

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: P597086

Luminaire Tested: **MSA-SA3D-835-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597086
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-SA3D-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: 16386 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

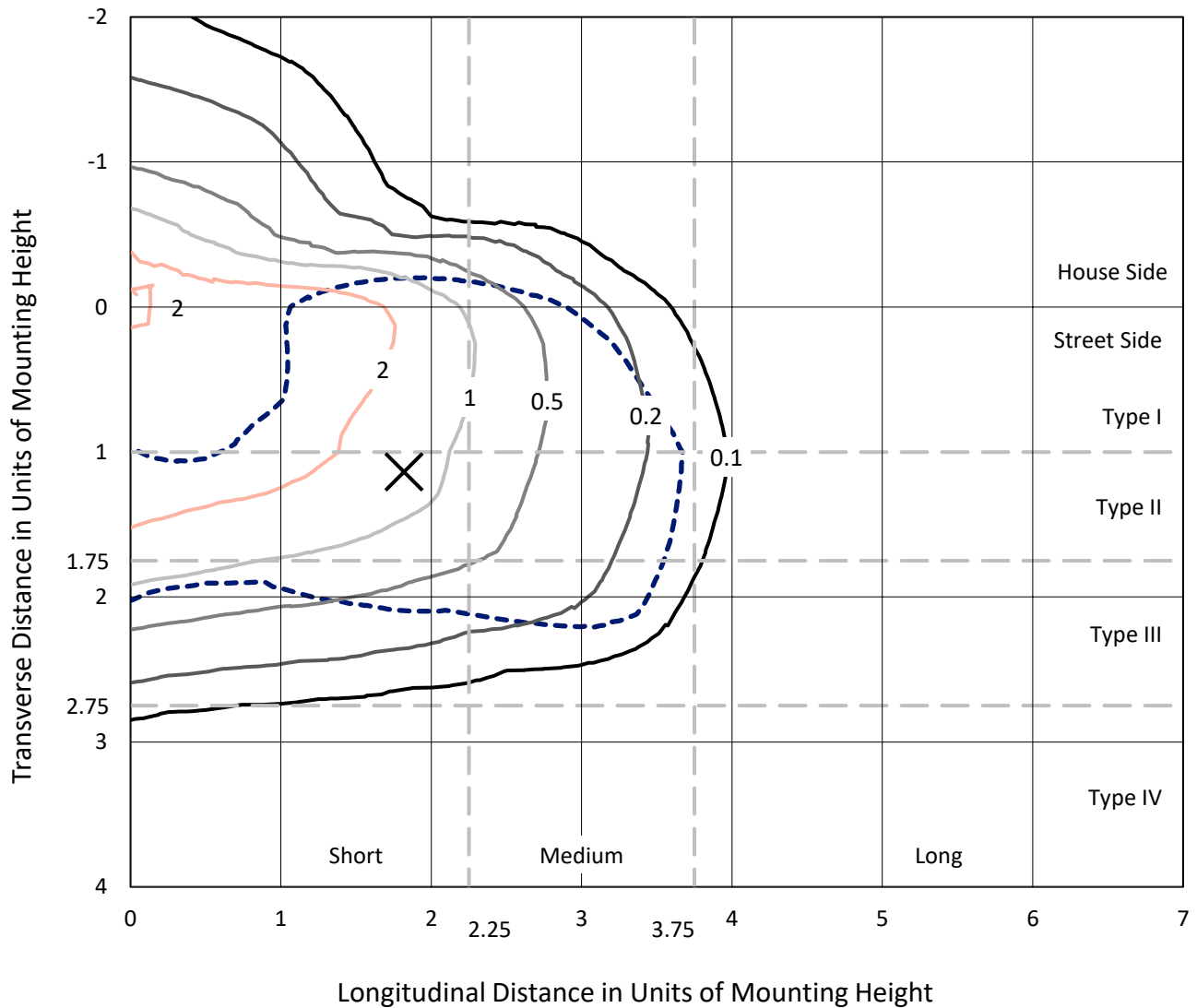
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

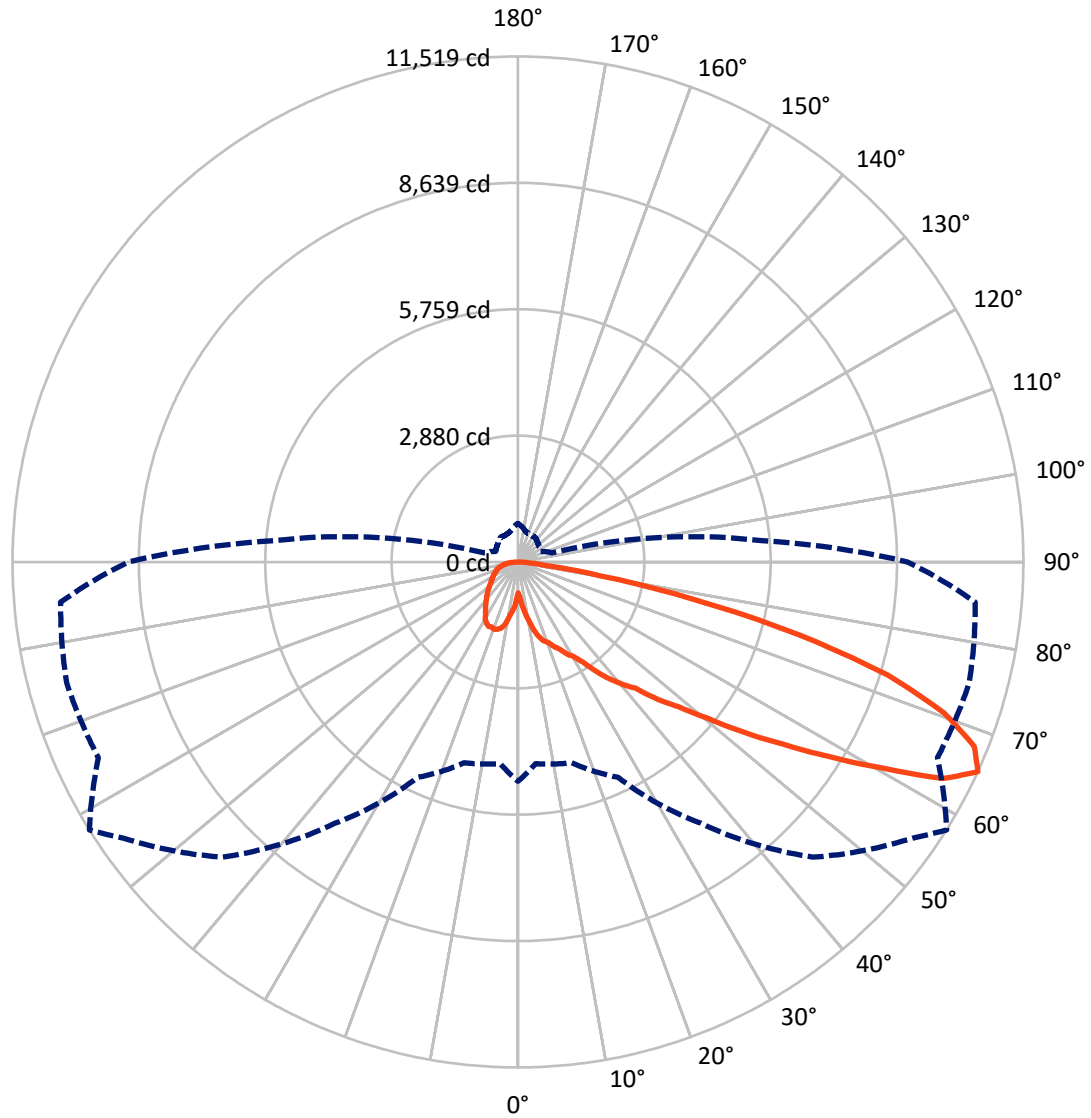
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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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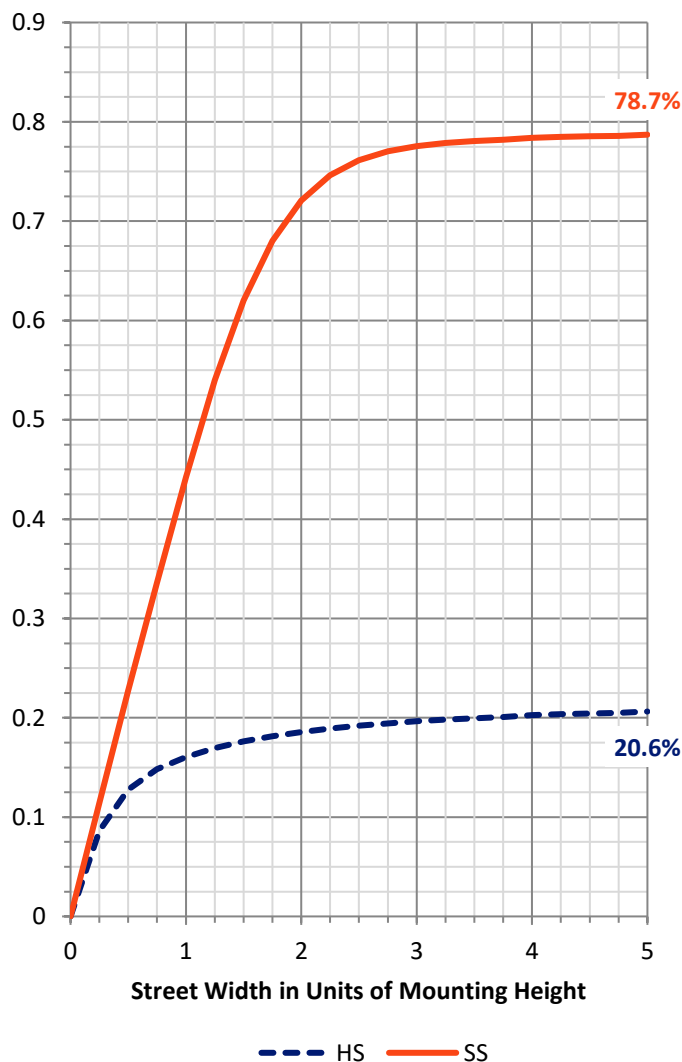
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3451.4	0.0	3451.4
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	12934.6	0.0	12934.6
	% Fixture	78.9	0.0	78.9
Total	Lumens	16386.0	0.0	16386.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	0.7
10°-20°	467.6	2.9
20°-30°	897.3	5.5
30°-40°	1481.4	9.0
40°-50°	2462.3	15.0
50°-60°	4066.5	24.8
60°-70°	4561.9	27.8
70°-80°	2074.2	12.7
80°-90°	267.5	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°	16386.0	100.0
0°-180°	16386.0	100.0

Coefficient of Utilization



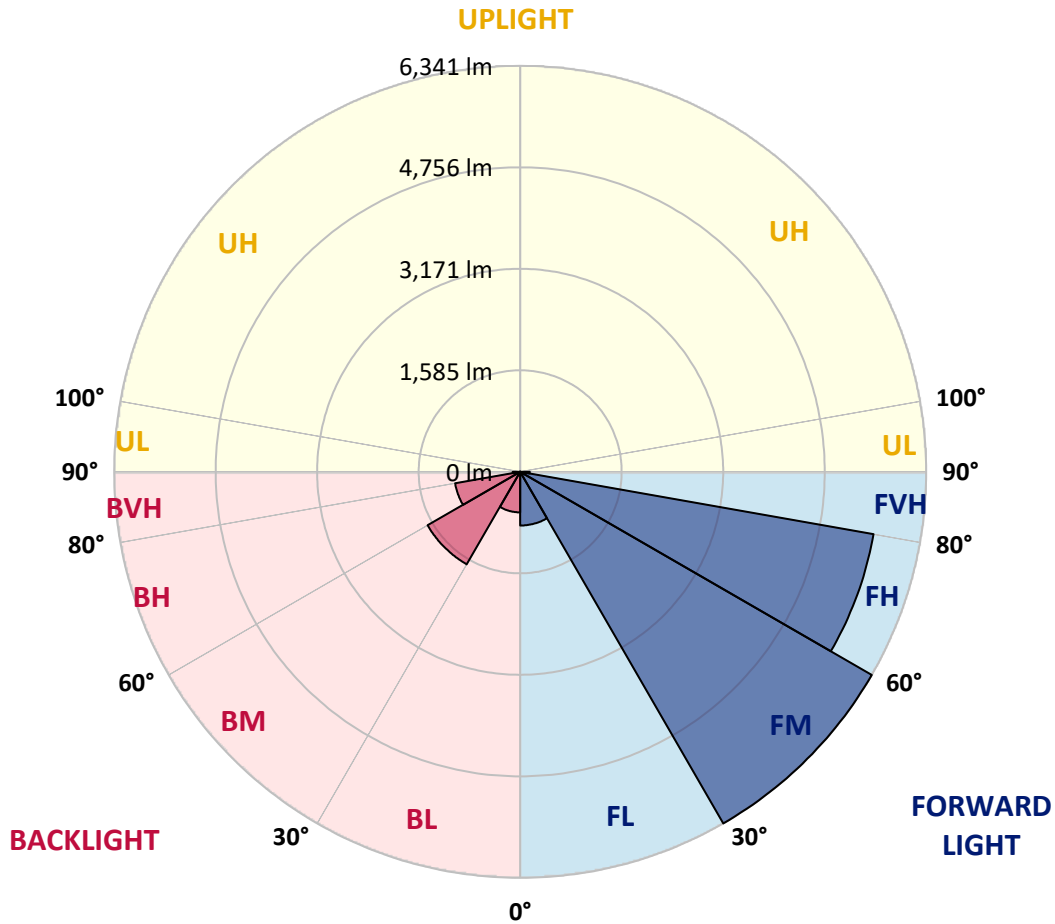
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	838.5	5.1			
FM (30°-60°)	6341.1	38.7			
FH (60°-80°)	5604.3	34.2			G3/7500
FVH (80°-90°)	150.6	0.9			G2/225
BL (0°-30°)	633.6	3.9	B2/1000		
BM (30°-60°)	1669.2	10.2	B2/2500		
BH (60°-80°)	1031.7	6.3	B3/2500		G3/2500
BVH (80°-90°)	116.9	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5
2.5°	840.0	814.8	772.5	782.7	807.3	820.9	812.7	801.8	787.5	784.7	847.5
5°	1087.7	1039.3	1019.5	1011.3	981.3	963.5	994.2	990.1	1006.5	1036.5	1098.0
7.5°	1268.6	1234.4	1201.7	1198.3	1140.3	1119.8	1160.7	1182.6	1211.9	1212.6	1295.9
10°	1365.5	1336.1	1335.4	1304.7	1299.9	1338.8	1339.5	1355.9	1359.3	1394.1	1377.7
12.5°	1470.5	1468.5	1506.0	1505.3	1549.0	1613.2	1581.1	1581.1	1590.6	1548.3	1600.2
15°	1721.0	1742.8	1672.5	1684.1	1684.1	1746.9	1744.9	1757.1	1786.5	1775.6	1752.4
17.5°	1981.6	1995.3	1917.5	1845.2	1850.6	1837.0	1886.1	1890.9	1862.9	1989.8	1961.9
20°	2149.5	2202.7	2039.0	1948.2	1966.0	1981.6	1983.7	1954.4	1940.0	2135.2	2097.0
22.5°	2357.0	2311.9	2161.8	2061.5	2088.1	2066.9	2062.9	2085.4	2105.2	2178.9	2241.0
25°	2495.5	2492.1	2311.9	2202.1	2172.7	2166.6	2208.2	2199.3	2246.4	2380.2	2341.3
27.5°	2696.8	2759.6	2440.2	2467.5	2338.5	2202.7	2336.5	2376.8	2461.4	2439.5	2526.2
30°	3087.1	3040.0	2706.3	2698.8	2552.8	2438.8	2531.7	2497.5	2649.7	2644.9	2709.1
32.5°	3405.8	3438.5	3018.9	2940.4	2831.9	2694.7	2633.3	2728.2	2810.1	2944.5	2980.7
35°	3742.9	3735.4	3338.9	3180.6	3001.1	2944.5	3020.2	3059.8	3233.8	3357.3	3271.4
37.5°	4267.0	4207.6	3753.8	3454.2	3319.8	3299.3	3429.0	3371.7	3560.0	3589.4	3637.8
40°	4754.2	4575.4	4133.2	3790.0	3576.4	3652.8	3656.9	3664.4	3765.4	3845.2	4084.8
42.5°	5217.5	5092.0	4518.8	4260.8	3946.2	3871.9	3918.3	3934.0	4189.2	4352.3	4683.9
45°	5850.8	5514.4	5072.9	4808.1	4456.0	4361.1	4328.4	4463.5	4709.8	5081.0	5365.6
47.5°	6386.5	6082.8	5661.8	5313.1	4919.3	5190.2	5004.6	4928.9	5259.8	5719.8	6172.9
50°	6830.7	6496.3	6083.5	5882.2	5819.4	6061.0	5579.2	5588.1	5891.0	6540.0	7059.3
52.5°	7174.6	6817.7	6452.0	6349.6	6700.3	6839.6	6491.5	6439.0	6660.1	7427.1	8050.8
55°	7496.0	7117.3	6834.8	7043.6	7634.5	7650.2	7625.7	7334.3	7600.4	8377.7	9077.1
57.5°	7578.6	7170.5	6982.9	7282.4	8081.5	8703.2	8947.4	8375.6	8646.5	9242.2	9956.0
60°	7153.5	6804.1	6729.0	7135.7	8323.1	9232.0	9870.0	9528.2	9426.5	9936.2	10571.5
62.5°	6282.7	5877.4	5938.1	6503.1	8068.5	9441.5	10598.8	10865.6	10250.1	10488.3	10840.4
65°	5000.5	4613.6	4736.4	5416.1	7269.5	9511.1	10971.4	11518.7	10547.6	10644.5	10459.6
67.5°	3526.6	3175.1	3330.0	4209.0	6047.3	8619.9	11035.5	11214.3	10231.0	10198.9	9419.7
70°	1998.0	1777.6	1945.5	2678.4	4268.3	6866.9	10532.6	10297.2	9663.3	9208.8	7881.6
72.5°	916.4	840.7	921.2	1363.4	2457.3	4569.3	8598.7	8812.3	8326.5	7758.0	5996.1
75°	487.2	460.6	494.7	681.0	1149.8	2485.9	6109.4	6589.8	6331.2	5884.2	3911.4
77.5°	362.3	341.9	358.3	441.5	614.1	972.4	3471.3	4077.3	4175.5	3764.0	2172.0
80°	277.7	261.4	277.7	333.7	425.1	462.0	1484.2	1900.4	2164.5	1749.0	863.2
82.5°	206.1	195.2	220.4	250.4	298.9	288.6	526.8	655.8	845.5	578.0	336.4
85°	163.8	150.1	159.7	169.9	191.1	158.3	240.9	269.5	285.2	238.8	124.2
87.5°	64.1	59.4	116.0	91.4	77.8	47.8	72.3	81.9	83.9	80.5	36.2
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°	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5	703.5
2.5°	854.3	847.5	807.3	820.2	841.4	845.5	854.3	829.8	817.5	862.5	864.6
5°	1103.4	1066.6	1047.5	1049.5	1035.9	1014.7	1046.8	1067.9	1076.1	1109.6	1121.8
7.5°	1296.5	1252.2	1220.1	1183.3	1131.4	1098.0	1153.9	1194.9	1216.7	1286.3	1313.6
10°	1382.5	1347.0	1340.2	1293.8	1292.4	1291.8	1289.0	1274.7	1321.8	1315.0	1334.1
12.5°	1559.9	1552.4	1487.6	1469.2	1471.2	1469.2	1411.9	1409.1	1409.8	1472.6	1450.1
15°	1725.1	1726.4	1667.1	1600.2	1540.1	1521.7	1499.2	1489.0	1504.0	1539.5	1517.6
17.5°	1929.1	1935.9	1766.0	1660.2	1581.1	1579.0	1525.1	1461.7	1553.1	1574.9	1551.1
20°	2060.8	2032.1	1823.3	1645.9	1623.4	1562.0	1495.1	1407.8	1486.9	1540.1	1555.2
22.5°	2185.7	2135.9	1876.6	1671.2	1563.3	1490.3	1425.5	1368.9	1394.1	1453.5	1443.9
25°	2270.3	2256.7	1950.3	1731.9	1561.3	1398.9	1311.5	1275.4	1288.3	1380.5	1371.6
27.5°	2472.3	2324.9	1937.3	1747.6	1495.8	1274.0	1230.3	1191.4	1178.5	1278.1	1305.4
30°	2607.4	2546.7	2024.0	1723.0	1413.2	1171.7	1107.5	1099.3	1103.4	1216.7	1224.2
32.5°	2836.7	2679.0	2165.9	1628.9	1293.1	1095.9	1022.2	1025.6	1044.1	1126.6	1143.7
35°	3075.5	2981.3	2185.0	1561.3	1195.5	1015.4	985.4	961.5	971.7	1044.1	1047.5
37.5°	3519.1	3193.6	2302.4	1456.9	1123.9	984.7	927.4	906.2	911.7	952.6	982.0
40°	3909.4	3620.1	2247.8	1355.9	1035.2	943.7	872.1	856.4	840.0	880.3	898.7
42.5°	4535.1	3924.4	2229.4	1244.7	993.6	888.5	839.3	797.7	782.0	816.1	849.6
45°	5160.9	4247.2	2129.0	1132.1	934.9	884.4	791.6	752.0	756.1	786.8	820.9
47.5°	5858.3	4680.5	1959.1	1022.9	870.7	864.6	743.8	726.7	739.0	773.1	807.3
50°	6682.6	5140.4	1818.6	924.6	825.0	805.2	737.7	717.2	728.8	769.0	802.5
52.5°	7584.0	5644.7	1716.2	833.9	773.1	758.1	745.8	726.1	739.7	774.5	809.3
55°	8480.0	6105.3	1646.6	771.8	728.8	738.3	762.9	748.6	755.4	781.3	816.1
57.5°	9144.7	6348.2	1506.7	705.6	692.6	726.7	765.0	741.1	745.2	781.3	818.9
60°	9530.9	6394.6	1276.7	651.7	664.0	703.5	743.8	713.1	710.4	769.7	816.8
62.5°	9488.6	6125.1	1012.7	602.5	631.2	668.7	711.7	682.4	689.9	771.1	820.9
65°	8882.6	5574.4	805.2	560.9	591.6	630.5	685.1	673.5	709.7	825.7	879.6
67.5°	7818.1	4769.9	646.9	522.0	554.8	604.6	703.5	734.2	749.9	881.6	936.9
70°	6336.0	3706.0	539.1	487.9	525.4	616.9	756.8	750.6	737.7	855.0	898.7
72.5°	4577.4	2540.5	474.3	454.5	489.3	580.0	758.1	725.4	709.0	780.6	812.0
75°	2864.0	1515.6	414.2	412.2	434.0	520.0	724.0	694.7	650.3	685.8	726.7
77.5°	1635.7	775.9	348.7	367.1	380.1	451.1	648.3	621.7	582.1	597.1	637.3
80°	624.4	375.3	294.1	326.2	322.8	382.1	549.3	543.2	498.1	502.9	527.5
82.5°	294.1	210.2	244.3	280.5	262.0	304.3	446.3	444.2	404.7	366.4	386.2
85°	109.2	111.9	178.8	213.6	182.2	196.5	322.8	313.9	275.7	232.7	257.3
87.5°	24.6	40.3	88.0	111.2	63.5	60.7	130.3	113.3	109.2	64.8	68.2
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)