.0	9190.2	9220.7	7200.5	7203.5
70°	884.2	820.5	812.2	904.2	973.2	1200.5	4556.2	8985.8	9322.9	7719.7	7136.8
72.5°	683.2	648.9	647.8	792.2	966.8	1023.3	2713.2	7762.7	8215.5	7553.8	6483.7
75°	473.9	450.2	468.3	651.2	944.5	1038.0	1548.5	6046.3	6385.3	6427.9	5193.8
77.5°	326.1	306.2	325.8	470.9	843.5	1062.9	1083.3	4371.9	4409.6	4310.4	2974.9
80°	227.0	213.0	228.1	333.3	656.4	1052.0	922.3	2752.5	2525.5	1923.7	952.4
82.5°	140.6	136.5	153.1	237.5	462.3	956.9	874.0	1420.3	1084.4	530.9	340.1
85°	73.9	67.9	89.0	155.0	289.2	751.1	818.9	648.1	418.5	188.5	136.5
87.5°	21.9	19.6	34.3	62.6	122.5	336.7	468.7	274.9	156.1	55.4	42.6
90°	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8
2.5°	841.9	837.8	782.0	789.2	801.2	804.2	803.9	783.5	762.0	822.0	820.1
5°	1072.3	1035.0	1007.1	1001.1	966.8	932.4	944.5	940.4	935.1	962.2	965.6
7.5°	1238.2	1186.6	1154.1	1070.8	991.6	923.0	944.9	951.7	938.1	987.1	1001.8
10°	1282.0	1241.2	1206.2	1099.1	1055.4	1015.4	956.2	888.7	879.7	851.4	854.8
12.5°	1394.7	1389.0	1269.5	1175.3	1118.3	1038.8	910.9	829.1	759.0	762.4	742.0
15°	1483.7	1486.7	1343.0	1211.1	1058.4	937.0	786.5	684.7	612.7	598.4	583.7
17.5°	1603.2	1597.2	1349.1	1168.1	974.7	796.7	612.3	511.3	499.2	507.5	494.7
20°	1655.2	1602.1	1310.6	1061.4	843.8	605.2	462.6	409.1	432.5	465.7	466.4
22.5°	1702.0	1611.1	1290.6	975.4	669.6	440.0	371.4	361.6	389.1	434.0	437.8
25°	1700.1	1653.0	1254.8	888.7	519.2	343.5	322.8	329.9	362.7	409.5	412.1
27.5°	1785.7	1620.9	1161.7	774.8	391.0	294.1	299.4	312.6	328.0	372.5	381.2
30°	1784.9	1680.5	1114.9	636.5	314.1	269.6	283.2	294.5	307.3	348.0	352.9
32.5°	1827.2	1641.7	1086.7	495.1	281.7	263.6	266.9	278.3	296.7	324.3	327.7
35°	1878.1	1685.8	996.2	393.3	269.6	258.3	260.9	267.3	284.3	309.6	312.9
37.5°	2041.3	1694.1	960.3	331.4	268.8	256.0	255.6	259.0	278.3	301.3	311.4
40°	2105.1	1769.9	855.9	309.6	266.2	256.0	250.7	252.6	268.5	297.9	305.8
42.5°	2257.8	1795.1	778.6	302.0	266.2	251.5	243.2	246.2	264.7	290.7	303.1
45°	2415.0	1830.9	686.6	300.5	265.8	251.1	235.3	242.1	257.1	279.0	292.6
47.5°	2639.0	1959.9	594.6	296.0	262.8	253.0	233.4	233.0	246.2	265.1	277.9
50°	3004.3	2161.2	523.3	290.3	263.2	251.5	229.6	224.3	233.0	249.6	262.0
52.5°	3513.0	2504.4	495.4	287.3	260.2	245.5	223.2	214.9	219.8	233.0	245.1
55°	4103.4	2967.7	523.0	287.3	254.1	236.0	214.2	204.4	207.0	216.0	227.7
57.5°	4793.4	3543.5	656.1	283.2	246.6	224.7	203.2	191.9	192.7	200.6	211.1
60°	5514.0	4186.7	954.3	279.8	241.3	212.3	190.4	178.7	177.6	185.1	194.6
62.5°	6235.6	4780.2	1268.0	287.7	239.8	201.7	176.8	165.1	164.8	171.6	179.5
65°	6809.5	5185.9	1346.1	319.7	249.6	189.7	162.9	152.0	151.2	156.9	165.5
67.5°	7091.1	5244.7	1022.6	359.7	270.3	178.3	149.3	139.1	138.4	144.4	152.0
70°	6882.6	4842.8	631.2	363.9	269.2	165.1	135.4	126.7	125.2	131.6	137.2
72.5°	6111.2	4236.1	479.6	322.0	233.0	146.3	121.4	113.9	111.6	117.3	122.5
75°	4905.0	3363.3	384.2	259.8	183.6	123.3	107.5	100.3	97.7	102.9	107.5
77.5°	2857.3	1892.0	280.9	202.9	138.8	100.7	91.6	85.2	82.2	87.9	91.2
80°	929.0	630.4	176.5	145.5	101.4	78.8	74.3	69.8	66.7	70.5	71.6
82.5°	333.7	234.5	97.7	89.4	67.5	56.6	56.2	53.5	49.8	51.3	51.3
85°	147.8	107.1	58.1	47.9	40.3	30.2	35.4	33.6	29.8	29.0	27.9
87.5°	41.5	35.4	21.1	16.2	13.2	4.9	11.3	10.2	8.3	7.5	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)