

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: P596900

Luminaire Tested: **MSA-SA1D-835-U-SL3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-835-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5547 lumens
Efficiency: N/A
Efficacy: 82.8 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

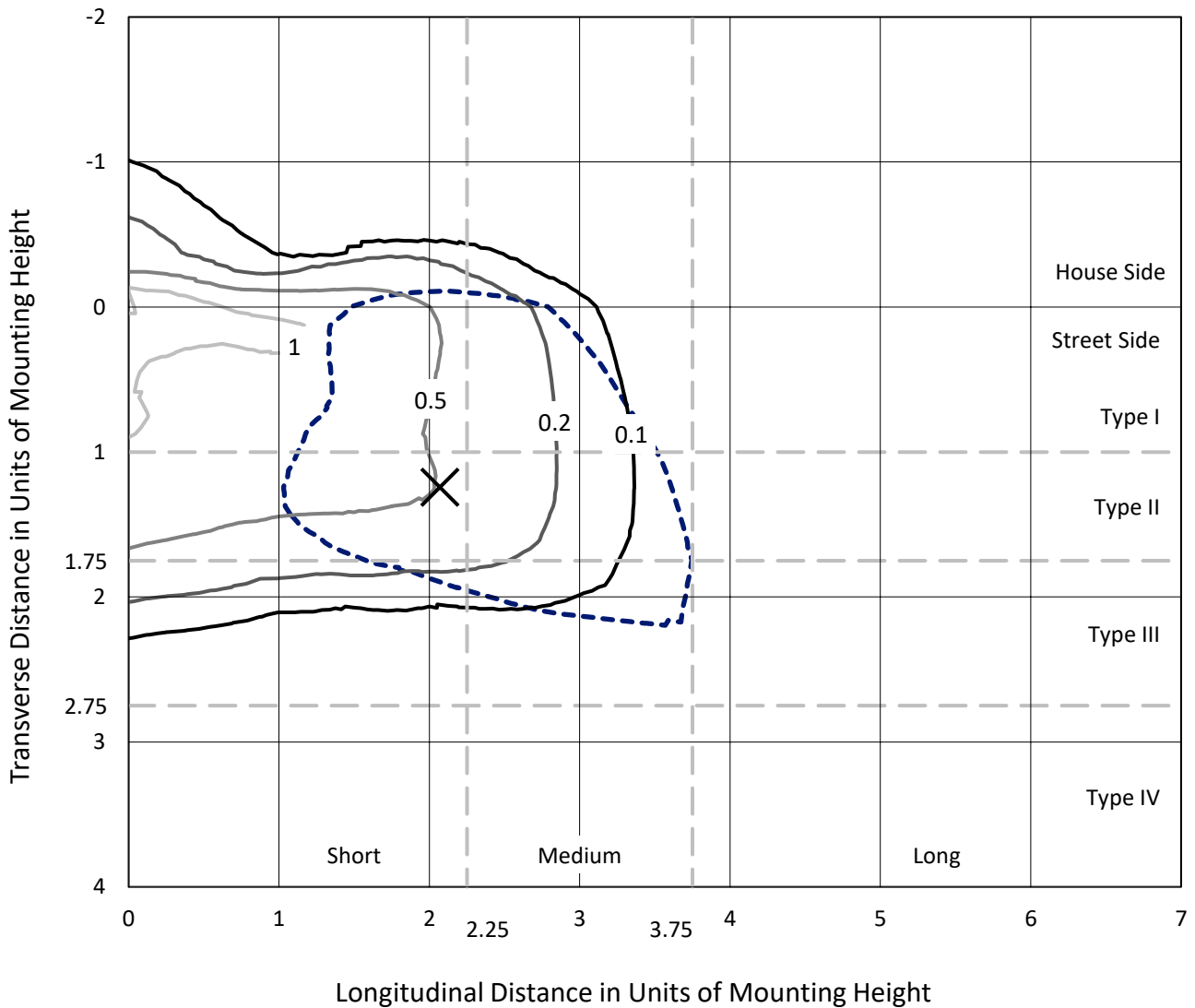
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

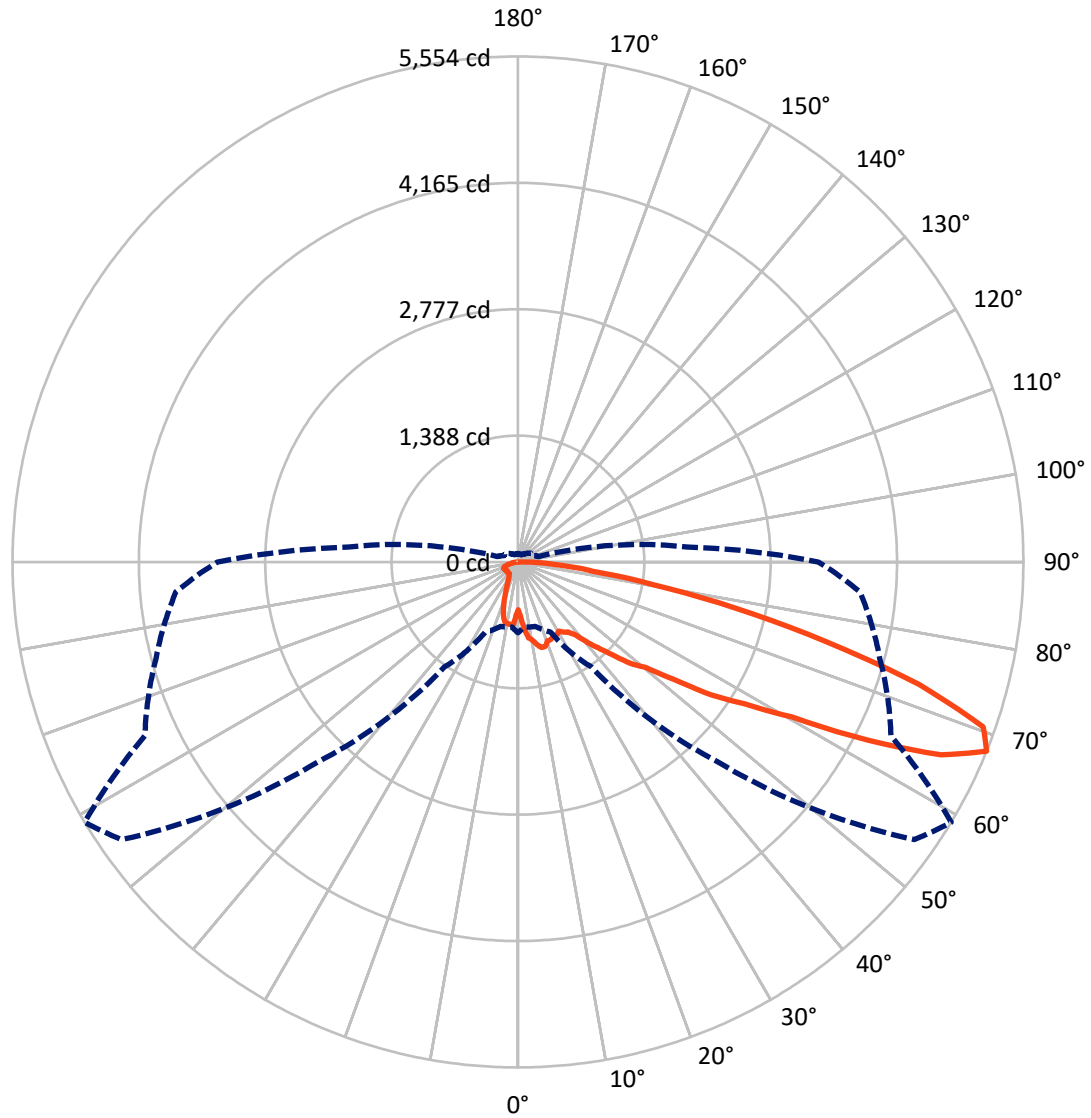
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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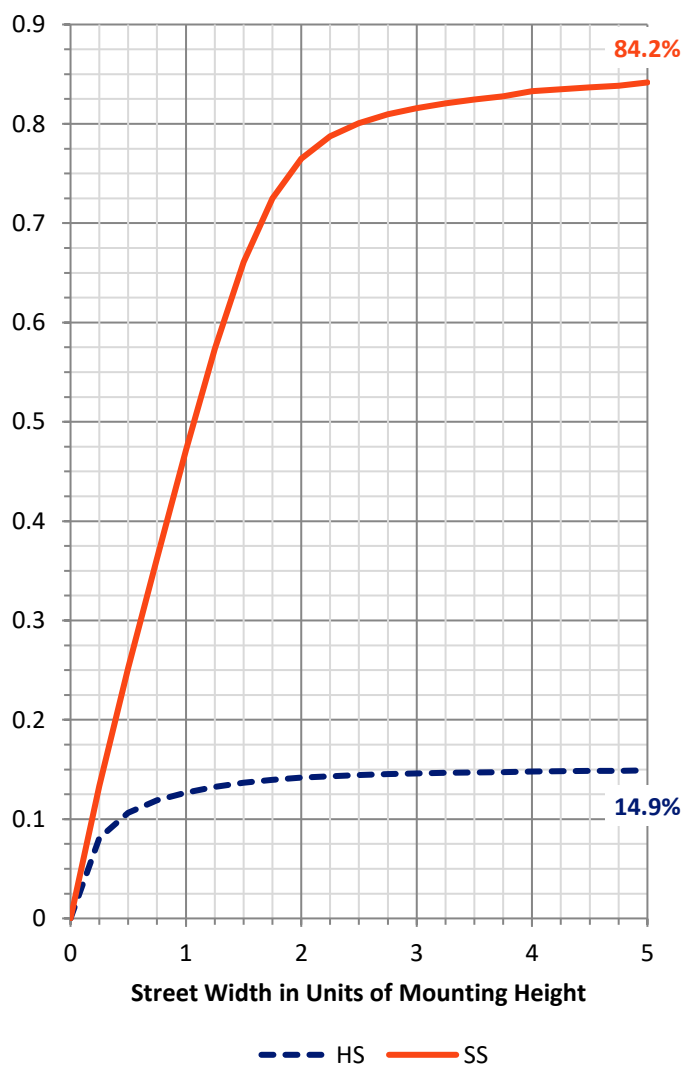
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	834.9	0.0	834.9
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	4712.1	0.0	4712.1
	% Fixture	84.9	0.0	84.9
Total	Lumens	5547.0	0.0	5547.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.6	1.2
10°-20°	202.9	3.7
20°-30°	289.7	5.2
30°-40°	426.9	7.7
40°-50°	721.3	13.0
50°-60°	1255.1	22.6
60°-70°	1599.4	28.8
70°-80°	846.9	15.3
80°-90°	136.2	2.5
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°	5547.0	100.0
0°-180°	5547.0	100.0

Coefficient of Utilization

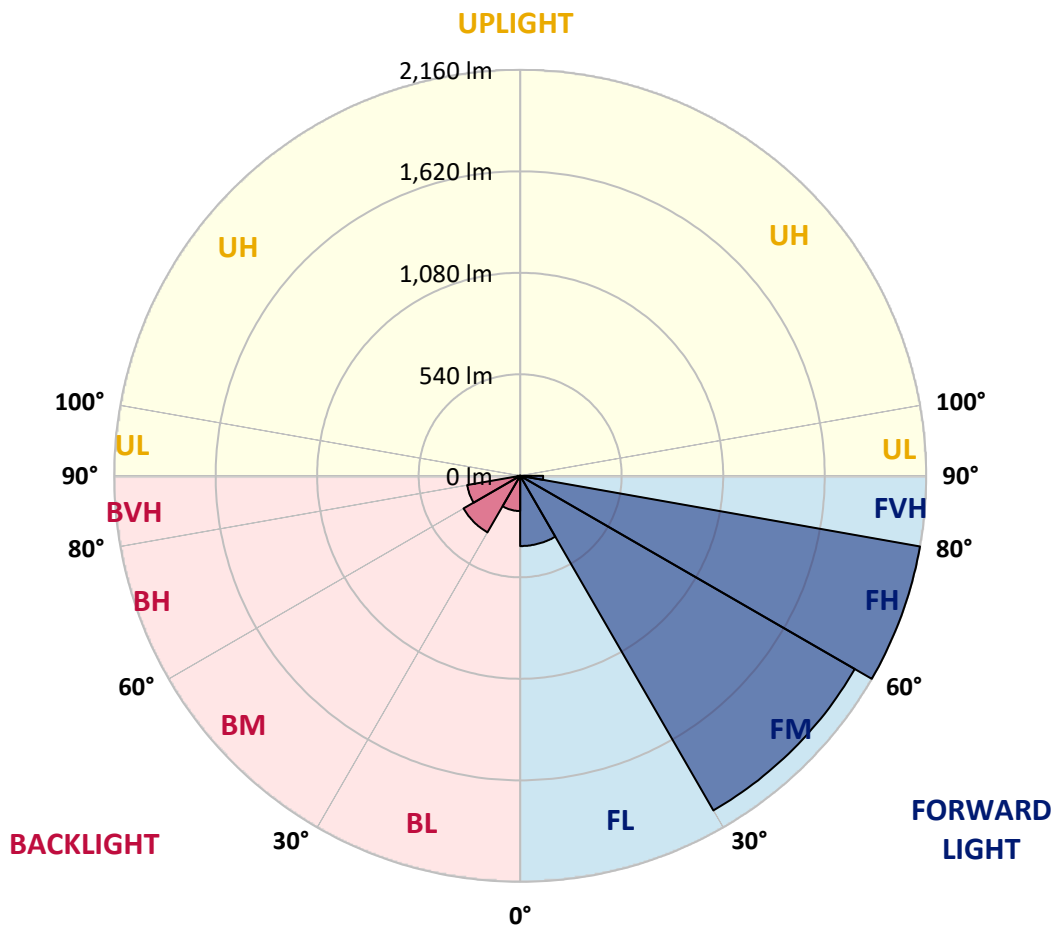


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	373.9	6.7			
FM (30°-60°)	2055.6	37.1			
FH (60°-80°)	2160.2	38.9			G2/5000
FVH (80°-90°)	122.4	2.2			G2/225
BL (0°-30°)	187.2	3.4	B1/500		
BM (30°-60°)	347.7	6.3	B1/1000		
BH (60°-80°)	286.2	5.2	B1/500		G1/500
BVH (80°-90°)	13.9	0.2			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°	59°	65°	75°	85°
0°	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9
2.5°	655.4	624.8	592.4	601.5	620.1	628.6	619.4	610.5	598.9	585.3	631.8
5°	794.7	749.4	742.8	742.6	736.0	709.7	743.5	741.1	754.8	768.9	805.1
7.5°	834.5	817.5	799.2	807.9	774.8	773.4	826.0	841.1	867.4	858.7	907.3
10°	814.0	795.0	804.6	801.1	804.1	838.9	871.1	872.1	900.3	928.0	896.8
12.5°	778.1	779.5	817.8	816.4	865.7	930.4	940.0	932.5	978.6	959.8	986.6
15°	803.7	820.8	811.2	819.4	838.9	921.2	948.0	975.3	1019.0	1035.9	1009.1
17.5°	844.6	853.7	810.5	806.0	846.2	885.2	951.8	975.0	981.9	1102.4	1064.6
20°	827.2	845.8	803.4	749.1	815.9	867.6	933.2	926.1	959.3	1107.6	1076.1
22.5°	876.5	845.8	791.9	753.4	776.9	824.4	880.1	926.4	965.6	1077.3	1092.8
25°	885.9	871.4	821.1	782.8	774.8	791.7	871.1	901.5	967.7	1118.7	1083.9
27.5°	943.3	921.4	819.0	820.1	780.4	750.6	842.9	906.6	991.7	1093.0	1105.7
30°	1014.5	997.8	869.3	874.0	819.0	764.0	862.2	881.5	1005.6	1133.0	1133.2
32.5°	1067.9	1097.3	968.2	904.3	884.8	843.6	832.6	919.3	989.4	1205.4	1180.2
35°	1164.0	1186.8	1044.4	993.1	927.1	880.8	913.0	944.2	1056.8	1300.6	1250.1
37.5°	1342.0	1315.6	1185.9	1105.3	1080.6	1013.8	1031.7	1009.8	1130.2	1407.5	1386.9
40°	1444.9	1422.1	1285.6	1240.9	1143.1	1151.6	1129.2	1145.2	1228.2	1521.3	1514.7
42.5°	1546.5	1515.9	1400.5	1369.5	1271.9	1230.5	1234.5	1286.3	1379.3	1705.1	1683.3
45°	1646.8	1568.6	1518.0	1526.3	1479.2	1394.4	1400.3	1448.9	1544.4	1915.3	1865.0
47.5°	1723.7	1659.1	1619.6	1609.5	1586.2	1699.7	1649.0	1668.7	1710.8	2102.4	2083.4
50°	1869.2	1793.8	1742.3	1727.7	1806.7	1964.6	1861.2	1818.7	1908.2	2344.3	2334.4
52.5°	2102.2	2008.1	1922.3	1921.4	2035.6	2138.1	2211.0	2137.6	2170.6	2592.0	2620.2
55°	2305.5	2196.7	2119.5	2162.1	2324.8	2387.5	2635.0	2577.7	2549.9	2842.1	2922.8
57.5°	2381.4	2254.2	2203.9	2266.7	2506.5	2829.0	3090.6	2939.7	2912.6	3125.1	3294.2
60°	2214.7	2080.3	2083.4	2201.6	2616.9	3153.1	3588.7	3460.6	3302.1	3477.5	3642.5
62.5°	1739.9	1618.4	1697.6	1877.4	2524.3	3468.1	4256.3	4310.3	3747.1	3769.7	3835.7
65°	1182.6	1098.4	1169.9	1346.0	2047.4	3639.9	4892.1	5108.8	4152.4	3961.0	3919.2
67.5°	778.3	718.8	732.7	849.7	1409.4	3103.0	5317.3	5553.6	4522.8	4118.0	3772.0
70°	602.7	554.7	548.6	610.0	835.9	2155.7	5065.3	5424.5	4748.5	3970.9	3287.8
72.5°	472.9	436.5	439.8	498.8	647.4	1196.0	3919.7	4612.8	4408.6	3424.6	2526.0
75°	368.8	339.0	355.6	423.1	598.7	743.3	2704.4	3501.0	3408.4	2535.8	1440.7
77.5°	267.7	248.5	272.2	360.3	562.7	637.7	1683.5	2442.5	2183.5	1302.0	494.3
80°	175.6	164.8	184.3	293.8	510.3	613.7	1040.4	1496.6	1078.9	365.8	187.1
82.5°	103.4	98.7	114.9	198.9	410.2	575.2	693.9	831.6	441.4	154.7	99.4
85°	54.3	50.8	68.2	114.2	282.8	525.1	546.3	497.9	213.2	67.2	47.5
87.5°	18.1	17.6	28.9	44.2	107.0	278.8	291.5	236.5	87.9	19.5	10.3
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°	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9	524.9
2.5°	638.2	628.8	574.7	582.2	589.3	585.8	583.7	559.2	556.9	591.6	588.8
5°	804.1	765.1	719.1	716.9	686.6	655.6	661.7	651.8	654.6	669.0	670.4
7.5°	891.8	843.2	799.2	727.8	667.1	618.0	625.7	623.4	617.0	649.5	658.2
10°	890.2	846.9	797.3	710.8	669.9	630.0	582.0	536.6	523.2	507.3	508.7
12.5°	948.9	910.6	802.5	714.4	658.9	590.0	500.2	450.6	403.1	402.2	390.2
15°	967.3	939.1	813.5	694.1	581.5	482.8	390.0	336.1	301.8	295.0	284.9
17.5°	1013.6	969.4	779.9	628.8	491.7	377.5	293.1	255.5	252.7	257.4	252.2
20°	1016.6	944.9	719.3	532.2	395.1	286.1	239.1	220.3	230.4	241.9	241.4
22.5°	1014.1	914.2	666.9	449.9	296.9	229.9	209.4	205.2	214.6	231.8	233.9
25°	987.7	904.0	601.3	369.5	240.9	197.0	191.3	193.9	205.7	225.9	225.9
27.5°	1015.2	862.9	519.0	300.6	202.6	175.4	179.4	185.9	194.6	217.7	221.9
30°	1006.3	876.5	452.7	242.1	178.6	160.3	169.2	175.8	185.7	209.7	211.8
32.5°	1030.3	840.1	397.0	203.6	162.9	154.4	156.6	165.5	178.4	197.2	201.0
35°	1066.9	853.5	333.1	183.1	155.1	147.6	151.6	158.7	171.6	189.9	193.0
37.5°	1184.0	852.8	288.9	171.8	153.7	146.2	148.1	153.0	168.1	184.8	191.8
40°	1259.2	901.7	248.7	169.2	152.1	145.5	143.9	149.3	161.3	181.0	185.9
42.5°	1400.5	931.5	231.3	168.3	151.8	141.5	139.9	146.2	158.0	176.3	183.8
45°	1549.8	974.1	217.4	167.8	151.1	140.8	135.9	143.9	153.7	171.4	180.1
47.5°	1725.4	1064.1	209.7	166.2	149.7	141.7	134.5	138.5	149.5	167.1	175.8
50°	1955.2	1183.3	211.3	163.8	151.8	142.0	132.3	134.2	144.3	161.5	170.4
52.5°	2234.7	1367.8	221.9	164.8	153.3	140.8	131.4	130.5	139.2	154.2	163.1
55°	2571.6	1629.7	253.6	169.2	153.3	140.6	130.0	125.8	132.3	144.6	153.3
57.5°	2978.0	1932.9	315.7	171.4	152.1	139.2	126.9	119.4	123.4	133.5	141.7
60°	3327.1	2177.6	379.6	172.8	154.4	135.9	120.8	111.4	114.0	121.8	129.0
62.5°	3505.0	2246.2	398.9	171.6	160.8	133.8	113.5	103.0	103.2	109.8	116.4
65°	3538.4	2154.8	321.6	170.4	169.0	133.5	108.4	95.7	94.0	98.7	104.4
67.5°	3300.5	1870.4	232.0	167.8	169.9	132.1	104.8	89.8	85.6	88.9	93.6
70°	2802.4	1506.3	194.9	162.7	158.7	125.1	98.7	83.7	78.0	80.4	83.9
72.5°	2089.2	1114.4	169.9	151.6	138.2	107.0	89.3	76.9	71.0	72.6	75.2
75°	1160.7	594.5	142.2	131.9	112.8	86.5	76.2	68.2	63.0	63.7	66.5
77.5°	385.5	219.3	104.4	104.6	85.3	66.8	62.8	58.3	54.3	54.5	56.9
80°	174.7	121.3	74.7	75.2	59.5	48.4	48.2	46.8	44.2	43.5	45.1
82.5°	101.3	73.6	51.2	48.9	38.3	31.5	35.0	34.3	33.6	31.0	31.5
85°	49.8	39.5	26.8	25.4	21.2	15.7	18.8	19.5	18.8	16.0	15.7
87.5°	12.2	12.9	6.6	6.1	3.5	1.6	2.8	2.8	3.5	2.4	1.2
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)