

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: P596908

Luminaire Tested: **MSA-SA1D-835-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596908
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-835-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5639 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

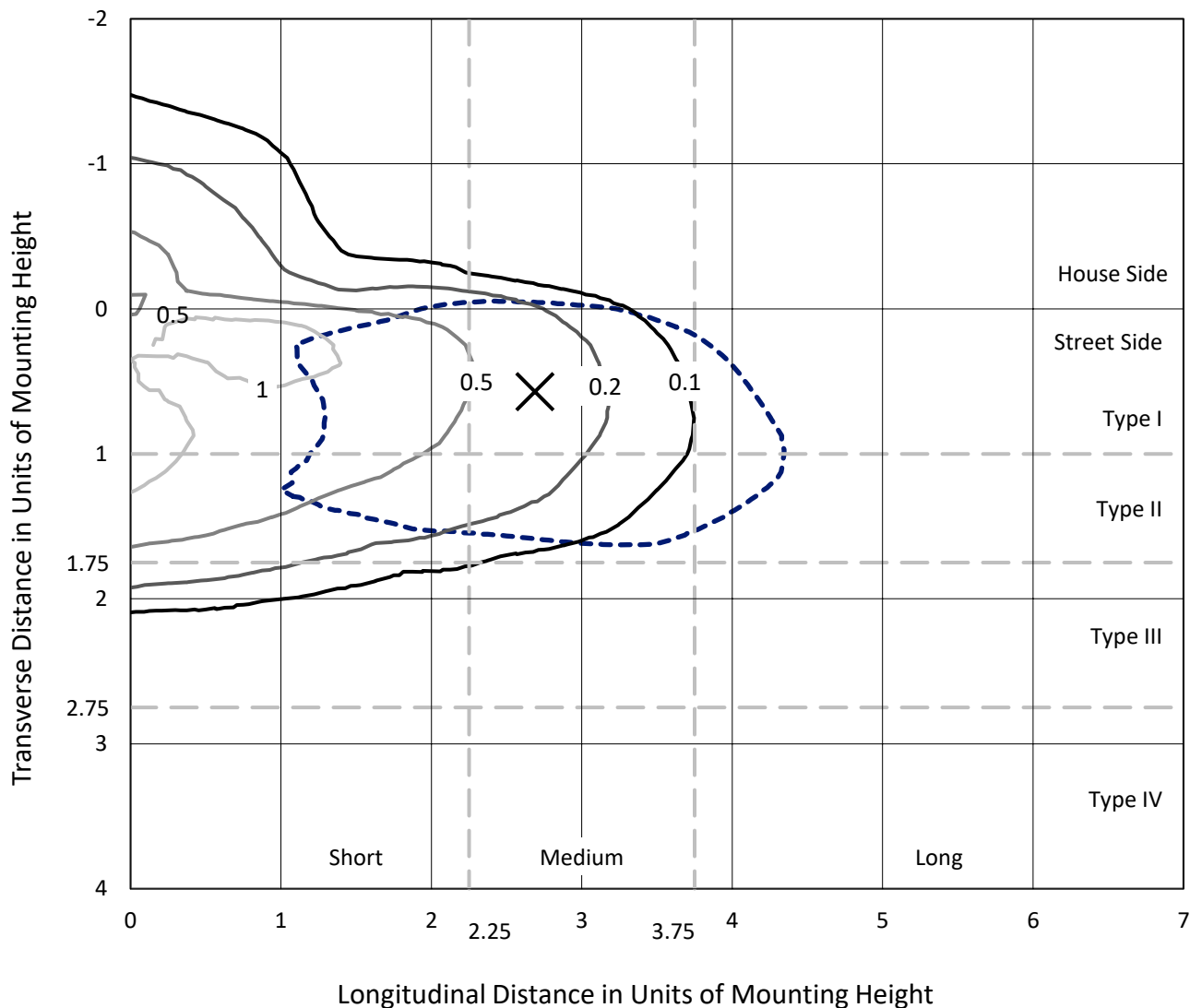
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596908
 CATALOG NUMBER: MSA-SA1D-835-U-T2

Iso-Footcandle Lines of Horizontal Illumination

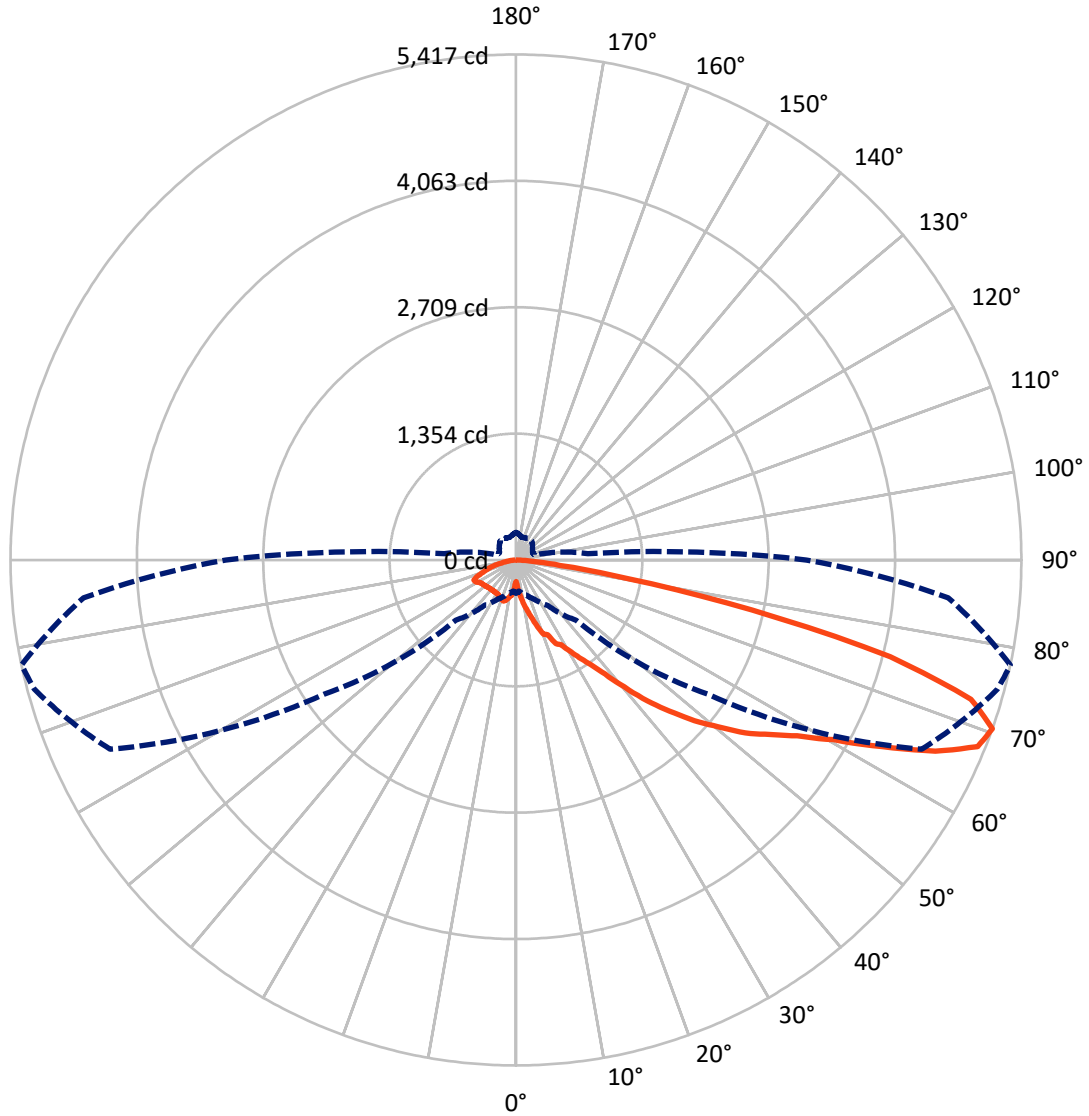
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type II - Medium - N/A

REPORT NUMBER: P596908
CATALOG NUMBER: MSA-SA1D-835-U-T2

Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P596908

CATALOG NUMBER: MSA-SA1D-835-U-T2

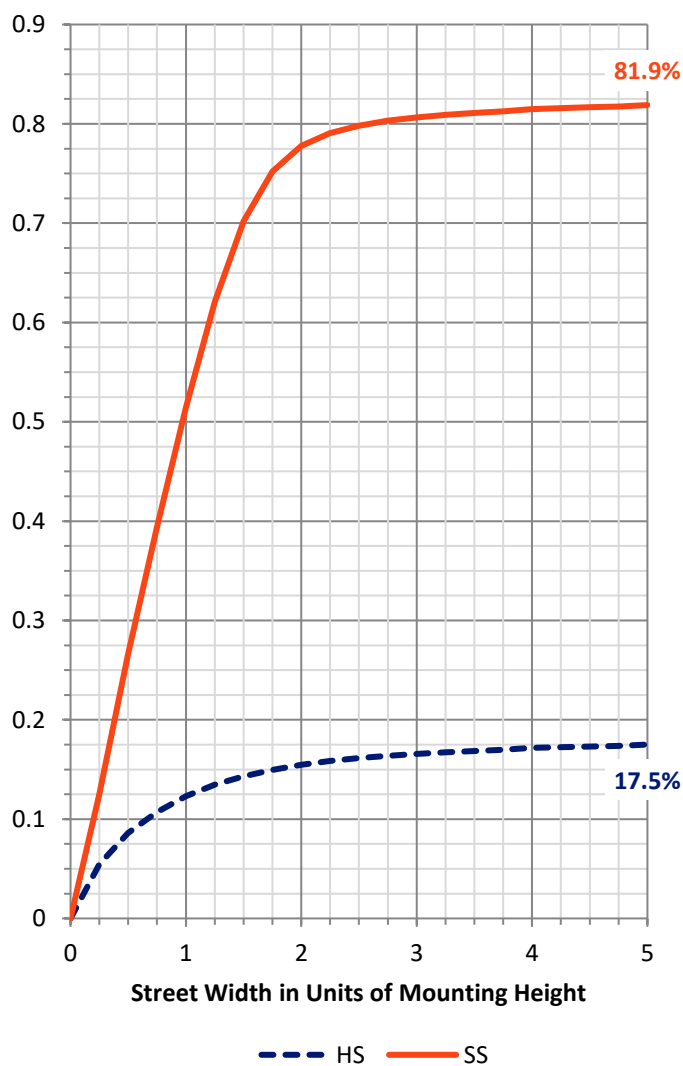
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1006.5	0.0	1006.5
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	4632.5	0.0	4632.5
	% Fixture	82.2	0.0	82.2
Total	Lumens	5639.0	0.0	5639.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	0.6
10°-20°	156.5	2.8
20°-30°	301.3	5.3
30°-40°	507.5	9.0
40°-50°	878.2	15.6
50°-60°	1325.9	23.5
60°-70°	1468.6	26.0
70°-80°	846.7	15.0
80°-90°	118.7	2.1
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°	5639.0	100.0
0°-180°	5639.0	100.0

Coefficient of Utilization

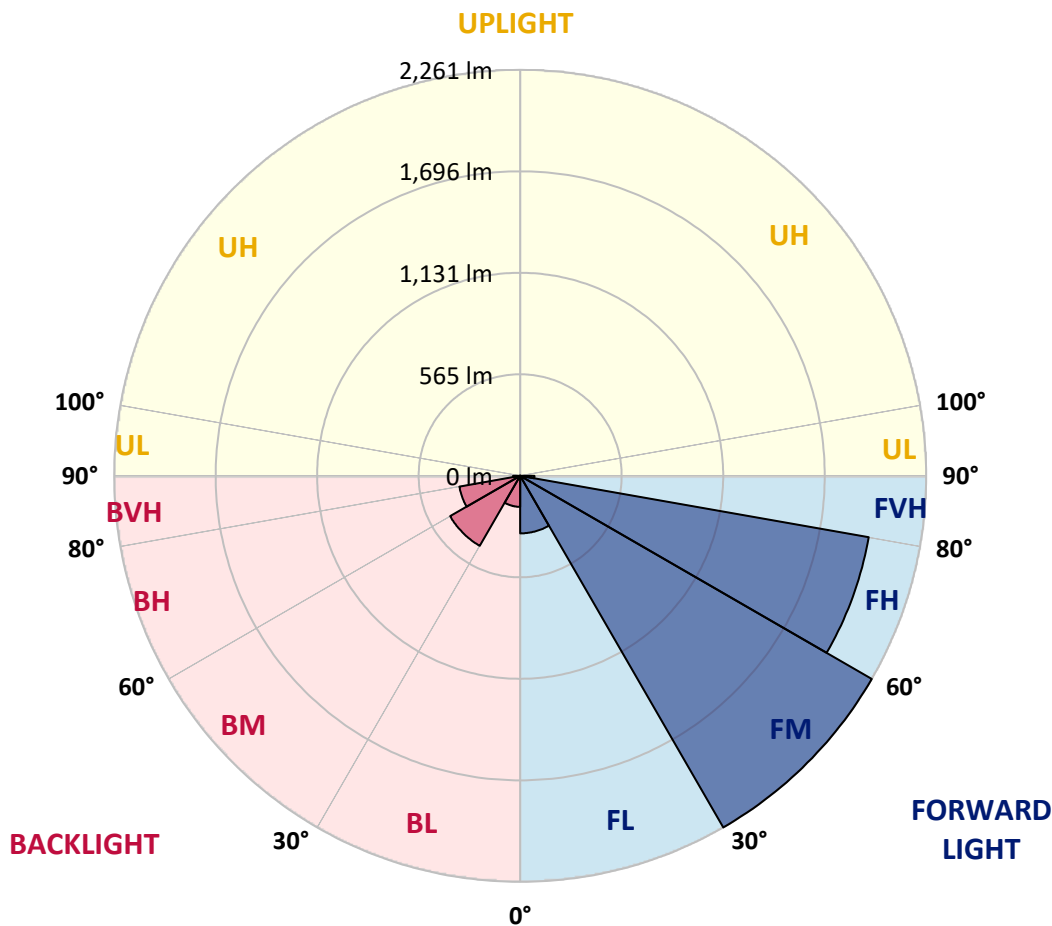


REPORT NUMBER: P596908
 CATALOG NUMBER: MSA-SA1D-835-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	320.6	5.7			
FM (30°-60°)	2261.4	40.1			
FH (60°-80°)	1971.3	35.0			G2/5000
FVH (80°-90°)	79.2	1.4			G1/100
BL (0°-30°)	172.8	3.1	B1/500		
BM (30°-60°)	450.2	8.0	B1/1000		
BH (60°-80°)	344.0	6.1	B1/500		G1/500
BVH (80°-90°)	39.5	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type II Medium





REPORT NUMBER: P596908
 CATALOG NUMBER: MSA-SA1D-835-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9
2.5°	296.0	285.4	269.4	276.0	284.0	284.9	282.3	267.8	262.8	273.9	277.2
5°	414.7	396.8	386.0	382.5	370.5	345.6	363.4	354.3	356.1	350.7	361.3
7.5°	514.6	502.6	486.6	482.1	454.6	435.1	447.4	443.4	424.1	416.6	428.5
10°	565.4	552.2	552.9	543.3	536.0	537.9	531.7	514.1	499.8	489.7	460.7
12.5°	595.9	599.2	616.8	611.9	639.4	662.0	644.8	618.7	573.4	564.2	535.5
15°	668.6	680.8	664.3	671.8	683.6	726.9	719.8	714.2	666.2	648.3	595.4
17.5°	743.3	745.7	720.7	716.7	745.0	766.8	794.3	762.6	768.5	756.0	670.4
20°	759.3	775.5	739.8	715.1	773.2	816.4	850.5	816.9	847.9	851.2	732.3
22.5°	817.8	798.3	751.3	727.1	777.9	831.0	886.5	905.3	895.4	867.7	792.0
25°	858.5	848.2	800.2	773.4	792.7	841.6	938.9	988.0	996.7	993.0	848.9
27.5°	934.0	939.1	840.4	847.9	821.1	825.6	970.4	1097.8	1043.5	1028.5	919.4
30°	1053.1	1030.1	919.4	925.5	881.1	873.5	1036.9	1192.5	1143.9	1125.8	977.4
32.5°	1177.5	1179.6	1045.1	993.0	969.2	961.7	1023.8	1242.1	1270.8	1247.3	1065.1
35°	1352.9	1340.6	1181.5	1112.9	1027.0	1013.9	1117.6	1386.0	1438.7	1372.8	1169.3
37.5°	1619.9	1583.0	1397.8	1239.1	1175.6	1160.6	1251.5	1515.1	1633.5	1551.7	1339.5
40°	1834.3	1759.3	1591.0	1397.8	1290.3	1308.9	1346.8	1671.6	1835.7	1789.6	1497.0
42.5°	2005.2	1938.7	1727.8	1591.9	1446.0	1422.9	1464.3	1865.6	2110.7	2065.6	1693.5
45°	2169.0	2033.6	1881.6	1759.3	1619.0	1646.9	1640.8	2063.5	2448.1	2309.2	1867.2
47.5°	2330.8	2203.6	2044.5	1880.1	1738.9	1913.1	1847.9	2210.7	2675.6	2572.7	2050.1
50°	2538.6	2398.7	2217.5	2052.2	1967.6	2095.0	1985.7	2335.2	2930.5	2809.6	2222.6
52.5°	2676.6	2540.5	2381.6	2263.5	2255.8	2206.7	2178.7	2493.0	3153.8	3080.4	2405.5
55°	2660.4	2529.2	2457.3	2470.2	2566.1	2400.4	2377.6	2726.4	3386.7	3301.9	2603.0
57.5°	2457.0	2313.9	2329.1	2405.8	2663.4	2740.5	2701.7	2975.8	3594.6	3556.0	2847.2
60°	1914.0	1840.4	1964.8	2104.9	2533.2	2840.2	3112.9	3280.0	3850.3	3911.9	3230.9
62.5°	1243.3	1145.1	1341.6	1579.5	2144.6	2774.4	3531.6	3856.9	4269.2	4409.1	3813.9
65°	644.1	628.4	765.9	984.5	1493.0	2365.6	3679.2	4462.0	4778.4	4941.3	4370.8
67.5°	468.3	439.1	502.8	631.4	911.4	1613.1	3399.4	4924.8	5187.2	5336.5	4694.5
70°	356.6	335.0	383.6	463.3	595.2	911.2	2509.4	4798.6	5344.9	5417.3	4651.5
72.5°	267.0	248.5	291.0	365.3	458.6	512.9	1483.3	3945.5	5075.8	5100.5	4174.7
75°	213.2	198.9	217.2	288.4	373.8	349.1	788.0	2858.5	4123.9	4145.1	3188.8
77.5°	174.9	162.7	170.2	216.3	290.8	262.6	390.9	1818.3	2618.3	2585.8	1794.1
80°	142.7	132.1	135.6	156.3	221.4	196.1	219.6	948.5	1249.0	1198.7	746.1
82.5°	109.8	100.8	107.9	115.0	160.3	140.8	128.1	431.6	511.5	476.5	273.6
85°	73.6	65.4	93.8	86.3	104.8	86.5	70.1	171.8	190.6	177.7	96.1
87.5°	20.2	19.0	31.5	43.0	43.0	32.7	25.6	41.6	53.1	46.5	22.6
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: P596908
 CATALOG NUMBER: MSA-SA1D-835-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9	229.9
2.5°	278.6	273.4	259.8	258.6	261.9	262.3	260.2	255.3	252.7	266.8	264.7
5°	358.7	340.4	329.3	319.2	305.1	295.0	297.6	304.7	307.0	317.6	318.8
7.5°	421.0	396.8	372.6	340.2	318.8	305.1	315.5	323.0	328.9	343.9	350.0
10°	448.1	421.7	387.4	353.3	347.4	349.8	343.9	345.8	355.0	355.7	358.7
12.5°	498.4	468.5	406.7	375.9	374.2	379.2	377.1	385.8	392.1	409.3	402.0
15°	546.6	508.5	421.3	389.8	382.9	392.8	404.3	418.9	432.5	448.8	440.5
17.5°	605.1	547.7	422.0	383.4	384.6	405.7	417.7	425.7	466.4	488.7	477.4
20°	642.0	551.7	406.2	367.7	384.6	403.6	420.3	429.0	474.6	508.2	516.0
22.5°	675.4	553.1	394.0	359.2	370.0	395.2	420.3	439.6	468.7	500.9	502.1
25°	693.7	552.0	378.2	359.9	369.8	382.2	404.6	422.2	443.8	488.7	489.9
27.5°	740.7	536.7	362.7	362.7	367.9	368.4	396.8	407.2	410.2	451.1	458.4
30°	754.4	540.0	360.8	362.3	364.8	360.1	372.6	379.4	383.9	419.1	420.3
32.5°	776.2	513.6	366.5	358.0	354.7	354.0	357.1	363.2	365.1	386.7	390.7
35°	802.8	503.1	368.4	356.8	350.3	346.7	355.9	348.4	354.3	379.6	382.5
37.5°	889.3	488.5	378.0	356.8	348.4	344.4	339.9	343.4	364.4	388.8	403.9
40°	944.5	493.0	375.7	360.4	342.0	338.3	330.8	343.7	376.1	419.4	430.7
42.5°	1041.4	495.5	378.5	358.7	344.2	329.6	334.5	348.6	382.7	407.4	424.8
45°	1141.5	503.5	376.6	353.8	339.5	346.3	339.5	352.1	368.4	369.1	382.2
47.5°	1239.8	535.7	372.6	343.7	338.3	356.1	338.7	340.9	342.0	346.3	361.8
50°	1355.2	570.1	367.0	329.6	339.9	356.6	341.3	331.0	329.8	343.7	361.1
52.5°	1486.4	608.8	359.7	315.9	330.3	352.1	350.3	331.7	321.6	335.0	352.4
55°	1640.8	653.0	351.2	302.3	319.7	352.6	355.2	326.8	321.8	336.4	355.0
57.5°	1846.1	717.0	334.7	282.6	306.8	345.3	342.5	321.1	316.4	331.9	351.2
60°	2196.3	839.9	311.2	263.1	292.9	327.5	332.2	311.0	306.3	323.5	343.7
62.5°	2665.3	987.8	282.8	244.0	276.0	308.2	319.2	296.4	296.0	317.8	339.0
65°	3101.8	1071.7	253.4	226.6	258.6	290.3	304.7	282.8	283.7	311.2	332.4
67.5°	3283.3	973.0	227.1	211.1	238.6	269.9	292.7	272.2	269.2	302.3	321.8
70°	3112.9	772.9	204.3	194.6	216.0	247.8	276.0	258.1	251.1	281.2	296.4
72.5°	2754.4	644.3	182.9	175.4	196.3	224.5	253.4	239.1	229.9	252.9	266.6
75°	2153.1	528.7	158.4	156.3	173.7	203.3	229.9	220.0	208.3	222.9	236.5
77.5°	1225.9	334.5	133.1	134.5	146.9	178.2	201.7	193.9	181.9	188.1	203.8
80°	490.6	168.8	107.0	107.9	118.5	146.5	167.1	164.3	151.9	156.8	167.6
82.5°	183.4	92.6	79.0	79.5	90.0	115.9	142.7	141.3	129.5	126.0	132.1
85°	72.9	45.8	48.4	50.5	60.6	83.5	114.5	101.6	87.7	76.9	80.6
87.5°	17.4	14.6	16.9	17.9	19.7	26.1	41.8	33.6	34.6	27.7	20.7
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)