

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: P367804

Luminaire Tested: **MSA-SA3B-727-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367804
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-SA3B-727-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: 12276 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

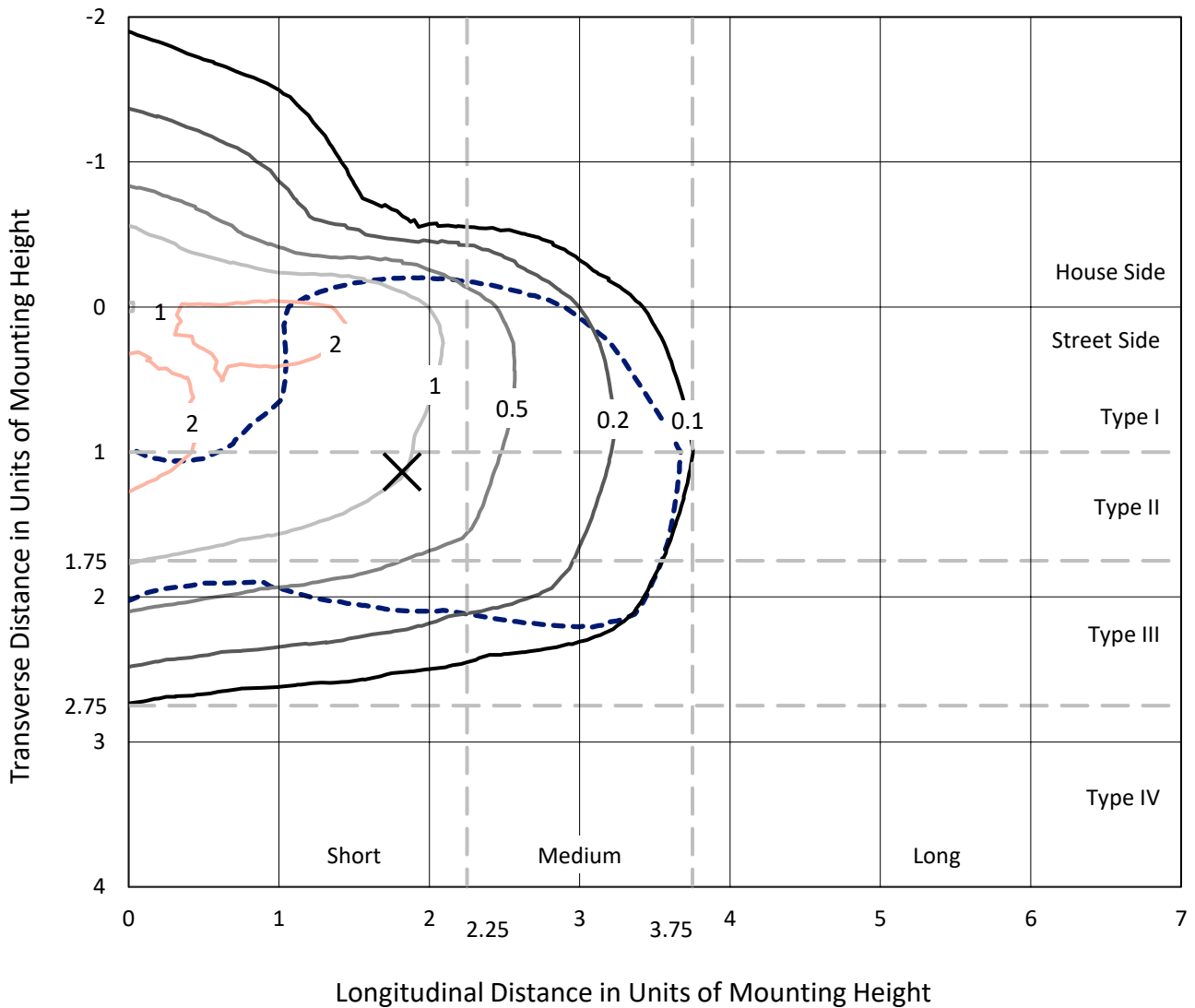
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

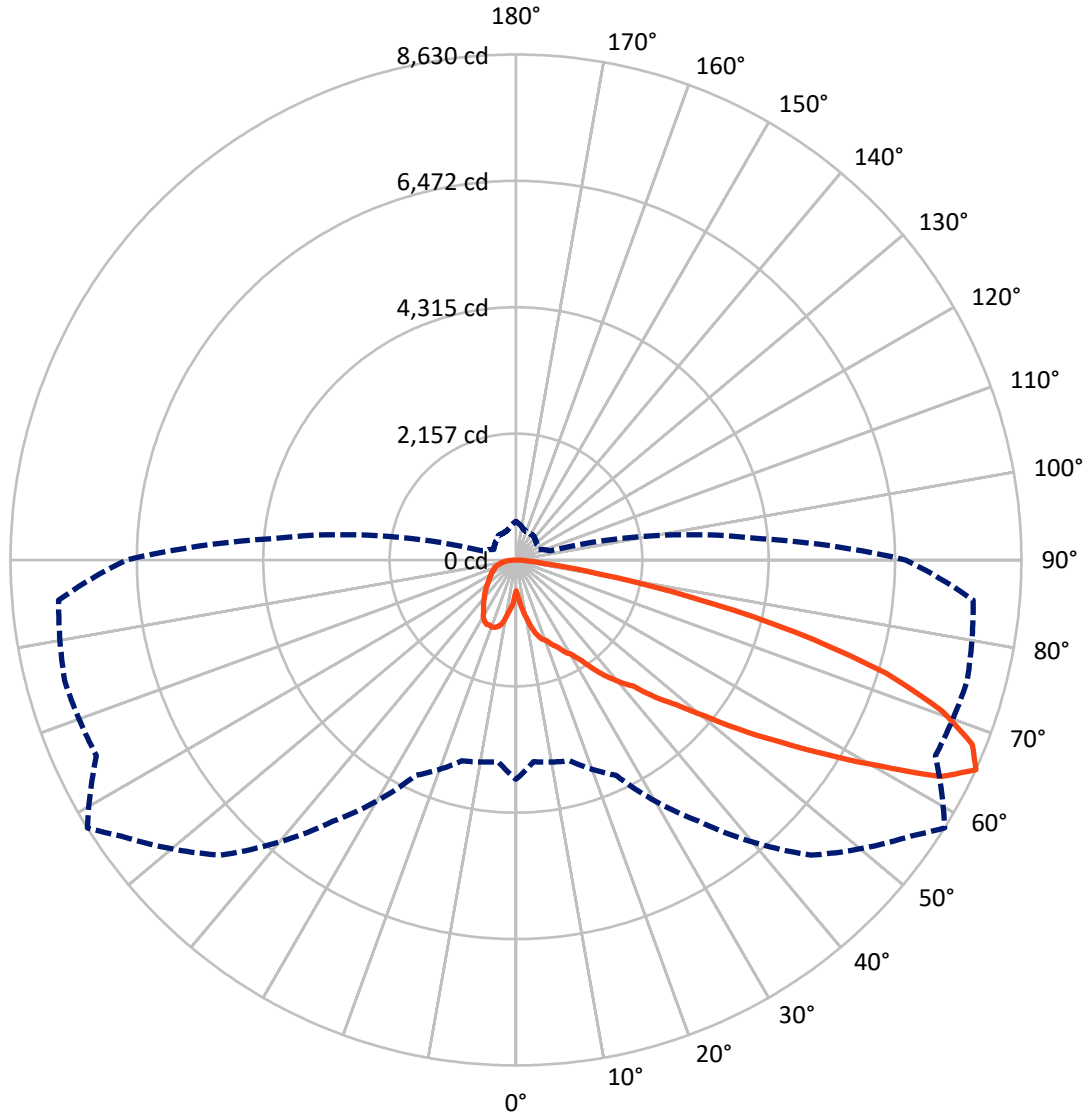
✕ Max cd
 - - - 1/2 Max cd



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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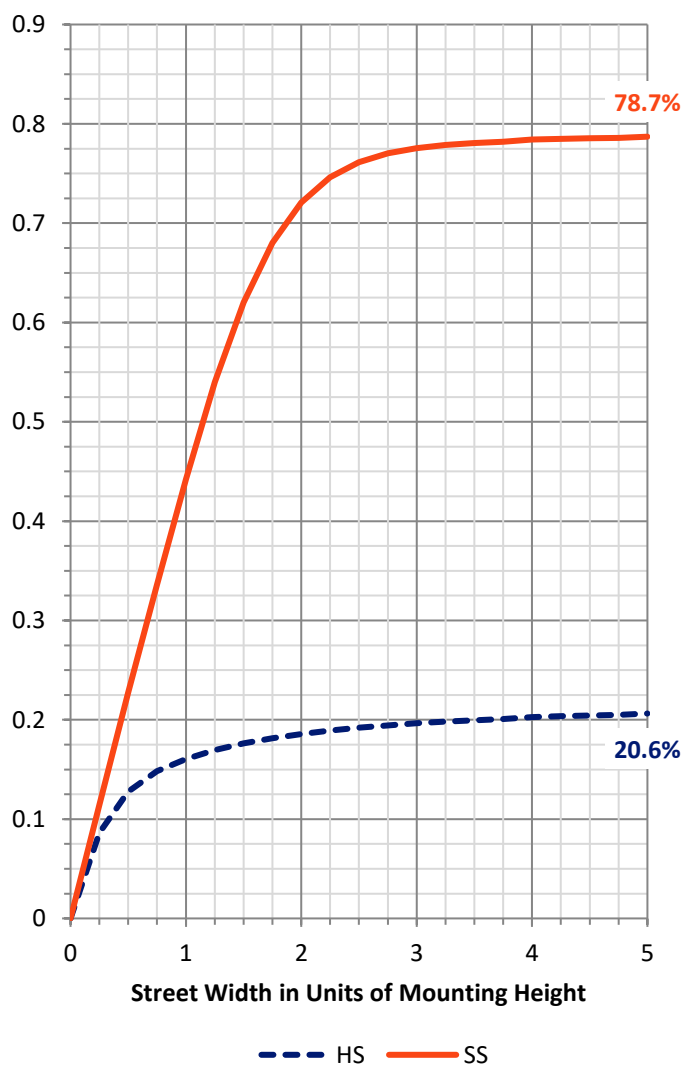
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2585.7	0.0	2585.7
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	9690.3	0.0	9690.3
	% Fixture	78.9	0.0	78.9
Total	Lumens	12276.0	0.0	12276.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	0.7
10°-20°	350.3	2.9
20°-30°	672.3	5.5
30°-40°	1109.9	9.0
40°-50°	1844.7	15.0
50°-60°	3046.5	24.8
60°-70°	3417.6	27.8
70°-80°	1553.9	12.7
80°-90°	200.4	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°	12276.0	100.0
0°-180°	12276.0	100.0

Coefficient of Utilization



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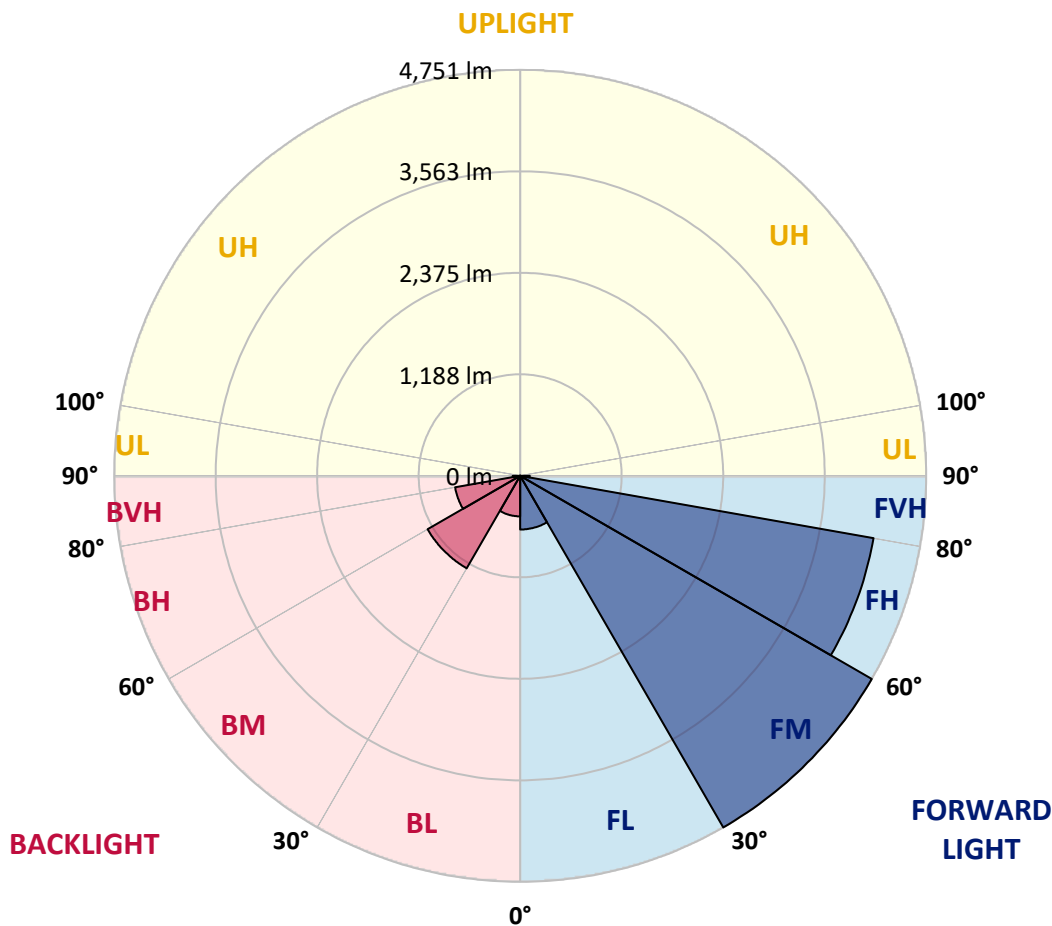
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	628.2	5.1			
FM (30°-60°)	4750.6	38.7			
FH (60°-80°)	4198.6	34.2			G2/5000
FVH (80°-90°)	112.9	0.9			G2/225
BL (0°-30°)	474.7	3.9	B1/500		
BM (30°-60°)	1250.5	10.2	B2/2500		
BH (60°-80°)	772.9	6.3	B2/1000		G2/1000
BVH (80°-90°)	87.6	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°	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1
2.5°	629.3	610.4	578.7	586.4	604.8	615.0	608.9	600.7	590.0	587.9	634.9
5°	814.9	778.6	763.8	757.6	735.1	721.9	744.9	741.8	754.1	776.6	822.6
7.5°	950.4	924.8	900.3	897.7	854.3	838.9	869.6	886.0	907.9	908.5	970.8
10°	1023.0	1001.0	1000.5	977.5	973.9	1003.0	1003.5	1015.8	1018.4	1044.4	1032.2
12.5°	1101.7	1100.2	1128.3	1127.8	1160.5	1208.5	1184.5	1184.5	1191.7	1160.0	1198.8
15°	1289.3	1305.7	1253.0	1261.7	1261.7	1308.7	1307.2	1316.4	1338.4	1330.2	1312.8
17.5°	1484.6	1494.8	1436.5	1382.4	1386.4	1376.2	1413.0	1416.6	1395.7	1490.7	1469.8
20°	1610.4	1650.2	1527.5	1459.6	1472.8	1484.6	1486.1	1464.2	1453.4	1599.6	1571.0
22.5°	1765.8	1732.0	1619.6	1544.4	1564.4	1548.5	1545.4	1562.3	1577.1	1632.3	1678.9
25°	1869.6	1867.0	1732.0	1649.7	1627.7	1623.1	1654.3	1647.7	1683.0	1783.2	1754.0
27.5°	2020.4	2067.4	1828.1	1848.6	1752.0	1650.2	1750.4	1780.6	1844.0	1827.6	1892.6
30°	2312.8	2277.5	2027.5	2021.9	1912.5	1827.1	1896.7	1871.1	1985.1	1981.5	2029.6
32.5°	2551.5	2576.1	2261.7	2202.9	2121.6	2018.8	1972.8	2043.9	2105.2	2205.9	2233.0
35°	2804.1	2798.5	2501.4	2382.8	2248.4	2205.9	2262.7	2292.3	2422.7	2515.2	2450.8
37.5°	3196.7	3152.2	2812.3	2587.8	2487.1	2471.8	2568.9	2526.0	2667.1	2689.1	2725.4
40°	3561.7	3427.8	3096.5	2839.4	2679.3	2736.6	2739.7	2745.3	2821.0	2880.8	3060.2
42.5°	3908.8	3814.8	3385.3	3192.1	2956.4	2900.7	2935.5	2947.2	3138.4	3260.6	3509.1
45°	4383.3	4131.2	3800.5	3602.1	3338.3	3267.3	3242.7	3343.9	3528.5	3806.6	4019.8
47.5°	4784.6	4557.1	4241.7	3980.4	3685.4	3888.4	3749.3	3692.6	3940.5	4285.1	4624.6
50°	5117.4	4866.9	4557.6	4406.8	4359.7	4540.7	4179.8	4186.4	4413.4	4899.6	5288.6
52.5°	5375.0	5107.7	4833.7	4757.0	5019.7	5124.0	4863.3	4823.9	4989.6	5564.2	6031.5
55°	5615.8	5332.1	5120.5	5276.9	5719.6	5731.4	5713.0	5494.7	5694.1	6276.3	6800.3
57.5°	5677.7	5372.0	5231.4	5455.8	6054.5	6520.2	6703.2	6274.8	6477.8	6924.1	7458.8
60°	5359.2	5097.4	5041.2	5345.9	6235.4	6916.4	7394.4	7138.3	7062.1	7444.0	7919.9
62.5°	4706.9	4403.2	4448.7	4872.0	6044.8	7073.3	7940.4	8140.3	7679.1	7857.6	8121.4
65°	3746.3	3456.4	3548.4	4057.6	5446.1	7125.5	8219.5	8629.5	7902.0	7974.6	7836.1
67.5°	2642.0	2378.7	2494.8	3153.3	4530.5	6457.8	8267.6	8401.5	7664.8	7640.8	7057.0
70°	1496.9	1331.7	1457.5	2006.6	3197.7	5144.5	7890.8	7714.4	7239.5	6899.0	5904.7
72.5°	686.6	629.8	690.2	1021.4	1840.9	3423.2	6442.0	6602.0	6238.0	5812.1	4492.2
75°	365.0	345.1	370.6	510.2	861.4	1862.4	4577.0	4936.9	4743.2	4408.3	2930.4
77.5°	271.5	256.1	268.4	330.8	460.1	728.5	2600.6	3054.6	3128.2	2819.9	1627.2
80°	208.1	195.8	208.1	250.0	318.5	346.1	1111.9	1423.8	1621.6	1310.3	646.7
82.5°	154.4	146.2	165.1	187.6	223.9	216.2	394.7	491.3	633.4	433.0	252.0
85°	122.7	112.5	119.6	127.3	143.1	118.6	180.5	201.9	213.7	178.9	93.0
87.5°	48.1	44.5	86.9	68.5	58.3	35.8	54.2	61.3	62.9	60.3	27.1
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°	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1	527.1
2.5°	640.1	634.9	604.8	614.5	630.3	633.4	640.1	621.7	612.5	646.2	647.7
5°	826.7	799.0	784.7	786.3	776.0	760.2	784.2	800.1	806.2	831.3	840.5
7.5°	971.3	938.1	914.1	886.5	847.6	822.6	864.5	895.2	911.5	963.7	984.1
10°	1035.7	1009.2	1004.1	969.3	968.3	967.8	965.7	955.0	990.2	985.1	999.4
12.5°	1168.7	1163.0	1114.5	1100.7	1102.2	1100.7	1057.7	1055.7	1056.2	1103.2	1086.4
15°	1292.4	1293.4	1248.9	1198.8	1153.8	1140.0	1123.2	1115.5	1126.7	1153.3	1137.0
17.5°	1445.2	1450.4	1323.1	1243.8	1184.5	1183.0	1142.6	1095.0	1163.6	1179.9	1162.0
20°	1543.9	1522.4	1366.0	1233.1	1216.2	1170.2	1120.1	1054.7	1114.0	1153.8	1165.1
22.5°	1637.5	1600.1	1405.9	1252.0	1171.2	1116.5	1068.0	1025.5	1044.4	1088.9	1081.8
25°	1700.9	1690.6	1461.1	1297.5	1169.7	1048.0	982.6	955.5	965.2	1034.2	1027.6
27.5°	1852.2	1741.8	1451.4	1309.3	1120.6	954.5	921.7	892.6	882.9	957.5	978.0
30°	1953.4	1907.9	1516.3	1290.8	1058.8	877.8	829.7	823.6	826.7	911.5	917.1
32.5°	2125.2	2007.1	1622.6	1220.3	968.8	821.0	765.8	768.4	782.2	844.0	856.8
35°	2304.1	2233.6	1637.0	1169.7	895.7	760.7	738.2	720.3	728.0	782.2	784.7
37.5°	2636.4	2392.5	1724.9	1091.5	842.0	737.7	694.8	678.9	683.0	713.7	735.7
40°	2928.8	2712.1	1684.0	1015.8	775.5	707.0	653.3	641.6	629.3	659.5	673.3
42.5°	3397.6	2940.1	1670.2	932.5	744.3	665.6	628.8	597.6	585.9	611.4	636.5
45°	3866.4	3181.9	1595.0	848.1	700.4	662.6	593.0	563.4	566.4	589.4	615.0
47.5°	4388.9	3506.5	1467.7	766.3	652.3	647.7	557.2	544.5	553.7	579.2	604.8
50°	5006.5	3851.1	1362.4	692.7	618.1	603.2	552.6	537.3	546.0	576.2	601.2
52.5°	5681.8	4228.9	1285.7	624.7	579.2	568.0	558.8	543.9	554.2	580.2	606.3
55°	6353.0	4574.0	1233.6	578.2	546.0	553.1	571.6	560.8	565.9	585.4	611.4
57.5°	6851.0	4755.9	1128.8	528.6	518.9	544.5	573.1	555.2	558.3	585.4	613.5
60°	7140.3	4790.7	956.5	488.2	497.4	527.1	557.2	534.2	532.2	576.7	611.9
62.5°	7108.6	4588.8	758.7	451.4	472.9	501.0	533.2	511.2	516.9	577.7	615.0
65°	6654.6	4176.2	603.2	420.2	443.2	472.4	513.3	504.6	531.7	618.6	659.0
67.5°	5857.1	3573.5	484.6	391.1	415.6	452.9	527.1	550.1	561.8	660.5	701.9
70°	4746.7	2776.5	403.9	365.5	393.6	462.1	567.0	562.4	552.6	640.6	673.3
72.5°	3429.3	1903.3	355.3	340.5	366.6	434.5	568.0	543.4	531.2	584.8	608.4
75°	2145.6	1135.4	310.3	308.8	325.1	389.6	542.4	520.4	487.2	513.8	544.5
77.5°	1225.4	581.3	261.2	275.0	284.8	337.9	485.7	465.7	436.1	447.3	477.5
80°	467.8	281.2	220.3	244.4	241.8	286.3	411.5	406.9	373.2	376.8	395.2
82.5°	220.3	157.5	183.0	210.1	196.3	228.0	334.3	332.8	303.2	274.5	289.4
85°	81.8	83.8	133.9	160.0	136.5	147.2	241.8	235.2	206.5	174.3	192.7
87.5°	18.4	30.2	65.9	83.3	47.5	45.5	97.6	84.9	81.8	48.6	51.1
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)