

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: P367496

Luminaire Tested: **MSA-SA2C-760-U-T3**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367496  
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-SA2C-760-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: 12318 lumens  
Efficiency: N/A  
Efficacy: 109.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

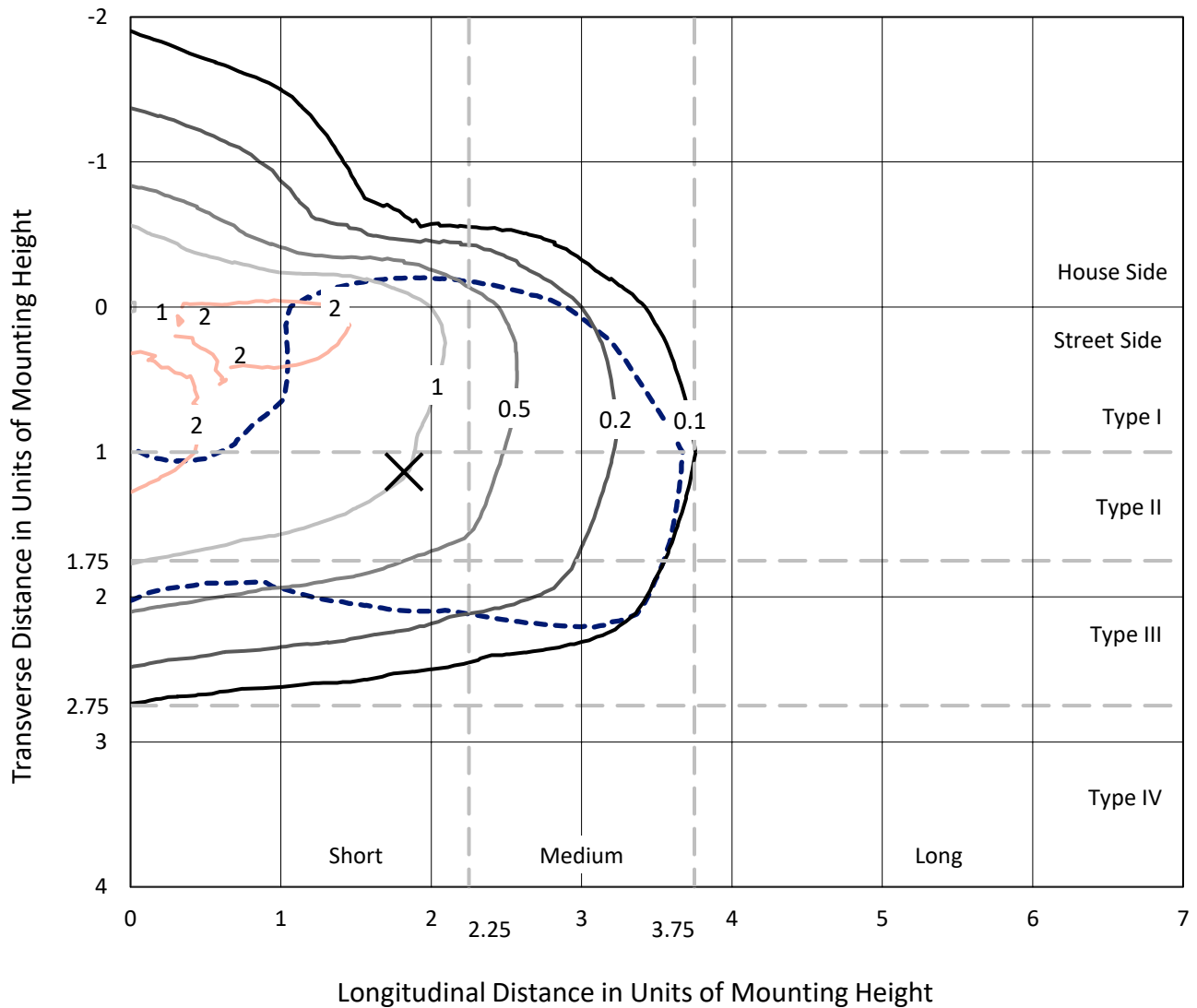
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

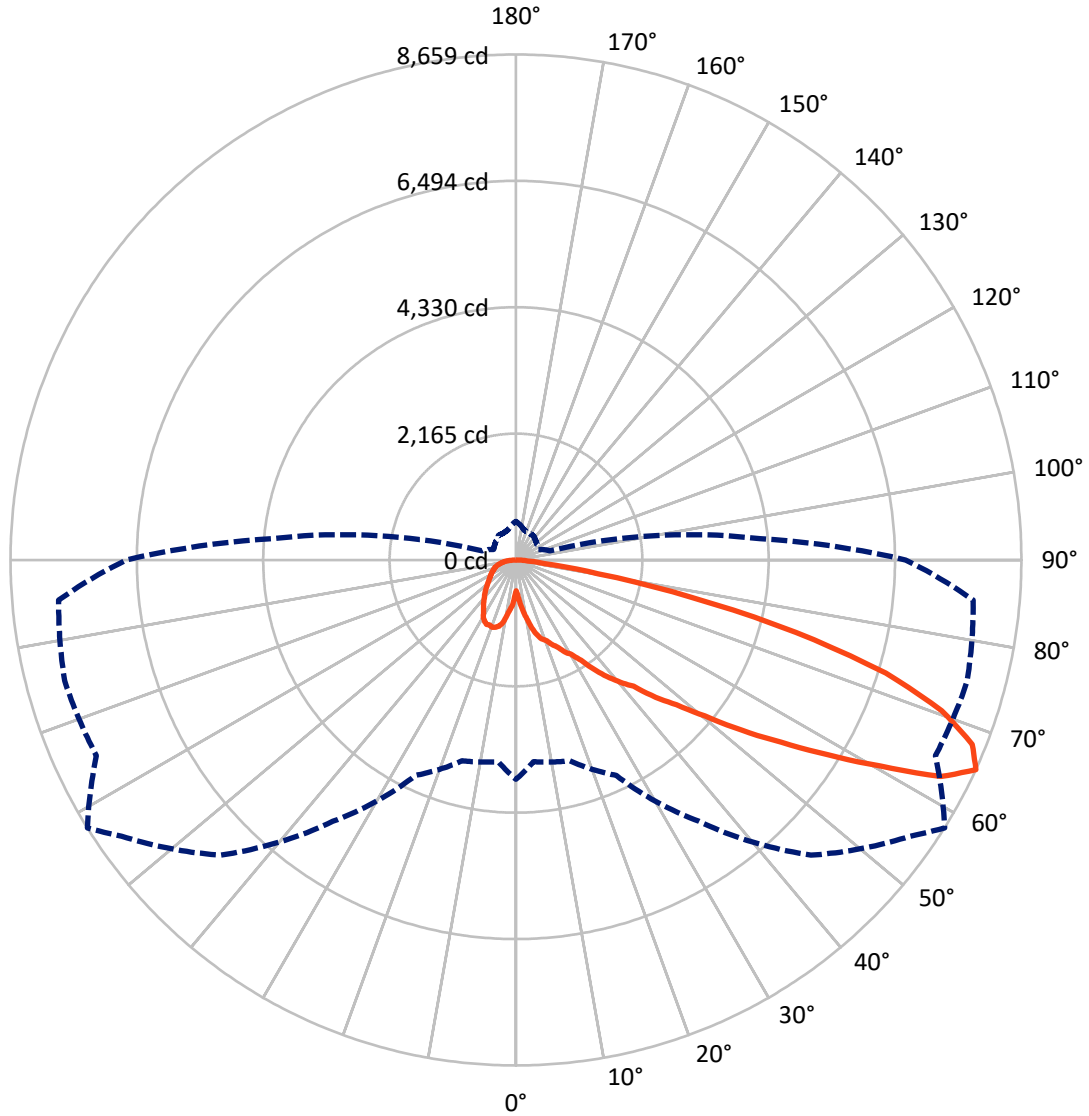
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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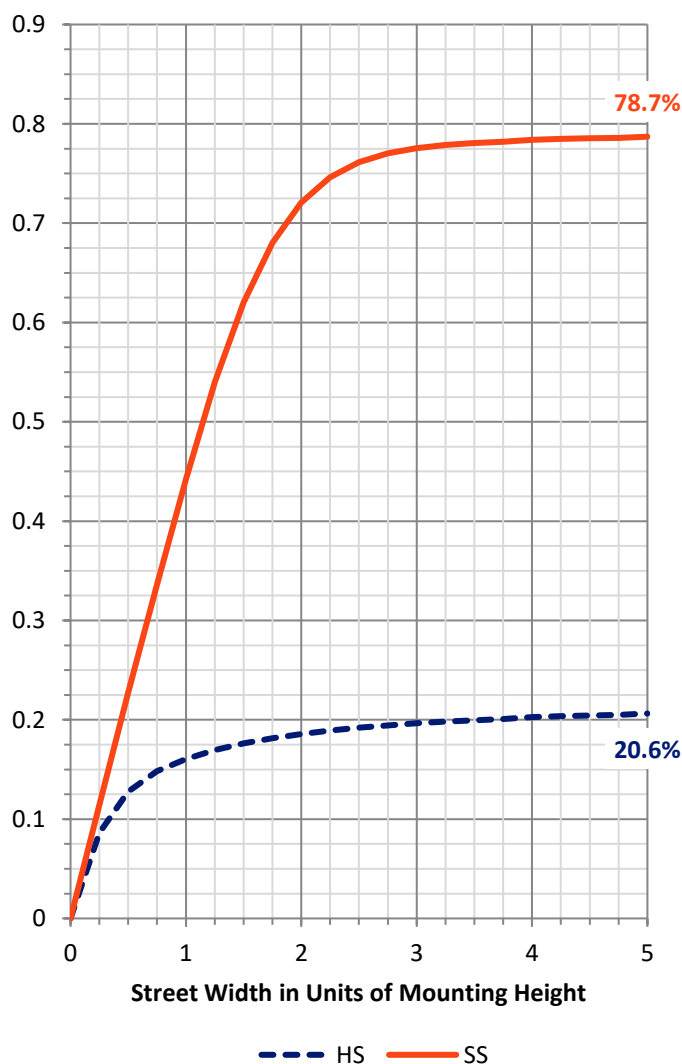
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2594.5	0.0	2594.5
	% Fixture	21.1	0.0	21.1
<b>Street Side</b>	Lumens	9723.5	0.0	9723.5
	% Fixture	78.9	0.0	78.9
<b>Total</b>	Lumens	12318.0	0.0	12318.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.6	0.7
10°-20°	351.5	2.9
20°-30°	674.6	5.5
30°-40°	1113.6	9.0
40°-50°	1851.0	15.0
50°-60°	3057.0	24.8
60°-70°	3429.3	27.8
70°-80°	1559.2	12.7
80°-90°	201.1	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°	12318.0	100.0
0°-180°	12318.0	100.0

**Coefficient of Utilization**



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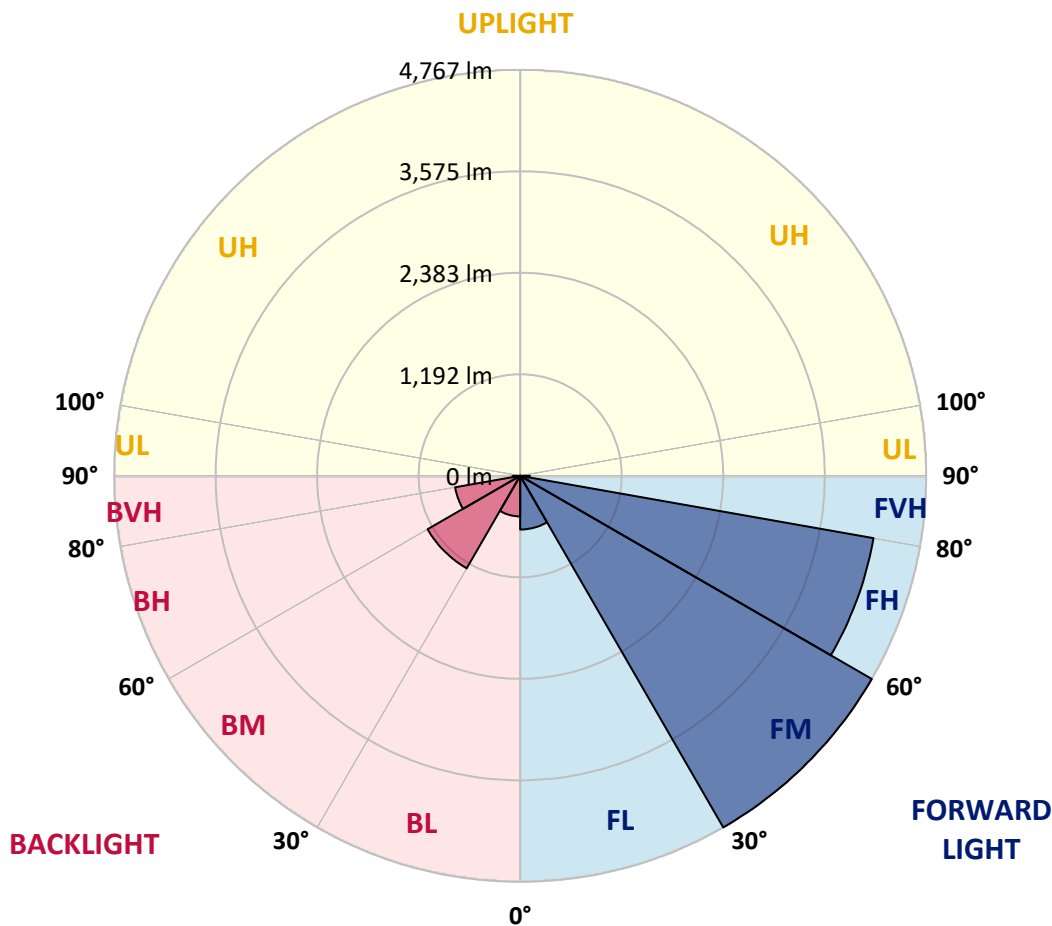
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	630.3	5.1			
FM (30°-60°)	4766.9	38.7			
FH (60°-80°)	4213.0	34.2			G2/5000
FVH (80°-90°)	113.2	0.9			G2/225
BL (0°-30°)	476.3	3.9	B1/500		
BM (30°-60°)	1254.8	10.2	B2/2500		
BH (60°-80°)	775.6	6.3	B2/1000		G2/1000
BVH (80°-90°)	87.9	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°	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9
2.5°	631.5	612.5	580.7	588.4	606.9	617.1	611.0	602.7	592.0	589.9	637.1
5°	817.7	781.3	766.4	760.2	737.7	724.3	747.4	744.3	756.6	779.2	825.4
7.5°	953.6	928.0	903.4	900.8	857.2	841.8	872.6	889.0	911.0	911.6	974.1
10°	1026.5	1004.4	1003.9	980.8	977.2	1006.5	1007.0	1019.3	1021.8	1048.0	1035.7
12.5°	1105.5	1103.9	1132.1	1131.6	1164.5	1212.7	1188.6	1188.6	1195.7	1163.9	1202.9
15°	1293.7	1310.1	1257.3	1266.0	1266.0	1313.2	1311.7	1320.9	1343.0	1334.8	1317.3
17.5°	1489.7	1499.9	1441.5	1387.1	1391.2	1380.9	1417.9	1421.5	1400.4	1495.8	1474.8
20°	1615.9	1655.9	1532.8	1464.5	1477.9	1489.7	1491.2	1469.2	1458.4	1605.1	1576.4
22.5°	1771.8	1738.0	1625.1	1549.7	1569.7	1553.8	1550.7	1567.7	1582.5	1637.9	1684.6
25°	1876.0	1873.4	1738.0	1655.4	1633.3	1628.7	1660.0	1653.3	1688.7	1789.3	1760.0
27.5°	2027.3	2074.5	1834.4	1854.9	1758.0	1655.9	1756.4	1786.7	1850.3	1833.9	1899.0
30°	2320.7	2285.3	2034.5	2028.8	1919.0	1833.4	1903.1	1877.5	1991.9	1988.3	2036.5
32.5°	2560.3	2584.9	2269.4	2210.4	2128.9	2025.7	1979.6	2050.9	2112.4	2213.5	2240.7
35°	2813.7	2808.0	2510.0	2391.0	2256.1	2213.5	2270.4	2300.2	2431.0	2523.8	2459.2
37.5°	3207.6	3163.0	2821.9	2596.7	2495.6	2480.2	2577.7	2534.6	2676.2	2698.3	2734.7
40°	3573.9	3439.5	3107.1	2849.1	2688.5	2746.0	2749.0	2754.7	2830.6	2890.6	3070.7
42.5°	3922.2	3827.8	3396.9	3203.0	2966.5	2910.6	2945.5	2957.3	3149.2	3271.8	3521.1
45°	4398.3	4145.4	3813.5	3614.4	3349.7	3278.4	3253.8	3355.4	3540.6	3819.6	4033.5
47.5°	4800.9	4572.7	4256.2	3994.0	3698.0	3901.7	3762.2	3705.2	3954.0	4299.8	4640.4
50°	5134.9	4883.5	4573.2	4421.9	4374.7	4556.3	4194.1	4200.8	4428.5	4916.4	5306.7
52.5°	5393.4	5125.1	4850.2	4773.2	5036.9	5141.6	4879.9	4840.4	5006.7	5583.2	6052.1
55°	5635.0	5350.3	5138.0	5294.9	5739.2	5751.0	5732.5	5513.5	5713.5	6297.8	6823.6
57.5°	5697.1	5390.4	5249.3	5474.5	6075.2	6542.5	6726.1	6296.3	6499.9	6947.8	7484.3
60°	5377.5	5114.9	5058.5	5364.2	6256.8	6940.1	7419.7	7162.7	7086.3	7469.5	7947.0
62.5°	4723.0	4418.3	4463.9	4888.7	6065.4	7097.5	7967.6	8168.1	7705.4	7884.4	8149.1
65°	3759.1	3468.2	3560.6	4071.5	5464.7	7149.9	8247.6	8659.0	7929.1	8001.9	7862.9
67.5°	2651.1	2386.9	2503.3	3164.0	4546.0	6479.9	8295.9	8430.3	7691.1	7666.9	7081.1
70°	1502.0	1336.3	1462.5	2013.4	3208.7	5162.1	7917.8	7740.8	7264.3	6922.6	5924.9
72.5°	688.9	632.0	692.5	1024.9	1847.2	3434.9	6464.0	6624.6	6259.3	5832.0	4507.5
75°	366.3	346.3	371.9	512.0	864.4	1868.8	4592.7	4953.8	4759.4	4423.4	2940.4
77.5°	272.4	257.0	269.3	331.9	461.7	731.0	2609.5	3065.0	3138.9	2829.6	1632.8
80°	208.8	196.5	208.8	250.8	319.6	347.3	1115.7	1428.6	1627.2	1314.8	648.9
82.5°	154.9	146.7	165.7	188.3	224.7	217.0	396.0	493.0	635.6	434.5	252.9
85°	123.1	112.9	120.0	127.7	143.6	119.0	181.1	202.6	214.4	179.5	93.4
87.5°	48.2	44.6	87.2	68.7	58.5	35.9	54.4	61.6	63.1	60.5	27.2
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°	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9	528.9
2.5°	642.2	637.1	606.9	616.6	632.5	635.6	642.2	623.8	614.5	648.4	649.9
5°	829.5	801.8	787.4	789.0	778.7	762.8	786.9	802.8	809.0	834.1	843.3
7.5°	974.7	941.3	917.2	889.5	850.5	825.4	867.4	898.2	914.6	967.0	987.5
10°	1039.3	1012.6	1007.5	972.6	971.6	971.1	969.0	958.2	993.6	988.5	1002.9
12.5°	1172.7	1167.0	1118.3	1104.4	1106.0	1104.4	1061.3	1059.3	1059.8	1107.0	1090.1
15°	1296.8	1297.8	1253.2	1202.9	1157.8	1143.9	1127.0	1119.3	1130.6	1157.3	1140.9
17.5°	1450.2	1455.3	1327.6	1248.1	1188.6	1187.0	1146.5	1098.8	1167.5	1183.9	1166.0
20°	1549.2	1527.6	1370.7	1237.3	1220.4	1174.2	1123.9	1058.3	1117.8	1157.8	1169.1
22.5°	1643.1	1605.6	1410.7	1256.3	1175.2	1120.3	1071.6	1029.0	1048.0	1092.6	1085.5
25°	1706.7	1696.4	1466.1	1301.9	1173.7	1051.6	985.9	958.8	968.5	1037.8	1031.1
27.5°	1858.5	1747.7	1456.3	1313.7	1124.4	957.7	924.9	895.7	885.9	960.8	981.3
30°	1960.1	1914.4	1521.5	1295.3	1062.4	880.8	832.6	826.4	829.5	914.6	920.3
32.5°	2132.4	2013.9	1628.2	1224.5	972.1	823.8	768.4	771.0	784.9	846.9	859.7
35°	2312.0	2241.2	1642.6	1173.7	898.7	763.3	740.7	722.8	730.5	784.9	787.4
37.5°	2645.4	2400.7	1730.8	1095.2	844.9	740.2	697.1	681.2	685.3	716.1	738.2
40°	2938.8	2721.3	1689.7	1019.3	778.2	709.4	655.6	643.8	631.5	661.7	675.6
42.5°	3409.2	2950.1	1675.9	935.7	746.9	667.9	631.0	599.7	587.9	613.5	638.7
45°	3879.6	3192.8	1600.5	851.0	702.8	664.8	595.1	565.3	568.4	591.5	617.1
47.5°	4403.9	3518.5	1472.8	769.0	654.6	649.9	559.1	546.3	555.6	581.2	606.9
50°	5023.6	3864.3	1367.1	695.1	620.2	605.3	554.5	539.1	547.9	578.1	603.3
52.5°	5701.2	4243.3	1290.1	626.9	581.2	569.9	560.7	545.8	556.1	582.2	608.4
55°	6374.8	4589.6	1237.8	580.2	547.9	555.0	573.5	562.7	567.9	587.4	613.5
57.5°	6874.4	4772.2	1132.7	530.4	520.7	546.3	575.0	557.1	560.2	587.4	615.6
60°	7164.7	4807.1	959.8	489.9	499.1	528.9	559.1	536.1	534.0	578.6	614.0
62.5°	7132.9	4604.5	761.3	453.0	474.5	502.7	535.0	513.0	518.6	579.7	617.1
65°	6677.4	4190.5	605.3	421.7	444.8	474.0	515.0	506.3	533.5	620.7	661.2
67.5°	5877.2	3585.7	486.3	392.4	417.0	454.5	528.9	552.0	563.8	662.8	704.3
70°	4763.0	2786.0	405.3	366.8	395.0	463.7	568.9	564.3	554.5	642.8	675.6
72.5°	3441.0	1909.8	356.5	341.6	367.8	436.0	569.9	545.3	533.0	586.8	610.4
75°	2153.0	1139.3	311.4	309.8	326.3	390.9	544.3	522.2	488.9	515.5	546.3
77.5°	1229.6	583.3	262.1	276.0	285.7	339.1	487.3	467.3	437.6	448.9	479.1
80°	469.4	282.1	221.1	245.2	242.6	287.3	412.9	408.3	374.5	378.1	396.5
82.5°	221.1	158.0	183.6	210.8	197.0	228.8	335.5	333.9	304.2	275.5	290.3
85°	82.1	84.1	134.4	160.6	137.0	147.7	242.6	236.0	207.2	174.9	193.4
87.5°	18.5	30.3	66.2	83.6	47.7	45.7	98.0	85.2	82.1	48.7	51.3
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)