

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: P596910

Luminaire Tested: **MSA-SA1D-835-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596910
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-SA1D-835-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: 5645 lumens
Efficiency: N/A
Efficacy: 84.3 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

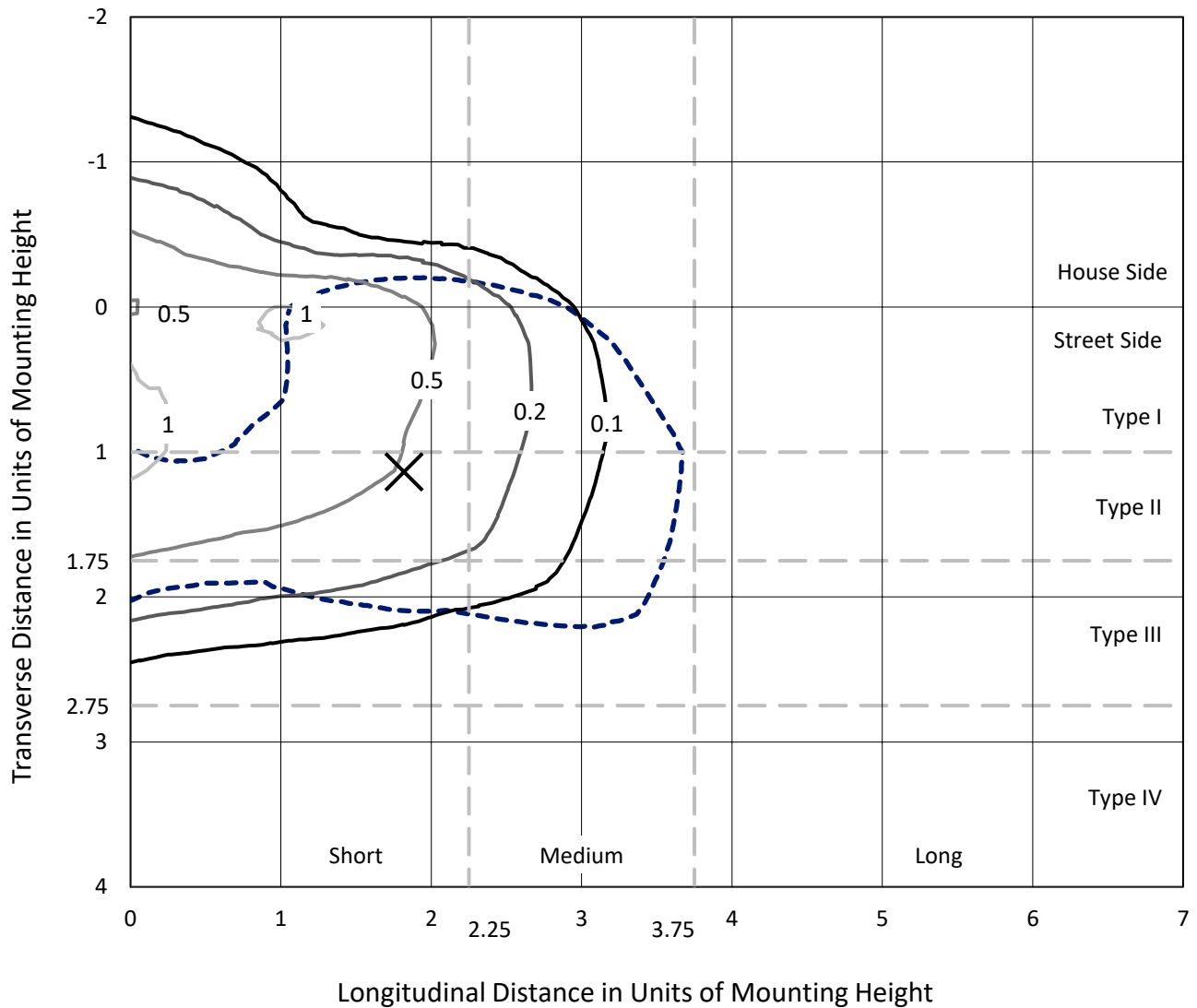
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

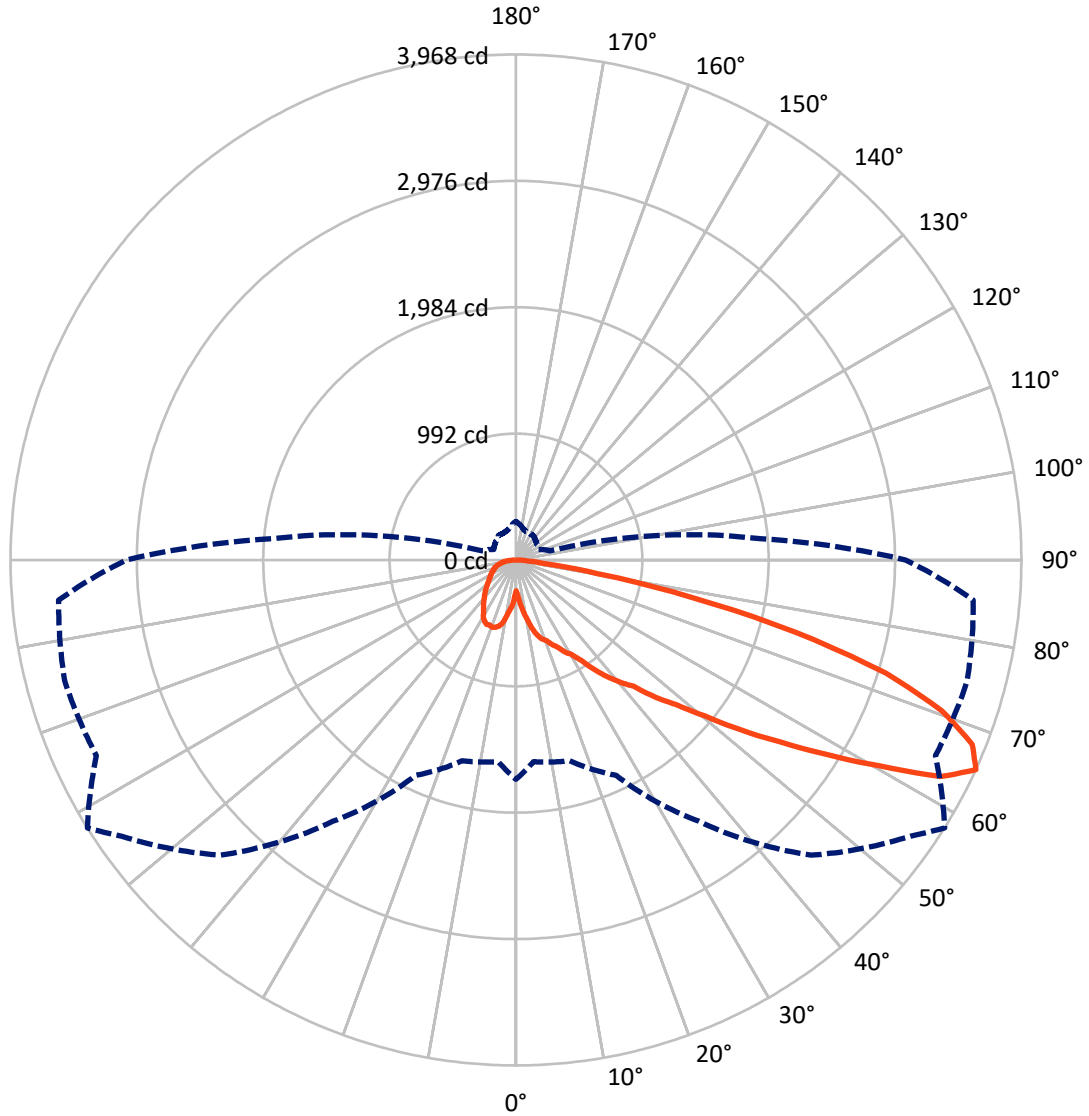
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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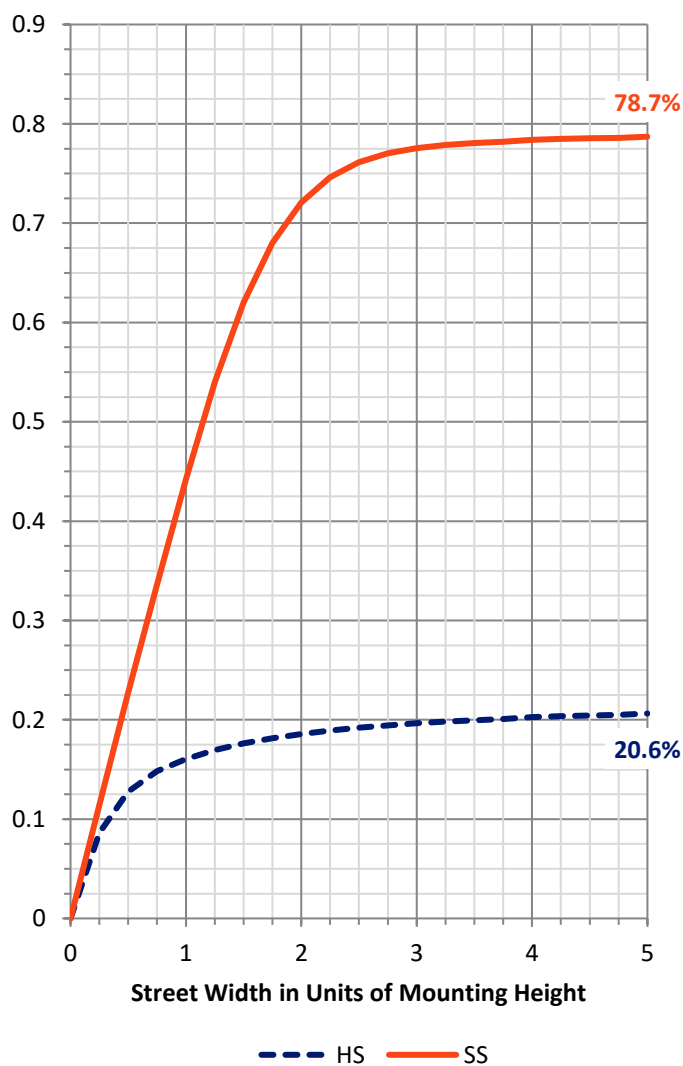
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1189.0	0.0	1189.0
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	4456.0	0.0	4456.0
	% Fixture	78.9	0.0	78.9
Total	Lumens	5645.0	0.0	5645.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	0.7
10°-20°	161.1	2.9
20°-30°	309.1	5.5
30°-40°	510.4	9.0
40°-50°	848.3	15.0
50°-60°	1400.9	24.8
60°-70°	1571.6	27.8
70°-80°	714.6	12.7
80°-90°	92.2	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°	5645.0	100.0
0°-180°	5645.0	100.0

Coefficient of Utilization

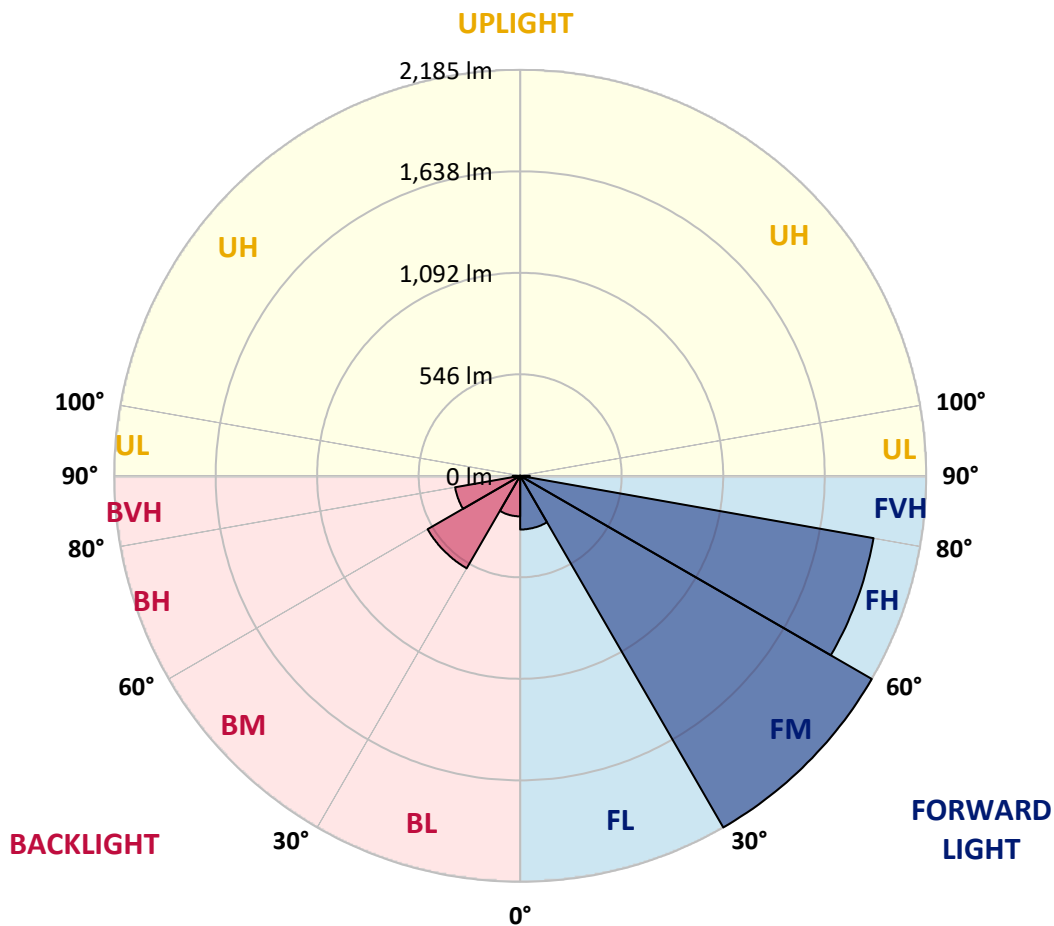


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	288.9	5.1			
FM (30°-60°)	2184.5	38.7			
FH (60°-80°)	1930.7	34.2			G2/5000
FVH (80°-90°)	51.9	0.9			G1/100
BL (0°-30°)	218.3	3.9	B1/500		
BM (30°-60°)	575.0	10.2	B1/1000		
BH (60°-80°)	355.4	6.3	B1/500		G1/500
BVH (80°-90°)	40.3	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°	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4
2.5°	289.4	280.7	266.1	269.6	278.1	282.8	280.0	276.2	271.3	270.3	292.0
5°	374.7	358.0	351.2	348.4	338.0	331.9	342.5	341.1	346.7	357.1	378.2
7.5°	437.0	425.3	414.0	412.8	392.8	385.8	399.9	407.4	417.5	417.7	446.4
10°	470.4	460.3	460.1	449.5	447.8	461.2	461.5	467.1	468.3	480.3	474.6
12.5°	506.6	505.9	518.8	518.6	533.6	555.7	544.7	544.7	548.0	533.4	551.3
15°	592.9	600.4	576.2	580.2	580.2	601.8	601.1	605.3	615.4	611.7	603.7
17.5°	682.7	687.4	660.6	635.7	637.5	632.8	649.8	651.4	641.8	685.5	675.9
20°	740.5	758.8	702.4	671.2	677.3	682.7	683.4	673.3	668.3	735.6	722.4
22.5°	812.0	796.5	744.7	710.2	719.4	712.1	710.7	718.4	725.2	750.6	772.0
25°	859.7	858.5	796.5	758.6	748.5	746.4	760.7	757.7	773.9	820.0	806.6
27.5°	929.0	950.7	840.7	850.1	805.6	758.8	804.9	818.8	847.9	840.4	870.3
30°	1063.5	1047.3	932.3	929.8	879.4	840.2	872.2	860.4	912.8	911.2	933.3
32.5°	1173.3	1184.6	1040.0	1013.0	975.6	928.3	907.2	939.9	968.1	1014.4	1026.8
35°	1289.4	1286.8	1150.3	1095.7	1033.9	1014.4	1040.5	1054.1	1114.1	1156.6	1127.0
37.5°	1470.0	1449.5	1293.2	1190.0	1143.7	1136.6	1181.3	1161.5	1226.4	1236.5	1253.2
40°	1637.8	1576.2	1423.9	1305.7	1232.1	1258.4	1259.8	1262.4	1297.2	1324.7	1407.2
42.5°	1797.4	1754.2	1556.7	1467.9	1359.5	1333.9	1349.8	1355.3	1443.2	1499.4	1613.6
45°	2015.6	1899.7	1747.6	1656.4	1535.1	1502.4	1491.1	1537.7	1622.5	1750.4	1848.5
47.5°	2200.1	2095.5	1950.5	1830.4	1694.7	1788.0	1724.1	1698.0	1812.0	1970.5	2126.6
50°	2353.2	2238.0	2095.8	2026.4	2004.8	2088.0	1922.0	1925.1	2029.5	2253.0	2431.9
52.5°	2471.7	2348.7	2222.7	2187.4	2308.3	2356.2	2236.3	2218.2	2294.4	2558.6	2773.5
55°	2582.4	2451.9	2354.6	2426.5	2630.1	2635.5	2627.1	2526.7	2618.4	2886.1	3127.1
57.5°	2610.8	2470.3	2405.6	2508.8	2784.1	2998.2	3082.4	2885.4	2978.7	3184.0	3429.9
60°	2464.4	2344.0	2318.2	2458.3	2867.3	3180.4	3400.2	3282.5	3247.4	3423.0	3641.9
62.5°	2164.4	2024.8	2045.7	2240.3	2779.6	3252.6	3651.3	3743.2	3531.2	3613.2	3734.5
65°	1722.7	1589.4	1631.7	1865.9	2504.3	3276.6	3779.7	3968.2	3633.7	3667.1	3603.4
67.5°	1214.9	1093.8	1147.2	1450.0	2083.3	2969.6	3801.8	3863.4	3524.6	3513.6	3245.1
70°	688.3	612.4	670.2	922.7	1470.4	2365.6	3628.5	3547.4	3329.0	3172.4	2715.2
72.5°	315.7	289.6	317.4	469.7	846.5	1574.1	2962.3	3035.9	2868.5	2672.7	2065.7
75°	167.8	158.7	170.4	234.6	396.1	856.4	2104.7	2270.2	2181.1	2027.1	1347.5
77.5°	124.8	117.8	123.4	152.1	211.6	335.0	1195.9	1404.6	1438.5	1296.7	748.3
80°	95.7	90.0	95.7	115.0	146.5	159.2	511.3	654.7	745.7	602.5	297.4
82.5°	71.0	67.2	75.9	86.3	103.0	99.4	181.5	225.9	291.3	199.1	115.9
85°	56.4	51.7	55.0	58.5	65.8	54.5	83.0	92.9	98.3	82.3	42.8
87.5°	22.1	20.5	40.0	31.5	26.8	16.5	24.9	28.2	28.9	27.7	12.5
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°	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4	242.4
2.5°	294.3	292.0	278.1	282.6	289.9	291.3	294.3	285.9	281.6	297.1	297.9
5°	380.1	367.4	360.9	361.6	356.9	349.6	360.6	367.9	370.7	382.2	386.5
7.5°	446.7	431.4	420.3	407.6	389.8	378.2	397.5	411.6	419.2	443.1	452.5
10°	476.3	464.1	461.7	445.7	445.2	445.0	444.1	439.1	455.4	453.0	459.6
12.5°	537.4	534.8	512.5	506.1	506.8	506.1	486.4	485.4	485.7	507.3	499.6
15°	594.3	594.8	574.3	551.3	530.6	524.2	516.5	513.0	518.1	530.3	522.8
17.5°	664.6	666.9	608.4	572.0	544.7	544.0	525.4	503.5	535.0	542.6	534.3
20°	710.0	700.1	628.1	567.0	559.3	538.1	515.1	485.0	512.2	530.6	535.8
22.5°	753.0	735.8	646.5	575.7	538.6	513.4	491.1	471.6	480.3	500.7	497.4
25°	782.1	777.4	671.9	596.6	537.9	481.9	451.8	439.4	443.8	475.6	472.5
27.5°	851.7	800.9	667.4	602.0	515.3	438.9	423.9	410.5	406.0	440.3	449.7
30°	898.3	877.3	697.3	593.6	486.9	403.6	381.5	378.7	380.1	419.2	421.7
32.5°	977.2	922.9	746.2	561.1	445.5	377.5	352.2	353.3	359.7	388.1	394.0
35°	1059.5	1027.1	752.7	537.9	411.9	349.8	339.5	331.2	334.8	359.7	360.9
37.5°	1212.3	1100.2	793.2	501.9	387.2	339.2	319.5	312.2	314.1	328.2	338.3
40°	1346.8	1247.1	774.4	467.1	356.6	325.1	300.4	295.0	289.4	303.3	309.6
42.5°	1562.4	1352.0	768.0	428.8	342.3	306.1	289.2	274.8	269.4	281.2	292.7
45°	1777.9	1463.2	733.5	390.0	322.1	304.7	272.7	259.1	260.5	271.1	282.8
47.5°	2018.2	1612.4	674.9	352.4	300.0	297.9	256.2	250.4	254.6	266.3	278.1
50°	2302.2	1770.9	626.5	318.5	284.2	277.4	254.1	247.1	251.1	264.9	276.5
52.5°	2612.7	1944.6	591.2	287.3	266.3	261.2	256.9	250.1	254.8	266.8	278.8
55°	2921.4	2103.3	567.3	265.9	251.1	254.4	262.8	257.9	260.2	269.2	281.2
57.5°	3150.3	2187.0	519.1	243.1	238.6	250.4	263.5	255.3	256.7	269.2	282.1
60°	3283.4	2203.0	439.8	224.5	228.7	242.4	256.2	245.7	244.7	265.2	281.4
62.5°	3268.8	2110.1	348.9	207.6	217.5	230.4	245.2	235.1	237.7	265.6	282.8
65°	3060.1	1920.4	277.4	193.2	203.8	217.2	236.0	232.0	244.5	284.5	303.0
67.5°	2693.3	1643.2	222.9	179.8	191.1	208.3	242.4	252.9	258.4	303.7	322.8
70°	2182.7	1276.7	185.7	168.1	181.0	212.5	260.7	258.6	254.1	294.6	309.6
72.5°	1576.9	875.2	163.4	156.6	168.6	199.8	261.2	249.9	244.3	268.9	279.7
75°	986.6	522.1	142.7	142.0	149.5	179.1	249.4	239.3	224.0	236.3	250.4
77.5°	563.5	267.3	120.1	126.5	130.9	155.4	223.3	214.2	200.5	205.7	219.6
80°	215.1	129.3	101.3	112.4	111.2	131.6	189.2	187.1	171.6	173.3	181.7
82.5°	101.3	72.4	84.2	96.6	90.3	104.8	153.7	153.0	139.4	126.2	133.1
85°	37.6	38.6	61.6	73.6	62.8	67.7	111.2	108.1	95.0	80.2	88.6
87.5°	8.5	13.9	30.3	38.3	21.9	20.9	44.9	39.0	37.6	22.3	23.5
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)