

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: P367914

Luminaire Tested: **MSA-SA3B-830-U-T3**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367914  
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-830-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: 11665 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

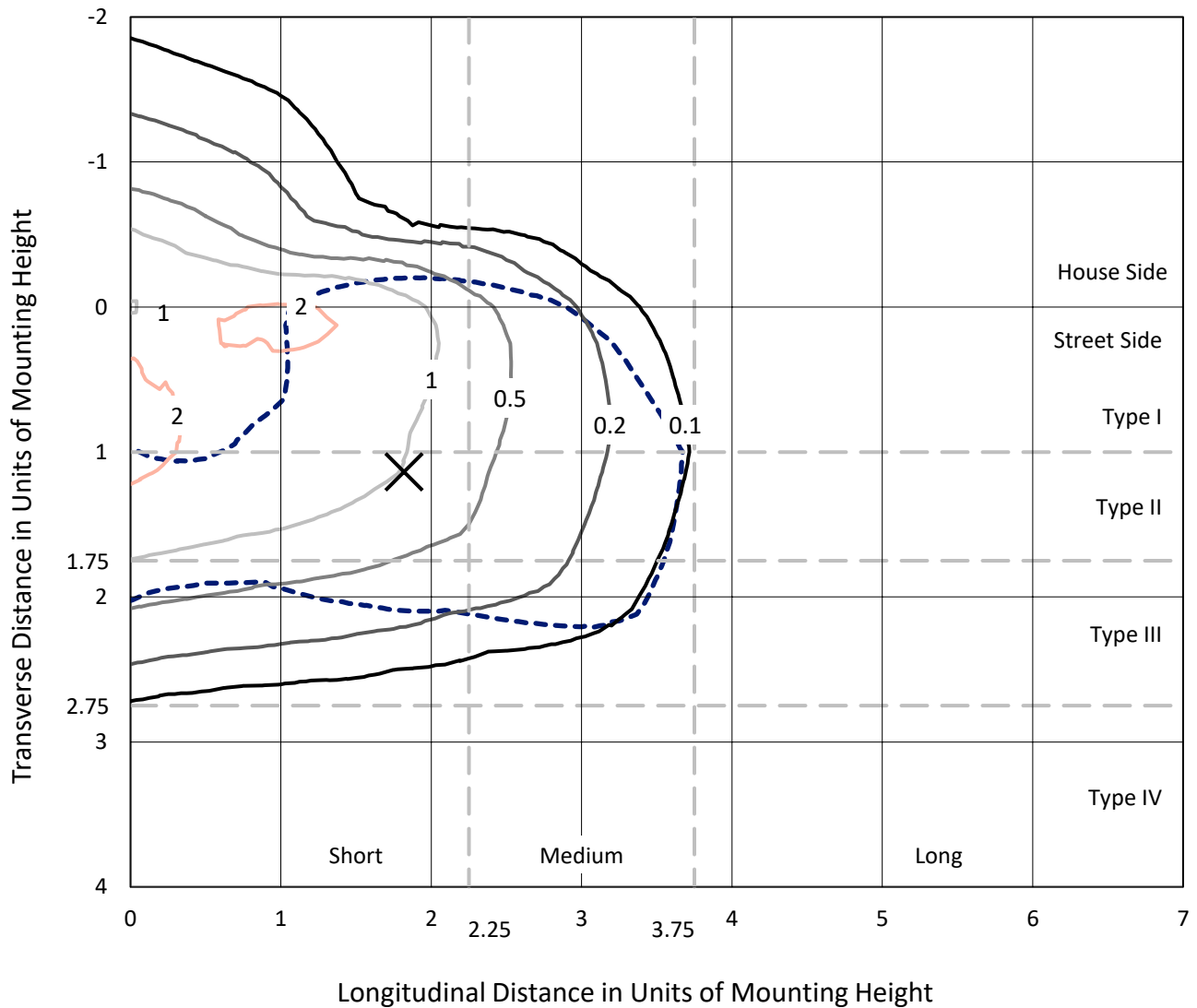
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

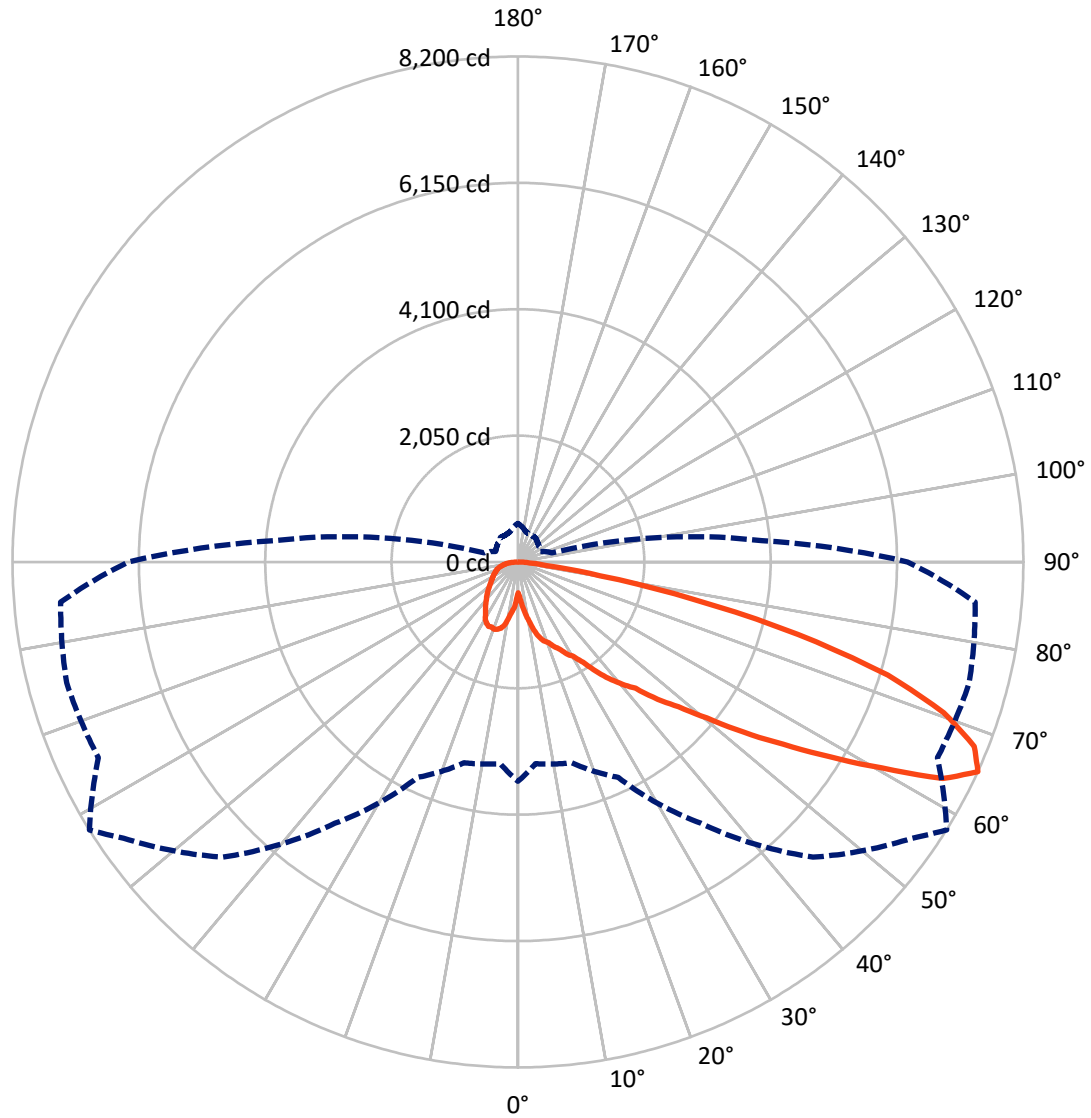
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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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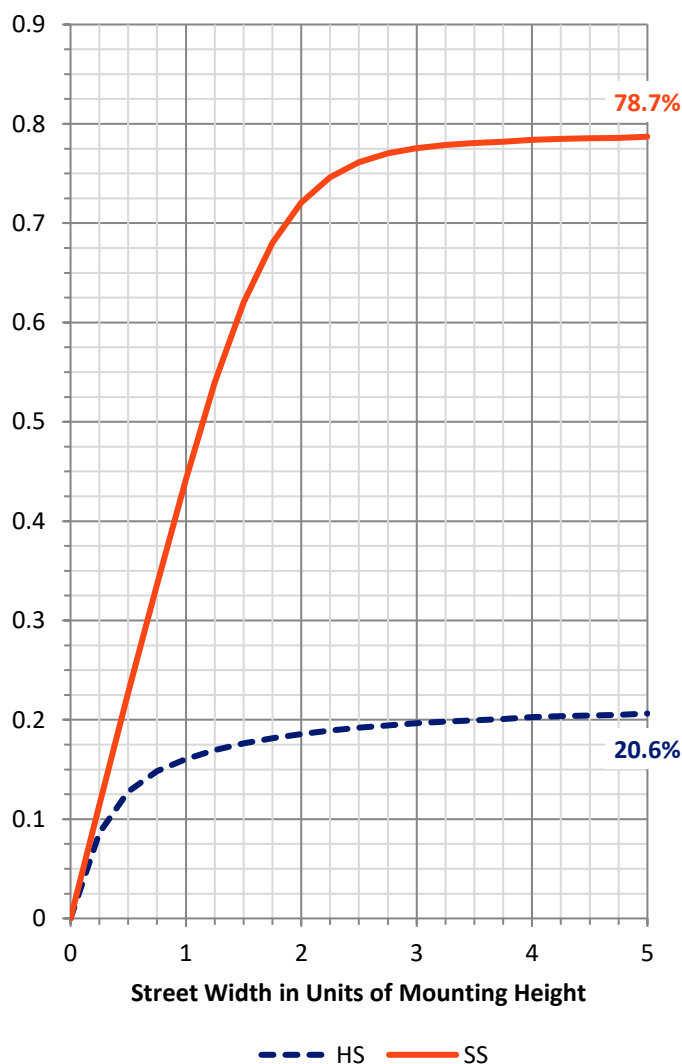
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2457.0	0.0	2457.0
	% Fixture	21.1	0.0	21.1
<b>Street Side</b>	Lumens	9208.0	0.0	9208.0
	% Fixture	78.9	0.0	78.9
<b>Total</b>	Lumens	11665.0	0.0	11665.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.3	0.7
10°-20°	332.9	2.9
20°-30°	638.8	5.5
30°-40°	1054.6	9.0
40°-50°	1752.9	15.0
50°-60°	2894.9	24.8
60°-70°	3247.5	27.8
70°-80°	1476.6	12.7
80°-90°	190.4	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°	11665.0	100.0
0°-180°	11665.0	100.0

**Coefficient of Utilization**

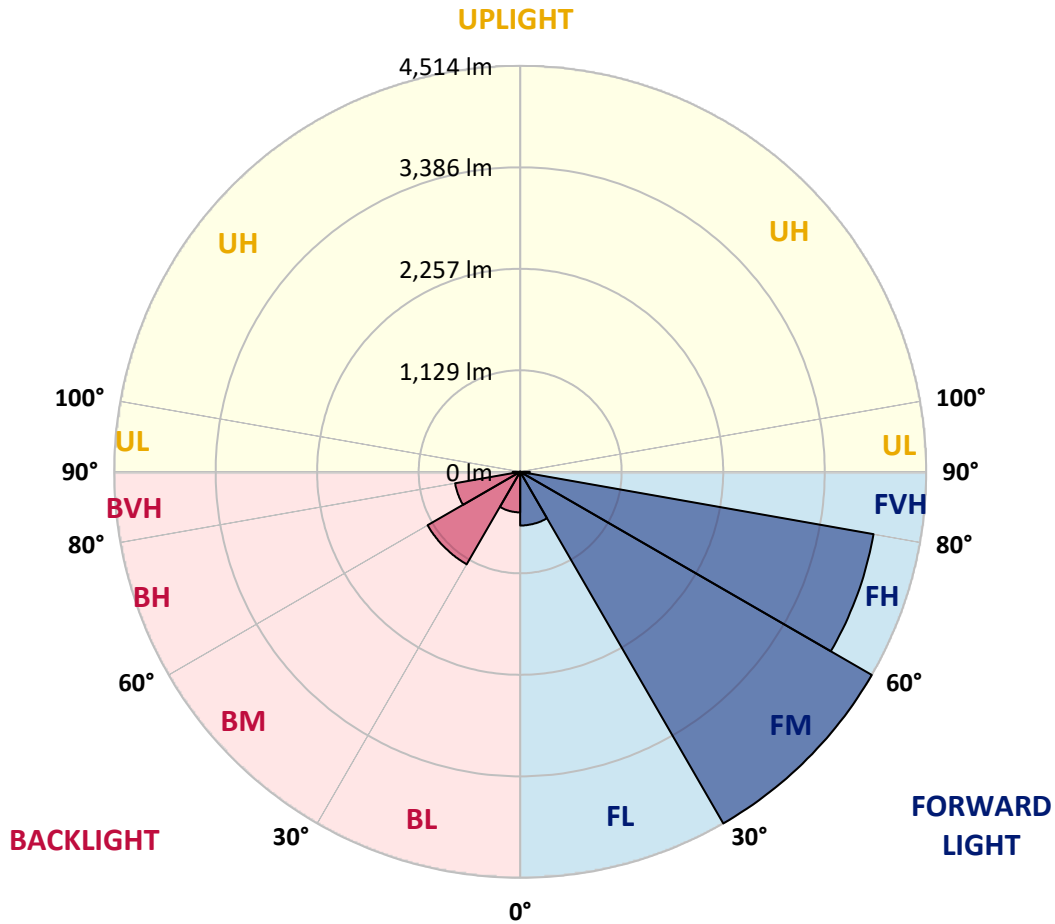


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	596.9	5.1			
FM (30°-60°)	4514.2	38.7			
FH (60°-80°)	3989.7	34.2			G2/5000
FVH (80°-90°)	107.2	0.9			G2/225
BL (0°-30°)	451.1	3.9	B1/500		
BM (30°-60°)	1188.3	10.2	B2/2500		
BH (60°-80°)	734.5	6.3	B2/1000		G2/1000
BVH (80°-90°)	83.2	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°	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8
2.5°	598.0	580.0	549.9	557.2	574.7	584.4	578.6	570.8	560.6	558.7	603.3
5°	774.3	739.8	725.8	719.9	698.6	685.9	707.8	704.9	716.5	737.9	781.6
7.5°	903.1	878.8	855.5	853.0	811.7	797.2	826.3	841.9	862.7	863.2	922.5
10°	972.1	951.2	950.7	928.8	925.4	953.1	953.6	965.3	967.7	992.5	980.8
12.5°	1046.9	1045.4	1072.1	1071.6	1102.7	1148.4	1125.6	1125.6	1132.4	1102.2	1139.2
15°	1225.1	1240.7	1190.7	1198.9	1198.9	1243.6	1242.1	1250.9	1271.8	1264.0	1247.5
17.5°	1410.7	1420.4	1365.0	1313.6	1317.4	1307.7	1342.7	1346.1	1326.2	1416.5	1396.6
20°	1530.2	1568.1	1451.5	1386.9	1399.5	1410.7	1412.2	1391.3	1381.1	1520.0	1492.8
22.5°	1677.9	1645.8	1539.0	1467.5	1486.5	1471.4	1468.5	1484.6	1498.6	1551.1	1595.3
25°	1776.5	1774.1	1645.8	1567.6	1546.7	1542.4	1572.0	1565.7	1599.2	1694.4	1666.7
27.5°	1919.8	1964.5	1737.2	1756.6	1664.8	1568.1	1663.3	1692.0	1752.2	1736.7	1798.4
30°	2197.7	2164.2	1926.6	1921.3	1817.3	1736.2	1802.3	1778.0	1886.3	1882.9	1928.6
32.5°	2424.5	2447.9	2149.1	2093.2	2016.0	1918.4	1874.6	1942.2	2000.5	2096.2	2121.9
35°	2664.5	2659.2	2376.9	2264.2	2136.5	2096.2	2150.1	2178.2	2302.1	2390.1	2328.8
37.5°	3037.6	2995.3	2672.3	2459.0	2363.3	2348.8	2441.1	2400.3	2534.3	2555.2	2589.7
40°	3384.4	3257.2	2942.4	2698.0	2546.0	2600.4	2603.3	2608.7	2680.5	2737.4	2907.9
42.5°	3714.3	3624.9	3216.9	3033.2	2809.3	2756.3	2789.4	2800.5	2982.2	3098.3	3334.4
45°	4165.1	3925.6	3611.3	3422.8	3172.2	3104.6	3081.3	3177.5	3352.9	3617.1	3819.7
47.5°	4546.4	4330.3	4030.5	3782.3	3502.0	3694.9	3562.7	3508.8	3744.4	4071.8	4394.4
50°	4862.7	4624.7	4330.8	4187.4	4142.8	4314.7	3971.8	3978.1	4193.8	4655.7	5025.4
52.5°	5107.5	4853.5	4593.1	4520.2	4769.9	4869.0	4621.3	4583.8	4741.2	5287.3	5731.3
55°	5336.3	5066.7	4865.6	5014.2	5434.9	5446.1	5428.6	5221.2	5410.6	5964.0	6461.9
57.5°	5395.1	5104.6	4971.0	5184.3	5753.1	6195.7	6369.6	5962.5	6155.4	6579.4	7087.6
60°	5092.5	4843.7	4790.3	5079.8	5925.1	6572.2	7026.4	6783.0	6710.6	7073.5	7525.7
62.5°	4472.6	4184.0	4227.3	4629.5	5743.9	6721.3	7545.2	7735.1	7296.9	7466.5	7717.1
65°	3559.8	3284.4	3371.8	3855.7	5175.0	6770.8	7810.4	8200.0	7508.7	7577.7	7446.1
67.5°	2510.5	2260.3	2370.6	2996.3	4305.0	6136.4	7856.1	7983.4	7283.3	7260.5	6705.7
70°	1422.4	1265.5	1385.0	1906.7	3038.6	4888.4	7498.1	7330.5	6879.2	6555.6	5610.8
72.5°	652.4	598.5	655.8	970.6	1749.3	3252.8	6121.3	6273.4	5927.5	5522.9	4268.6
75°	346.8	327.9	352.2	484.8	818.5	1769.7	4349.2	4691.2	4507.1	4188.9	2784.5
77.5°	258.0	243.4	255.0	314.3	437.2	692.2	2471.2	2902.6	2972.5	2679.6	1546.2
80°	197.7	186.1	197.7	237.5	302.6	328.9	1056.6	1352.9	1540.9	1245.1	614.5
82.5°	146.7	138.9	156.9	178.3	212.8	205.5	375.0	466.8	601.9	411.5	239.5
85°	116.6	106.9	113.7	121.0	136.0	112.7	171.5	191.9	203.1	170.0	88.4
87.5°	45.7	42.3	82.6	65.1	55.4	34.0	51.5	58.3	59.8	57.3	25.7
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°	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8	500.8
2.5°	608.2	603.3	574.7	583.9	599.0	601.9	608.2	590.7	582.0	614.0	615.5
5°	785.5	759.3	745.7	747.1	737.4	722.4	745.2	760.2	766.1	789.9	798.6
7.5°	923.0	891.4	868.6	842.3	805.4	781.6	821.5	850.6	866.2	915.7	935.1
10°	984.2	958.9	954.1	921.0	920.1	919.6	917.6	907.4	941.0	936.1	949.7
12.5°	1110.5	1105.2	1059.0	1045.9	1047.3	1045.9	1005.1	1003.1	1003.6	1048.3	1032.3
15°	1228.1	1229.0	1186.8	1139.2	1096.4	1083.3	1067.3	1060.0	1070.7	1095.9	1080.4
17.5°	1373.3	1378.2	1257.2	1181.9	1125.6	1124.1	1085.7	1040.5	1105.6	1121.2	1104.2
20°	1467.1	1446.7	1298.0	1171.7	1155.7	1112.0	1064.3	1002.2	1058.5	1096.4	1107.1
22.5°	1556.0	1520.5	1335.9	1189.7	1112.9	1060.9	1014.8	974.5	992.5	1034.7	1027.9
25°	1616.2	1606.5	1388.4	1232.9	1111.5	995.9	933.7	907.9	917.2	982.7	976.4
27.5°	1760.0	1655.1	1379.1	1244.1	1064.8	907.0	875.9	848.2	838.9	909.9	929.3
30°	1856.2	1812.9	1440.8	1226.6	1006.1	834.1	788.4	782.6	785.5	866.2	871.5
32.5°	2019.4	1907.2	1541.9	1159.6	920.6	780.2	727.7	730.1	743.2	802.0	814.2
35°	2189.4	2122.4	1555.5	1111.5	851.1	722.8	701.5	684.5	691.8	743.2	745.7
37.5°	2505.2	2273.5	1639.0	1037.1	800.1	701.0	660.2	645.1	649.0	678.2	699.0
40°	2783.0	2577.1	1600.2	965.3	736.9	671.8	620.8	609.7	598.0	626.7	639.8
42.5°	3228.5	2793.7	1587.1	886.1	707.3	632.5	597.5	567.9	556.7	581.0	604.8
45°	3674.0	3023.5	1515.6	805.9	665.5	629.6	563.5	535.3	538.2	560.1	584.4
47.5°	4170.4	3332.0	1394.7	728.2	619.9	615.5	529.5	517.4	526.1	550.4	574.7
50°	4757.3	3659.4	1294.6	658.2	587.3	573.2	525.1	510.6	518.8	547.5	571.3
52.5°	5399.0	4018.4	1221.7	593.6	550.4	539.7	531.0	516.9	526.6	551.4	576.1
55°	6036.8	4346.3	1172.2	549.4	518.8	525.6	543.1	532.9	537.8	556.2	581.0
57.5°	6510.0	4519.2	1072.6	502.3	493.1	517.4	544.6	527.6	530.5	556.2	582.9
60°	6784.9	4552.3	908.9	463.9	472.7	500.8	529.5	507.6	505.7	548.0	581.5
62.5°	6754.8	4360.4	720.9	428.9	449.3	476.1	506.7	485.8	491.1	548.9	584.4
65°	6323.4	3968.4	573.2	399.3	421.2	448.9	487.7	479.5	505.2	587.8	626.2
67.5°	5565.6	3395.6	460.5	371.6	394.9	430.4	500.8	522.7	533.9	627.6	667.0
70°	4510.5	2638.3	383.8	347.3	374.1	439.1	538.7	534.4	525.1	608.7	639.8
72.5°	3258.6	1808.6	337.6	323.5	348.3	412.9	539.7	516.4	504.7	555.7	578.1
75°	2038.8	1078.9	294.9	293.4	309.0	370.2	515.4	494.5	463.0	488.2	517.4
77.5°	1164.4	552.3	248.2	261.4	270.6	321.1	461.5	442.5	414.4	425.1	453.7
80°	444.5	267.2	209.4	232.2	229.8	272.0	391.1	386.7	354.6	358.0	375.5
82.5°	209.4	149.6	173.9	199.7	186.5	216.7	317.7	316.2	288.1	260.9	275.0
85°	77.7	79.7	127.3	152.0	129.7	139.9	229.8	223.5	196.3	165.7	183.1
87.5°	17.5	28.7	62.7	79.2	45.2	43.2	92.8	80.6	77.7	46.1	48.6
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)