

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: P596890

Luminaire Tested: **MSA-SA1C-835-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596890
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-SA1C-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: 5183 lumens
Efficiency: N/A
Efficacy: 87.8 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

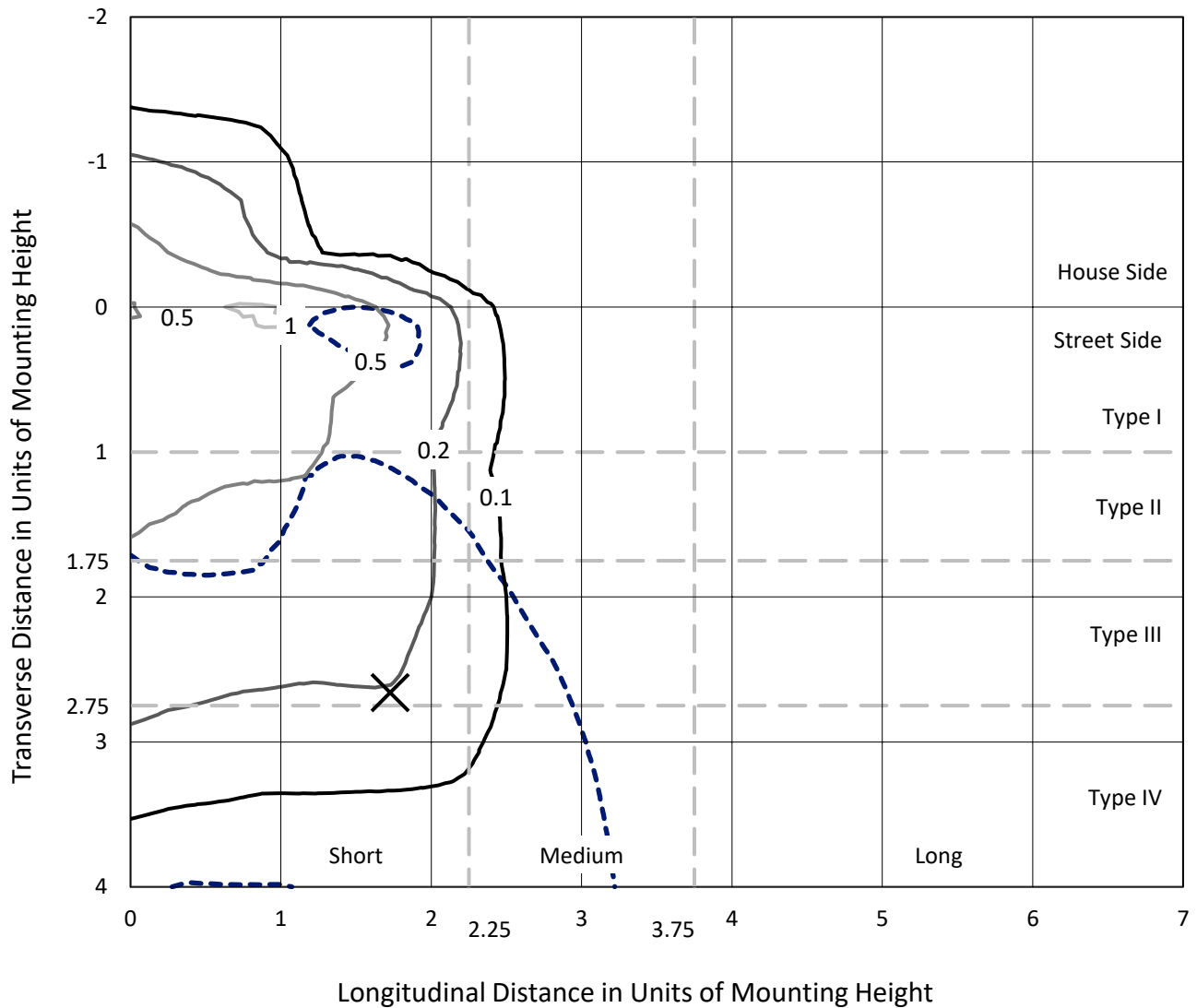
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

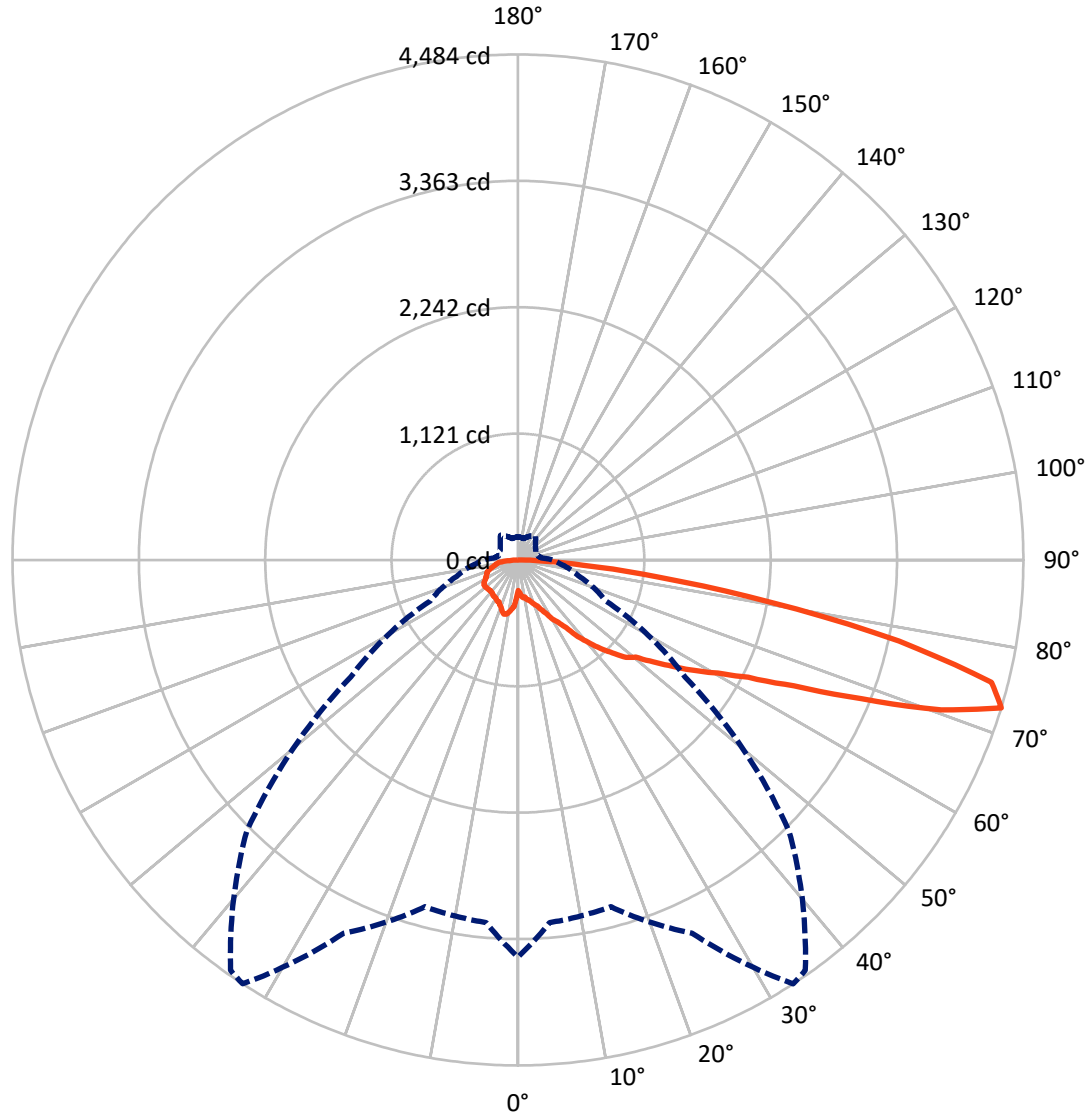
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 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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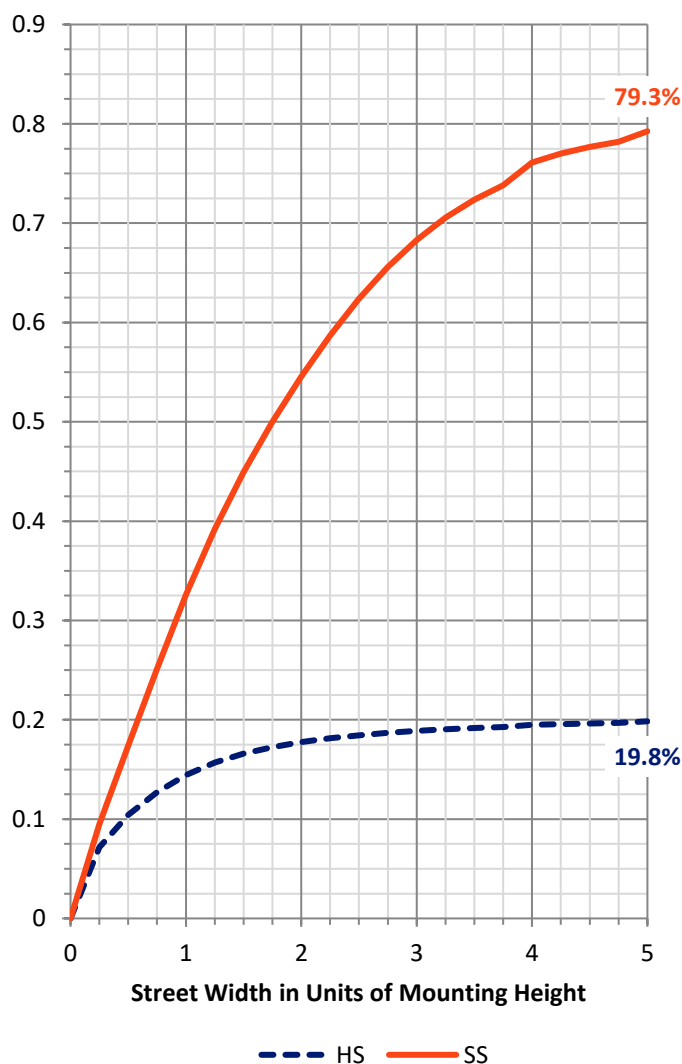
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1048.5	0.0	1048.5
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	4134.5	0.0	4134.5
	% Fixture	79.8	0.0	79.8
Total	Lumens	5183.0	0.0	5183.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	0.7
10°-20°	138.1	2.7
20°-30°	251.8	4.9
30°-40°	426.0	8.2
40°-50°	708.7	13.7
50°-60°	1040.1	20.1
60°-70°	1330.6	25.7
70°-80°	1082.6	20.9
80°-90°	167.7	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°	5183.0	100.0
0°-180°	5183.0	100.0

Coefficient of Utilization



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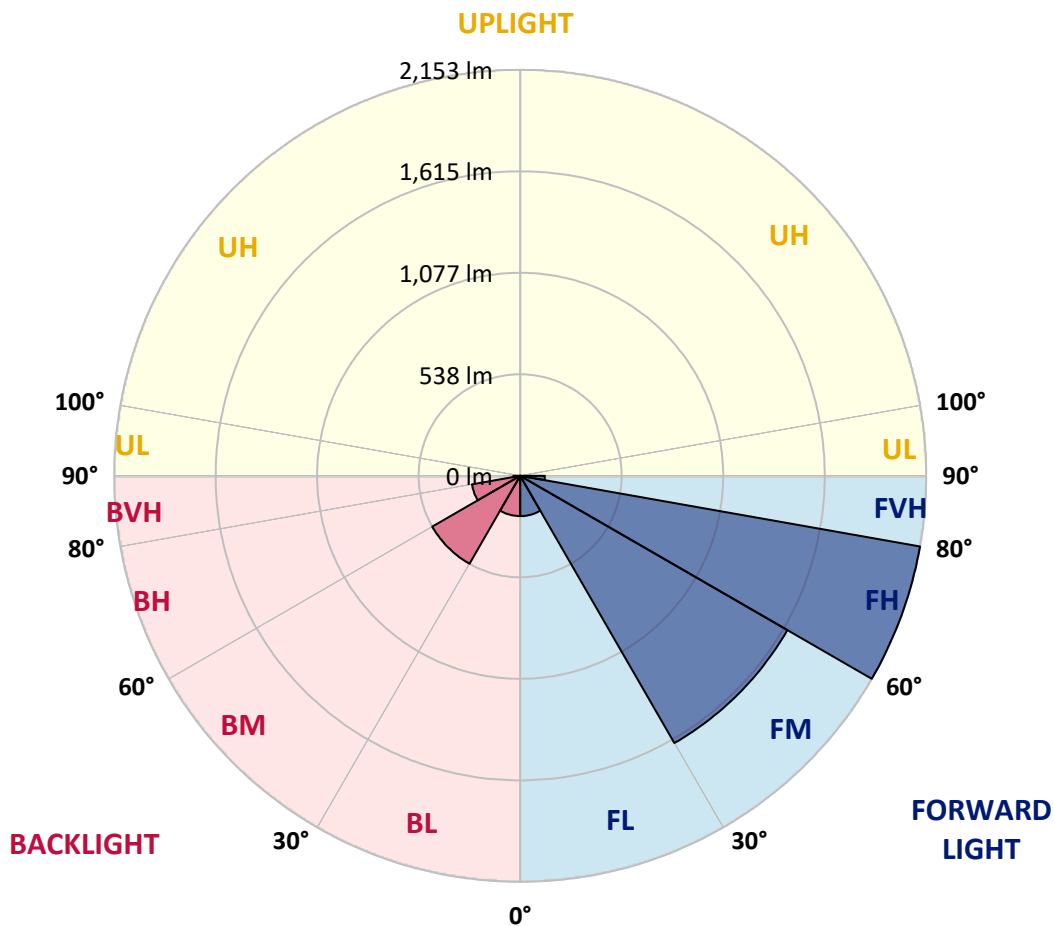
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	213.9	4.1			
FM (30°-60°)	1636.4	31.6			
FH (60°-80°)	2153.3	41.5			G2/5000
FVH (80°-90°)	130.9	2.5			G2/225
BL (0°-30°)	213.4	4.1	B1/500		
BM (30°-60°)	538.5	10.4	B1/1000		
BH (60°-80°)	259.8	5.0	B1/500		G1/500
BVH (80°-90°)	36.8	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8
2.5°	308.1	298.4	282.5	282.1	290.9	292.8	298.7	299.1	301.2	297.8	322.3
5°	339.9	329.6	323.4	325.5	321.4	326.4	326.4	340.6	359.5	381.4	412.6
7.5°	347.5	339.9	332.8	338.2	339.1	334.3	338.9	372.2	406.4	428.3	478.2
10°	332.4	324.9	330.3	332.0	331.8	342.5	366.0	392.6	430.7	471.1	498.0
12.5°	329.6	335.0	337.6	340.6	361.0	364.2	399.7	427.2	465.5	501.0	570.9
15°	371.1	378.2	362.3	361.2	367.9	370.9	407.7	435.4	491.3	550.9	613.6
17.5°	430.2	432.8	404.2	389.6	394.5	396.9	413.0	447.9	482.3	592.4	670.6
20°	487.4	489.2	435.4	402.7	420.1	422.7	437.8	457.8	484.9	615.6	709.1
22.5°	547.4	536.5	477.5	436.3	446.4	447.0	455.8	466.8	505.3	611.9	756.0
25°	613.0	606.1	531.9	492.4	491.9	483.1	483.6	499.3	527.0	651.1	786.7
27.5°	700.1	700.9	593.2	571.9	538.6	532.8	503.8	533.0	564.6	651.5	853.2
30°	813.0	792.1	678.6	644.2	611.3	599.0	559.7	584.6	598.4	688.7	925.4
32.5°	904.8	898.8	767.6	715.6	661.8	676.0	632.6	610.6	635.4	752.8	1034.9
35°	992.7	972.9	861.8	794.0	737.5	728.9	700.7	704.4	719.4	833.8	1177.8
37.5°	1123.9	1113.1	995.1	886.7	860.3	825.2	807.4	818.8	806.9	937.7	1392.2
40°	1270.5	1208.2	1106.5	1009.9	960.5	935.7	942.0	931.2	922.2	1054.2	1584.4
42.5°	1410.9	1354.2	1180.4	1137.0	1072.5	1082.8	1048.6	1056.1	1081.7	1219.6	1762.2
45°	1563.8	1441.0	1258.9	1220.6	1174.4	1187.5	1214.8	1206.7	1248.6	1414.6	1929.7
47.5°	1640.1	1523.4	1355.2	1292.9	1292.2	1264.9	1431.1	1449.2	1383.6	1559.1	2099.8
50°	1713.7	1598.8	1426.8	1384.7	1354.2	1412.6	1638.6	1597.1	1505.7	1724.8	2286.9
52.5°	1816.0	1685.1	1509.0	1464.0	1501.9	1556.0	1804.2	1796.0	1625.5	1895.3	2449.4
55°	1894.0	1761.8	1632.6	1590.9	1663.1	1716.2	1972.7	1923.5	1728.1	2020.5	2552.4
57.5°	2030.8	1895.1	1815.1	1722.5	1852.3	1851.5	2135.3	2097.2	1837.7	2123.3	2593.9
60°	2248.2	2088.9	2005.2	1898.3	2037.5	2087.1	2321.1	2211.4	1915.3	2188.2	2519.1
62.5°	2553.3	2364.1	2228.4	2122.6	2292.3	2382.1	2550.5	2294.6	1920.3	2169.7	2322.4
65°	2930.6	2700.6	2522.7	2410.9	2690.9	2819.2	2827.9	2346.0	1874.7	1978.5	1908.7
67.5°	3298.7	3040.1	2854.5	2875.8	3284.5	3345.4	3128.4	2389.0	1629.8	1588.7	1325.3
70°	3541.0	3260.7	3137.0	3362.8	3983.8	3921.4	3372.0	2275.7	1283.4	1029.9	746.3
72.5°	3522.8	3229.3	3184.8	3652.2	4483.9	4445.0	3401.7	1809.8	859.6	563.1	372.2
75°	2870.0	2641.9	2742.9	3457.4	4339.8	4337.9	2953.4	1120.2	441.0	289.2	235.2
77.5°	1586.8	1498.2	1795.1	2617.8	3455.5	3473.1	1995.5	508.1	237.8	204.9	177.2
80°	555.8	547.6	777.9	1412.6	2273.1	2277.4	928.0	232.4	172.9	155.0	130.1
82.5°	203.2	201.5	322.5	656.2	1251.6	1248.8	352.0	144.7	128.1	109.7	85.8
85°	81.1	79.3	147.5	291.3	574.9	565.7	136.7	82.1	83.9	65.4	42.1
87.5°	22.4	23.2	50.1	91.2	176.1	163.2	34.4	27.7	34.0	26.7	13.3
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°	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8	271.8
2.5°	326.6	328.8	307.5	315.0	324.7	329.8	332.4	321.4	325.1	340.6	339.9
5°	419.1	410.5	402.3	410.7	405.1	397.1	410.0	409.4	417.8	426.2	428.1
7.5°	488.1	476.9	473.0	454.1	435.2	416.1	432.6	442.9	445.1	465.9	474.7
10°	513.0	508.7	510.2	485.3	482.9	484.9	469.6	453.0	463.1	454.5	461.0
12.5°	570.6	581.4	554.7	537.7	536.2	524.4	493.9	483.1	471.7	483.6	477.5
15°	616.9	636.9	608.3	578.4	544.6	526.4	500.3	484.0	476.5	479.0	471.7
17.5°	684.6	703.3	630.6	584.8	550.0	523.1	483.3	448.5	467.0	468.5	460.1
20°	729.5	730.8	638.2	568.9	537.5	490.9	452.2	421.6	442.9	464.6	474.1
22.5°	773.4	763.7	647.4	556.2	492.2	447.0	428.1	426.2	442.1	460.3	462.5
25°	806.3	807.8	652.8	551.5	465.5	404.0	404.0	418.0	432.0	475.4	473.2
27.5°	886.1	827.4	631.9	529.8	428.5	378.9	404.2	422.9	429.6	476.7	481.4
30°	944.1	905.8	636.2	492.6	391.1	367.0	387.9	411.3	429.8	484.2	482.5
32.5°	1041.5	938.5	646.3	440.3	363.2	362.5	381.0	405.7	427.9	476.0	478.6
35°	1149.2	1034.9	618.2	400.6	356.5	359.9	383.8	393.7	419.7	472.8	475.2
37.5°	1348.6	1085.2	600.3	369.8	352.2	362.1	371.1	386.4	412.6	456.7	472.2
40°	1465.5	1188.8	534.1	352.0	343.2	360.4	364.9	377.8	392.0	437.3	447.2
42.5°	1619.5	1221.5	477.5	332.2	338.6	353.3	366.8	370.0	379.5	406.8	424.9
45°	1747.8	1246.0	417.6	316.3	323.4	369.0	369.8	368.3	366.6	376.7	391.5
47.5°	1880.7	1311.8	362.3	298.7	317.6	381.9	371.3	357.6	350.5	351.8	365.5
50°	2027.4	1359.5	323.2	284.2	318.9	381.9	378.6	346.6	332.4	328.8	343.2
52.5°	2156.4	1365.1	293.5	272.6	313.5	368.7	383.6	339.7	315.9	307.0	320.6
55°	2226.7	1294.4	272.0	262.1	299.7	356.9	381.0	335.9	295.9	289.2	301.2
57.5°	2225.2	1177.0	253.7	247.5	284.0	340.4	366.6	314.8	283.6	279.7	291.6
60°	2145.0	1039.4	239.7	235.4	267.9	316.3	340.8	301.0	271.8	269.8	282.7
62.5°	1963.1	897.2	226.2	222.8	252.9	299.3	328.5	285.8	259.5	259.3	271.6
65°	1607.7	720.3	213.5	212.6	238.9	282.5	316.9	272.9	246.8	251.1	263.6
67.5°	1107.7	506.1	200.0	202.5	226.0	266.4	308.1	264.3	233.5	242.3	253.5
70°	607.8	313.1	184.9	190.1	209.6	247.7	294.4	250.3	216.1	229.6	237.4
72.5°	309.2	208.8	166.2	174.4	189.6	220.2	268.6	230.1	197.4	202.5	206.6
75°	207.7	157.2	145.3	154.4	165.3	193.9	238.2	211.1	179.5	178.9	183.4
77.5°	157.0	122.8	123.4	133.7	140.8	170.5	214.2	195.2	164.5	163.0	169.6
80°	114.8	93.1	99.3	110.1	116.5	153.1	198.5	177.6	144.1	138.0	143.6
82.5°	76.1	66.0	73.5	84.3	89.4	127.9	180.2	150.7	117.4	102.1	103.0
85°	35.9	34.6	43.9	49.0	55.7	79.3	134.8	104.3	74.8	61.9	64.7
87.5°	8.2	11.0	14.4	14.2	16.6	21.3	41.9	29.2	21.7	14.8	9.9
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)