

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: P368046

Luminaire Tested: **MSA-SA3C-830-U-T3**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368046  
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-SA3C-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: 14446 lumens  
Efficiency: N/A  
Efficacy: 87.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

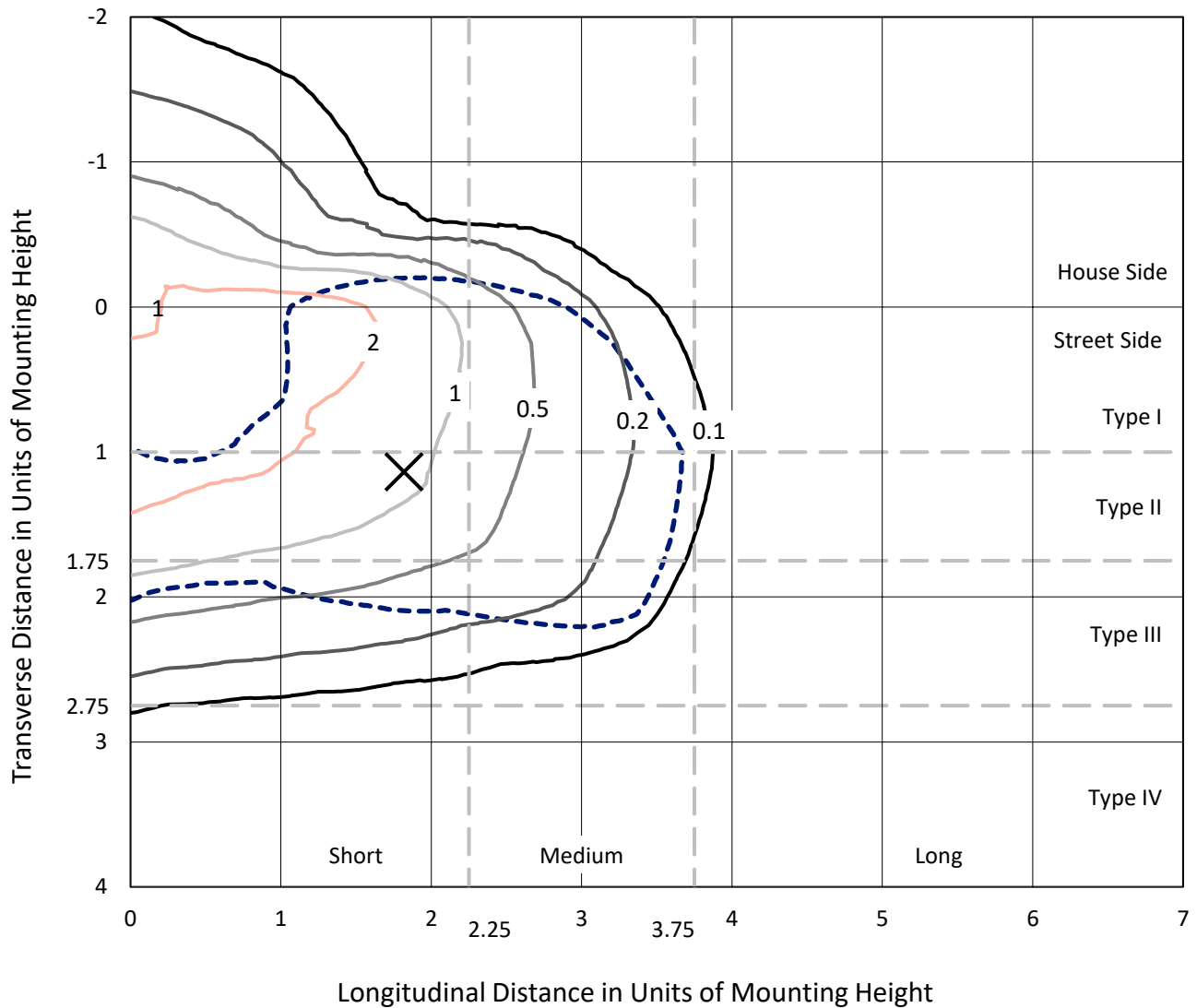
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P368046  
 CATALOG NUMBER: MSA-SA3C-830-U-T3

### Iso-Footcandle Lines of Horizontal Illumination

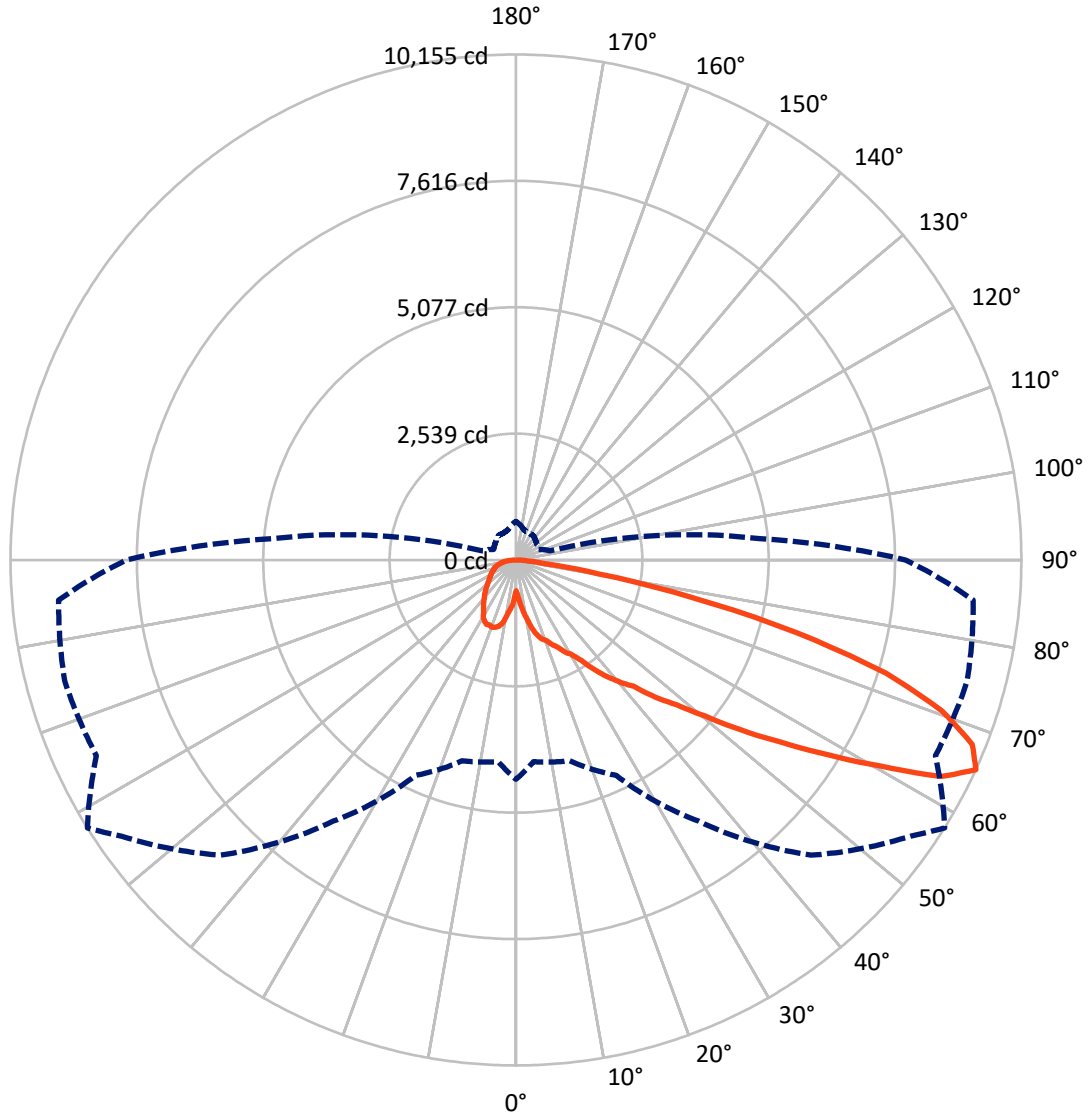
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc  
 Type III - Short - N/A

REPORT NUMBER: P368046  
CATALOG NUMBER: MSA-SA3C-830-U-T3

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P368046  
 CATALOG NUMBER: MSA-SA3C-830-U-T3

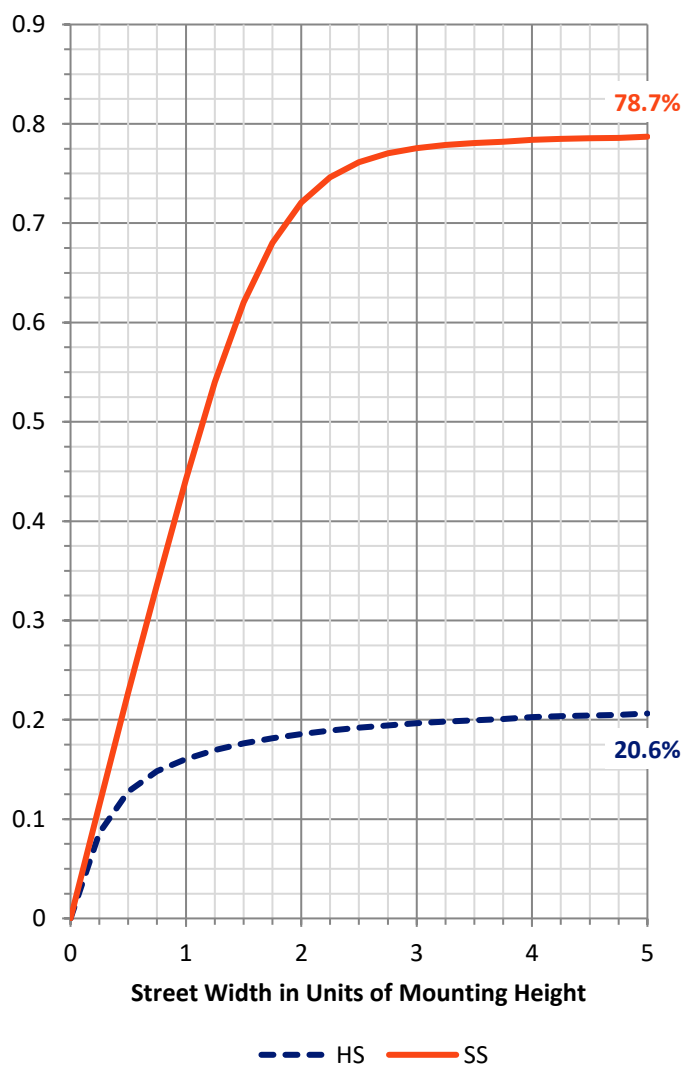
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3042.8	0.0	3042.8
	% Fixture	21.1	0.0	21.1
<b>Street Side</b>	Lumens	11403.3	0.0	11403.3
	% Fixture	78.9	0.0	78.9
<b>Total</b>	Lumens	14446.0	0.0	14446.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	0.7
10°-20°	412.3	2.9
20°-30°	791.1	5.5
30°-40°	1306.0	9.0
40°-50°	2170.8	15.0
50°-60°	3585.1	24.8
60°-70°	4021.8	27.8
70°-80°	1828.6	12.7
80°-90°	235.8	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°	14446.0	100.0
0°-180°	14446.0	100.0

**Coefficient of Utilization**

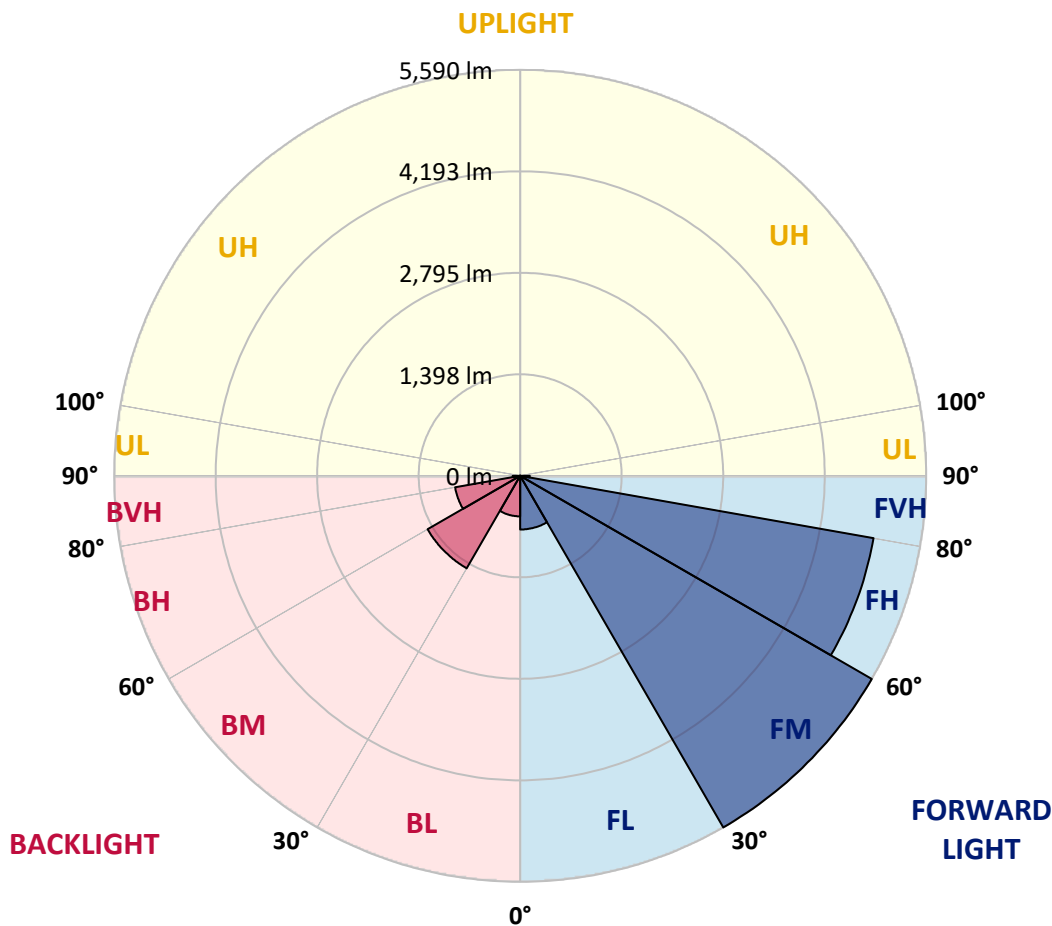


REPORT NUMBER: P368046  
 CATALOG NUMBER: MSA-SA3C-830-U-T3

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	739.2	5.1			
FM (30°-60°)	5590.4	38.7			
FH (60°-80°)	4940.8	34.2			G2/5000
FVH (80°-90°)	132.8	0.9			G2/225
BL (0°-30°)	558.6	3.9	B2/1000		
BM (30°-60°)	1471.6	10.2	B2/2500		
BH (60°-80°)	909.6	6.3	B2/1000		G2/1000
BVH (80°-90°)	103.0	0.7			G2/225
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





REPORT NUMBER: P368046

CATALOG NUMBER: MSA-SA3C-830-U-T3

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2
2.5°	740.6	718.3	681.0	690.0	711.7	723.7	716.5	706.9	694.2	691.8	747.2
5°	958.9	916.2	898.8	891.6	865.1	849.5	876.5	872.9	887.4	913.8	968.0
7.5°	1118.4	1088.3	1059.4	1056.4	1005.3	987.2	1023.3	1042.6	1068.4	1069.0	1142.4
10°	1203.8	1177.9	1177.3	1150.3	1146.0	1180.3	1180.9	1195.4	1198.4	1229.1	1214.6
12.5°	1296.4	1294.6	1327.7	1327.1	1365.6	1422.2	1393.9	1393.9	1402.3	1365.0	1410.7
15°	1517.2	1536.5	1474.5	1484.7	1484.7	1540.1	1538.3	1549.1	1575.0	1565.4	1544.9
17.5°	1747.0	1759.1	1690.5	1626.7	1631.5	1619.5	1662.8	1667.0	1642.4	1754.3	1729.6
20°	1895.0	1942.0	1797.6	1717.6	1733.2	1747.0	1748.8	1723.0	1710.3	1882.4	1848.7
22.5°	2077.9	2038.2	1905.9	1817.4	1840.9	1822.2	1818.6	1838.5	1855.9	1920.9	1975.6
25°	2200.0	2197.0	2038.2	1941.3	1915.5	1910.1	1946.8	1938.9	1980.5	2098.4	2064.1
27.5°	2377.5	2432.9	2151.3	2175.4	2061.7	1942.0	2059.9	2095.4	2170.0	2150.7	2227.1
30°	2721.6	2680.1	2385.9	2379.3	2250.6	2150.1	2231.9	2201.8	2336.0	2331.8	2388.3
32.5°	3002.6	3031.4	2661.5	2592.3	2496.6	2375.7	2321.6	2405.2	2477.4	2595.9	2627.8
35°	3299.8	3293.1	2943.6	2804.0	2645.8	2595.9	2662.7	2697.6	2851.0	2959.9	2884.1
37.5°	3761.8	3709.4	3309.4	3045.3	2926.8	2908.7	3023.0	2972.5	3138.5	3164.4	3207.1
40°	4191.3	4033.7	3643.9	3341.3	3153.0	3220.3	3224.0	3230.6	3319.6	3390.0	3601.2
42.5°	4599.8	4489.1	3983.8	3756.4	3479.0	3413.5	3454.4	3468.2	3693.2	3837.0	4129.4
45°	5158.1	4861.5	4472.3	4238.8	3928.4	3844.8	3815.9	3935.0	4152.2	4479.5	4730.3
47.5°	5630.3	5362.6	4991.4	4684.0	4336.9	4575.7	4412.1	4345.3	4637.1	5042.6	5442.0
50°	6022.0	5727.2	5363.2	5185.8	5130.4	5343.4	4918.6	4926.5	5193.6	5765.7	6223.5
52.5°	6325.2	6010.5	5688.1	5597.8	5907.1	6029.8	5723.0	5676.7	5871.6	6547.8	7097.6
55°	6608.5	6274.6	6025.6	6209.7	6730.7	6744.5	6722.8	6466.0	6700.6	7385.8	8002.4
57.5°	6681.3	6321.6	6156.1	6420.2	7124.7	7672.8	7888.1	7384.0	7622.8	8148.0	8777.3
60°	6306.5	5998.5	5932.3	6290.9	7337.7	8139.0	8701.5	8400.1	8310.4	8759.8	9319.9
62.5°	5538.9	5181.5	5235.1	5733.2	7113.3	8323.7	9344.0	9579.2	9036.6	9246.5	9557.0
65°	4408.5	4067.4	4175.7	4774.9	6408.8	8385.0	9672.5	10154.9	9298.9	9384.3	9221.3
67.5°	3109.0	2799.2	2935.8	3710.6	5331.3	7599.4	9729.0	9886.6	9019.7	8991.5	8304.4
70°	1761.5	1567.2	1715.1	2361.3	3763.0	6053.9	9285.6	9078.1	8519.2	8118.5	6948.4
72.5°	807.9	741.2	812.2	1202.0	2166.3	4028.3	7580.7	7769.0	7340.7	6839.5	5286.2
75°	429.5	406.1	436.2	600.4	1013.7	2191.6	5386.1	5809.6	5581.6	5187.6	3448.3
77.5°	319.4	301.4	315.8	389.2	541.4	857.3	3060.3	3594.5	3681.2	3318.4	1914.9
80°	244.8	230.4	244.8	294.2	374.8	407.3	1308.5	1675.4	1908.3	1541.9	761.0
82.5°	181.7	172.1	194.3	220.8	263.5	254.5	464.4	578.1	745.4	509.6	296.6
85°	144.4	132.4	140.8	149.8	168.4	139.6	212.4	237.6	251.5	210.6	109.5
87.5°	56.6	52.3	102.3	80.6	68.6	42.1	63.8	72.2	74.0	71.0	31.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P368046

CATALOG NUMBER: MSA-SA3C-830-U-T3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2	620.2
2.5°	753.2	747.2	711.7	723.1	741.8	745.4	753.2	731.5	720.7	760.4	762.2
5°	972.8	940.3	923.4	925.3	913.2	894.6	922.8	941.5	948.7	978.2	989.0
7.5°	1143.0	1103.9	1075.7	1043.2	997.4	968.0	1017.3	1053.4	1072.6	1134.0	1158.1
10°	1218.8	1187.6	1181.5	1140.6	1139.4	1138.8	1136.4	1123.8	1165.3	1159.3	1176.1
12.5°	1375.2	1368.6	1311.5	1295.2	1297.0	1295.2	1244.7	1242.3	1242.9	1298.2	1278.4
15°	1520.8	1522.0	1469.7	1410.7	1357.8	1341.6	1321.7	1312.7	1325.9	1357.2	1337.9
17.5°	1700.7	1706.7	1556.9	1463.7	1393.9	1392.1	1344.6	1288.6	1369.2	1388.5	1367.4
20°	1816.8	1791.6	1607.5	1451.0	1431.2	1377.1	1318.1	1241.1	1310.9	1357.8	1371.0
22.5°	1926.9	1883.0	1654.4	1473.3	1378.3	1313.9	1256.7	1206.8	1229.1	1281.4	1273.0
25°	2001.5	1989.5	1719.4	1526.9	1376.5	1233.3	1156.3	1124.4	1135.8	1217.0	1209.2
27.5°	2179.6	2049.6	1707.9	1540.7	1318.7	1123.2	1084.7	1050.4	1039.0	1126.8	1150.9
30°	2298.7	2245.2	1784.3	1519.0	1245.9	1032.9	976.4	969.2	972.8	1072.6	1079.3
32.5°	2500.8	2361.9	1909.5	1436.0	1140.0	966.2	901.2	904.2	920.4	993.2	1008.3
35°	2711.4	2628.4	1926.3	1376.5	1054.0	895.2	868.7	847.6	856.7	920.4	923.4
37.5°	3102.4	2815.5	2029.8	1284.4	990.8	868.1	817.6	798.9	803.7	839.8	865.7
40°	3446.5	3191.5	1981.7	1195.4	912.6	832.0	768.8	755.0	740.6	776.1	792.3
42.5°	3998.2	3459.8	1965.4	1097.3	875.9	783.3	740.0	703.3	689.4	719.5	749.0
45°	4549.9	3744.3	1877.0	998.0	824.2	779.7	697.9	663.0	666.6	693.6	723.7
47.5°	5164.7	4126.3	1727.2	901.8	767.6	762.2	655.7	640.7	651.5	681.6	711.7
50°	5891.4	4531.8	1603.3	815.2	727.3	709.9	650.3	632.3	642.5	678.0	707.5
52.5°	6686.1	4976.4	1513.0	735.2	681.6	668.4	657.5	640.1	652.1	682.8	713.5
55°	7476.0	5382.5	1451.7	680.4	642.5	650.9	672.6	660.0	666.0	688.8	719.5
57.5°	8062.0	5596.6	1328.3	622.1	610.6	640.7	674.4	653.3	656.9	688.8	721.9
60°	8402.5	5637.6	1125.6	574.5	585.4	620.2	655.7	628.7	626.3	678.6	720.1
62.5°	8365.2	5399.9	892.8	531.2	556.5	589.6	627.5	601.6	608.2	679.8	723.7
65°	7831.0	4914.4	709.9	494.5	521.6	555.9	604.0	593.8	625.7	727.9	775.5
67.5°	6892.5	4205.2	570.3	460.2	489.1	533.0	620.2	647.3	661.2	777.3	826.0
70°	5585.8	3267.3	475.3	430.1	463.2	543.8	667.2	661.8	650.3	753.8	792.3
72.5°	4035.5	2239.7	418.1	400.7	431.3	511.4	668.4	639.5	625.1	688.2	715.9
75°	2524.9	1336.1	365.2	363.4	382.6	458.4	638.3	612.4	573.3	604.6	640.7
77.5°	1442.0	684.0	307.4	323.7	335.1	397.7	571.5	548.1	513.2	526.4	561.9
80°	550.5	330.9	259.3	287.6	284.6	336.9	484.3	478.9	439.2	443.4	465.0
82.5°	259.3	185.3	215.4	247.3	231.0	268.3	393.4	391.6	356.7	323.1	340.5
85°	96.3	98.7	157.6	188.3	160.6	173.3	284.6	276.7	243.0	205.1	226.8
87.5°	21.7	35.5	77.6	98.1	55.9	53.5	114.9	99.9	96.3	57.2	60.2
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)