

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: P596912

Luminaire Tested: **MSA-SA1D-835-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596912
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-835-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: 5666 lumens
Efficiency: N/A
Efficacy: 84.6 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

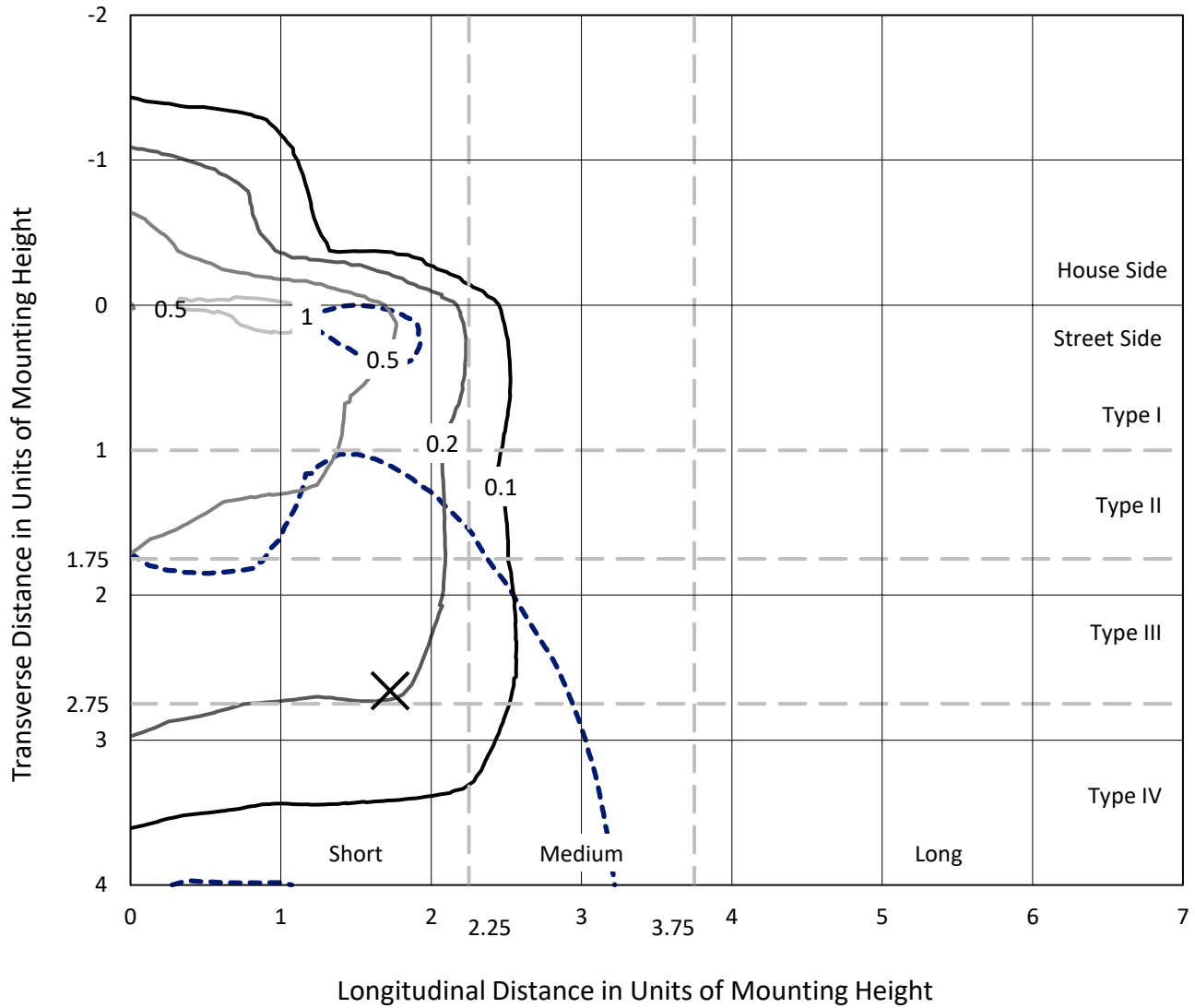
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

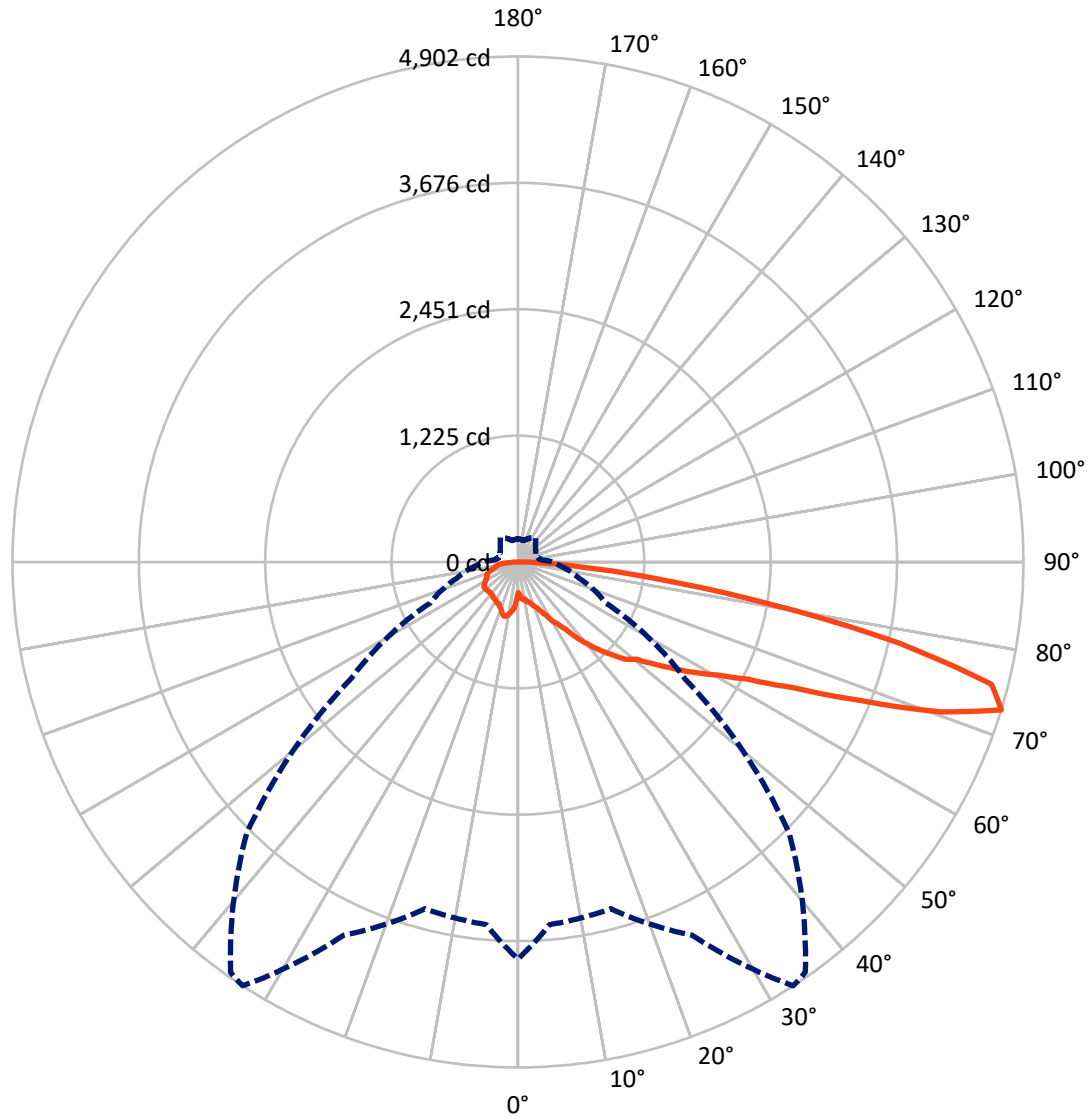
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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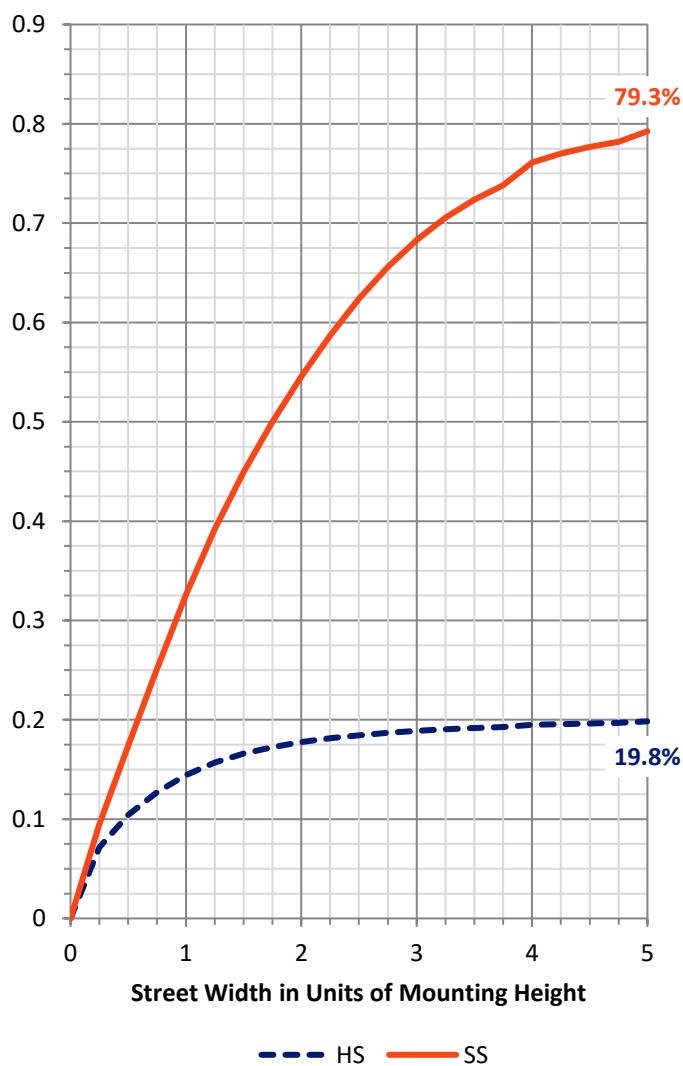
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1146.2	0.0	1146.2
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	4519.8	0.0	4519.8
	% Fixture	79.8	0.0	79.8
Total	Lumens	5666.0	0.0	5666.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	0.7
10°-20°	151.0	2.7
20°-30°	275.3	4.9
30°-40°	465.7	8.2
40°-50°	774.8	13.7
50°-60°	1137.1	20.1
60°-70°	1454.6	25.7
70°-80°	1183.4	20.9
80°-90°	183.3	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°	5666.0	100.0
0°-180°	5666.0	100.0

Coefficient of Utilization

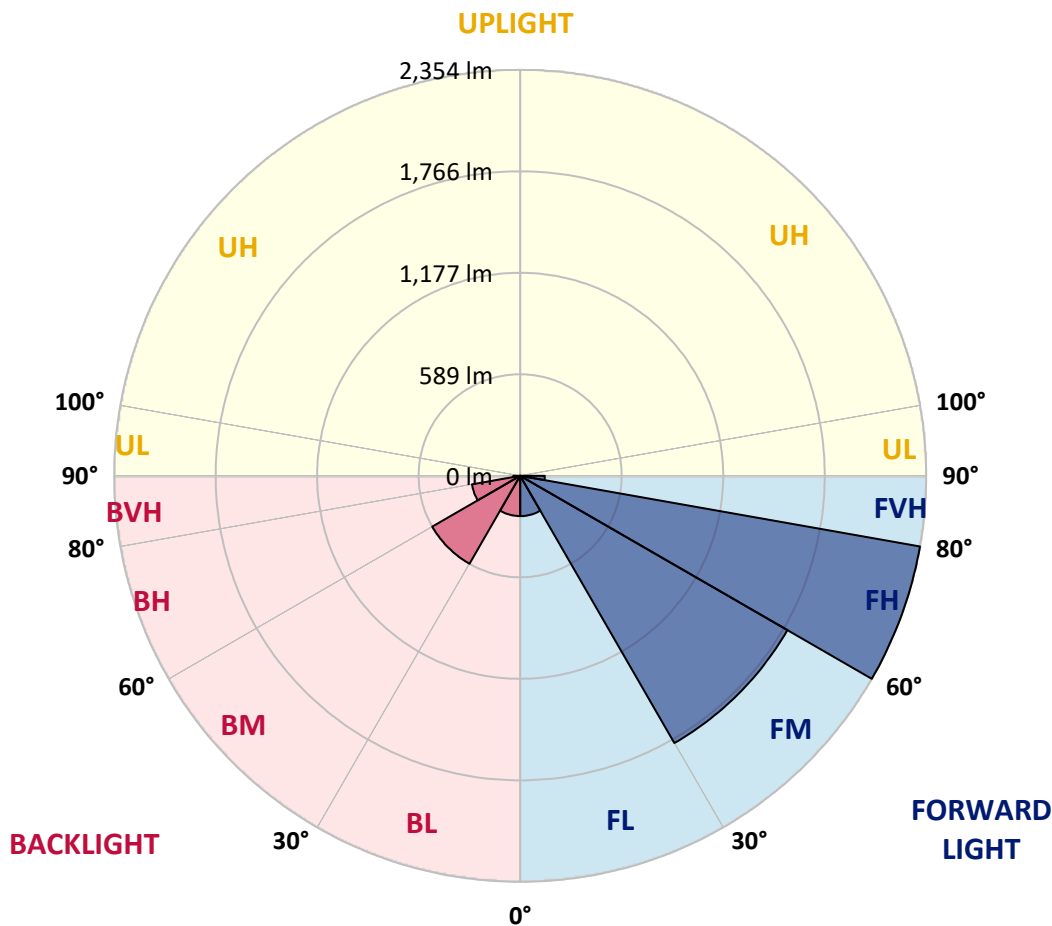


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	233.8	4.1			
FM (30°-60°)	1788.9	31.6			
FH (60°-80°)	2354.0	41.5			G2/5000
FVH (80°-90°)	143.1	2.5			G2/225
BL (0°-30°)	233.3	4.1	B1/500		
BM (30°-60°)	588.7	10.4	B1/1000		
BH (60°-80°)	284.0	5.0	B1/500		G1/500
BVH (80°-90°)	40.2	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°	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1
2.5°	336.8	326.2	308.9	308.4	318.0	320.1	326.5	327.0	329.3	325.5	352.3
5°	371.6	360.3	353.5	355.9	351.4	356.8	356.8	372.3	393.0	417.0	451.1
7.5°	379.8	371.6	363.9	369.7	370.7	365.5	370.4	406.9	444.2	468.2	522.8
10°	363.4	355.2	361.0	362.9	362.7	374.4	400.1	429.2	470.8	515.0	544.4
12.5°	360.3	366.2	369.0	372.3	394.6	398.2	437.0	467.0	508.9	547.7	624.1
15°	405.7	413.5	396.1	394.9	402.2	405.5	445.7	476.0	537.1	602.2	670.8
17.5°	470.3	473.2	441.9	425.9	431.3	433.9	451.5	489.6	527.2	647.6	733.1
20°	532.9	534.7	476.0	440.2	459.3	462.1	478.6	500.4	530.0	672.9	775.2
22.5°	598.4	586.4	522.0	476.9	488.0	488.7	498.3	510.3	552.4	669.0	826.4
25°	670.1	662.6	581.5	538.3	537.8	528.2	528.6	545.8	576.1	711.7	860.0
27.5°	765.3	766.3	648.5	625.2	588.8	582.5	550.7	582.7	617.2	712.2	932.7
30°	888.7	865.9	741.8	704.2	668.2	654.8	611.8	639.1	654.1	752.9	1011.7
32.5°	989.1	982.5	839.1	782.2	723.5	739.0	691.5	667.5	694.6	822.9	1131.3
35°	1085.2	1063.6	942.1	868.0	806.2	796.8	766.0	770.0	786.5	911.5	1287.6
37.5°	1228.6	1216.9	1087.8	969.3	940.4	902.1	882.6	895.1	882.1	1025.1	1521.9
40°	1388.9	1320.7	1209.6	1104.0	1050.0	1022.9	1029.8	1018.0	1008.1	1152.4	1732.1
42.5°	1542.4	1480.3	1290.4	1242.9	1172.4	1183.7	1146.3	1154.6	1182.5	1333.2	1926.5
45°	1709.5	1575.3	1376.2	1334.4	1283.8	1298.2	1328.0	1319.1	1364.9	1546.4	2109.6
47.5°	1793.0	1665.3	1481.5	1413.4	1412.6	1382.8	1564.5	1584.2	1512.5	1704.3	2295.5
50°	1873.3	1747.8	1559.8	1513.7	1480.3	1544.3	1791.3	1746.0	1646.1	1885.6	2500.0
52.5°	1985.2	1842.1	1649.6	1600.5	1641.8	1701.1	1972.3	1963.4	1777.0	2072.0	2677.7
55°	2070.6	1926.0	1784.7	1739.1	1818.1	1876.2	2156.6	2102.8	1889.1	2208.8	2790.3
57.5°	2220.0	2071.7	1984.3	1883.0	2025.0	2024.0	2334.3	2292.7	2009.0	2321.1	2835.6
60°	2457.7	2283.5	2192.1	2075.3	2227.3	2281.6	2537.4	2417.5	2093.8	2392.1	2753.8
62.5°	2791.2	2584.4	2436.1	2320.4	2505.9	2604.1	2788.2	2508.5	2099.2	2371.9	2538.8
65°	3203.7	2952.2	2757.8	2635.6	2941.6	3082.0	3091.4	2564.6	2049.4	2162.9	2086.5
67.5°	3606.1	3323.4	3120.5	3143.8	3590.6	3657.1	3420.0	2611.6	1781.7	1736.8	1448.8
70°	3871.0	3564.5	3429.4	3676.2	4355.0	4286.8	3686.3	2487.8	1403.0	1125.9	815.9
72.5°	3851.1	3530.2	3481.6	3992.6	4901.7	4859.2	3718.7	1978.4	939.7	615.6	406.9
75°	3137.4	2888.1	2998.5	3779.6	4744.2	4742.1	3228.6	1224.6	482.1	316.1	257.1
77.5°	1734.7	1637.8	1962.4	2861.7	3777.5	3796.8	2181.5	555.4	260.0	224.0	193.7
80°	607.6	598.7	850.4	1544.3	2484.9	2489.6	1014.5	254.1	189.0	169.5	142.2
82.5°	222.1	220.2	352.6	717.4	1368.2	1365.2	384.8	158.2	140.1	119.9	93.8
85°	88.6	86.7	161.2	318.5	628.5	618.4	149.5	89.8	91.7	71.5	46.1
87.5°	24.4	25.4	54.8	99.7	192.5	178.4	37.6	30.3	37.1	29.1	14.6
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°	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1
2.5°	357.0	359.4	336.1	344.3	354.9	360.6	363.4	351.4	355.4	372.3	371.6
5°	458.1	448.7	439.8	448.9	442.8	434.1	448.2	447.5	456.7	465.9	468.0
7.5°	533.6	521.3	517.1	496.4	475.7	454.8	472.9	484.2	486.6	509.4	519.0
10°	560.8	556.1	557.8	530.5	527.9	530.0	513.3	495.2	506.3	496.9	503.9
12.5°	623.8	635.6	606.4	587.9	586.2	573.3	539.9	528.2	515.7	528.6	522.0
15°	674.4	696.2	665.0	632.3	595.4	575.4	547.0	529.1	520.9	523.7	515.7
17.5°	748.4	768.8	689.4	639.3	601.3	571.9	528.4	490.3	510.5	512.2	503.0
20°	797.5	798.9	697.6	621.9	587.6	536.6	494.3	460.9	484.2	507.9	518.3
22.5°	845.5	834.9	707.7	608.1	538.0	488.7	468.0	465.9	483.3	503.2	505.6
25°	881.4	883.1	713.6	602.9	508.9	441.7	441.7	456.9	472.2	519.7	517.3
27.5°	968.6	904.5	690.8	579.2	468.5	414.2	441.9	462.3	469.6	521.1	526.3
30°	1032.1	990.3	695.5	538.5	427.6	401.2	424.0	449.7	469.9	529.3	527.5
32.5°	1138.6	1026.0	706.6	481.4	397.0	396.3	416.5	443.5	467.7	520.4	523.2
35°	1256.3	1131.3	675.8	437.9	389.7	393.5	419.6	430.4	458.8	516.9	519.5
37.5°	1474.2	1186.3	656.3	404.3	385.0	395.8	405.7	422.4	451.1	499.2	516.2
40°	1602.1	1299.6	583.9	384.8	375.1	393.9	398.9	413.0	428.5	478.1	488.9
42.5°	1770.4	1335.3	522.0	363.2	370.2	386.2	401.0	404.5	414.9	444.7	464.5
45°	1910.7	1362.1	456.5	345.8	353.5	403.3	404.3	402.6	400.8	411.8	428.0
47.5°	2056.0	1434.0	396.1	326.5	347.2	417.4	405.9	390.9	383.1	384.5	399.6
50°	2216.3	1486.2	353.3	310.7	348.6	417.4	413.9	378.9	363.4	359.4	375.1
52.5°	2357.3	1492.3	320.8	298.0	342.7	403.1	419.3	371.4	345.3	335.7	350.5
55°	2434.2	1415.0	297.3	286.5	327.7	390.2	416.5	367.1	323.4	316.1	329.3
57.5°	2432.5	1286.7	277.4	270.5	310.5	372.1	400.8	344.1	310.0	305.8	318.7
60°	2344.9	1136.2	262.1	257.4	292.9	345.8	372.6	329.1	297.1	295.0	309.1
62.5°	2146.0	980.9	247.3	243.5	276.4	327.2	359.2	312.4	283.7	283.5	296.9
65°	1757.5	787.4	233.4	232.5	261.1	308.9	346.5	298.3	269.8	274.5	288.2
67.5°	1211.0	553.3	218.6	221.4	247.0	291.2	336.8	288.9	255.3	264.9	277.1
70°	664.5	342.2	202.1	207.8	229.2	270.8	321.8	273.6	236.2	251.0	259.5
72.5°	338.0	228.2	181.7	190.6	207.3	240.7	293.6	251.5	215.8	221.4	225.9
75°	227.1	171.8	158.9	168.8	180.8	212.0	260.4	230.8	196.3	195.6	200.5
77.5°	171.6	134.2	134.9	146.2	154.0	186.4	234.1	213.4	179.8	178.2	185.5
80°	125.5	101.8	108.6	120.3	127.4	167.4	217.0	194.2	157.5	150.9	157.0
82.5°	83.2	72.2	80.4	92.1	97.8	139.9	197.0	164.8	128.3	111.6	112.6
85°	39.3	37.8	48.0	53.6	60.9	86.7	147.4	114.0	81.8	67.7	70.7
87.5°	8.9	12.0	15.7	15.5	18.1	23.3	45.8	32.0	23.7	16.2	10.8
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)