

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: P367544

Luminaire Tested: **MSA-SA2D-727-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367544
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2D-727-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11437 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 129
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



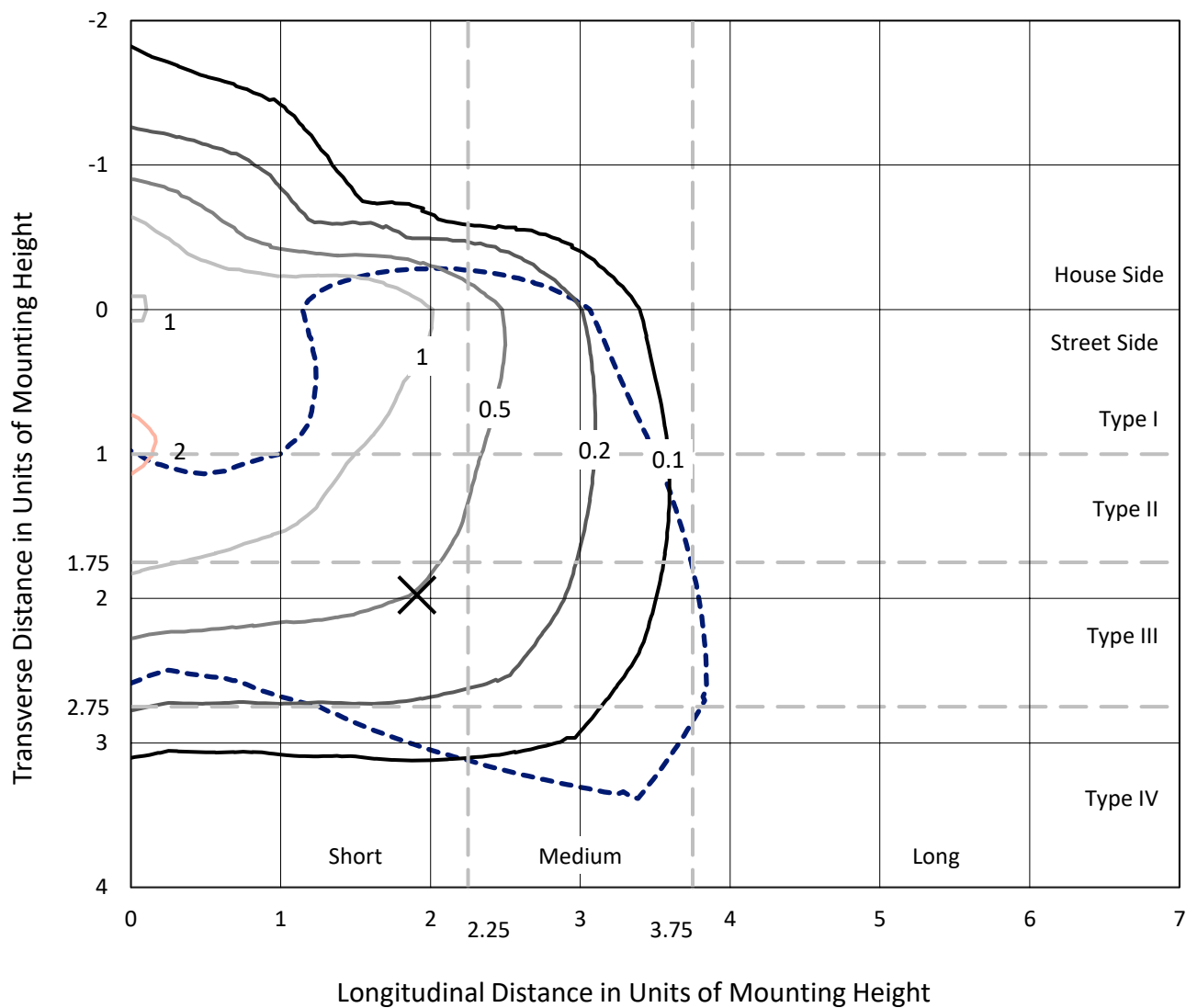
REPORT NUMBER: P367544

CATALOG NUMBER: MSA-SA2D-727-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

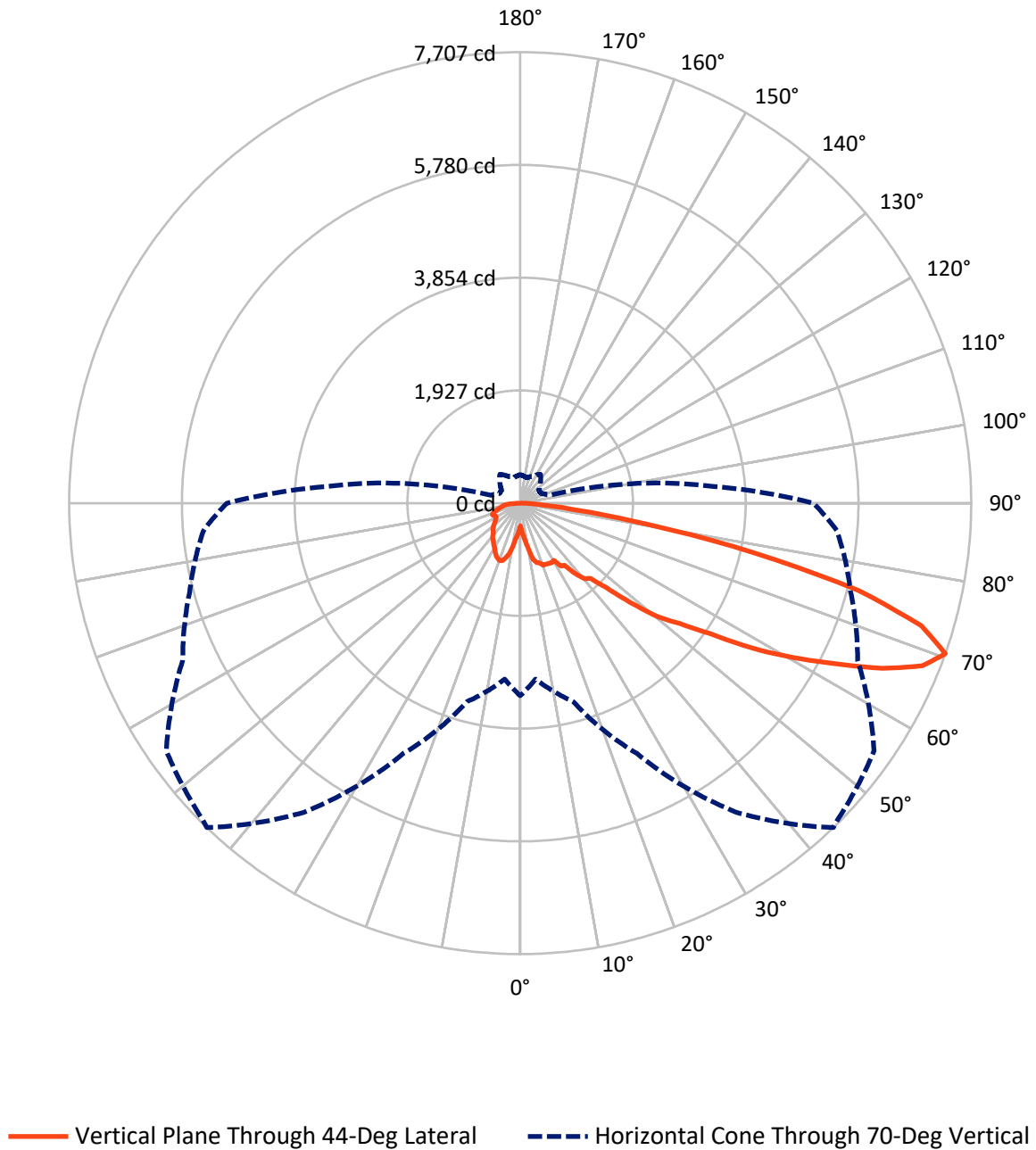


Based on 25 foot mounting height. Maximum calculated value = 2.2 fc

Type IV - Short - N/A

REPORT NUMBER: P367544
CATALOG NUMBER: MSA-SA2D-727-U-T4W

Luminous Intensity Polar Plot



REPORT NUMBER: P367544

CATALOG NUMBER: MSA-SA2D-727-U-T4W

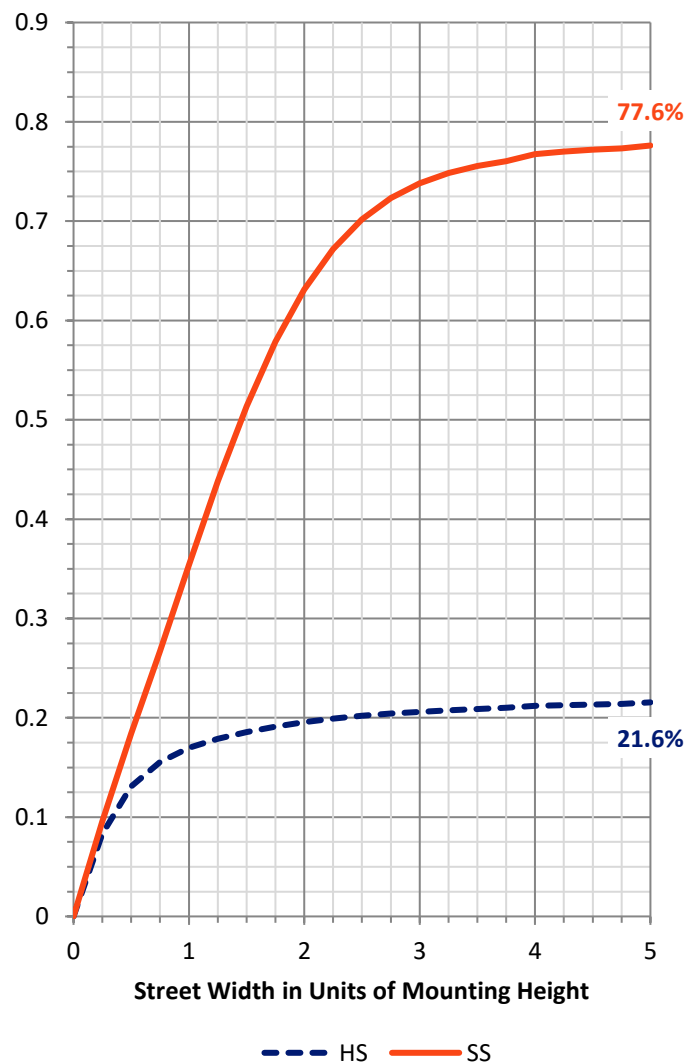
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2523.5	0.0	2523.5
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	8913.5	0.0	8913.5
	% Fixture	77.9	0.0	77.9
Total	Lumens	11437.0	0.0	11437.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	0.5
10°-20°	280.7	2.5
20°-30°	524.5	4.6
30°-40°	841.9	7.4
40°-50°	1421.1	12.4
50°-60°	2532.4	22.1
60°-70°	3464.0	30.3
70°-80°	2037.0	17.8
80°-90°	274.3	2.4
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°	11437.0	100.0
0°-180°	11437.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367544

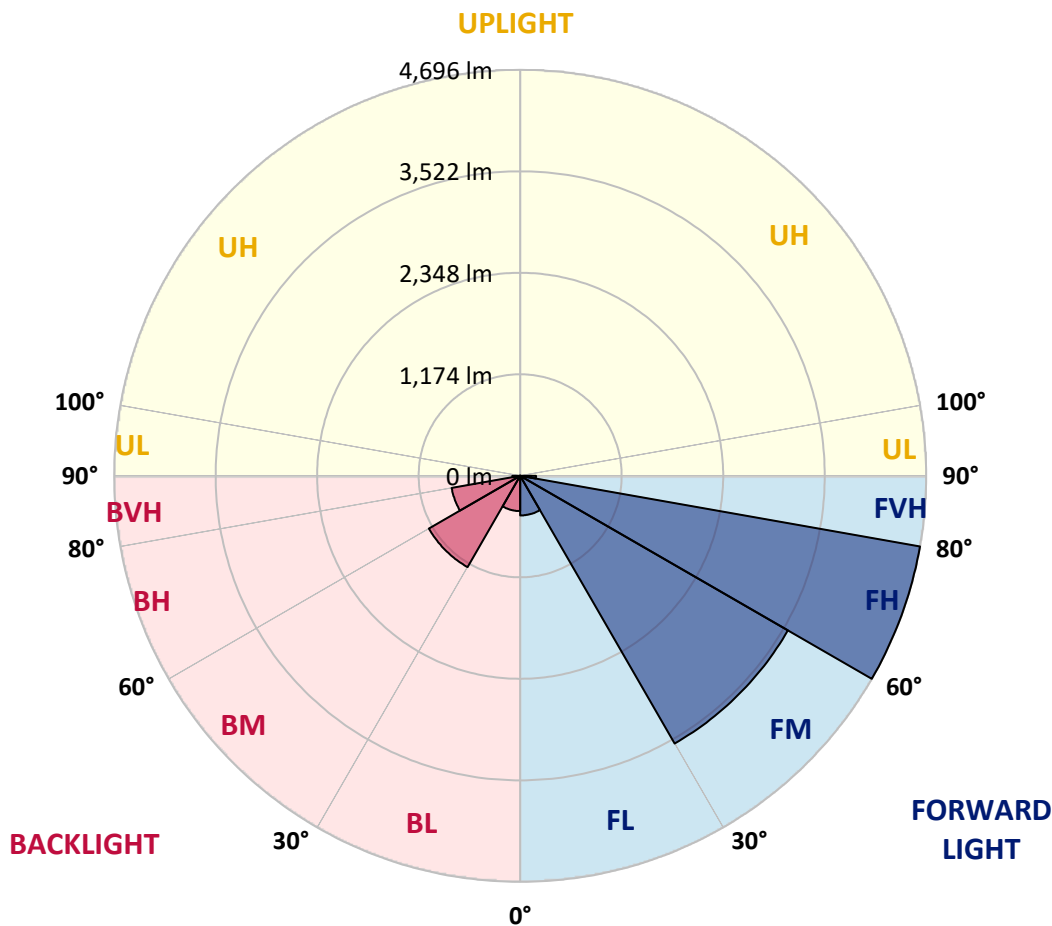
CATALOG NUMBER: MSA-SA2D-727-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	458.3	4.0			
FM	(30°-60°)	3576.0	31.3			
FH	(60°-80°)	4696.4	41.1			G2/5000
FVH	(80°-90°)	182.8	1.6			G2/225
BL	(0°-30°)	407.8	3.6	B1/500		
BM	(30°-60°)	1219.5	10.7	B2/2500		
BH	(60°-80°)	804.7	7.0	B2/1000		G2/1000
BVH	(80°-90°)	91.5	0.8			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 IV Short



REPORT NUMBER: P367544

CATALOG NUMBER: MSA-SA2D-727-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8
2.5°	471.8	462.4	439.9	447.4	456.8	460.5	459.6	458.6	444.1	438.9	464.7
5°	641.1	620.4	604.0	597.4	575.9	559.0	548.7	575.9	571.6	578.7	596.5
7.5°	800.5	787.4	750.3	737.2	693.1	664.0	660.7	682.3	687.9	676.7	707.2
10°	903.2	880.7	873.2	841.8	811.3	806.6	803.8	793.9	780.3	779.4	752.2
12.5°	982.9	994.6	1000.7	964.6	965.6	982.4	973.5	933.7	910.7	870.4	873.7
15°	1125.9	1142.8	1094.5	1071.5	1027.5	1052.8	1049.5	1016.2	1012.9	986.7	956.2
17.5°	1250.7	1258.2	1177.5	1125.0	1110.0	1073.4	1083.3	1084.2	1041.1	1088.0	1060.8
20°	1261.0	1287.7	1194.9	1090.3	1135.3	1130.6	1132.0	1122.7	1065.9	1143.3	1133.0
22.5°	1311.7	1270.9	1187.4	1110.9	1122.7	1129.7	1136.3	1125.0	1121.7	1164.9	1196.3
25°	1302.3	1289.1	1204.7	1140.0	1141.4	1142.8	1146.1	1179.9	1176.1	1234.7	1251.2
27.5°	1390.0	1369.8	1209.9	1193.9	1157.4	1149.4	1126.9	1197.2	1252.1	1250.7	1341.2
30°	1556.9	1536.3	1329.9	1283.5	1217.4	1135.8	1178.9	1272.7	1315.9	1330.4	1445.3
32.5°	1817.6	1851.4	1566.3	1379.2	1297.1	1279.3	1274.6	1265.2	1372.1	1443.9	1548.5
35°	2191.9	2165.1	1844.8	1584.1	1381.1	1304.6	1314.9	1372.1	1499.2	1545.7	1642.3
37.5°	2620.5	2565.2	2201.7	1816.2	1623.0	1527.4	1493.1	1548.5	1576.6	1613.2	1810.6
40°	3056.1	2921.1	2552.0	2121.5	1768.4	1696.2	1666.2	1598.2	1664.3	1738.4	1989.3
42.5°	3476.8	3372.2	2933.3	2485.9	2013.2	1755.7	1739.3	1672.7	1877.7	1956.0	2247.2
45°	3917.6	3675.2	3323.9	2897.2	2371.0	2047.9	2023.5	1903.9	2166.5	2329.7	2611.1
47.5°	4214.0	3989.3	3681.7	3231.1	2670.7	2536.5	2490.1	2285.7	2523.9	2735.8	3173.4
50°	4494.4	4263.2	3940.1	3596.4	3213.2	3059.0	2960.0	2619.5	2968.9	3314.1	3894.2
52.5°	4895.8	4689.0	4240.2	3964.5	3796.1	3416.8	3343.1	3156.0	3489.4	3955.1	4682.0
55°	5324.9	5043.1	4636.5	4483.6	4415.6	3929.8	3869.8	3750.7	4182.6	4611.2	5447.8
57.5°	5514.4	5220.3	4996.2	4904.7	4899.1	4675.4	4606.5	4523.5	4891.1	5173.9	6168.6
60°	5664.9	5349.3	5259.7	5310.8	5496.6	5349.3	5259.7	5186.6	5467.9	5730.1	6756.6
62.5°	5637.2	5320.7	5366.7	5522.3	5996.5	6039.6	5970.7	5793.4	6039.6	6185.9	7093.8
65°	5190.8	4898.2	5165.9	5535.5	6461.2	6805.9	6802.1	6338.3	6423.7	6423.7	7058.2
67.5°	4408.6	4105.6	4544.1	5419.6	6782.4	7413.1	7414.1	6916.1	6458.8	6399.7	6506.7
70°	3292.0	3017.7	3510.6	4720.0	6450.9	7707.2	7664.5	7382.2	6362.2	5845.9	5435.1
72.5°	1966.3	1789.0	2242.5	3436.0	5502.6	7166.5	7280.0	6845.2	5824.3	4861.6	3885.2
75°	892.9	816.0	1053.7	1973.8	3928.4	5977.7	6101.0	5777.0	4626.2	3496.5	2245.3
77.5°	382.2	361.6	460.0	875.5	2166.1	4087.8	4340.6	4128.6	3134.5	2032.0	993.2
80°	245.7	232.6	282.8	421.1	1005.9	2208.7	2426.3	2347.1	1596.8	790.2	349.8
82.5°	146.8	142.6	189.0	264.5	548.7	972.1	1095.5	1124.5	663.1	354.5	200.2
85°	80.2	81.1	103.6	160.4	329.2	378.4	405.2	440.8	312.3	205.4	97.1
87.5°	26.7	31.0	41.7	65.2	117.2	106.9	107.4	124.7	131.8	85.3	31.0
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: P367544

CATALOG NUMBER: MSA-SA2D-727-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8
2.5°	468.9	460.5	438.9	440.3	448.3	450.2	452.5	438.9	436.1	461.9	464.3
5°	599.3	571.6	559.0	554.8	542.6	538.4	560.9	571.2	581.5	601.7	611.5
7.5°	703.9	672.9	650.0	628.9	611.0	600.7	638.7	667.8	685.6	726.9	745.6
10°	751.7	725.0	716.6	699.7	713.3	744.2	751.3	752.2	791.6	790.6	798.6
12.5°	846.9	829.6	801.9	808.0	843.6	875.5	866.6	880.2	894.3	928.1	912.6
15°	933.7	929.0	903.2	907.4	914.5	954.3	959.5	973.1	994.6	1021.4	1003.1
17.5°	1040.6	1038.7	975.9	970.3	986.7	1025.6	1013.4	989.5	1060.8	1089.4	1081.9
20°	1113.3	1099.2	1018.6	994.6	1036.4	1041.5	1027.5	989.5	1051.4	1113.8	1130.6
22.5°	1173.8	1157.4	1074.4	1027.5	1019.0	1021.4	1021.4	1014.3	1044.8	1095.9	1095.5
25°	1222.6	1238.0	1132.5	1087.5	1042.5	986.2	979.2	985.3	1002.6	1101.1	1097.8
27.5°	1344.9	1302.3	1152.2	1118.4	1026.1	937.4	956.7	966.0	971.7	1079.5	1097.3
30°	1424.7	1437.8	1222.6	1136.7	1002.1	883.0	889.6	916.8	949.6	1077.2	1082.3
32.5°	1532.1	1503.9	1332.3	1106.3	938.4	850.2	838.0	874.6	923.4	1039.2	1053.3
35°	1631.9	1665.2	1378.7	1100.6	893.8	801.0	814.1	826.8	877.4	997.0	1013.4
37.5°	1866.4	1790.4	1509.1	1073.4	856.8	776.1	762.0	781.3	824.4	916.8	954.8
40°	2044.6	2049.3	1537.2	1039.2	786.0	740.5	710.5	729.7	748.0	821.6	838.0
42.5°	2379.0	2276.7	1606.2	964.2	741.4	687.0	670.1	678.6	681.4	712.3	739.5
45°	2804.3	2564.7	1633.3	863.3	682.8	665.0	630.7	626.5	611.0	615.3	639.2
47.5°	3392.8	3013.9	1613.7	755.9	630.7	636.4	587.1	567.9	546.3	551.5	574.0
50°	4154.0	3587.9	1612.2	665.0	595.1	598.8	558.5	523.8	502.2	513.0	532.7
52.5°	5007.9	4163.8	1618.8	602.6	556.2	554.3	539.8	497.6	480.2	491.5	514.0
55°	5824.8	4659.0	1667.6	563.2	515.8	519.1	524.8	489.1	469.9	480.2	503.7
57.5°	6535.7	5050.1	1649.3	521.5	478.3	493.3	508.3	477.4	462.9	477.9	501.3
60°	7032.8	5231.6	1504.9	481.6	450.7	471.3	500.4	476.0	474.1	506.5	534.6
62.5°	7214.3	5164.5	1223.5	450.2	434.2	468.5	518.7	506.9	508.8	548.7	587.6
65°	6949.4	4811.9	912.6	430.0	421.6	482.1	560.9	525.2	499.4	532.3	567.9
67.5°	6195.8	4184.9	666.8	412.7	407.0	503.7	599.8	523.3	475.5	508.8	537.9
70°	5012.6	3303.3	516.3	390.6	387.8	489.1	603.5	509.3	449.7	471.3	487.7
72.5°	3434.6	2261.7	427.7	369.5	354.5	433.3	573.1	477.9	418.8	431.4	445.0
75°	1919.4	1269.4	359.7	343.3	310.4	385.9	537.4	459.1	395.8	399.5	418.3
77.5°	861.5	549.1	305.3	308.6	270.6	341.4	491.0	429.1	360.6	352.2	370.9
80°	325.9	267.8	247.6	260.7	227.4	295.9	442.7	401.9	323.6	312.8	323.6
82.5°	189.0	162.3	183.8	200.7	180.5	272.0	422.5	377.0	285.1	257.9	267.3
85°	87.7	83.9	110.2	130.4	126.1	212.0	361.6	283.7	203.1	171.6	189.9
87.5°	23.0	25.8	38.9	46.0	46.9	72.7	139.3	105.5	79.3	60.0	57.7
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)