

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: P596536

Luminaire Tested: **MSA-SA1C-827-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596536
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-827-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: 4604 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

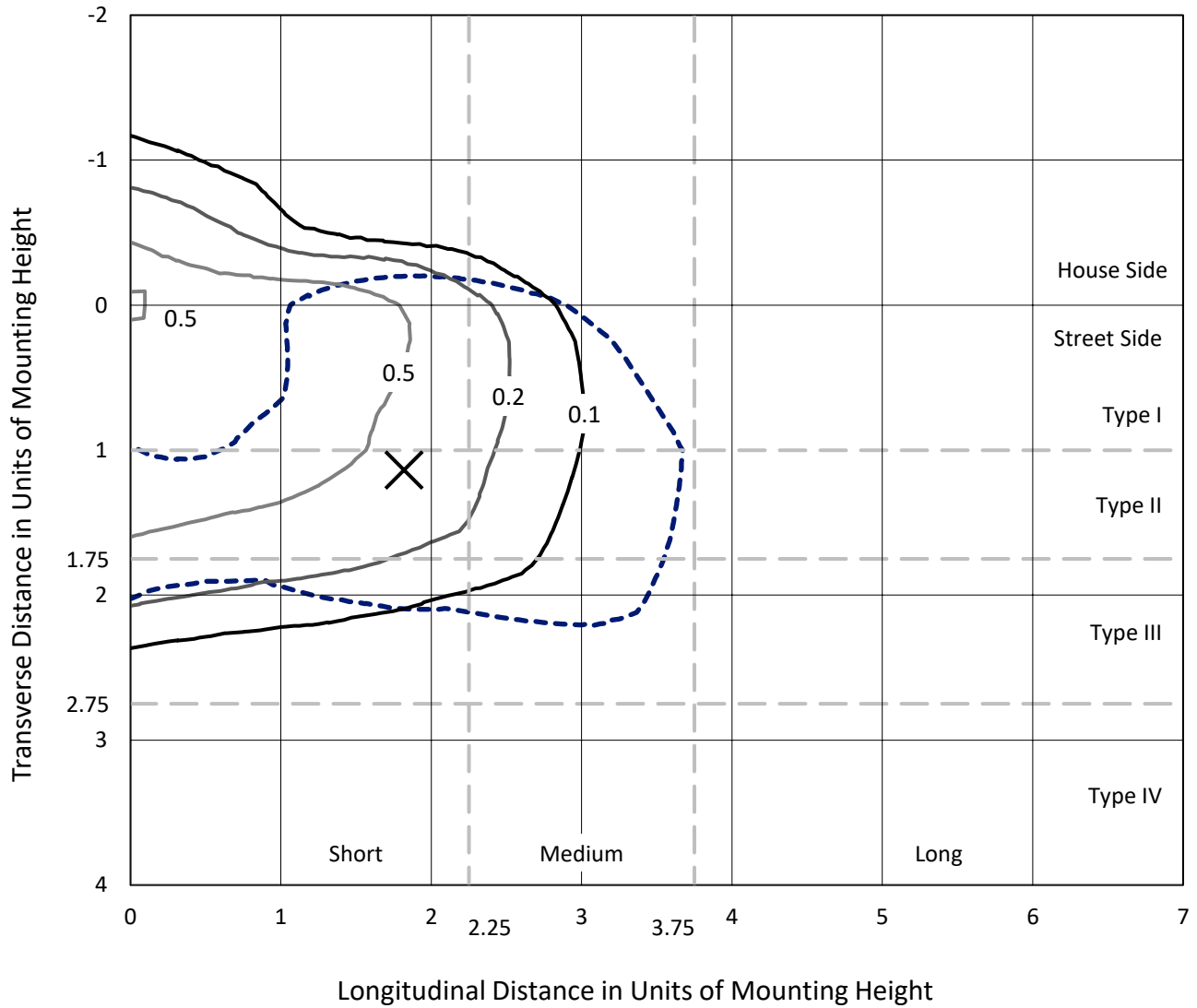
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

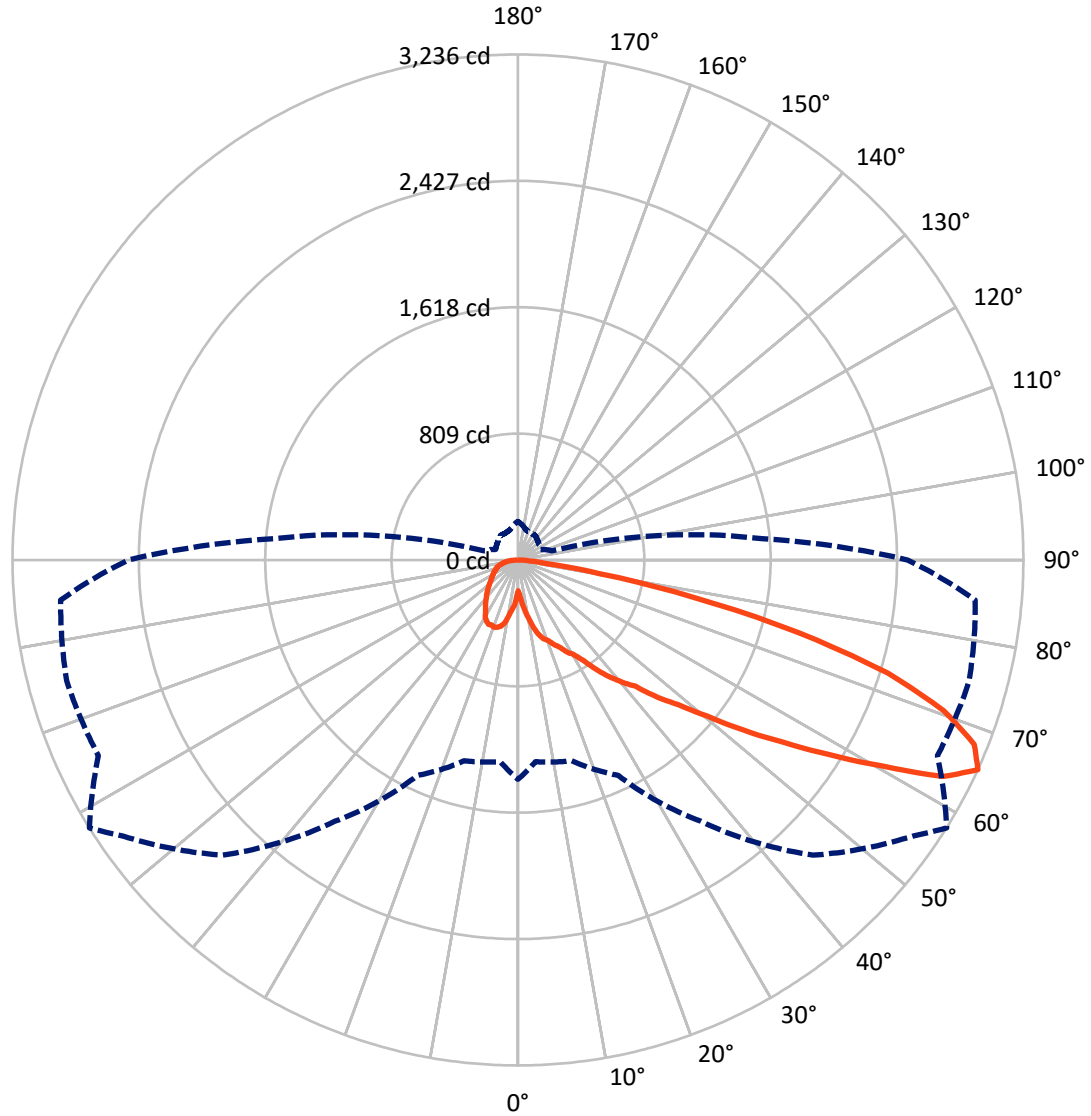
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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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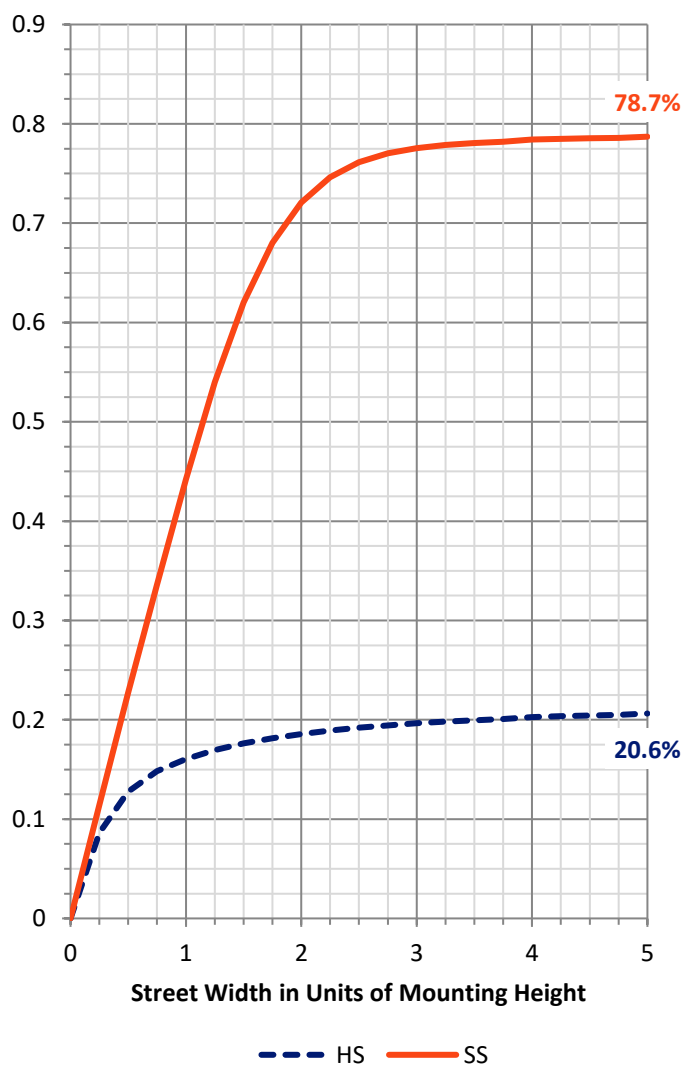
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	969.7	0.0	969.7
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	3634.3	0.0	3634.3
	% Fixture	78.9	0.0	78.9
Total	Lumens	4604.0	0.0	4604.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	0.7
10°-20°	131.4	2.9
20°-30°	252.1	5.5
30°-40°	416.2	9.0
40°-50°	691.8	15.0
50°-60°	1142.6	24.8
60°-70°	1281.8	27.8
70°-80°	582.8	12.7
80°-90°	75.2	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°	4604.0	100.0
0°-180°	4604.0	100.0

Coefficient of Utilization

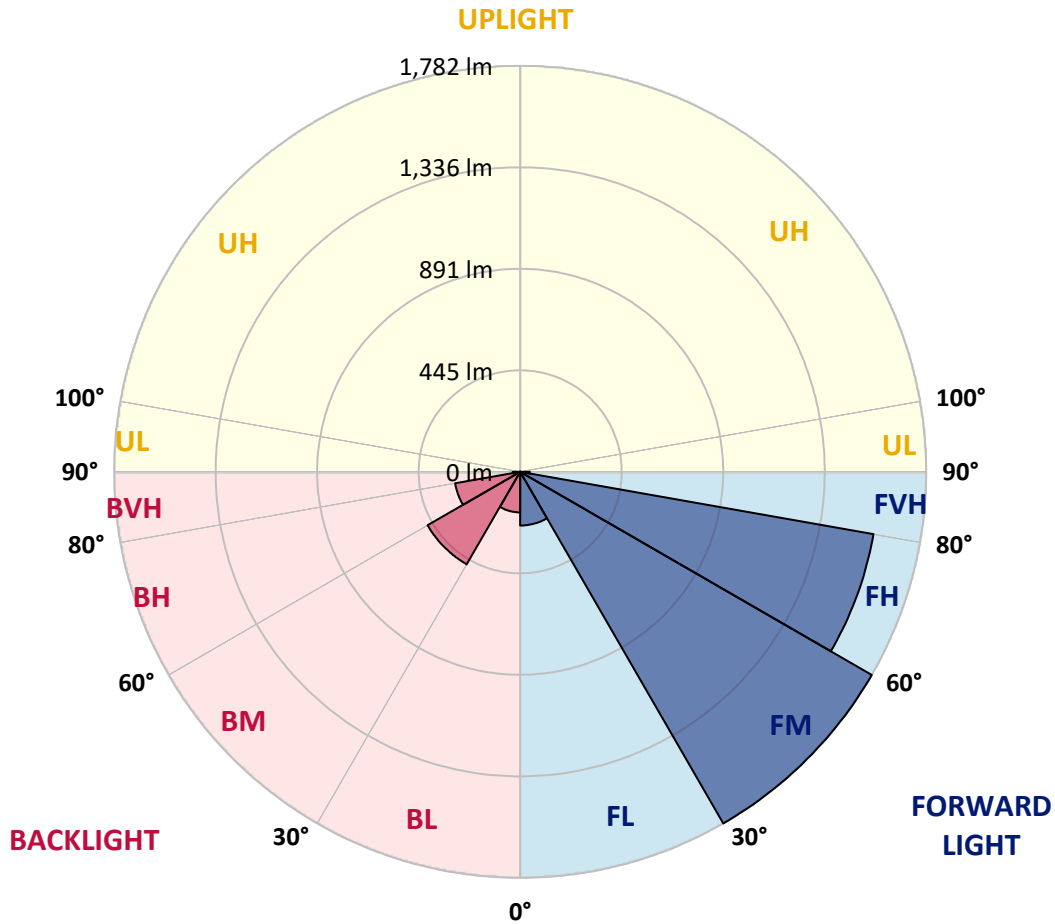


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	235.6	5.1			
FM (30°-60°)	1781.7	38.7			
FH (60°-80°)	1574.7	34.2			G1/1800
FVH (80°-90°)	42.3	0.9			G1/100
BL (0°-30°)	178.0	3.9	B1/500		
BM (30°-60°)	469.0	10.2	B1/1000		
BH (60°-80°)	289.9	6.3	B1/500		G1/500
BVH (80°-90°)	32.8	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7
2.5°	236.0	228.9	217.0	219.9	226.8	230.7	228.4	225.3	221.3	220.5	238.1
5°	305.6	292.0	286.4	284.1	275.7	270.7	279.4	278.2	282.8	291.2	308.5
7.5°	356.4	346.8	337.6	336.7	320.4	314.6	326.1	332.3	340.5	340.7	364.1
10°	383.7	375.4	375.2	366.6	365.2	376.2	376.4	381.0	381.9	391.7	387.1
12.5°	413.2	412.6	423.2	423.0	435.2	453.3	444.2	444.2	446.9	435.0	449.6
15°	483.5	489.7	469.9	473.2	473.2	490.8	490.3	493.7	502.0	498.9	492.4
17.5°	556.8	560.6	538.8	518.4	520.0	516.1	529.9	531.3	523.4	559.1	551.2
20°	604.0	618.9	572.9	547.4	552.4	556.8	557.4	549.1	545.1	599.9	589.2
22.5°	662.2	649.6	607.4	579.2	586.7	580.8	579.6	585.9	591.5	612.2	629.6
25°	701.2	700.2	649.6	618.7	610.5	608.7	620.4	617.9	631.2	668.8	657.8
27.5°	757.7	775.4	685.6	693.3	657.1	618.9	656.5	667.8	691.6	685.4	709.8
30°	867.4	854.2	760.4	758.3	717.3	685.2	711.3	701.7	744.5	743.1	761.2
32.5°	956.9	966.1	848.2	826.2	795.7	757.1	739.9	766.5	789.5	827.3	837.5
35°	1051.6	1049.5	938.1	893.7	843.2	827.3	848.6	859.7	908.6	943.3	919.2
37.5°	1198.9	1182.2	1054.7	970.5	932.8	927.0	963.4	947.3	1000.3	1008.5	1022.1
40°	1335.8	1285.6	1161.3	1064.9	1004.9	1026.3	1027.5	1029.6	1058.0	1080.4	1147.7
42.5°	1466.0	1430.7	1269.6	1197.2	1108.8	1087.9	1100.9	1105.3	1177.0	1222.9	1316.0
45°	1643.9	1549.4	1425.3	1350.9	1252.0	1225.4	1216.2	1254.1	1323.3	1427.6	1507.6
47.5°	1794.4	1709.1	1590.8	1492.8	1382.2	1458.3	1406.2	1384.9	1477.9	1607.1	1734.4
50°	1919.2	1825.3	1709.3	1652.7	1635.1	1703.0	1567.6	1570.1	1655.2	1837.6	1983.5
52.5°	2015.9	1915.6	1812.8	1784.1	1882.6	1921.7	1823.9	1809.2	1871.3	2086.8	2262.0
55°	2106.2	1999.8	1920.4	1979.0	2145.1	2149.5	2142.6	2060.7	2135.5	2353.9	2550.4
57.5°	2129.4	2014.7	1962.0	2046.2	2270.7	2445.3	2514.0	2353.3	2429.4	2596.8	2797.4
60°	2009.9	1911.8	1890.7	2004.9	2338.5	2593.9	2773.2	2677.1	2648.6	2791.8	2970.3
62.5°	1765.3	1651.4	1668.4	1827.2	2267.0	2652.8	2978.0	3052.9	2880.0	2946.9	3045.8
65°	1405.0	1296.3	1330.8	1521.8	2042.5	2672.3	3082.7	3236.4	2963.6	2990.8	2938.9
67.5°	990.9	892.1	935.6	1182.6	1699.1	2421.9	3100.7	3150.9	2874.6	2865.6	2646.7
70°	561.4	499.5	546.6	752.5	1199.3	1929.4	2959.4	2893.2	2715.1	2587.4	2214.5
72.5°	257.5	236.2	258.8	383.1	690.4	1283.8	2416.0	2476.0	2339.5	2179.8	1684.7
75°	136.9	129.4	139.0	191.3	323.1	698.5	1716.6	1851.5	1778.9	1653.3	1099.0
77.5°	101.8	96.1	100.7	124.1	172.6	273.2	975.3	1145.6	1173.2	1057.6	610.3
80°	78.0	73.4	78.0	93.8	119.4	129.8	417.0	534.0	608.2	491.4	242.5
82.5°	57.9	54.8	61.9	70.4	84.0	81.1	148.0	184.3	237.6	162.4	94.5
85°	46.0	42.2	44.9	47.7	53.7	44.5	67.7	75.7	80.1	67.1	34.9
87.5°	18.0	16.7	32.6	25.7	21.9	13.4	20.3	23.0	23.6	22.6	10.2
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°	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7
2.5°	240.0	238.1	226.8	230.5	236.4	237.6	240.0	233.1	229.7	242.3	242.9
5°	310.0	299.7	294.3	294.9	291.0	285.1	294.1	300.1	302.4	311.8	315.2
7.5°	364.3	351.8	342.8	332.5	317.9	308.5	324.2	335.7	341.9	361.4	369.1
10°	388.4	378.5	376.6	363.5	363.1	362.9	362.2	358.2	371.4	369.5	374.8
12.5°	438.3	436.2	418.0	412.8	413.4	412.8	396.7	395.9	396.1	413.8	407.4
15°	484.7	485.1	468.4	449.6	432.7	427.6	421.2	418.4	422.6	432.5	426.4
17.5°	542.0	543.9	496.2	466.5	444.2	443.7	428.5	410.7	436.4	442.5	435.8
20°	579.0	571.0	512.3	462.5	456.1	438.9	420.1	395.5	417.8	432.7	437.0
22.5°	614.1	600.1	527.3	469.5	439.3	418.7	400.5	384.6	391.7	408.4	405.7
25°	637.9	634.1	548.0	486.6	438.7	393.0	368.5	358.3	362.0	387.9	385.4
27.5°	694.6	653.2	544.3	491.0	420.3	358.0	345.7	334.8	331.1	359.1	366.8
30°	732.6	715.5	568.7	484.1	397.1	329.2	311.2	308.9	310.0	341.9	344.0
32.5°	797.0	752.7	608.6	457.7	363.3	307.9	287.2	288.2	293.3	316.5	321.3
35°	864.1	837.7	613.9	438.7	335.9	285.3	276.9	270.1	273.0	293.3	294.3
37.5°	988.8	897.3	646.9	409.3	315.8	276.7	260.6	254.6	256.2	267.7	275.9
40°	1098.4	1017.1	631.6	381.0	290.9	265.2	245.0	240.6	236.0	247.3	252.5
42.5°	1274.2	1102.6	626.4	349.7	279.2	249.6	235.8	224.1	219.7	229.3	238.7
45°	1450.1	1193.3	598.2	318.1	262.7	248.5	222.4	211.3	212.4	221.1	230.7
47.5°	1646.0	1315.1	550.5	287.4	244.6	242.9	209.0	204.2	207.6	217.2	226.8
50°	1877.6	1444.3	511.0	259.8	231.8	226.2	207.3	201.5	204.8	216.1	225.5
52.5°	2130.9	1586.0	482.2	234.3	217.2	213.0	209.6	204.0	207.8	217.6	227.4
55°	2382.6	1715.4	462.6	216.8	204.8	207.5	214.4	210.3	212.2	219.5	229.3
57.5°	2569.4	1783.7	423.3	198.2	194.6	204.2	214.9	208.2	209.4	219.5	230.1
60°	2677.9	1796.7	358.7	183.1	186.6	197.7	209.0	200.4	199.6	216.3	229.5
62.5°	2666.0	1721.0	284.5	169.3	177.4	187.9	200.0	191.7	193.8	216.7	230.7
65°	2495.8	1566.3	226.2	157.6	166.2	177.2	192.5	189.2	199.4	232.0	247.1
67.5°	2196.7	1340.2	181.8	146.7	155.9	169.9	197.7	206.3	210.7	247.7	263.2
70°	1780.2	1041.3	151.5	137.1	147.6	173.3	212.6	210.9	207.3	240.2	252.5
72.5°	1286.1	713.8	133.3	127.7	137.5	163.0	213.0	203.8	199.2	219.3	228.2
75°	804.7	425.8	116.4	115.8	121.9	146.1	203.4	195.2	182.7	192.7	204.2
77.5°	459.6	218.0	98.0	103.2	106.8	126.7	182.1	174.7	163.5	167.8	179.1
80°	175.4	105.5	82.6	91.6	90.7	107.4	154.3	152.6	140.0	141.3	148.2
82.5°	82.6	59.1	68.6	78.8	73.6	85.5	125.4	124.8	113.7	103.0	108.5
85°	30.7	31.4	50.2	60.0	51.2	55.2	90.7	88.2	77.5	65.4	72.3
87.5°	6.9	11.3	24.7	31.3	17.8	17.1	36.6	31.8	30.7	18.2	19.2
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)