

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: P597042

Luminaire Tested: **MSA-SA3B-835-U-T3**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597042  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3B-835-U-T3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12101 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

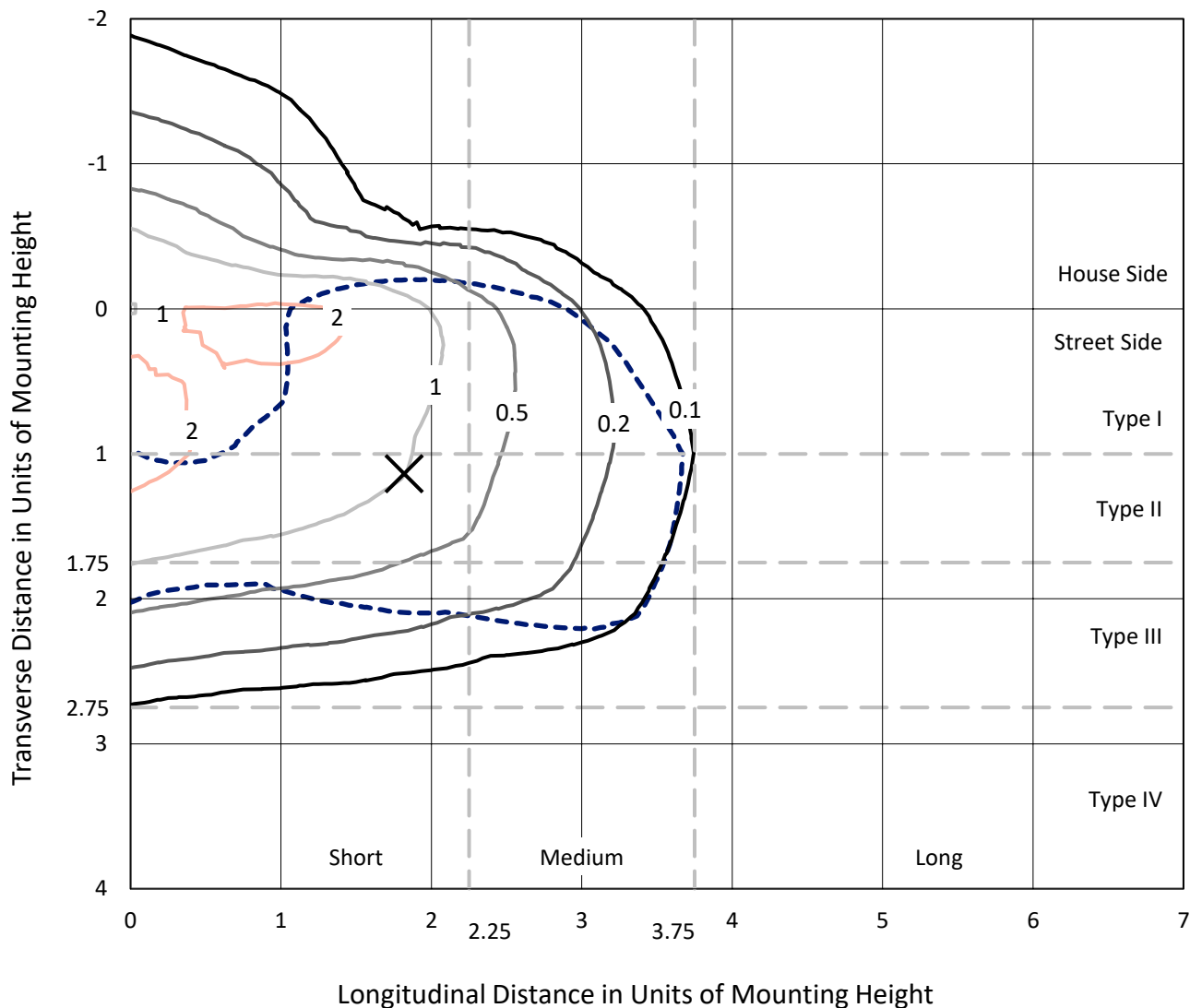
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

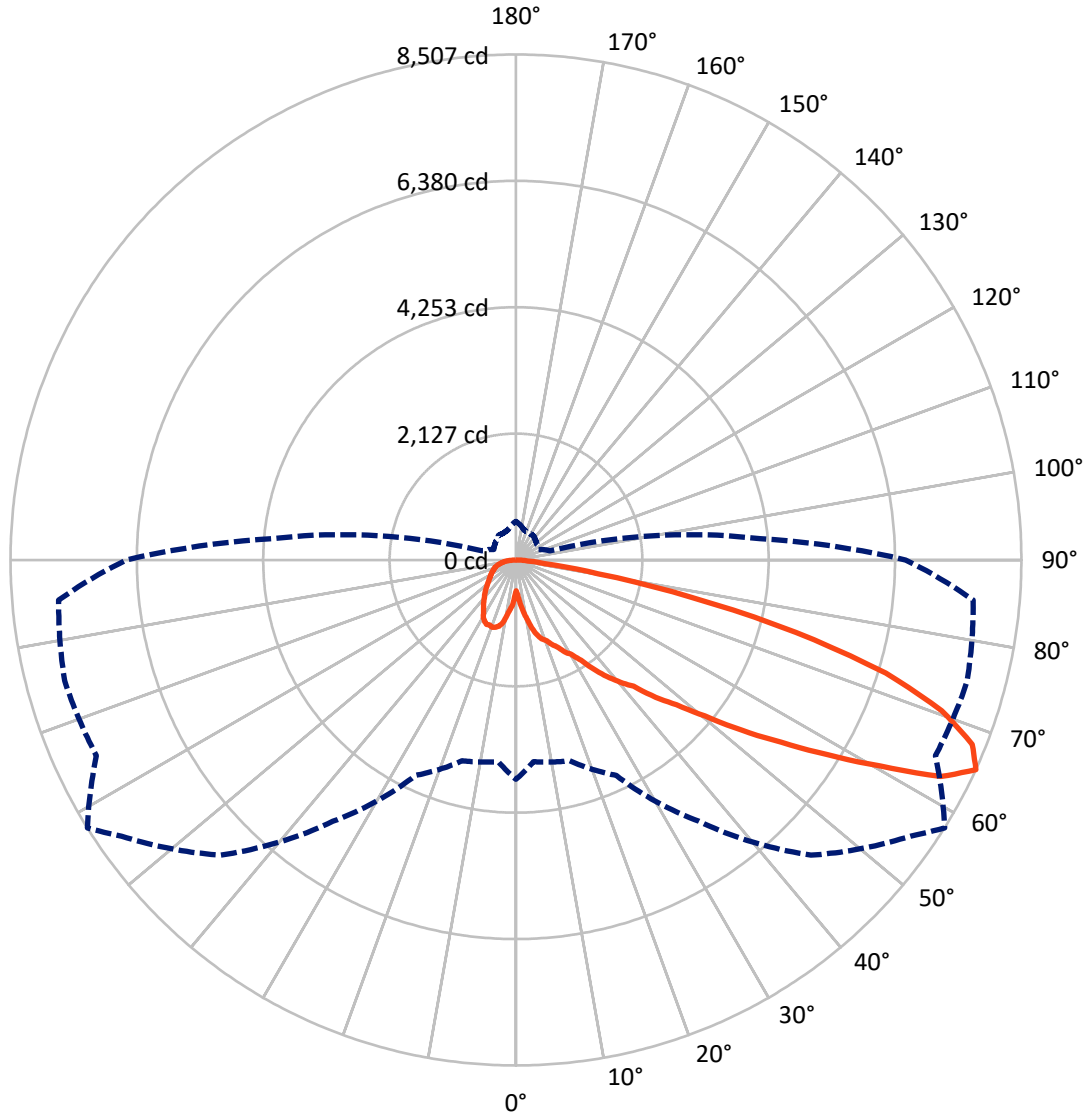
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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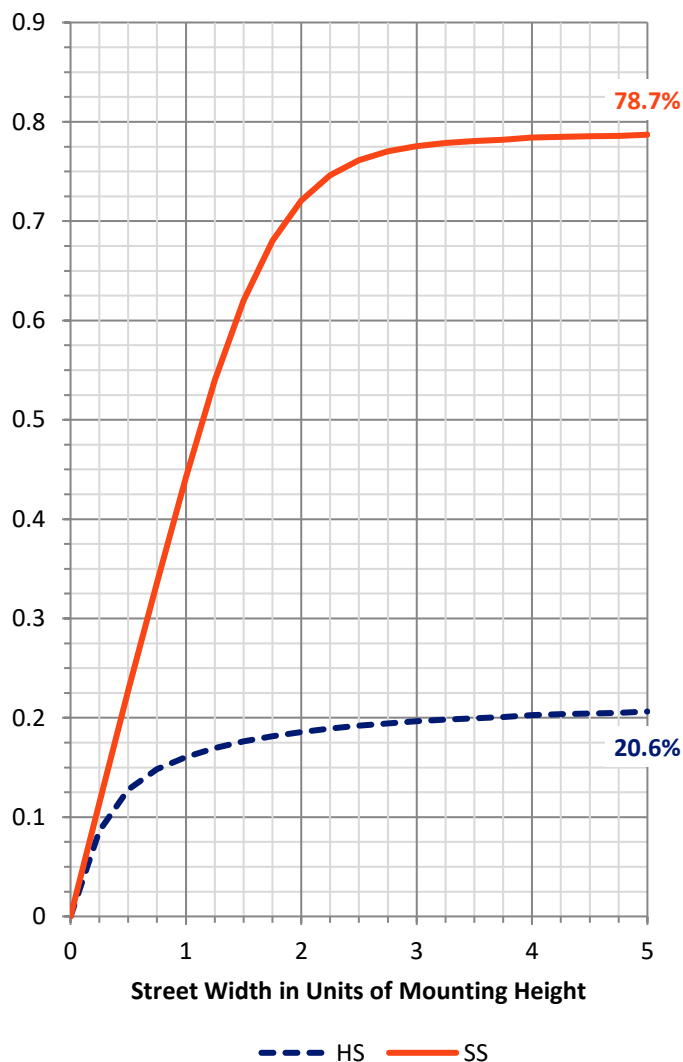
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2548.8	0.0	2548.8
	% Fixture	21.1	0.0	21.1
<b>Street Side</b>	Lumens	9552.2	0.0	9552.2
	% Fixture	78.9	0.0	78.9
<b>Total</b>	Lumens	12101.0	0.0	12101.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.2	0.7
10°-20°	345.3	2.9
20°-30°	662.7	5.5
30°-40°	1094.0	9.0
40°-50°	1818.4	15.0
50°-60°	3003.1	24.8
60°-70°	3368.9	27.8
70°-80°	1531.8	12.7
80°-90°	197.6	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°	12101.0	100.0
0°-180°	12101.0	100.0

**Coefficient of Utilization**



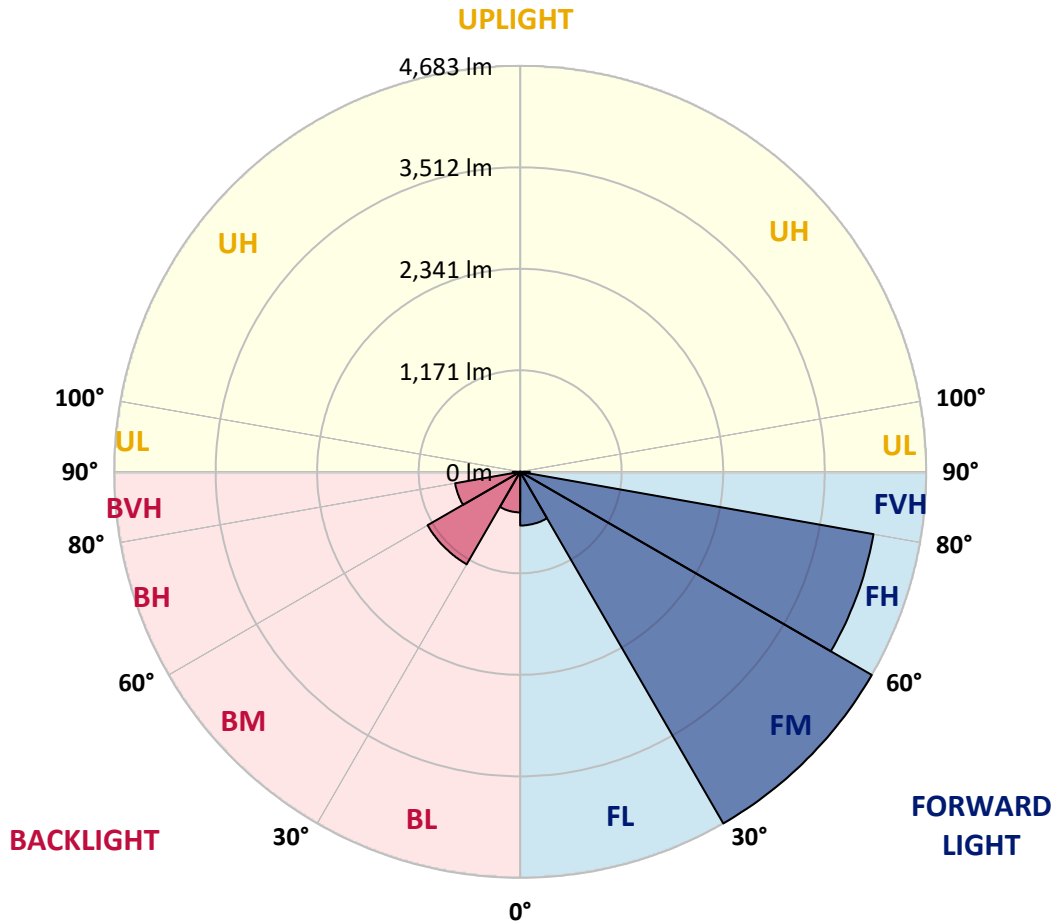
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	619.2	5.1			
FM (30°-60°)	4682.9	38.7			
FH (60°-80°)	4138.8	34.2			G2/5000
FVH (80°-90°)	111.2	0.9			G2/225
BL (0°-30°)	467.9	3.9	B1/500		
BM (30°-60°)	1232.7	10.2	B2/2500		
BH (60°-80°)	761.9	6.3	B2/1000		G2/1000
BVH (80°-90°)	86.3	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°	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6
2.5°	620.3	601.7	570.5	578.0	596.2	606.2	600.2	592.1	581.5	579.5	625.9
5°	803.3	767.5	752.9	746.8	724.7	711.6	734.2	731.2	743.3	765.5	810.8
7.5°	936.8	911.6	887.4	884.9	842.1	827.0	857.2	873.3	895.0	895.5	957.0
10°	1008.4	986.7	986.2	963.5	960.0	988.7	989.2	1001.3	1003.8	1029.5	1017.5
12.5°	1086.0	1084.5	1112.2	1111.7	1143.9	1191.3	1167.6	1167.6	1174.7	1143.4	1181.7
15°	1270.9	1287.1	1235.2	1243.7	1243.7	1290.1	1288.6	1297.6	1319.3	1311.3	1294.1
17.5°	1463.4	1473.5	1416.1	1362.7	1366.7	1356.6	1392.9	1396.4	1375.8	1469.5	1448.8
20°	1587.4	1626.7	1505.8	1438.7	1451.9	1463.4	1465.0	1443.3	1432.7	1576.8	1548.6
22.5°	1740.6	1707.3	1596.5	1522.4	1542.1	1526.4	1523.4	1540.0	1554.7	1609.1	1654.9
25°	1842.9	1840.4	1707.3	1626.2	1604.5	1600.0	1630.7	1624.2	1659.0	1757.7	1729.0
27.5°	1991.6	2037.9	1802.1	1822.2	1727.0	1626.7	1725.5	1755.2	1817.7	1801.6	1865.6
30°	2279.8	2245.1	1998.6	1993.1	1885.2	1801.1	1869.6	1844.4	1956.8	1953.3	2000.6
32.5°	2515.2	2539.4	2229.4	2171.5	2091.3	1990.1	1944.7	2014.8	2075.2	2174.5	2201.2
35°	2764.1	2758.6	2465.8	2348.9	2216.3	2174.5	2230.4	2259.7	2388.2	2479.4	2415.9
37.5°	3151.1	3107.3	2772.2	2550.9	2451.7	2436.5	2532.3	2490.0	2629.1	2650.7	2686.5
40°	3510.9	3378.9	3052.4	2798.9	2641.1	2697.6	2700.6	2706.2	2780.7	2839.7	3016.6
42.5°	3853.1	3760.4	3337.1	3146.6	2914.3	2859.4	2893.6	2905.2	3093.7	3214.1	3459.0
45°	4320.8	4072.3	3746.3	3550.8	3290.7	3220.7	3196.5	3296.3	3478.2	3752.3	3962.5
47.5°	4716.4	4492.1	4181.2	3923.7	3632.9	3833.0	3695.9	3640.0	3884.4	4224.0	4558.6
50°	5044.4	4797.5	4492.6	4344.0	4297.6	4476.0	4120.2	4126.8	4350.5	4829.8	5213.3
52.5°	5298.4	5034.9	4764.7	4689.2	4948.2	5051.0	4794.0	4755.2	4918.5	5484.9	5945.5
55°	5535.8	5256.1	5047.5	5201.7	5638.1	5649.7	5631.5	5416.3	5612.9	6186.9	6703.4
57.5°	5596.8	5295.4	5156.8	5378.0	5968.2	6427.2	6607.7	6185.4	6385.4	6825.4	7352.5
60°	5282.8	5024.8	4969.3	5269.7	6146.6	6817.8	7289.0	7036.5	6961.4	7337.9	7807.0
62.5°	4639.8	4340.4	4385.3	4802.5	5958.6	6972.5	7827.2	8024.2	7569.7	7745.6	8005.6
65°	3692.9	3407.1	3497.8	3999.8	5368.5	7023.9	8102.3	8506.5	7789.4	7861.0	7724.4
67.5°	2604.4	2344.8	2459.2	3108.3	4465.9	6365.8	8149.7	8281.7	7555.6	7531.9	6956.4
70°	1475.5	1312.8	1436.7	1978.0	3152.1	5071.1	7778.3	7604.4	7136.3	6800.7	5820.5
72.5°	676.8	620.9	680.3	1006.9	1814.7	3374.4	6350.1	6507.9	6149.1	5729.3	4428.1
75°	359.8	340.2	365.4	502.9	849.1	1835.9	4511.8	4866.5	4675.6	4345.5	2888.6
77.5°	267.6	252.5	264.6	326.0	453.5	718.1	2563.5	3011.0	3083.6	2779.7	1604.0
80°	205.1	193.0	205.1	246.4	314.0	341.2	1096.1	1403.5	1598.5	1291.6	637.5
82.5°	152.2	144.1	162.8	184.9	220.7	213.2	389.0	484.3	624.4	426.8	248.4
85°	120.9	110.9	117.9	125.5	141.1	116.9	177.9	199.1	210.6	176.4	91.7
87.5°	47.4	43.8	85.7	67.5	57.4	35.3	53.4	60.5	62.0	59.5	26.7
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°	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6	519.6
2.5°	630.9	625.9	596.2	605.7	621.4	624.4	630.9	612.8	603.7	637.0	638.5
5°	814.9	787.7	773.5	775.1	765.0	749.4	773.0	788.7	794.7	819.4	828.5
7.5°	957.5	924.7	901.0	873.8	835.5	810.8	852.2	882.4	898.5	949.9	970.1
10°	1021.0	994.8	989.7	955.5	954.5	954.0	951.9	941.4	976.1	971.1	985.2
12.5°	1152.0	1146.5	1098.6	1085.0	1086.5	1085.0	1042.7	1040.6	1041.1	1087.5	1070.9
15°	1274.0	1275.0	1231.1	1181.7	1137.4	1123.8	1107.2	1099.6	1110.7	1136.9	1120.8
17.5°	1424.6	1429.7	1304.2	1226.1	1167.6	1166.1	1126.3	1079.4	1147.0	1163.1	1145.5
20°	1521.9	1500.7	1346.5	1215.5	1198.9	1153.5	1104.1	1039.6	1098.1	1137.4	1148.5
22.5°	1614.1	1577.3	1385.8	1234.1	1154.5	1100.6	1052.7	1010.9	1029.5	1073.4	1066.3
25°	1676.6	1666.5	1440.3	1279.0	1153.0	1033.1	968.6	941.9	951.4	1019.5	1012.9
27.5°	1825.8	1716.9	1430.7	1290.6	1104.6	940.9	908.6	879.9	870.3	943.9	964.0
30°	1925.6	1880.7	1494.7	1272.4	1043.7	865.3	817.9	811.8	814.9	898.5	904.1
32.5°	2094.9	1978.5	1599.5	1202.9	955.0	809.3	754.9	757.4	771.0	832.0	844.6
35°	2271.3	2201.7	1613.6	1153.0	882.9	749.9	727.7	710.1	717.6	771.0	773.5
37.5°	2598.8	2358.4	1700.3	1075.9	830.0	727.2	684.9	669.2	673.3	703.5	725.2
40°	2887.1	2673.4	1660.0	1001.3	764.5	696.9	644.0	632.4	620.3	650.1	663.7
42.5°	3349.2	2898.2	1646.4	919.2	733.7	656.1	619.8	589.1	577.5	602.7	627.4
45°	3811.3	3136.5	1572.3	836.0	690.4	653.1	584.6	555.3	558.4	581.0	606.2
47.5°	4326.3	3456.5	1446.8	755.4	643.0	638.5	549.3	536.7	545.8	571.0	596.2
50°	4935.1	3796.2	1343.0	682.8	609.3	594.6	544.8	529.6	538.2	567.9	592.6
52.5°	5600.8	4168.6	1267.4	615.8	571.0	559.9	550.8	536.2	546.3	572.0	597.7
55°	6262.5	4508.7	1216.0	570.0	538.2	545.3	563.4	552.8	557.9	577.0	602.7
57.5°	6753.3	4688.2	1112.7	521.1	511.5	536.7	564.9	547.3	550.3	577.0	604.7
60°	7038.5	4722.4	942.9	481.3	490.3	519.6	549.3	526.6	524.6	568.4	603.2
62.5°	7007.3	4523.4	747.8	445.0	466.1	493.9	525.6	503.9	509.5	569.5	606.2
65°	6559.8	4116.7	594.6	414.2	436.9	465.6	506.0	497.4	524.1	609.8	649.6
67.5°	5773.6	3522.5	477.7	385.5	409.7	446.5	519.6	542.2	553.8	651.1	691.9
70°	4679.1	2736.9	398.1	360.3	388.0	455.6	558.9	554.3	544.8	631.4	663.7
72.5°	3380.4	1876.2	350.2	335.6	361.3	428.3	559.9	535.7	523.6	576.5	599.7
75°	2115.0	1119.2	305.9	304.4	320.5	384.0	534.7	513.0	480.3	506.5	536.7
77.5°	1207.9	573.0	257.5	271.1	280.7	333.1	478.7	459.1	429.9	440.9	470.7
80°	461.1	277.2	217.2	240.9	238.4	282.2	405.7	401.1	367.9	371.4	389.5
82.5°	217.2	155.2	180.4	207.1	193.5	224.8	329.6	328.1	298.8	270.6	285.2
85°	80.6	82.6	132.0	157.7	134.6	145.1	238.4	231.8	203.6	171.8	190.0
87.5°	18.1	29.7	65.0	82.1	46.9	44.9	96.3	83.7	80.6	47.9	50.4
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)