

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: P367276

Luminaire Tested: **MSA-SA2B-727-U-T3**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367276  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2B-727-U-T3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8318 lumens  
Efficiency: N/A  
Efficacy: 97.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

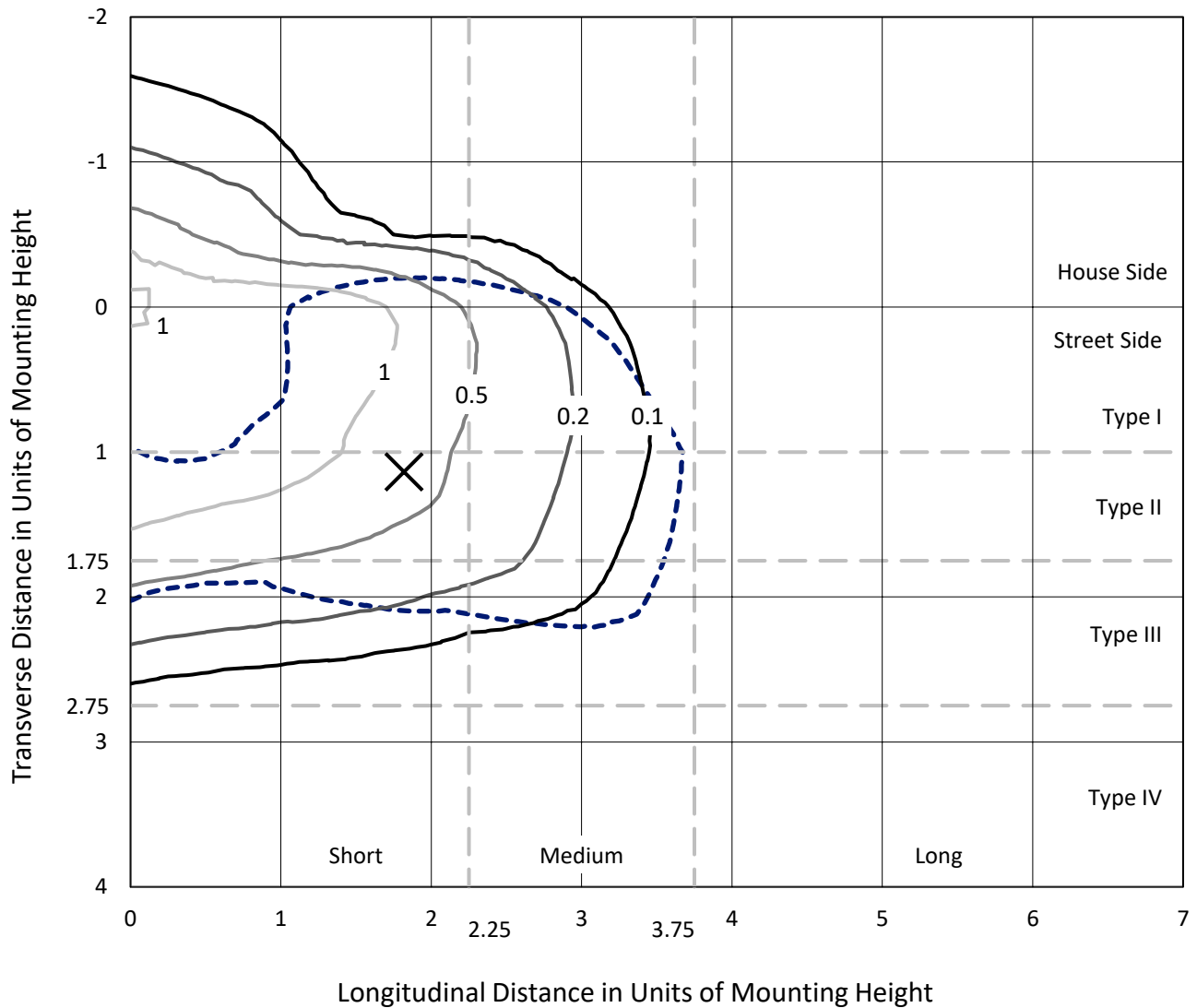
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

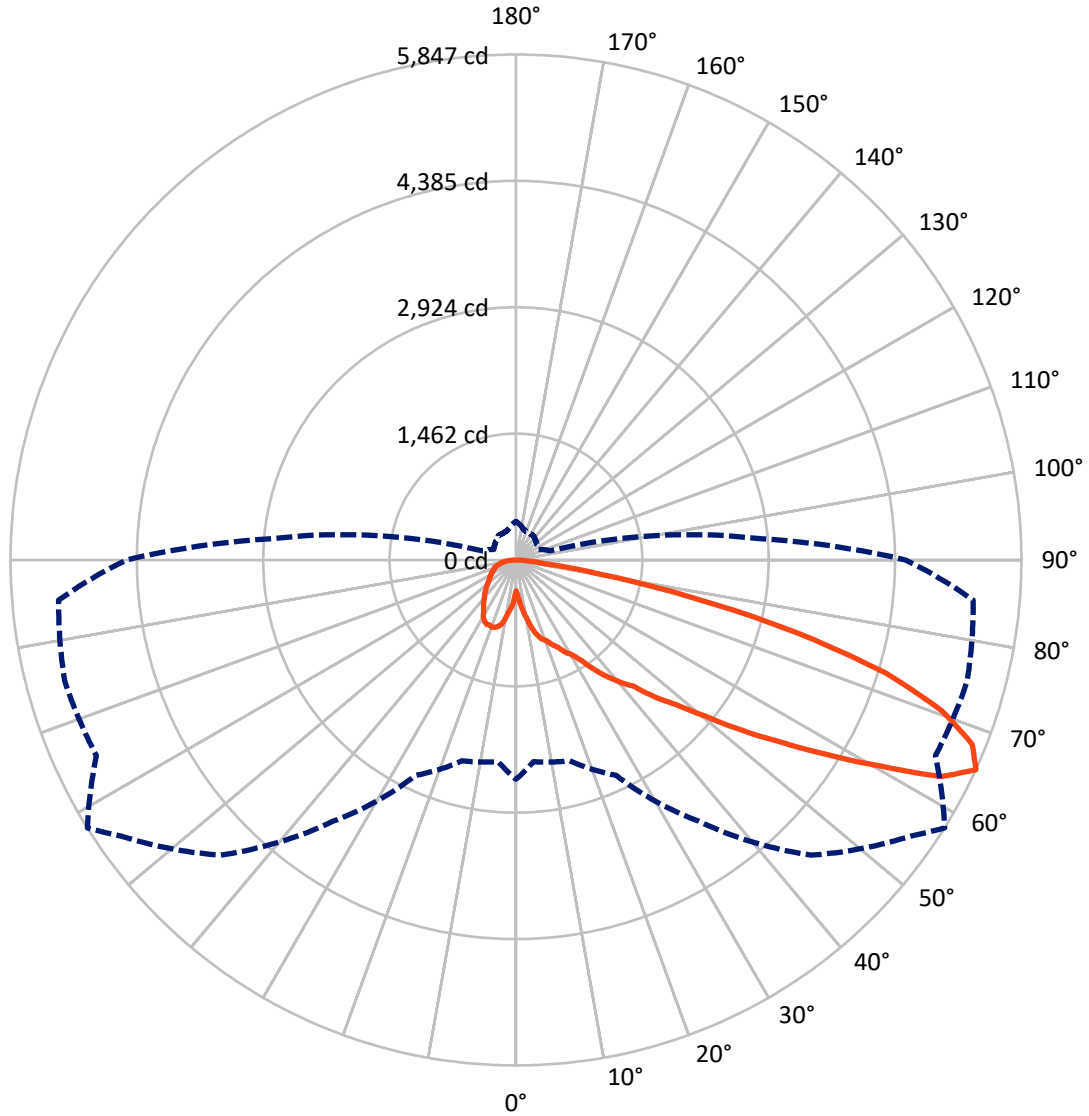
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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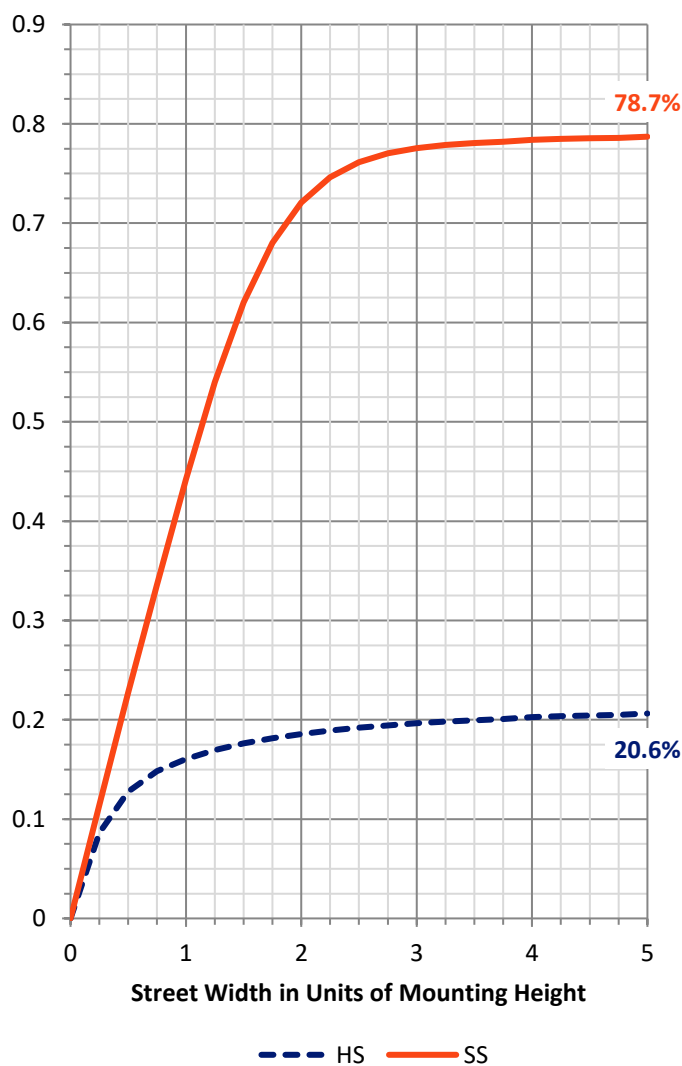
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1752.0	0.0	1752.0
	% Fixture	21.1	0.0	21.1
<b>Street Side</b>	Lumens	6566.0	0.0	6566.0
	% Fixture	78.9	0.0	78.9
<b>Total</b>	Lumens	8318.0	0.0	8318.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.4	0.7
10°-20°	237.4	2.9
20°-30°	455.5	5.5
30°-40°	752.0	9.0
40°-50°	1250.0	15.0
50°-60°	2064.3	24.8
60°-70°	2315.7	27.8
70°-80°	1052.9	12.7
80°-90°	135.8	1.6
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°	8318.0	100.0
0°-180°	8318.0	100.0

**Coefficient of Utilization**

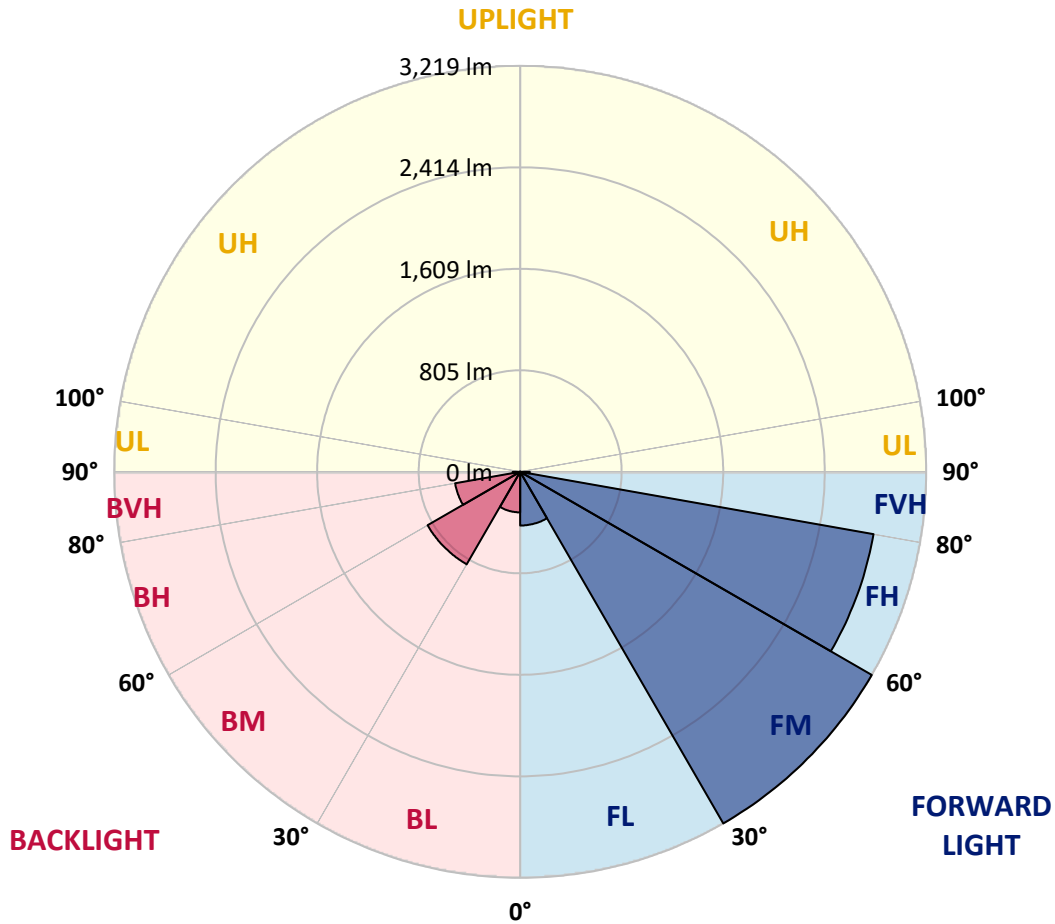


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	425.7	5.1			
FM (30°-60°)	3218.9	38.7			
FH (60°-80°)	2844.9	34.2			G2/5000
FVH (80°-90°)	76.5	0.9			G1/100
BL (0°-30°)	321.6	3.9	B1/500		
BM (30°-60°)	847.3	10.2	B1/1000		
BH (60°-80°)	523.7	6.3	B2/1000		G2/1000
BVH (80°-90°)	59.3	0.7			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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1
2.5°	426.4	413.6	392.1	397.3	409.8	416.7	412.6	407.0	399.7	398.4	430.2
5°	552.2	527.6	517.5	513.4	498.1	489.1	504.7	502.6	510.9	526.2	557.4
7.5°	644.0	626.6	610.0	608.3	578.8	568.4	589.2	600.3	615.2	615.6	657.8
10°	693.1	678.2	677.9	662.3	659.9	679.6	680.0	688.3	690.0	707.7	699.4
12.5°	746.5	745.4	764.5	764.2	786.3	818.9	802.6	802.6	807.5	786.0	812.3
15°	873.6	884.7	849.0	854.9	854.9	886.8	885.7	892.0	906.9	901.3	889.6
17.5°	1005.9	1012.9	973.4	936.7	939.4	932.5	957.4	959.9	945.7	1010.1	995.9
20°	1091.2	1118.2	1035.0	989.0	998.0	1005.9	1007.0	992.1	984.8	1083.9	1064.5
22.5°	1196.5	1173.6	1097.4	1046.5	1060.0	1049.2	1047.2	1058.6	1068.6	1106.1	1137.6
25°	1266.8	1265.0	1173.6	1117.8	1102.9	1099.8	1120.9	1116.4	1140.3	1208.2	1188.5
27.5°	1369.0	1400.8	1238.7	1252.6	1187.1	1118.2	1186.1	1206.5	1249.5	1238.4	1282.4
30°	1567.1	1543.2	1373.8	1370.0	1295.9	1238.0	1285.1	1267.8	1345.1	1342.6	1375.2
32.5°	1728.9	1745.5	1532.5	1492.6	1437.6	1367.9	1336.8	1384.9	1426.5	1494.7	1513.1
35°	1900.0	1896.2	1694.9	1614.6	1523.5	1494.7	1533.2	1553.3	1641.6	1704.3	1660.6
37.5°	2166.0	2135.9	1905.5	1753.5	1685.2	1674.8	1740.7	1711.6	1807.2	1822.1	1846.7
40°	2413.4	2322.6	2098.1	1923.9	1815.5	1854.3	1856.4	1860.2	1911.4	1952.0	2073.5
42.5°	2648.6	2584.8	2293.9	2162.9	2003.2	1965.5	1989.0	1997.0	2126.5	2209.3	2377.7
45°	2970.0	2799.2	2575.1	2440.7	2262.0	2213.8	2197.2	2265.8	2390.8	2579.3	2723.7
47.5°	3241.9	3087.8	2874.1	2697.1	2497.2	2634.7	2540.5	2502.0	2670.0	2903.5	3133.5
50°	3467.5	3297.7	3088.1	2986.0	2954.1	3076.7	2832.2	2836.7	2990.5	3319.9	3583.5
52.5°	3642.0	3460.9	3275.2	3223.2	3401.3	3472.0	3295.3	3268.6	3380.9	3770.2	4086.8
55°	3805.2	3612.9	3469.5	3575.5	3875.5	3883.5	3871.0	3723.1	3858.2	4252.7	4607.8
57.5°	3847.1	3640.0	3544.7	3696.8	4102.4	4418.0	4542.0	4251.7	4389.2	4691.6	5054.0
60°	3631.3	3453.9	3415.8	3622.3	4225.0	4686.4	5010.3	4836.8	4785.2	5043.9	5366.4
62.5°	3189.3	2983.5	3014.4	3301.2	4095.8	4792.8	5380.3	5515.7	5203.3	5324.1	5502.9
65°	2538.4	2342.0	2404.4	2749.4	3690.2	4828.1	5569.4	5847.2	5354.3	5403.5	5309.6
67.5°	1790.2	1611.8	1690.4	2136.6	3069.8	4375.7	5602.0	5692.7	5193.6	5177.3	4781.7
70°	1014.3	902.4	987.6	1359.6	2166.7	3485.8	5346.7	5227.2	4905.4	4674.6	4000.9
72.5°	465.2	426.8	467.6	692.1	1247.4	2319.5	4365.0	4473.4	4226.8	3938.2	3043.8
75°	247.3	233.8	251.1	345.7	583.7	1261.9	3101.3	3345.2	3213.9	2987.0	1985.6
77.5°	183.9	173.5	181.9	224.1	311.8	493.6	1762.1	2069.7	2119.6	1910.7	1102.6
80°	141.0	132.7	141.0	169.4	215.8	234.5	753.4	964.7	1098.8	887.8	438.2
82.5°	104.6	99.1	111.9	127.1	151.7	146.5	267.4	332.9	429.2	293.4	170.8
85°	83.1	76.2	81.1	86.3	97.0	80.4	122.3	136.8	144.8	121.2	63.0
87.5°	32.6	30.1	58.9	46.4	39.5	24.2	36.7	41.6	42.6	40.9	18.4
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°	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1	357.1
2.5°	433.7	430.2	409.8	416.4	427.1	429.2	433.7	421.2	415.0	437.8	438.9
5°	560.1	541.4	531.7	532.8	525.8	515.1	531.4	542.1	546.3	563.2	569.5
7.5°	658.2	635.6	619.4	600.7	574.3	557.4	585.8	606.5	617.6	653.0	666.8
10°	701.8	683.8	680.3	656.8	656.1	655.7	654.3	647.1	671.0	667.5	677.2
12.5°	791.9	788.1	755.1	745.8	746.8	745.8	716.7	715.3	715.7	747.5	736.1
15°	875.7	876.4	846.3	812.3	781.8	772.5	761.0	755.8	763.5	781.5	770.4
17.5°	979.3	982.7	896.5	842.8	802.6	801.6	774.2	742.0	788.4	799.5	787.4
20°	1046.1	1031.6	925.6	835.5	824.1	792.9	759.0	714.6	754.8	781.8	789.4
22.5°	1109.5	1084.2	952.6	848.3	793.6	756.5	723.6	694.9	707.7	737.8	733.0
25°	1152.5	1145.5	990.0	879.2	792.6	710.1	665.8	647.4	654.0	700.8	696.3
27.5°	1255.0	1180.2	983.4	887.1	759.3	646.7	624.6	604.8	598.2	648.8	662.7
30°	1323.6	1292.8	1027.4	874.7	717.4	594.8	562.2	558.0	560.1	617.6	621.4
32.5°	1440.0	1360.0	1099.5	826.9	656.4	556.3	518.9	520.6	530.0	571.9	580.6
35°	1561.2	1513.4	1109.2	792.6	606.9	515.4	500.2	488.1	493.3	530.0	531.7
37.5°	1786.4	1621.1	1168.7	739.6	570.5	499.9	470.8	460.0	462.8	483.6	498.5
40°	1984.5	1837.6	1141.0	688.3	525.5	479.1	442.7	434.7	426.4	446.9	456.2
42.5°	2302.2	1992.1	1131.7	631.8	504.4	451.0	426.1	404.9	397.0	414.3	431.3
45°	2619.8	2156.0	1080.8	574.7	474.6	448.9	401.8	381.7	383.8	399.4	416.7
47.5°	2973.8	2375.9	994.5	519.3	442.0	438.9	377.6	368.9	375.1	392.5	409.8
50°	3392.3	2609.4	923.2	469.4	418.8	408.8	374.5	364.1	370.0	390.4	407.4
52.5°	3849.9	2865.4	871.2	423.3	392.5	384.8	378.6	368.6	375.5	393.2	410.8
55°	4304.7	3099.2	835.9	391.8	370.0	374.8	387.3	380.0	383.5	396.6	414.3
57.5°	4642.1	3222.5	764.8	358.2	351.6	368.9	388.3	376.2	378.3	396.6	415.7
60°	4838.1	3246.1	648.1	330.8	337.0	357.1	377.6	362.0	360.6	390.7	414.6
62.5°	4816.7	3109.3	514.1	305.9	320.4	339.5	361.3	346.4	350.2	391.4	416.7
65°	4509.1	2829.7	408.8	284.7	300.3	320.1	347.8	341.9	360.3	419.1	446.5
67.5°	3968.7	2421.3	328.4	265.0	281.6	306.9	357.1	372.7	380.7	447.5	475.6
70°	3216.3	1881.3	273.7	247.7	266.7	313.1	384.2	381.0	374.5	434.0	456.2
72.5°	2323.6	1289.6	240.7	230.7	248.4	294.4	384.8	368.2	359.9	396.3	412.2
75°	1453.8	769.4	210.3	209.2	220.3	264.0	367.5	352.6	330.1	348.1	368.9
77.5°	830.3	393.9	177.0	186.4	192.9	229.0	329.1	315.6	295.5	303.1	323.5
80°	317.0	190.5	149.3	165.6	163.8	194.0	278.9	275.7	252.9	255.3	267.8
82.5°	149.3	106.7	124.0	142.4	133.0	154.5	226.5	225.5	205.4	186.0	196.1
85°	55.4	56.8	90.8	108.4	92.5	99.8	163.8	159.3	139.9	118.1	130.6
87.5°	12.5	20.4	44.7	56.5	32.2	30.8	66.2	57.5	55.4	32.9	34.6
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)