

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: P596560

Luminaire Tested: **MSA-SA1D-827-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596560
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-SA1D-827-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 5053 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

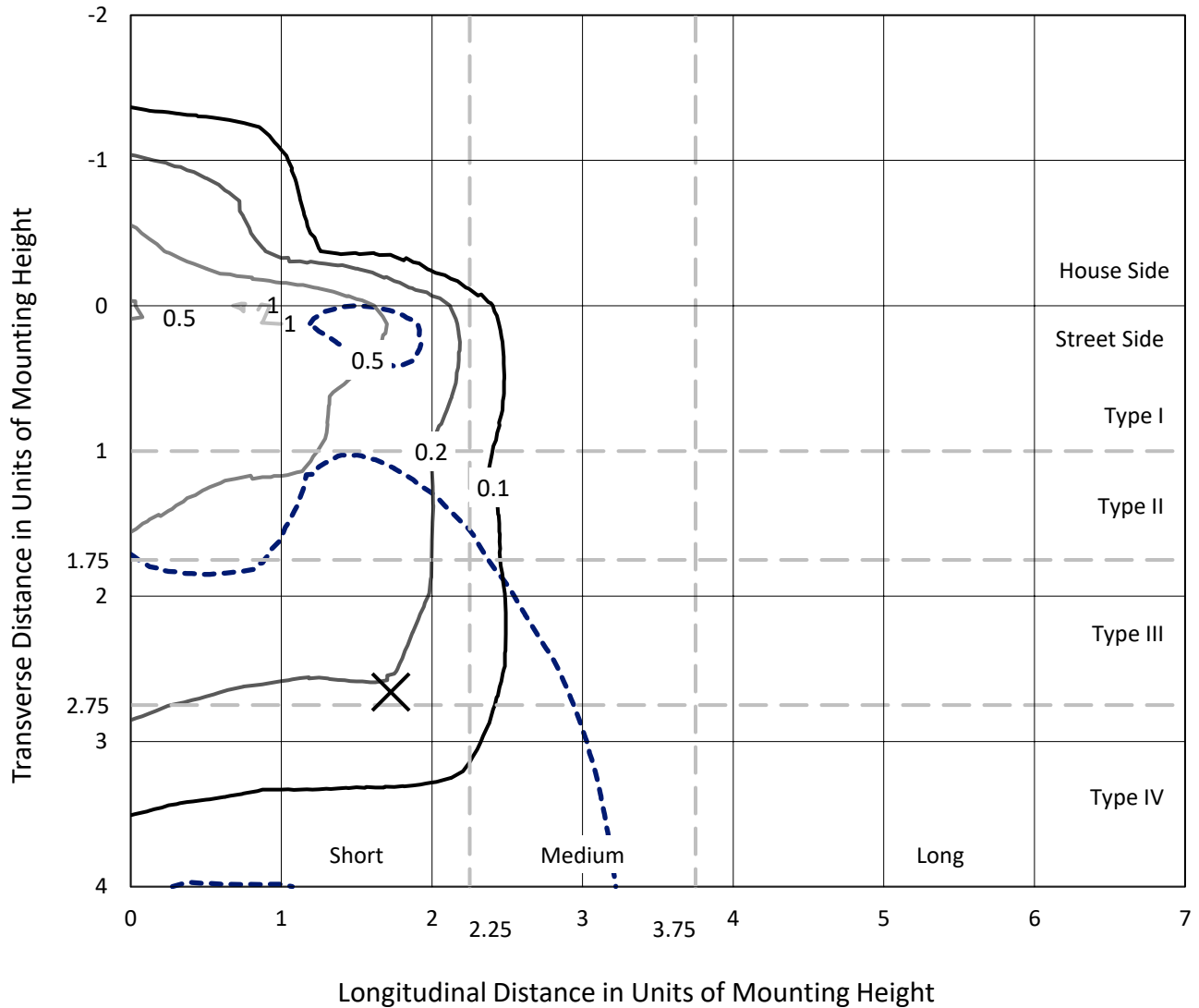
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

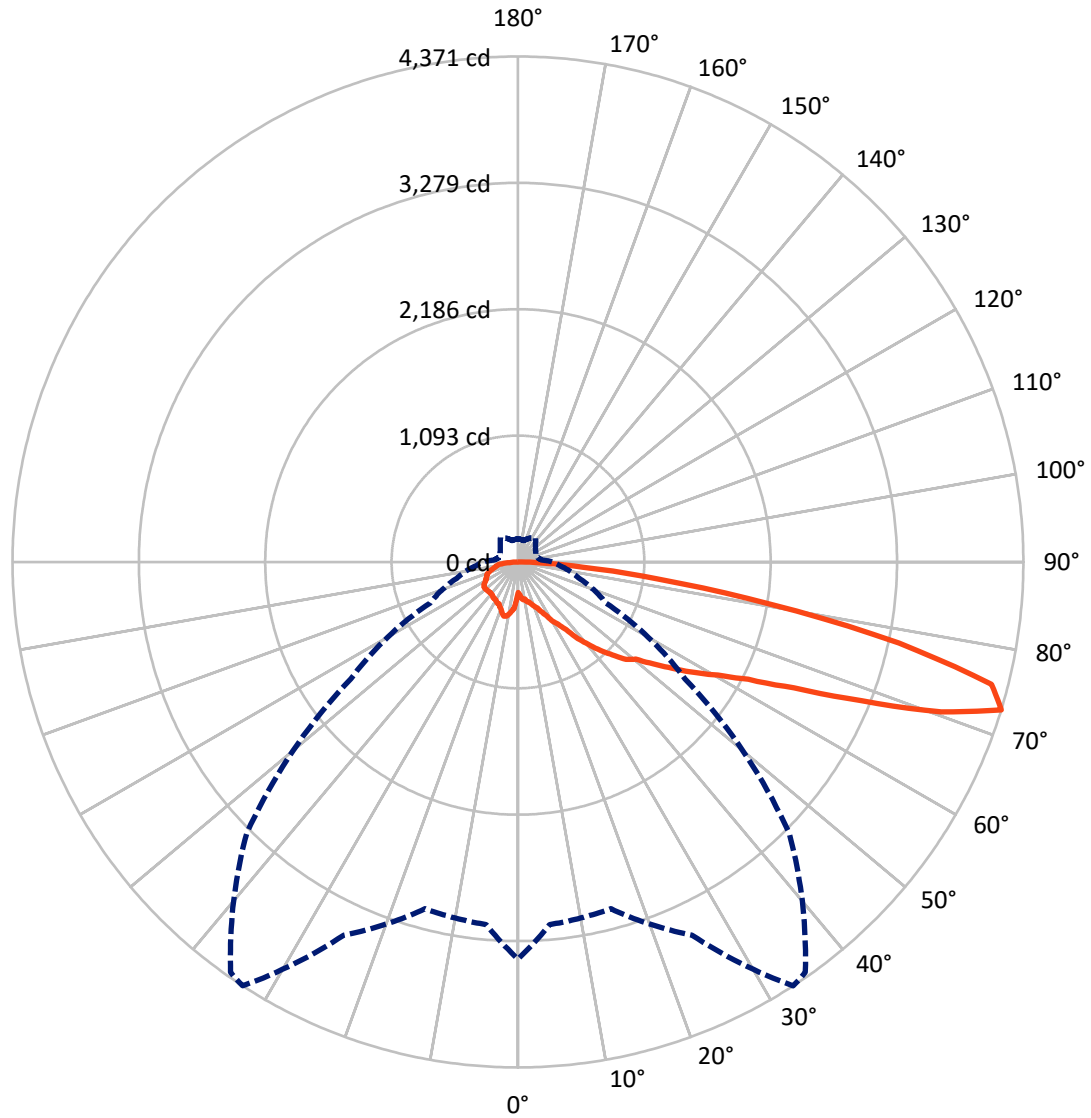
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type IV - Short - N/A

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CATALOG NUMBER: MSA-SA1D-827-U-T4FT

Luminous Intensity Polar Plot



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

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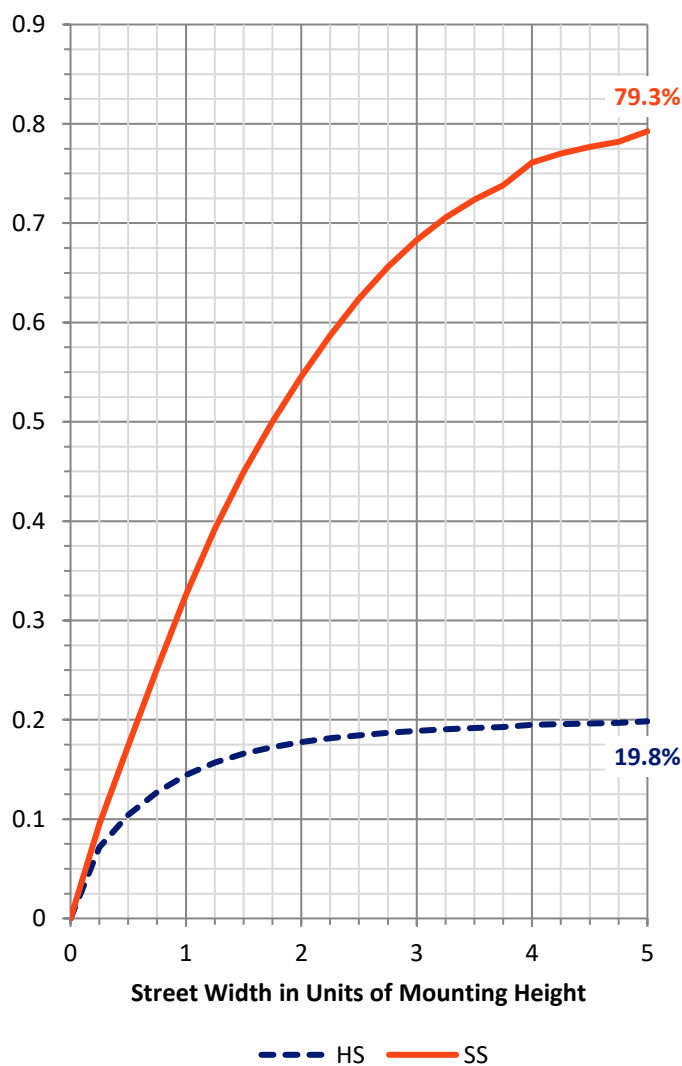
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1022.2	0.0	1022.2
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	4030.8	0.0	4030.8
	% Fixture	79.8	0.0	79.8
Total	Lumens	5053.0	0.0	5053.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	0.7
10°-20°	134.6	2.7
20°-30°	245.5	4.9
30°-40°	415.3	8.2
40°-50°	691.0	13.7
50°-60°	1014.0	20.1
60°-70°	1297.2	25.7
70°-80°	1055.4	20.9
80°-90°	163.5	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°	5053.0	100.0
0°-180°	5053.0	100.0

Coefficient of Utilization

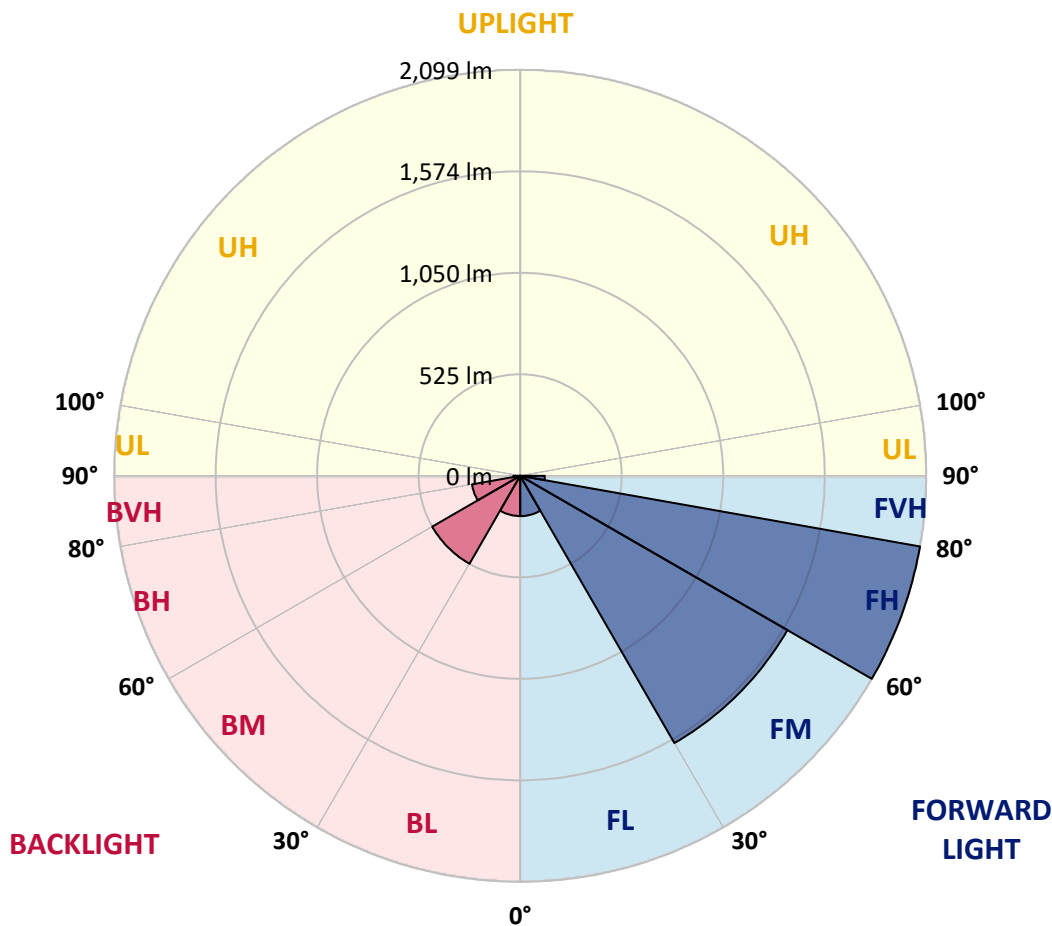


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	208.5	4.1			
FM (30°-60°)	1595.3	31.6			
FH (60°-80°)	2099.3	41.5			G2/5000
FVH (80°-90°)	127.6	2.5			G2/225
BL (0°-30°)	208.0	4.1	B1/500		
BM (30°-60°)	525.0	10.4	B1/1000		
BH (60°-80°)	253.3	5.0	B1/500		G1/500
BVH (80°-90°)	35.9	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0
2.5°	300.4	291.0	275.4	275.0	283.6	285.5	291.2	291.6	293.7	290.3	314.2
5°	331.4	321.3	315.3	317.4	313.4	318.2	318.2	332.0	350.5	371.9	402.3
7.5°	338.7	331.4	324.5	329.7	330.6	326.0	330.4	362.9	396.2	417.6	466.2
10°	324.1	316.7	322.0	323.7	323.4	333.9	356.8	382.8	419.9	459.3	485.5
12.5°	321.3	326.6	329.1	332.0	352.0	355.1	389.7	416.5	453.8	488.4	556.5
15°	361.8	368.7	353.2	352.2	358.7	361.6	397.4	424.5	479.0	537.0	598.3
17.5°	419.4	422.0	394.1	379.8	384.7	387.0	402.7	436.6	470.2	577.5	653.8
20°	475.2	476.9	424.5	392.6	409.6	412.1	426.8	446.3	472.7	600.1	691.3
22.5°	533.7	523.0	465.6	425.3	435.2	435.8	444.4	455.1	492.6	596.6	737.0
25°	597.6	590.9	518.6	480.0	479.6	471.0	471.4	486.7	513.8	634.7	767.0
27.5°	682.5	683.4	578.3	557.6	525.1	519.4	491.1	519.6	550.5	635.1	831.8
30°	792.6	772.2	661.6	628.0	595.9	584.0	545.6	570.0	583.4	671.4	902.2
32.5°	882.1	876.2	748.3	697.6	645.2	659.0	616.7	595.3	619.4	733.9	1008.9
35°	967.8	948.5	840.2	774.1	719.0	710.6	683.2	686.7	701.4	812.9	1148.3
37.5°	1095.7	1085.2	970.1	864.5	838.7	804.5	787.1	798.2	786.7	914.2	1357.3
40°	1238.6	1177.9	1078.7	984.6	936.4	912.3	918.3	907.9	899.1	1027.8	1544.7
42.5°	1375.5	1320.2	1150.8	1108.5	1045.6	1055.6	1022.3	1029.7	1054.6	1189.0	1718.0
45°	1524.6	1404.9	1227.3	1190.0	1144.9	1157.7	1184.4	1176.4	1217.3	1379.1	1881.3
47.5°	1599.0	1485.2	1321.2	1260.4	1259.8	1233.2	1395.2	1412.8	1348.9	1520.0	2047.1
50°	1670.7	1558.7	1391.0	1350.0	1320.2	1377.2	1597.5	1557.1	1468.0	1681.6	2229.5
52.5°	1770.5	1642.8	1471.1	1427.3	1464.2	1517.0	1758.9	1751.0	1584.7	1847.8	2388.0
55°	1846.5	1717.6	1591.6	1551.0	1621.4	1673.2	1923.3	1875.3	1684.7	1969.8	2488.4
57.5°	1979.9	1847.6	1769.6	1679.3	1805.9	1805.0	2081.7	2044.6	1791.6	2070.0	2528.9
60°	2191.8	2036.5	1954.9	1850.7	1986.4	2034.8	2262.8	2155.9	1867.3	2133.3	2455.9
62.5°	2489.2	2304.8	2172.5	2069.4	2234.8	2322.4	2486.5	2237.1	1872.1	2115.3	2264.1
65°	2857.1	2632.8	2459.5	2350.5	2623.4	2748.5	2756.9	2287.2	1827.7	1928.9	1860.8
67.5°	3216.0	2963.8	2782.9	2803.7	3202.2	3261.5	3050.0	2329.1	1588.9	1548.9	1292.1
70°	3452.2	3178.9	3058.4	3278.5	3883.8	3823.0	3287.5	2218.6	1251.2	1004.1	727.6
72.5°	3434.4	3148.3	3104.9	3560.6	4371.4	4333.5	3316.4	1764.4	838.1	549.0	362.9
75°	2798.0	2575.6	2674.1	3370.7	4231.0	4229.1	2879.3	1092.1	429.9	281.9	229.3
77.5°	1547.0	1460.6	1750.1	2552.1	3368.8	3386.0	1945.5	495.3	231.8	199.8	172.7
80°	541.9	533.9	758.4	1377.2	2216.1	2220.3	904.7	226.6	168.5	151.1	126.8
82.5°	198.1	196.4	314.4	639.8	1220.2	1217.5	343.1	141.1	124.9	106.9	83.6
85°	79.0	77.3	143.8	284.0	560.5	551.5	133.3	80.1	81.8	63.7	41.1
87.5°	21.8	22.6	48.8	88.9	171.7	159.1	33.5	27.0	33.1	26.0	13.0
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°	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0
2.5°	318.4	320.5	299.8	307.1	316.5	321.6	324.1	313.4	316.9	332.0	331.4
5°	408.5	400.2	392.2	400.4	394.9	387.2	399.7	399.1	407.3	415.5	417.4
7.5°	475.8	464.9	461.2	442.7	424.3	405.6	421.8	431.8	433.9	454.2	462.8
10°	500.2	496.0	497.4	473.1	470.8	472.7	457.8	441.7	451.5	443.1	449.4
12.5°	556.3	566.8	540.8	524.3	522.8	511.3	481.5	471.0	459.9	471.4	465.6
15°	601.4	620.9	593.0	563.9	531.0	513.1	487.8	471.9	464.5	467.0	459.9
17.5°	667.4	685.7	614.8	570.2	536.2	510.0	471.2	437.3	455.3	456.8	448.6
20°	711.2	712.5	622.2	554.7	524.0	478.6	440.8	411.1	431.8	453.0	462.2
22.5°	754.0	744.6	631.2	542.3	479.8	435.8	417.4	415.5	431.0	448.8	450.9
25°	786.1	787.5	636.4	537.7	453.8	393.9	393.9	407.5	421.1	463.5	461.4
27.5°	863.8	806.6	616.1	516.5	417.8	369.4	394.1	412.3	418.8	464.7	469.3
30°	920.4	883.1	620.3	480.2	381.3	357.8	378.2	401.0	419.0	472.1	470.4
32.5°	1015.4	915.0	630.1	429.3	354.0	353.4	371.4	395.6	417.1	464.1	466.6
35°	1120.4	1008.9	602.7	390.5	347.5	350.9	374.2	383.8	409.2	461.0	463.3
37.5°	1314.7	1058.0	585.3	360.5	343.4	353.0	361.8	376.7	402.3	445.2	460.3
40°	1428.8	1159.0	520.7	343.1	334.6	351.3	355.7	368.3	382.1	426.4	436.0
42.5°	1578.9	1190.9	465.6	323.9	330.2	344.4	357.6	360.8	370.0	396.6	414.2
45°	1704.0	1214.7	407.1	308.4	315.3	359.7	360.5	359.1	357.4	367.3	381.7
47.5°	1833.5	1278.9	353.2	291.2	309.6	372.3	362.0	348.6	341.7	342.9	356.4
50°	1976.5	1325.4	315.1	277.1	310.9	372.3	369.1	337.9	324.1	320.5	334.6
52.5°	2102.3	1330.9	286.1	265.8	305.6	359.5	374.0	331.2	307.9	299.3	312.5
55°	2170.8	1261.9	265.2	255.5	292.2	348.0	371.4	327.4	288.4	281.9	293.7
57.5°	2169.4	1147.5	247.4	241.3	276.9	331.8	357.4	306.9	276.5	272.7	284.2
60°	2091.2	1013.3	233.7	229.5	261.2	308.4	332.2	293.5	265.0	263.1	275.7
62.5°	1913.8	874.7	220.5	217.2	246.5	291.8	320.3	278.6	253.0	252.8	264.8
65°	1567.3	702.2	208.2	207.3	232.9	275.4	309.0	266.0	240.6	244.8	257.0
67.5°	1080.0	493.4	194.9	197.5	220.3	259.7	300.4	257.6	227.6	236.2	247.1
70°	592.6	305.2	180.3	185.3	204.4	241.5	287.0	244.0	210.7	223.9	231.4
72.5°	301.4	203.5	162.0	170.0	184.9	214.7	261.8	224.3	192.4	197.5	201.4
75°	202.5	153.2	141.7	150.5	161.2	189.1	232.3	205.8	175.0	174.4	178.8
77.5°	153.0	119.7	120.3	130.4	137.3	166.2	208.8	190.3	160.4	158.9	165.4
80°	111.9	90.8	96.8	107.3	113.6	149.2	193.5	173.1	140.4	134.6	140.0
82.5°	74.2	64.4	71.7	82.2	87.2	124.7	175.7	146.9	114.5	99.6	100.4
85°	35.0	33.7	42.8	47.8	54.3	77.3	131.4	101.7	72.9	60.4	63.1
87.5°	8.0	10.7	14.0	13.8	16.1	20.8	40.9	28.5	21.2	14.5	9.6
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)