

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: P366900

Luminaire Tested: **MSA-SA1C-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-730-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: 5697 lumens
Efficiency: N/A
Efficacy: 96.6 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

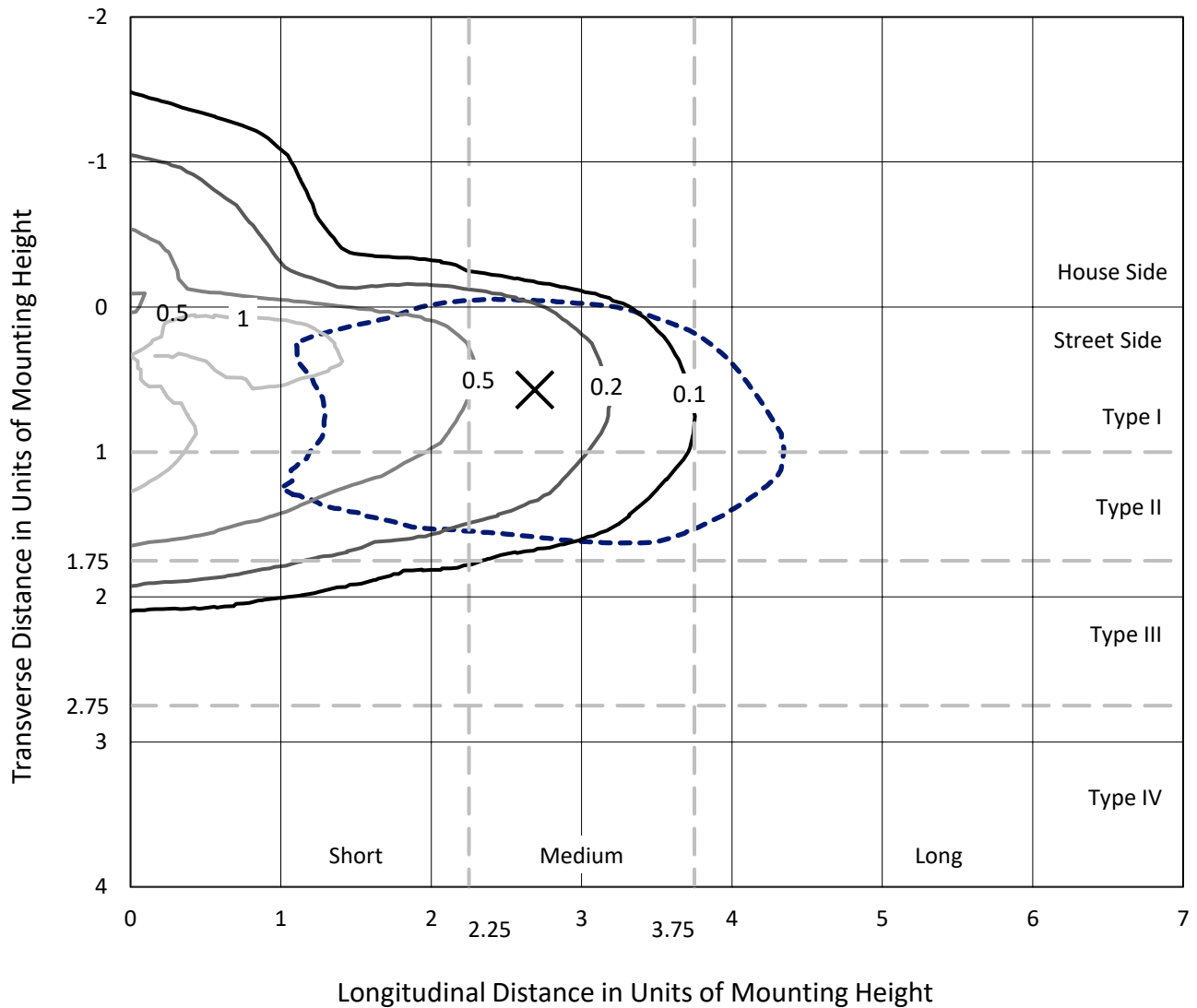
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

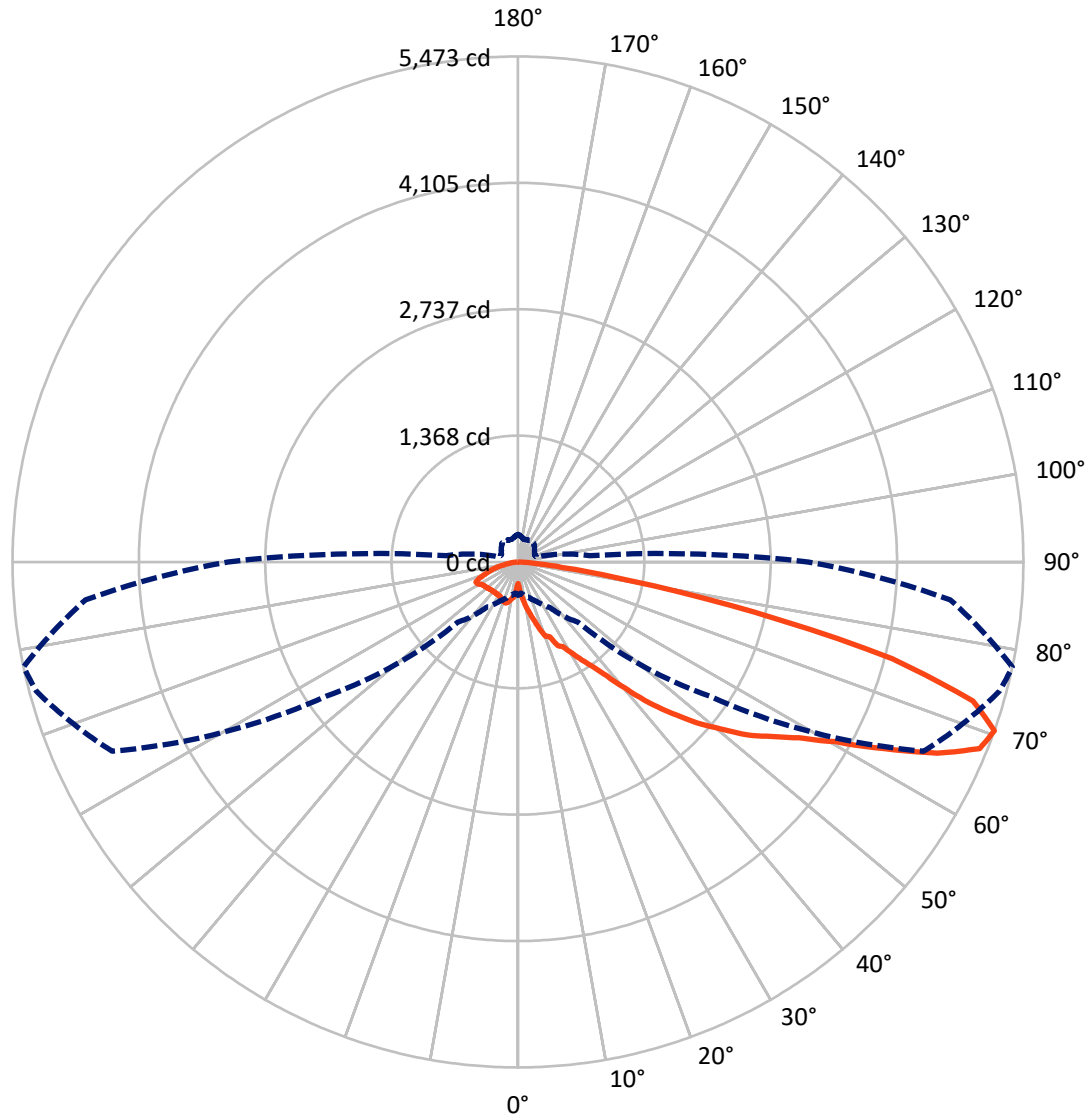
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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

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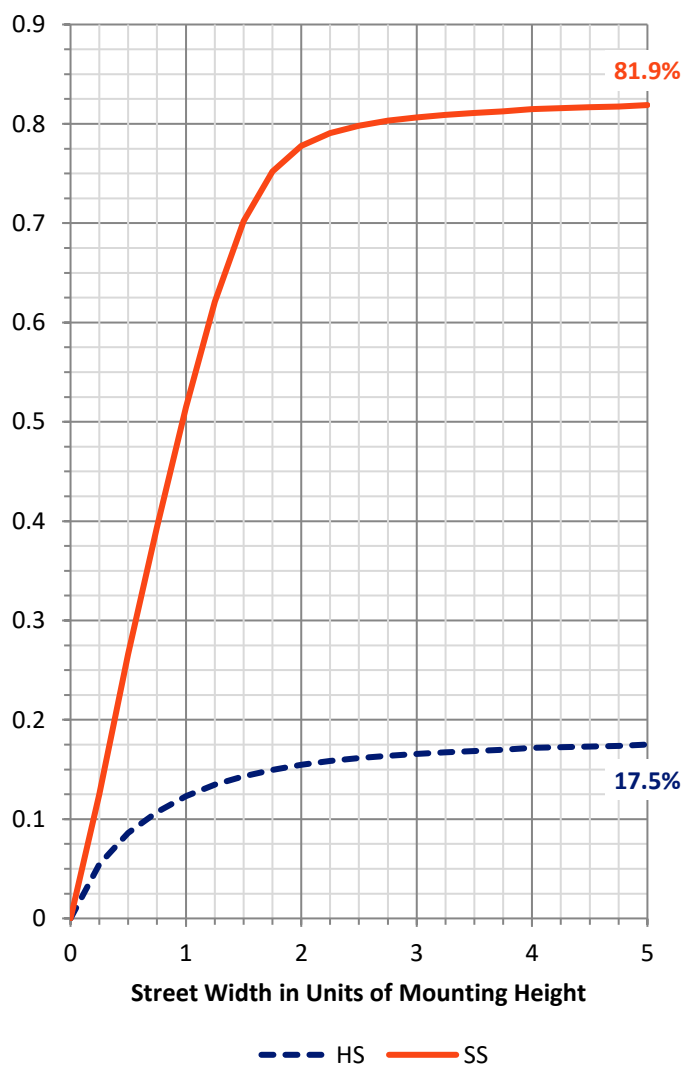
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1016.8	0.0	1016.8
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	4680.2	0.0	4680.2
	% Fixture	82.2	0.0	82.2
Total	Lumens	5697.0	0.0	5697.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	0.6
10°-20°	158.1	2.8
20°-30°	304.4	5.3
30°-40°	512.7	9.0
40°-50°	887.2	15.6
50°-60°	1339.5	23.5
60°-70°	1483.7	26.0
70°-80°	855.4	15.0
80°-90°	120.0	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°	5697.0	100.0
0°-180°	5697.0	100.0

Coefficient of Utilization

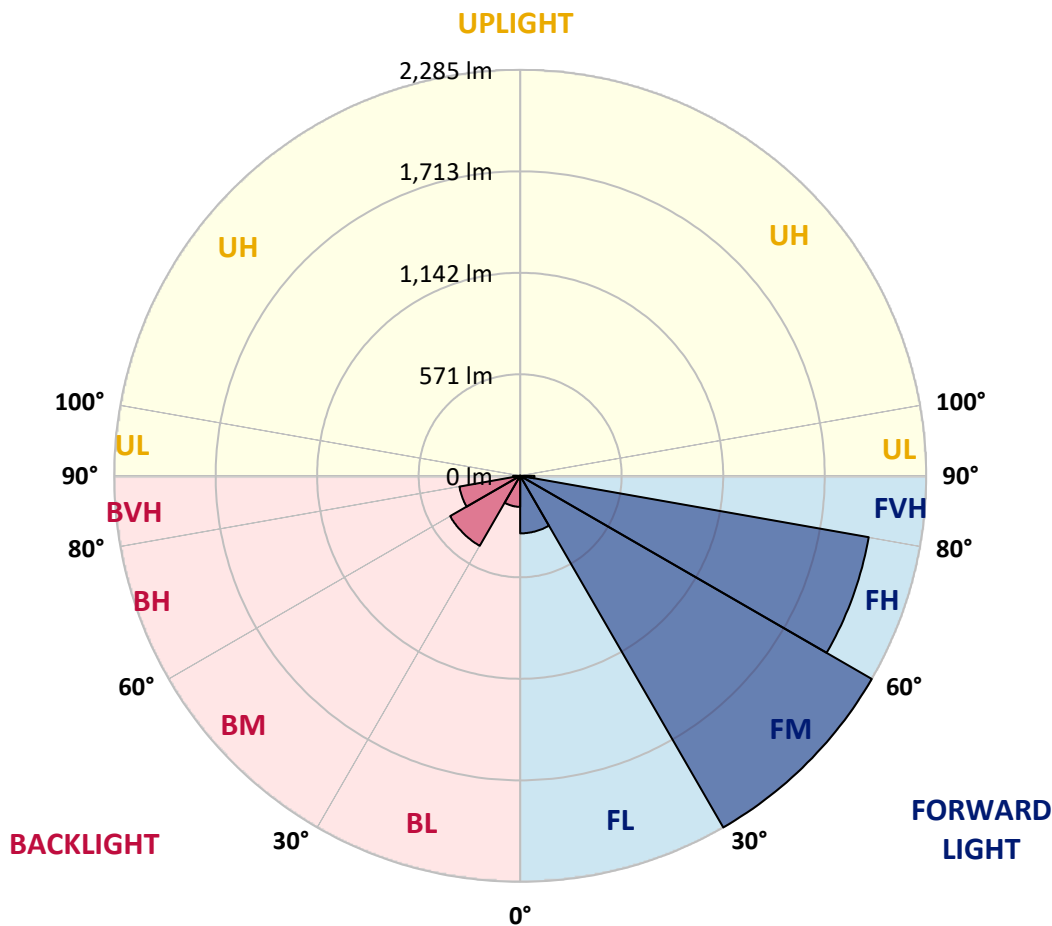


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	323.9	5.7			
FM (30°-60°)	2284.7	40.1			
FH (60°-80°)	1991.6	35.0			G2/5000
FVH (80°-90°)	80.0	1.4			G1/100
BL (0°-30°)	174.6	3.1	B1/500		
BM (30°-60°)	454.8	8.0	B1/1000		
BH (60°-80°)	347.5	6.1	B1/500		G1/500
BVH (80°-90°)	39.9	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3
2.5°	299.0	288.3	272.2	278.8	286.9	287.8	285.2	270.5	265.5	276.7	280.0
5°	418.9	400.9	390.0	386.4	374.3	349.1	367.2	357.9	359.8	354.3	365.0
7.5°	519.9	507.8	491.6	487.1	459.3	439.6	452.0	447.9	428.4	420.8	433.0
10°	571.2	557.9	558.6	548.8	541.5	543.4	537.2	519.4	504.9	494.7	465.5
12.5°	602.0	605.4	623.2	618.2	646.0	668.8	651.4	625.1	579.2	570.0	541.0
15°	675.4	687.8	671.2	678.8	690.6	734.3	727.2	721.5	673.1	655.0	601.6
17.5°	751.0	753.3	728.2	724.1	752.6	774.7	802.5	770.4	776.4	763.8	677.3
20°	767.1	783.5	747.4	722.5	781.1	824.8	859.3	825.3	856.6	860.0	739.8
22.5°	826.2	806.5	759.0	734.6	785.9	839.5	895.6	914.6	904.6	876.6	800.1
25°	867.3	856.9	808.4	781.4	800.8	850.2	948.6	998.2	1007.0	1003.2	857.6
27.5°	943.6	948.8	849.0	856.6	829.6	834.1	980.4	1109.1	1054.2	1039.0	928.8
30°	1064.0	1040.7	928.8	935.0	890.1	882.5	1047.6	1204.8	1155.6	1137.4	987.5
32.5°	1189.6	1191.7	1055.9	1003.2	979.2	971.6	1034.3	1254.9	1283.9	1260.1	1076.1
35°	1366.8	1354.4	1193.6	1124.3	1037.6	1024.3	1129.0	1400.3	1453.5	1387.0	1181.3
37.5°	1636.6	1599.3	1412.1	1251.8	1187.7	1172.5	1264.4	1530.6	1650.3	1567.7	1353.2
40°	1853.2	1777.4	1607.4	1412.1	1303.6	1322.4	1360.6	1688.8	1854.6	1808.0	1512.4
42.5°	2025.8	1958.6	1745.6	1608.3	1460.8	1437.6	1479.4	1884.8	2132.5	2086.9	1710.9
45°	2191.4	2054.6	1900.9	1777.4	1635.6	1663.9	1657.7	2084.7	2473.3	2332.9	1886.4
47.5°	2354.8	2226.3	2065.5	1899.5	1756.7	1932.7	1866.9	2233.4	2703.2	2599.1	2071.2
50°	2564.7	2423.4	2240.3	2073.3	1987.8	2116.5	2006.1	2359.3	2960.6	2838.5	2245.5
52.5°	2704.1	2566.6	2406.1	2286.8	2279.0	2229.4	2201.1	2518.6	3186.2	3112.1	2430.3
55°	2687.7	2555.2	2482.5	2495.6	2592.5	2425.1	2402.0	2754.5	3421.6	3335.8	2629.8
57.5°	2482.3	2337.7	2353.1	2430.5	2690.8	2768.7	2729.5	3006.4	3631.5	3592.6	2876.5
60°	1933.7	1859.3	1985.0	2126.5	2559.2	2869.4	3144.9	3313.8	3889.9	3952.1	3264.1
62.5°	1256.1	1156.8	1355.4	1595.7	2166.7	2802.9	3567.9	3896.6	4313.1	4454.4	3853.1
65°	650.7	634.8	773.8	994.6	1508.3	2389.9	3717.0	4507.9	4827.5	4992.1	4415.7
67.5°	473.1	443.6	508.0	637.9	920.8	1629.7	3434.4	4975.5	5240.5	5391.4	4742.8
70°	360.3	338.4	387.6	468.1	601.3	920.5	2535.3	4848.0	5399.9	5473.1	4699.3
72.5°	269.8	251.0	294.0	369.1	463.4	518.2	1498.6	3986.1	5128.0	5152.9	4217.7
75°	215.4	200.9	219.4	291.4	377.6	352.7	796.1	2887.9	4166.4	4187.7	3221.6
77.5°	176.7	164.3	171.9	218.5	293.8	265.3	395.0	1837.0	2645.2	2612.4	1812.6
80°	144.2	133.5	137.0	157.9	223.7	198.1	221.8	958.3	1261.8	1211.0	753.8
82.5°	110.9	101.9	109.0	116.1	162.0	142.3	129.4	436.0	516.8	481.4	276.4
85°	74.3	66.0	94.8	87.2	105.9	87.4	70.8	173.6	192.6	179.5	97.1
87.5°	20.4	19.2	31.8	43.5	43.5	33.0	25.9	42.0	53.7	47.0	22.8
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°	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3
2.5°	281.4	276.2	262.4	261.2	264.6	265.0	262.9	257.9	255.3	269.6	267.4
5°	362.4	343.9	332.7	322.5	308.3	298.1	300.7	307.8	310.2	320.9	322.0
7.5°	425.4	400.9	376.4	343.7	322.0	308.3	318.7	326.3	332.3	347.5	353.6
10°	452.7	426.1	391.4	357.0	351.0	353.4	347.5	349.4	358.6	359.3	362.4
12.5°	503.5	473.3	410.9	379.8	378.1	383.1	380.9	389.7	396.1	413.5	406.1
15°	552.2	513.7	425.6	393.8	386.9	396.9	408.5	423.2	437.0	453.4	445.1
17.5°	611.3	553.4	426.3	387.4	388.5	409.9	422.0	430.1	471.2	493.8	482.4
20°	648.6	557.4	410.4	371.4	388.5	407.8	424.6	433.4	479.5	513.5	521.3
22.5°	682.3	558.8	398.0	362.9	373.8	399.2	424.6	444.1	473.6	506.1	507.3
25°	700.8	557.6	382.1	363.6	373.6	386.2	408.7	426.5	448.4	493.8	494.9
27.5°	748.3	542.2	366.5	366.5	371.7	372.2	400.9	411.3	414.4	455.8	463.1
30°	762.1	545.5	364.6	366.0	368.6	363.8	376.4	383.3	387.8	423.5	424.6
32.5°	784.2	518.9	370.3	361.7	358.4	357.7	360.8	366.9	368.8	390.7	394.7
35°	811.0	508.2	372.2	360.5	353.9	350.3	359.6	352.0	357.9	383.6	386.4
37.5°	898.4	493.5	381.9	360.5	352.0	347.9	343.4	347.0	368.1	392.8	408.0
40°	954.3	498.0	379.5	364.1	345.6	341.8	334.2	347.2	380.0	423.7	435.1
42.5°	1052.1	500.6	382.4	362.4	347.7	333.0	338.0	352.2	386.6	411.6	429.2
45°	1153.3	508.7	380.5	357.4	342.9	349.8	342.9	355.8	372.2	372.9	386.2
47.5°	1252.5	541.2	376.4	347.2	341.8	359.8	342.2	344.4	345.6	349.8	365.5
50°	1369.2	575.9	370.7	333.0	343.4	360.3	344.8	334.4	333.2	347.2	364.8
52.5°	1501.7	615.1	363.4	319.2	333.7	355.8	353.9	335.1	324.9	338.4	356.0
55°	1657.7	659.8	354.8	305.4	323.0	356.2	358.9	330.1	325.1	339.9	358.6
57.5°	1865.0	724.4	338.2	285.5	309.9	348.9	346.0	324.4	319.7	335.3	354.8
60°	2218.9	848.6	314.4	265.8	295.9	330.8	335.6	314.2	309.5	326.8	347.2
62.5°	2692.7	998.0	285.7	246.5	278.8	311.4	322.5	299.5	299.0	321.1	342.5
65°	3133.7	1082.7	256.0	228.9	261.2	293.3	307.8	285.7	286.7	314.4	335.8
67.5°	3317.1	983.0	229.4	213.3	241.1	272.6	295.7	275.0	271.9	305.4	325.1
70°	3144.9	780.9	206.4	196.6	218.3	250.3	278.8	260.8	253.6	284.0	299.5
72.5°	2782.7	651.0	184.8	177.2	198.3	226.8	256.0	241.5	232.3	255.5	269.3
75°	2175.2	534.1	160.1	157.9	175.5	205.4	232.3	222.3	210.4	225.1	238.9
77.5°	1238.5	338.0	134.4	135.8	148.4	180.0	203.8	195.9	183.8	190.0	205.9
80°	495.7	170.5	108.1	109.0	119.7	148.0	168.9	166.0	153.4	158.4	169.3
82.5°	185.2	93.6	79.8	80.3	91.0	117.1	144.2	142.7	130.9	127.3	133.5
85°	73.6	46.3	48.9	51.1	61.3	84.3	115.7	102.6	88.6	77.7	81.5
87.5°	17.6	14.7	17.1	18.0	19.9	26.4	42.3	34.0	34.9	28.0	20.9
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)