

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: P597022

Luminaire Tested: **MSA-SA3A-835-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597022
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-835-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9693 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

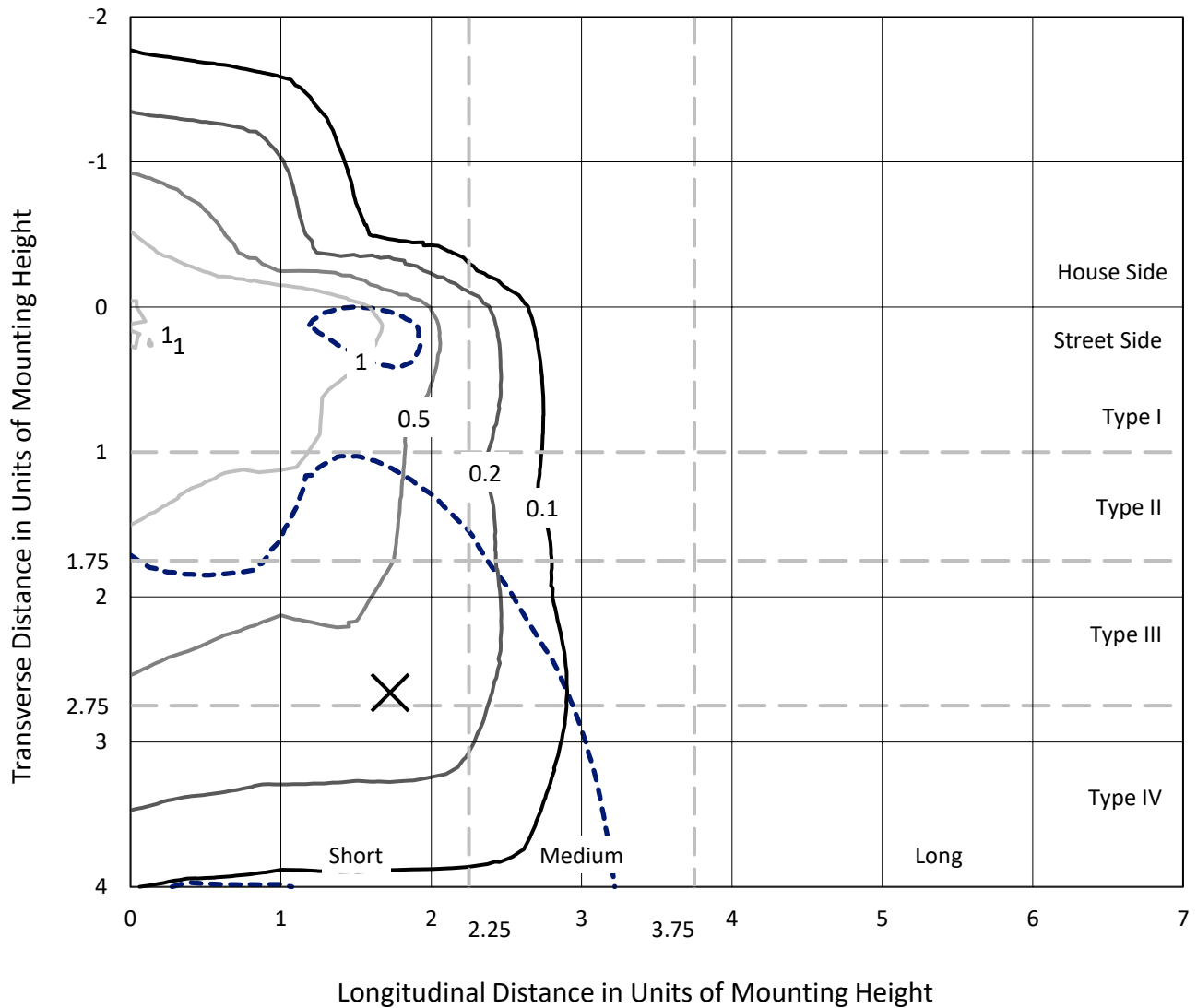
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

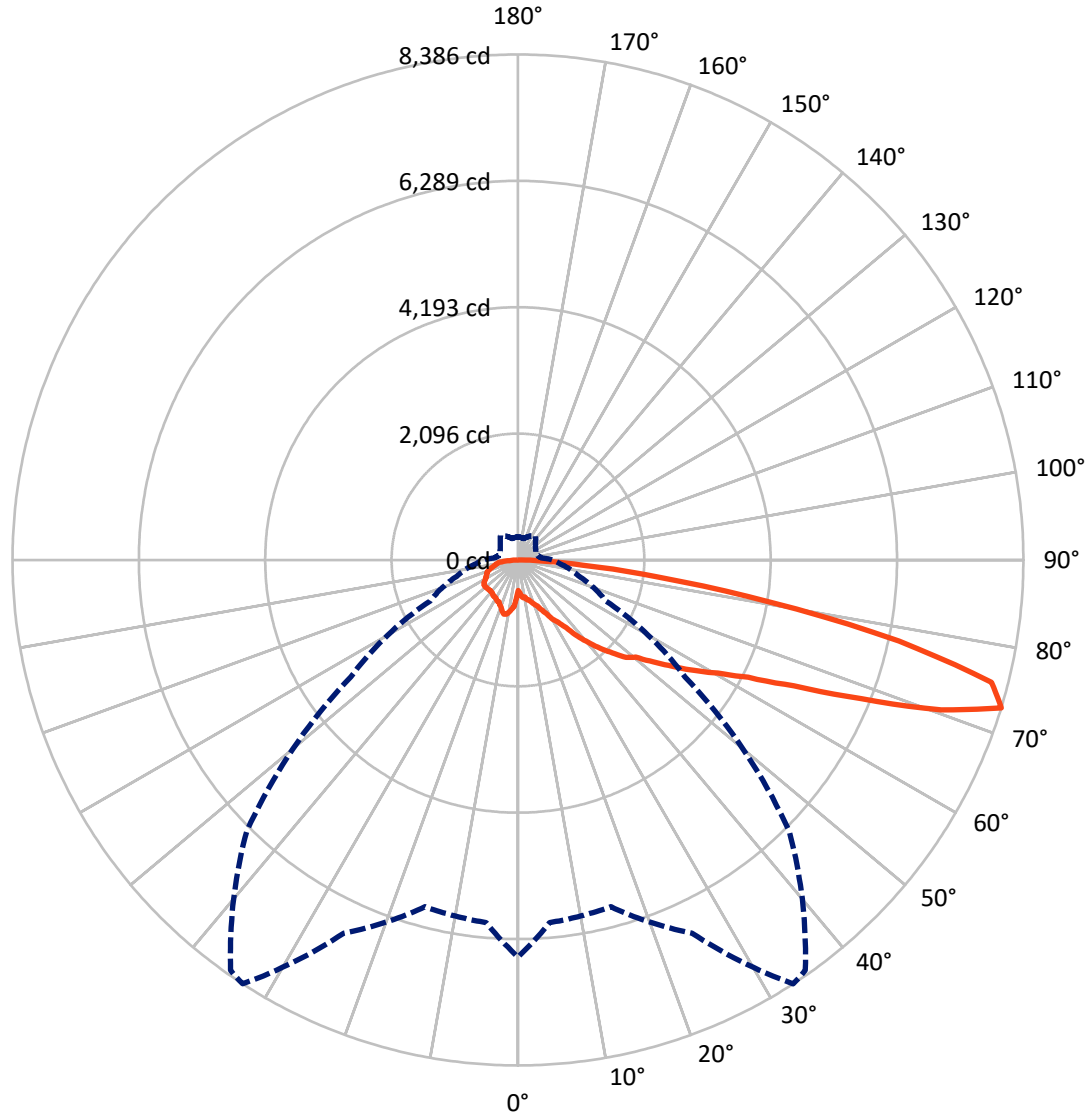
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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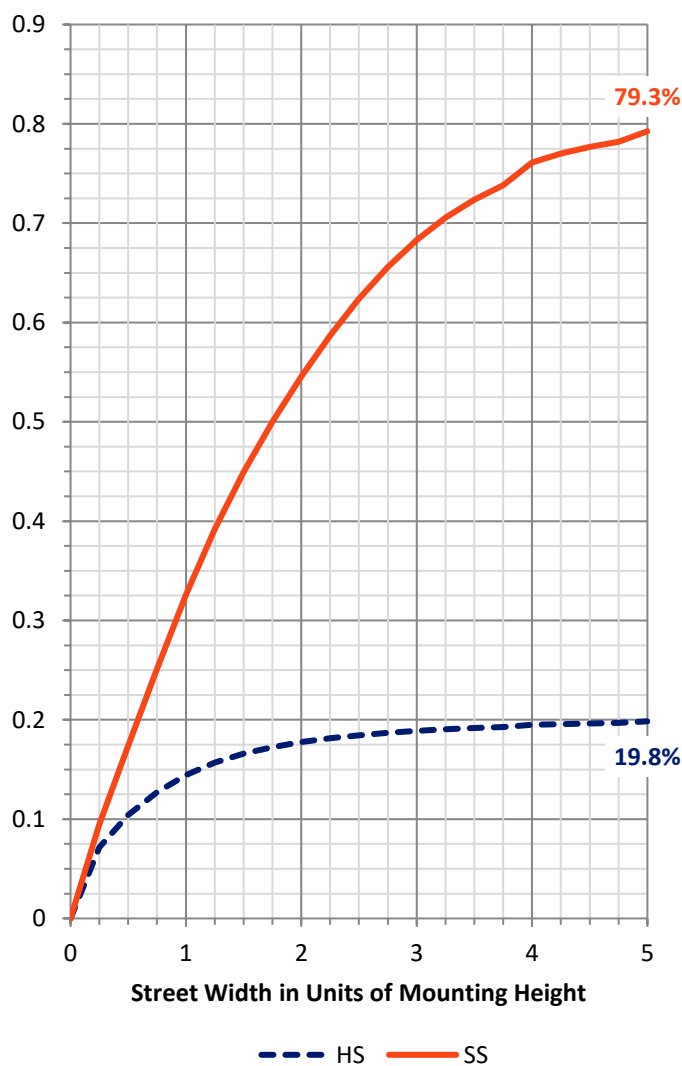
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1960.9	0.0	1960.9
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	7732.1	0.0	7732.1
	% Fixture	79.8	0.0	79.8
Total	Lumens	9693.0	0.0	9693.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	0.7
10°-20°	258.3	2.7
20°-30°	470.9	4.9
30°-40°	796.7	8.2
40°-50°	1325.5	13.7
50°-60°	1945.2	20.1
60°-70°	2488.4	25.7
70°-80°	2024.5	20.9
80°-90°	313.6	3.2
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°	9693.0	100.0
0°-180°	9693.0	100.0

Coefficient of Utilization



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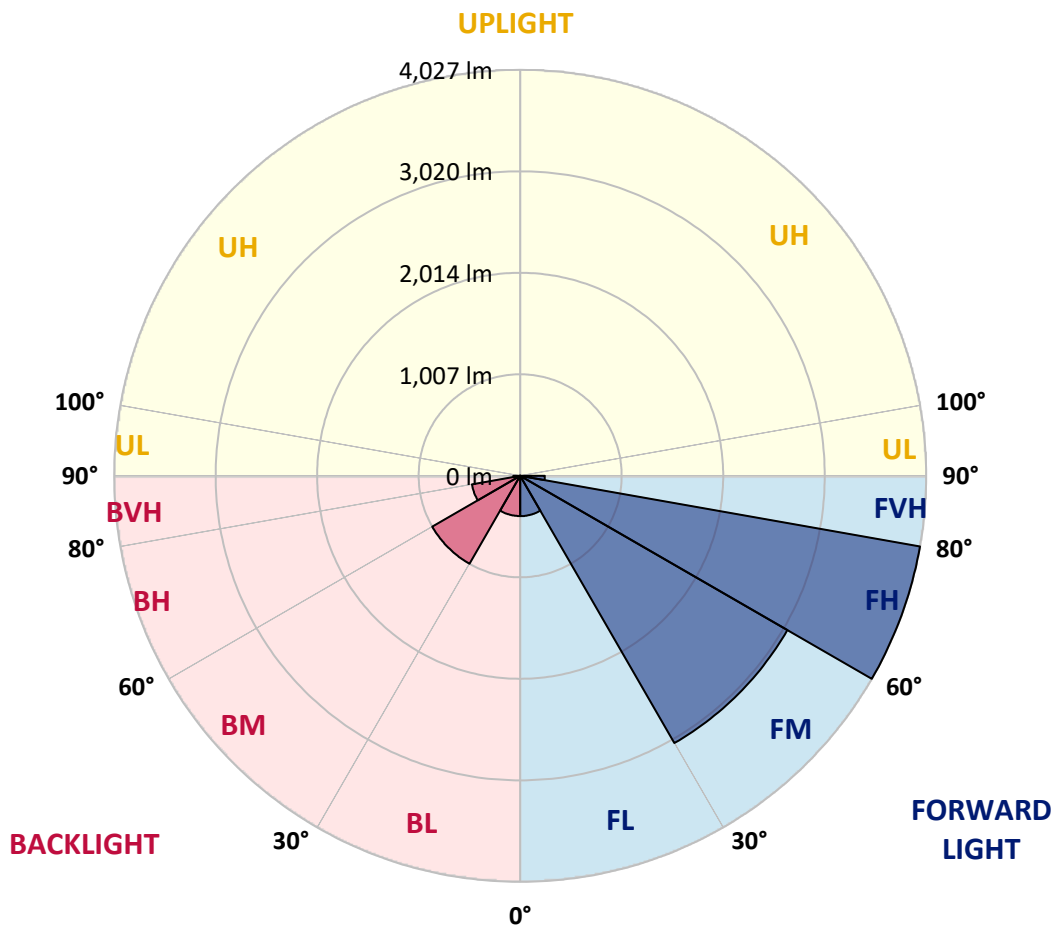
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	400.0	4.1			
FM (30°-60°)	3060.3	31.6			
FH (60°-80°)	4027.1	41.5			G2/5000
FVH (80°-90°)	244.7	2.5			G3/500
BL (0°-30°)	399.1	4.1	B1/500		
BM (30°-60°)	1007.1	10.4	B2/2500		
BH (60°-80°)	485.9	5.0	B1/500		G1/500
BVH (80°-90°)	68.8	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3
2.5°	576.2	558.1	528.4	527.6	544.1	547.7	558.5	559.3	563.4	556.9	602.8
5°	635.7	616.4	604.8	608.8	601.1	610.4	610.4	636.9	672.3	713.3	771.6
7.5°	649.8	635.7	622.5	632.5	634.1	625.3	633.7	696.0	760.0	801.0	894.3
10°	621.7	607.6	617.6	620.9	620.5	640.6	684.4	734.2	805.4	881.0	931.3
12.5°	616.4	626.5	631.3	636.9	675.1	681.2	747.5	799.0	870.6	936.9	1067.6
15°	694.0	707.3	677.6	675.5	688.0	693.6	762.4	814.3	918.8	1030.2	1147.6
17.5°	804.6	809.4	756.0	728.6	737.9	742.3	772.4	837.6	901.9	1107.8	1254.2
20°	911.6	914.8	814.3	753.1	785.7	790.5	818.7	856.1	906.8	1151.2	1326.1
22.5°	1023.8	1003.3	893.1	815.9	834.8	836.0	852.5	873.0	945.0	1144.4	1413.8
25°	1146.4	1133.5	994.8	920.8	920.0	903.5	904.3	933.7	985.6	1217.6	1471.3
27.5°	1309.3	1310.9	1109.4	1069.6	1007.3	996.4	942.1	996.8	1055.9	1218.4	1595.6
30°	1520.4	1481.4	1269.0	1204.7	1143.2	1120.3	1046.7	1093.3	1119.1	1287.9	1730.7
32.5°	1692.1	1680.8	1435.5	1338.2	1237.7	1264.2	1183.0	1142.0	1188.2	1407.8	1935.3
35°	1856.5	1819.5	1611.6	1485.0	1379.2	1363.1	1310.5	1317.3	1345.4	1559.4	2202.7
37.5°	2101.8	2081.7	1861.0	1658.3	1608.8	1543.3	1509.9	1531.2	1509.1	1753.6	2603.6
40°	2376.0	2259.4	2069.2	1888.7	1796.2	1750.0	1761.6	1741.5	1724.6	1971.5	2963.1
42.5°	2638.6	2532.5	2207.6	2126.3	2005.7	2025.0	1961.1	1975.1	2023.0	2280.8	3295.7
45°	2924.5	2694.9	2354.3	2282.8	2196.3	2220.8	2271.9	2256.6	2335.0	2645.5	3608.9
47.5°	3067.3	2848.9	2534.5	2417.9	2416.7	2365.6	2676.4	2710.2	2587.6	2915.7	3927.0
50°	3204.8	2990.1	2668.4	2589.6	2532.5	2641.8	3064.5	2986.9	2816.0	3225.7	4276.8
52.5°	3396.2	3151.3	2822.0	2737.9	2808.7	2910.0	3374.1	3358.8	3039.9	3544.6	4580.8
55°	3542.2	3294.9	3053.2	2975.2	3110.3	3209.6	3689.3	3597.2	3231.7	3778.6	4773.4
57.5°	3797.9	3544.2	3394.6	3221.3	3464.2	3462.5	3993.3	3922.2	3436.8	3970.8	4851.0
60°	4204.4	3906.5	3750.0	3550.2	3810.4	3903.3	4340.7	4135.7	3582.0	4092.2	4711.1
62.5°	4775.0	4421.2	4167.4	3969.6	4286.9	4454.9	4769.8	4291.3	3591.2	4057.7	4343.2
65°	5480.7	5050.5	4717.9	4508.8	5032.4	5272.4	5288.5	4387.4	3506.0	3700.2	3569.5
67.5°	6169.1	5685.4	5338.4	5378.2	6142.6	6256.4	5850.7	4467.8	3048.0	2971.2	2478.6
70°	6622.3	6098.0	5866.7	6289.0	7450.2	7333.6	6306.2	4255.9	2400.2	1926.1	1395.7
72.5°	6588.1	6039.2	5956.0	6830.2	8385.5	8312.8	6361.7	3384.5	1607.6	1053.1	696.0
75°	5367.3	4940.7	5129.7	6465.9	8116.1	8112.5	5523.3	2095.0	824.7	540.8	439.9
77.5°	2967.5	2801.9	3357.2	4895.7	6462.3	6495.2	3732.0	950.2	444.7	383.2	331.3
80°	1039.4	1024.2	1454.8	2641.8	4251.1	4259.1	1735.5	434.7	323.3	289.9	243.3
82.5°	380.0	376.8	603.2	1227.2	2340.7	2335.4	658.2	270.6	239.7	205.1	160.4
85°	151.6	148.4	275.8	544.9	1075.2	1057.9	255.7	153.6	156.8	122.2	78.8
87.5°	41.8	43.4	93.7	170.5	329.3	305.2	64.3	51.9	63.5	49.9	24.9
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°	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3	508.3
2.5°	610.8	614.8	575.0	589.1	607.2	616.8	621.7	601.1	608.0	636.9	635.7
5°	783.7	767.6	752.3	768.0	757.6	742.7	766.8	765.6	781.3	797.0	800.6
7.5°	912.8	891.9	884.6	849.2	813.9	778.1	809.0	828.3	832.4	871.4	887.9
10°	959.4	951.4	954.2	907.6	903.1	906.8	878.2	847.2	866.1	850.1	862.1
12.5°	1067.2	1087.3	1037.4	1005.7	1002.9	980.7	923.6	903.5	882.2	904.3	893.1
15°	1153.6	1191.0	1137.6	1081.7	1018.5	984.4	935.7	905.1	891.1	895.9	882.2
17.5°	1280.3	1315.3	1179.4	1093.7	1028.6	978.3	903.9	838.8	873.4	876.2	860.5
20°	1364.3	1366.8	1193.5	1064.0	1005.3	918.0	845.6	788.5	828.3	869.0	886.6
22.5°	1446.4	1428.3	1210.7	1040.3	920.4	836.0	800.6	797.0	826.7	860.9	864.9
25°	1507.9	1510.7	1220.8	1031.4	870.6	755.6	755.6	781.7	807.8	889.1	885.0
27.5°	1657.1	1547.3	1181.8	990.8	801.4	708.5	756.0	790.9	803.4	891.5	900.3
30°	1765.7	1694.1	1189.8	921.2	731.4	686.4	725.4	769.2	803.8	905.5	902.3
32.5°	1947.8	1755.2	1208.7	823.5	679.2	678.0	712.5	758.8	800.2	890.3	895.1
35°	2149.3	1935.3	1156.1	749.1	666.7	673.1	717.8	736.3	784.9	884.2	888.7
37.5°	2522.0	2029.4	1122.7	691.6	658.7	677.1	694.0	722.6	771.6	854.1	883.0
40°	2740.8	2223.2	998.8	658.2	641.8	673.9	682.4	706.5	733.0	817.9	836.4
42.5°	3028.7	2284.4	893.1	621.3	633.3	660.7	686.0	692.0	709.7	760.8	794.6
45°	3268.7	2330.2	780.9	591.5	604.8	690.0	691.6	688.8	685.6	704.5	732.2
47.5°	3517.2	2453.3	677.6	558.5	593.9	714.1	694.4	668.7	655.4	657.8	683.6
50°	3791.5	2542.5	604.4	531.6	596.3	714.1	708.1	648.2	621.7	614.8	641.8
52.5°	4032.7	2553.0	548.9	509.9	586.3	689.6	717.4	635.3	590.7	574.2	599.5
55°	4164.2	2420.7	508.7	490.2	560.5	667.5	712.5	628.1	553.3	540.8	563.4
57.5°	4161.4	2201.1	474.5	462.8	531.2	636.5	685.6	588.7	530.4	523.1	545.3
60°	4011.4	1943.8	448.3	440.3	501.0	591.5	637.3	562.9	508.3	504.6	528.8
62.5°	3671.2	1678.0	423.0	416.6	472.9	559.7	614.4	534.4	485.3	484.9	507.9
65°	3006.6	1347.1	399.3	397.7	446.7	528.4	592.7	510.3	461.6	469.7	493.0
67.5°	2071.7	946.6	374.0	378.8	422.6	498.2	576.2	494.2	436.7	453.2	474.1
70°	1136.8	585.5	345.8	355.5	392.1	463.2	550.5	468.1	404.1	429.5	443.9
72.5°	578.2	390.4	310.8	326.1	354.7	411.8	502.2	430.3	369.1	378.8	386.4
75°	388.4	293.9	271.8	288.7	309.2	362.7	445.5	394.9	335.8	334.6	343.0
77.5°	293.5	229.6	230.8	250.1	263.4	318.9	400.5	365.1	307.6	304.8	317.3
80°	214.7	174.1	185.8	205.9	217.9	286.3	371.1	332.1	269.4	258.2	268.6
82.5°	142.3	123.4	137.5	157.6	167.3	239.3	337.0	281.9	219.6	191.0	192.6
85°	67.2	64.7	82.0	91.7	104.1	148.4	252.1	195.0	139.9	115.8	121.0
87.5°	15.3	20.5	26.9	26.5	31.0	39.8	78.4	54.7	40.6	27.7	18.5
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)