

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: P366924

Luminaire Tested: **MSA-SA1C-740-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366924
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-740-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6263 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

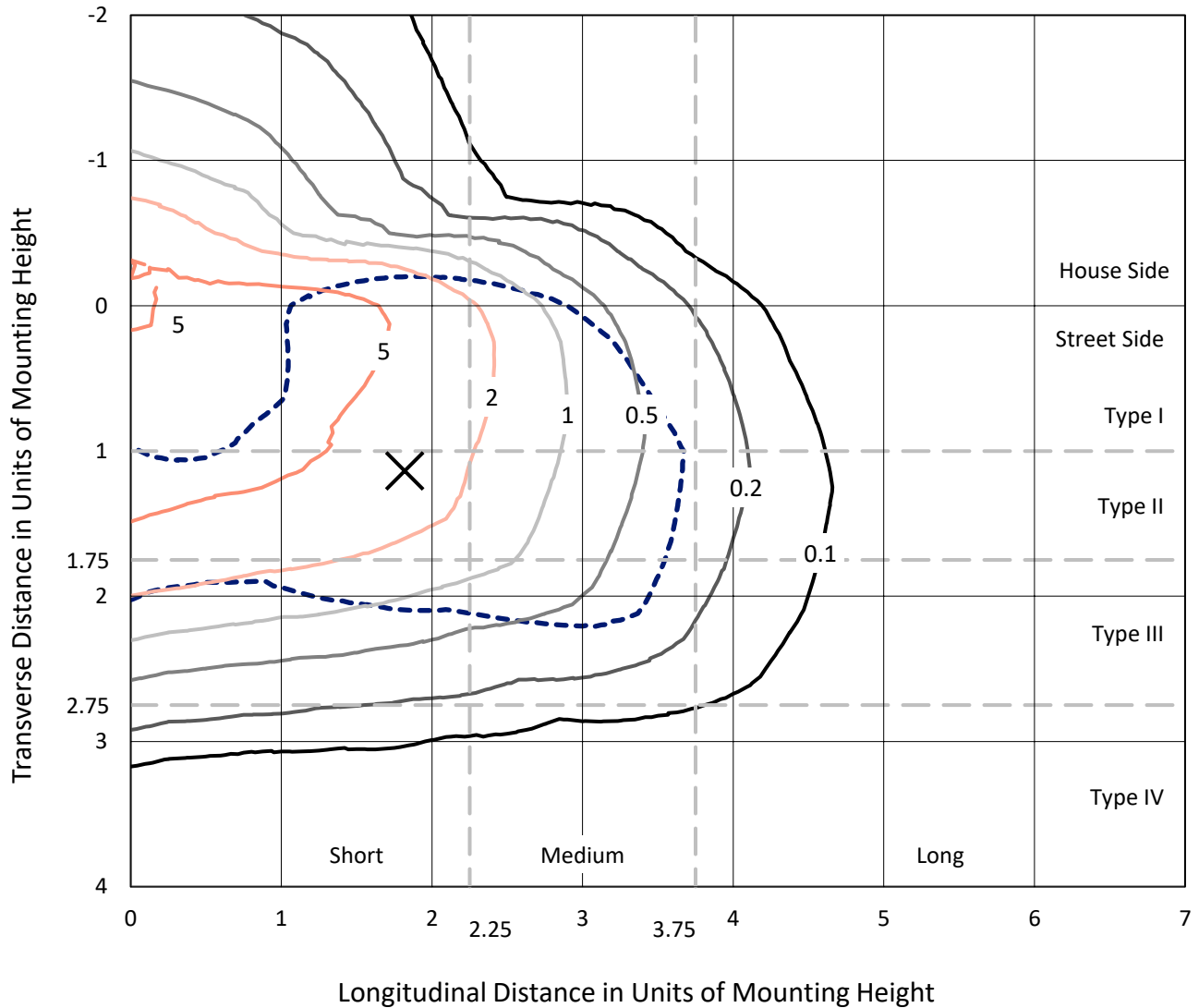
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

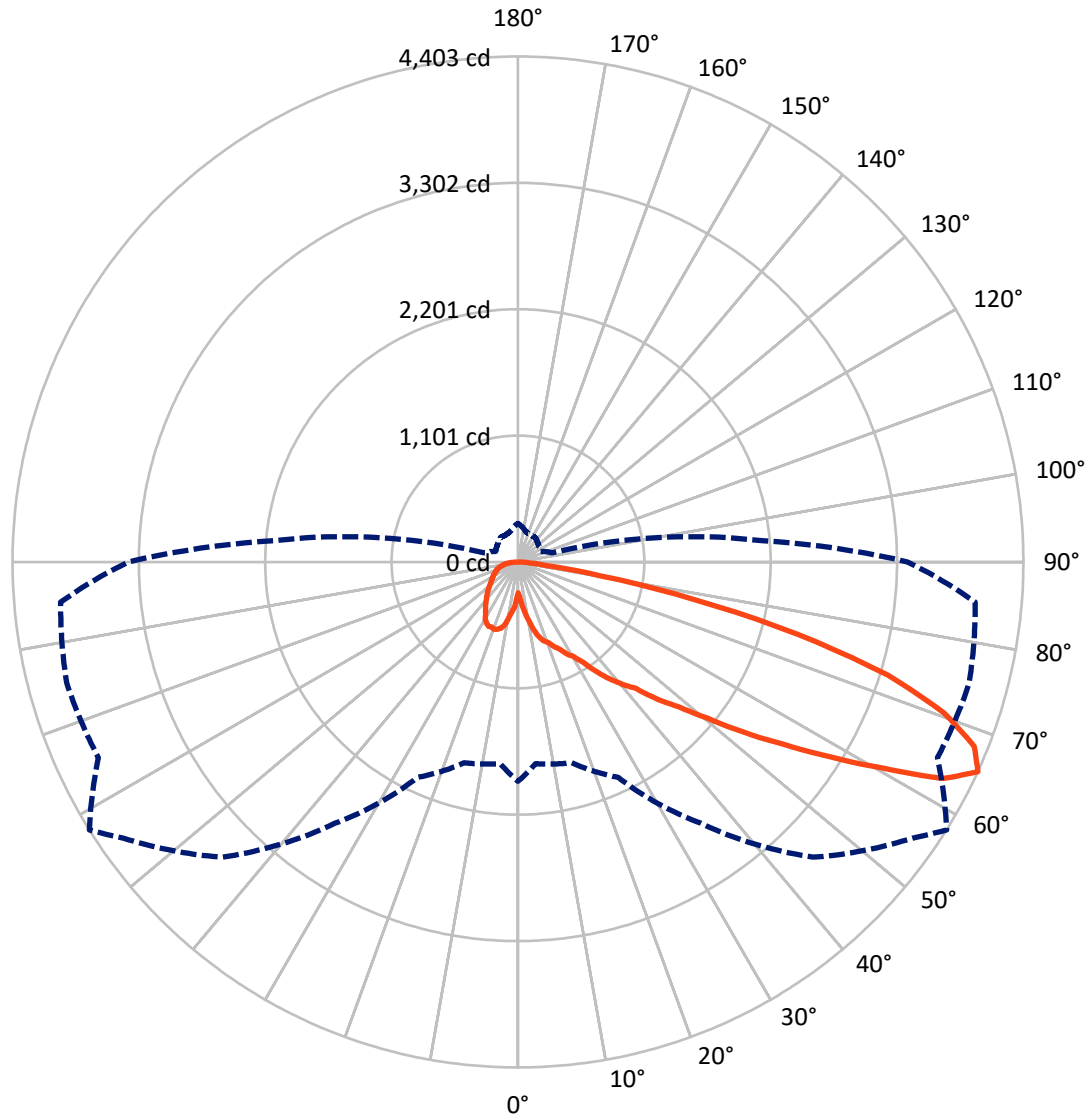
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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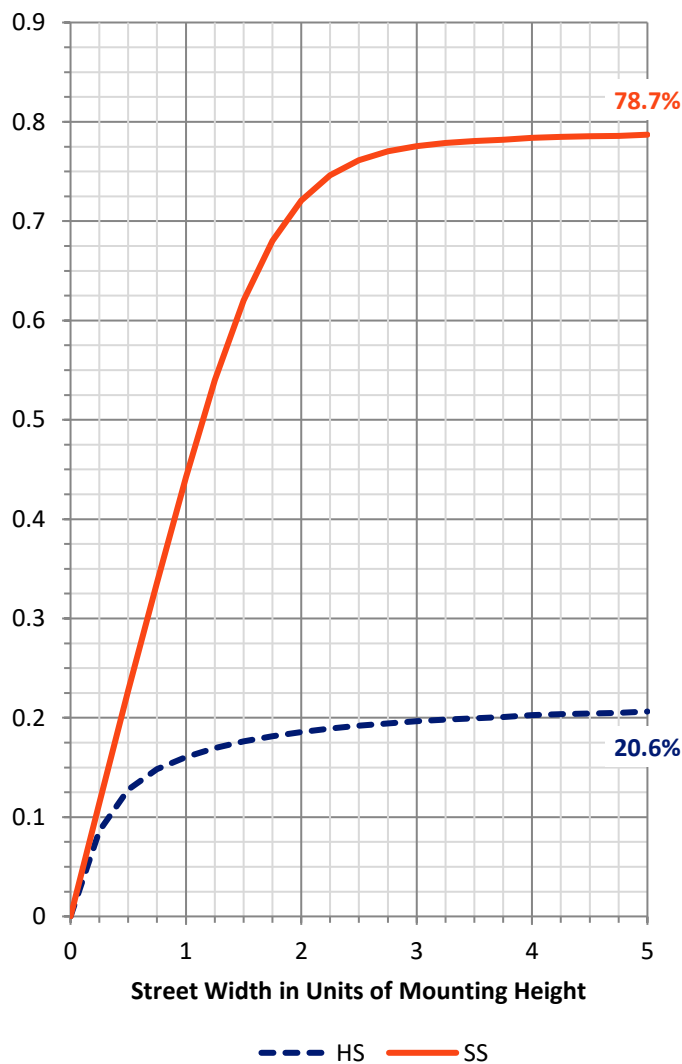
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1319.2	0.0	1319.2
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	4943.8	0.0	4943.8
	% Fixture	78.9	0.0	78.9
Total	Lumens	6263.0	0.0	6263.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	0.7
10°-20°	178.7	2.9
20°-30°	343.0	5.5
30°-40°	566.2	9.0
40°-50°	941.1	15.0
50°-60°	1554.3	24.8
60°-70°	1743.6	27.8
70°-80°	792.8	12.7
80°-90°	102.2	1.6
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°	6263.0	100.0
0°-180°	6263.0	100.0

Coefficient of Utilization

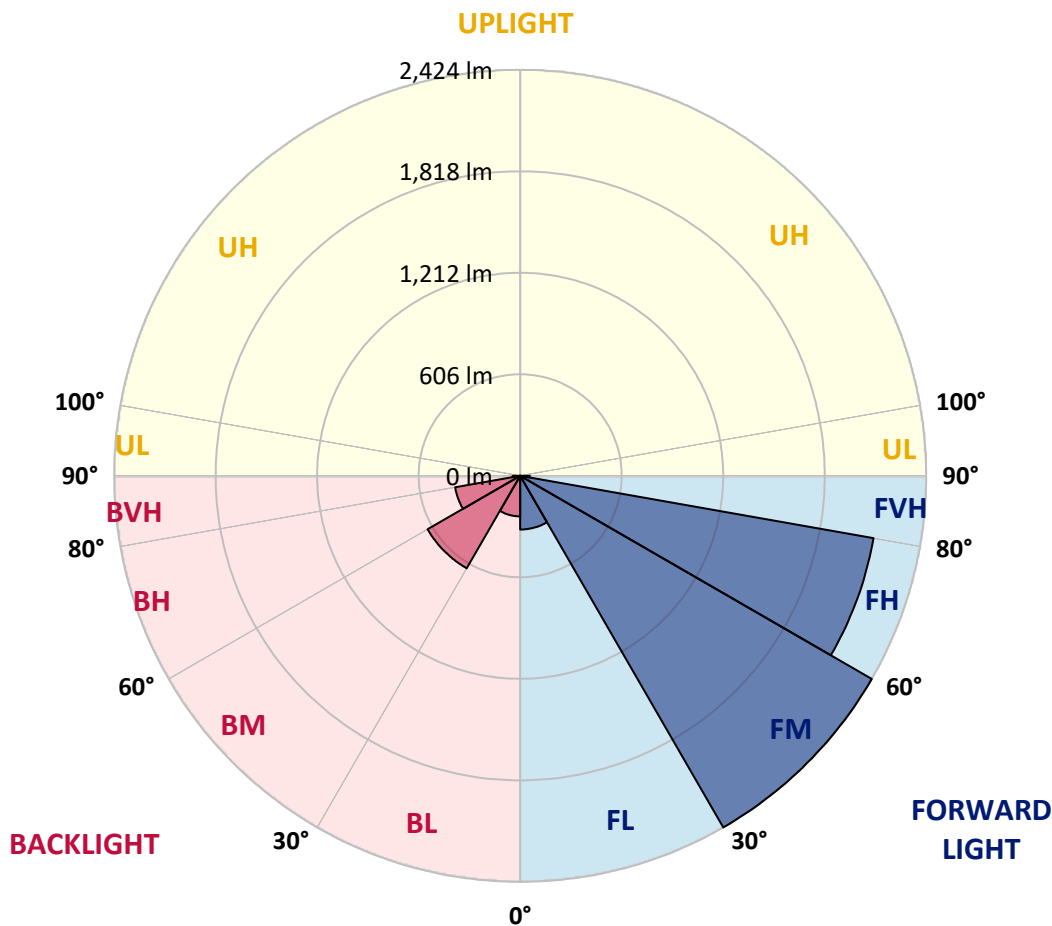


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	320.5	5.1			
FM (30°-60°)	2423.7	38.7			
FH (60°-80°)	2142.1	34.2			G2/5000
FVH (80°-90°)	57.6	0.9			G1/100
BL (0°-30°)	242.2	3.9	B1/500		
BM (30°-60°)	638.0	10.2	B1/1000		
BH (60°-80°)	394.3	6.3	B1/500		G1/500
BVH (80°-90°)	44.7	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9
2.5°	321.1	311.4	295.2	299.2	308.5	313.8	310.6	306.5	301.0	299.9	323.9
5°	415.7	397.2	389.7	386.5	375.1	368.3	380.0	378.4	384.7	396.2	419.7
7.5°	484.9	471.8	459.3	458.0	435.8	428.0	443.7	452.0	463.2	463.5	495.3
10°	521.9	510.7	510.4	498.7	496.9	511.7	512.0	518.2	519.6	532.9	526.6
12.5°	562.1	561.3	575.6	575.4	592.1	616.6	604.3	604.3	608.0	591.8	611.6
15°	657.8	666.1	639.3	643.7	643.7	667.7	666.9	671.6	682.8	678.7	669.8
17.5°	757.4	762.6	732.9	705.3	707.3	702.1	720.9	722.7	712.0	760.5	749.9
20°	821.6	841.9	779.3	744.6	751.4	757.4	758.2	747.0	741.5	816.1	801.5
22.5°	900.9	883.7	826.3	787.9	798.1	790.0	788.5	797.1	804.6	832.8	856.5
25°	953.8	952.5	883.7	841.7	830.4	828.1	844.0	840.6	858.6	909.7	894.9
27.5°	1030.8	1054.8	932.7	943.1	893.8	841.9	893.0	908.4	940.8	932.4	965.6
30°	1179.9	1161.9	1034.4	1031.5	975.7	932.2	967.6	954.6	1012.8	1010.9	1035.5
32.5°	1301.7	1314.3	1153.9	1123.9	1082.4	1030.0	1006.5	1042.8	1074.1	1125.4	1139.3
35°	1430.6	1427.7	1276.2	1215.7	1147.1	1125.4	1154.4	1169.5	1236.0	1283.2	1250.4
37.5°	1630.9	1608.2	1434.8	1320.3	1268.9	1261.1	1310.6	1288.7	1360.7	1371.9	1390.4
40°	1817.1	1748.8	1579.8	1448.6	1367.0	1396.2	1397.7	1400.6	1439.2	1469.7	1561.3
42.5°	1994.2	1946.2	1727.1	1628.6	1508.3	1479.9	1497.6	1503.6	1601.2	1663.5	1790.3
45°	2236.3	2107.7	1938.9	1837.7	1703.1	1666.9	1654.4	1706.0	1800.2	1942.1	2050.8
47.5°	2441.0	2324.9	2164.0	2030.7	1880.2	1983.8	1912.8	1883.9	2010.4	2186.2	2359.4
50°	2610.8	2483.0	2325.2	2248.3	2224.3	2316.6	2132.5	2135.8	2251.7	2499.7	2698.2
52.5°	2742.3	2605.8	2466.0	2426.9	2561.0	2614.2	2481.2	2461.1	2545.6	2838.8	3077.1
55°	2865.1	2720.3	2612.4	2692.2	2918.0	2924.0	2914.7	2803.3	2905.0	3202.1	3469.4
57.5°	2896.7	2740.7	2669.0	2783.5	3088.9	3326.5	3419.9	3201.3	3304.8	3532.5	3805.4
60°	2734.2	2600.6	2571.9	2727.4	3181.2	3528.6	3772.5	3641.8	3603.0	3797.8	4040.6
62.5°	2401.4	2246.4	2269.6	2485.6	3083.9	3608.7	4051.0	4153.0	3917.8	4008.8	4143.4
65°	1911.3	1763.4	1810.3	2070.1	2778.5	3635.3	4193.5	4402.6	4031.5	4068.5	3997.8
67.5°	1347.9	1213.6	1272.8	1608.7	2311.4	3294.7	4218.0	4286.3	3910.5	3898.2	3600.3
70°	763.7	679.4	743.6	1023.7	1631.4	2624.6	4025.7	3935.8	3693.5	3519.8	3012.5
72.5°	350.3	321.3	352.1	521.1	939.2	1746.4	3286.6	3368.2	3182.5	2965.3	2291.8
75°	186.2	176.1	189.1	260.3	439.5	950.2	2335.1	2518.7	2419.9	2249.0	1495.0
77.5°	138.5	130.7	136.9	168.8	234.7	371.7	1326.8	1558.4	1596.0	1438.7	830.2
80°	106.2	99.9	106.2	127.5	162.5	176.6	567.3	726.4	827.3	668.5	329.9
82.5°	78.8	74.6	84.2	95.7	114.2	110.3	201.4	250.6	323.2	220.9	128.6
85°	62.6	57.4	61.0	64.9	73.0	60.5	92.1	103.0	109.0	91.3	47.5
87.5°	24.5	22.7	44.3	34.9	29.7	18.3	27.6	31.3	32.1	30.8	13.8
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°	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9
2.5°	326.5	323.9	308.5	313.5	321.6	323.2	326.5	317.2	312.5	329.7	330.5
5°	421.7	407.7	400.4	401.1	395.9	387.8	400.1	408.2	411.3	424.1	428.8
7.5°	495.6	478.6	466.3	452.3	432.4	419.7	441.0	456.7	465.0	491.6	502.1
10°	528.4	514.9	512.2	494.5	494.0	493.7	492.7	487.2	505.2	502.6	509.9
12.5°	596.2	593.4	568.6	561.5	562.3	561.5	539.6	538.6	538.9	562.8	554.2
15°	659.4	659.9	637.2	611.6	588.7	581.6	573.0	569.1	574.8	588.4	580.1
17.5°	737.3	739.9	675.0	634.6	604.3	603.5	582.9	558.7	593.6	602.0	592.8
20°	787.7	776.7	696.9	629.1	620.5	597.0	571.5	538.1	568.3	588.7	594.4
22.5°	835.4	816.4	717.3	638.7	597.5	569.6	544.9	523.2	532.9	555.5	551.9
25°	867.7	862.5	745.4	662.0	596.8	534.7	501.3	487.5	492.4	527.6	524.2
27.5°	944.9	888.6	740.5	668.0	571.7	486.9	470.3	455.4	450.4	488.5	498.9
30°	996.6	973.4	773.6	658.6	540.2	447.8	423.3	420.2	421.7	465.0	467.9
32.5°	1084.2	1024.0	827.8	622.6	494.3	418.9	390.7	392.0	399.1	430.6	437.1
35°	1175.5	1139.5	835.1	596.8	457.0	388.1	376.6	367.5	371.4	399.1	400.4
37.5°	1345.0	1220.6	880.0	556.8	429.6	376.4	354.5	346.4	348.5	364.1	375.3
40°	1494.2	1383.6	859.1	518.2	395.7	360.7	333.3	327.3	321.1	336.5	343.5
42.5°	1733.4	1500.0	852.1	475.7	379.8	339.6	320.8	304.9	298.9	311.9	324.7
45°	1972.6	1623.3	813.8	432.7	357.3	338.0	302.6	287.4	289.0	300.7	313.8
47.5°	2239.1	1789.0	748.8	391.0	332.8	330.5	284.3	277.8	282.5	295.5	308.5
50°	2554.2	1964.8	695.1	353.4	315.3	307.8	281.9	274.1	278.6	293.9	306.7
52.5°	2898.7	2157.5	656.0	318.7	295.5	289.8	285.1	277.5	282.7	296.0	309.3
55°	3241.2	2333.5	629.4	295.0	278.6	282.2	291.6	286.1	288.7	298.6	311.9
57.5°	3495.2	2426.4	575.9	269.7	264.7	277.8	292.4	283.2	284.8	298.6	313.0
60°	3642.9	2444.1	488.0	249.1	253.8	268.9	284.3	272.6	271.5	294.2	312.2
62.5°	3626.7	2341.1	387.1	230.3	241.3	255.6	272.0	260.8	263.7	294.7	313.8
65°	3395.1	2130.6	307.8	214.4	226.1	241.0	261.9	257.4	271.3	315.6	336.2
67.5°	2988.2	1823.1	247.3	199.5	212.0	231.1	268.9	280.6	286.6	337.0	358.1
70°	2421.7	1416.5	206.0	186.5	200.8	235.8	289.2	286.9	281.9	326.8	343.5
72.5°	1749.6	971.0	181.3	173.7	187.0	221.7	289.8	277.3	271.0	298.4	310.4
75°	1094.7	579.3	158.3	157.5	165.9	198.7	276.7	265.5	248.6	262.1	277.8
77.5°	625.2	296.6	133.3	140.3	145.3	172.4	247.8	237.6	222.5	228.2	243.6
80°	238.6	143.5	112.4	124.7	123.4	146.1	210.0	207.6	190.4	192.2	201.6
82.5°	112.4	80.3	93.4	107.2	100.2	116.3	170.6	169.8	154.7	140.1	147.6
85°	41.7	42.8	68.3	81.6	69.6	75.1	123.4	120.0	105.4	88.9	98.3
87.5°	9.4	15.4	33.6	42.5	24.3	23.2	49.8	43.3	41.7	24.8	26.1
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)