

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: P596998

Luminaire Tested: **MSA-SA2D-835-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596998
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-SA2D-835-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11103 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

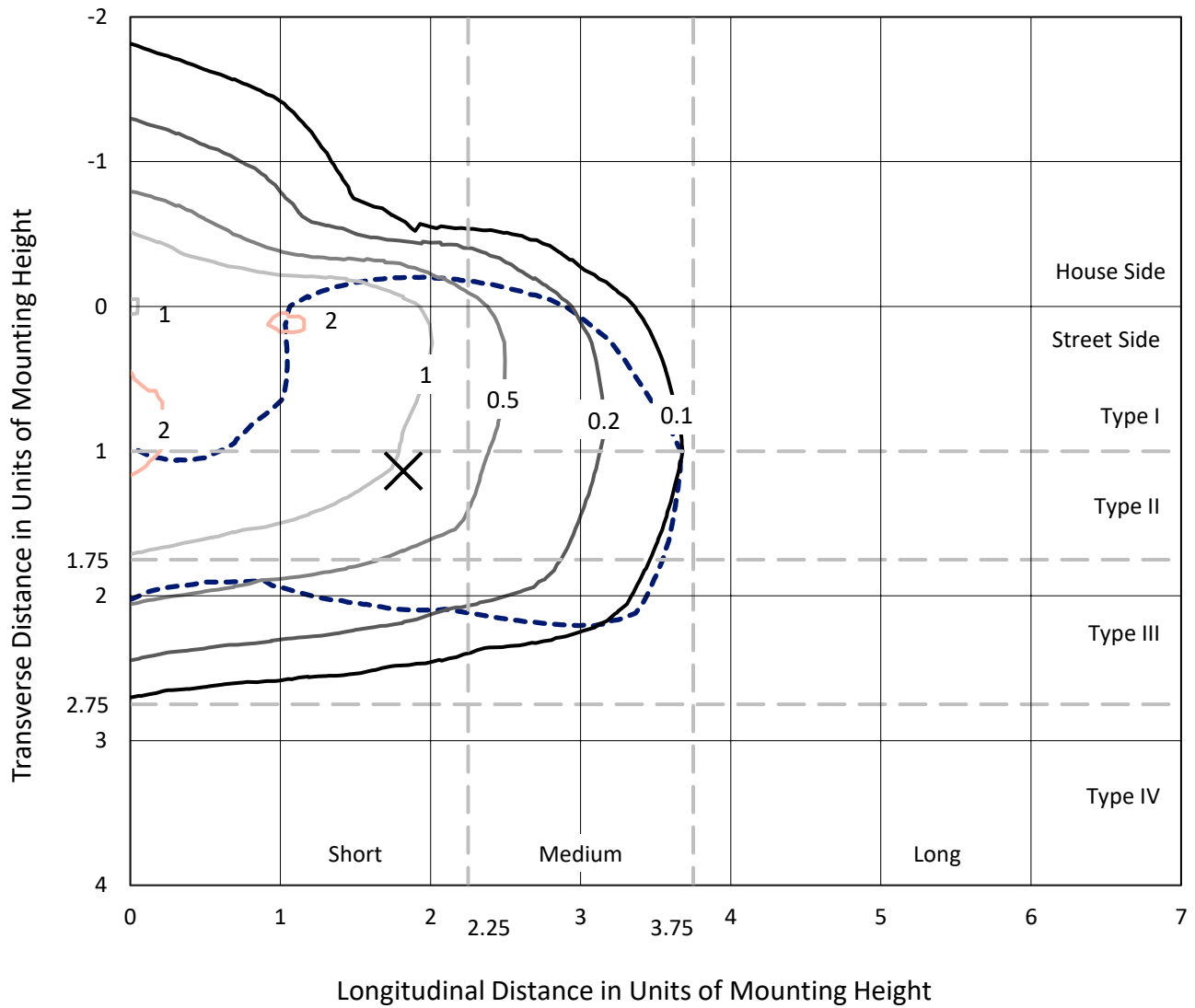
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

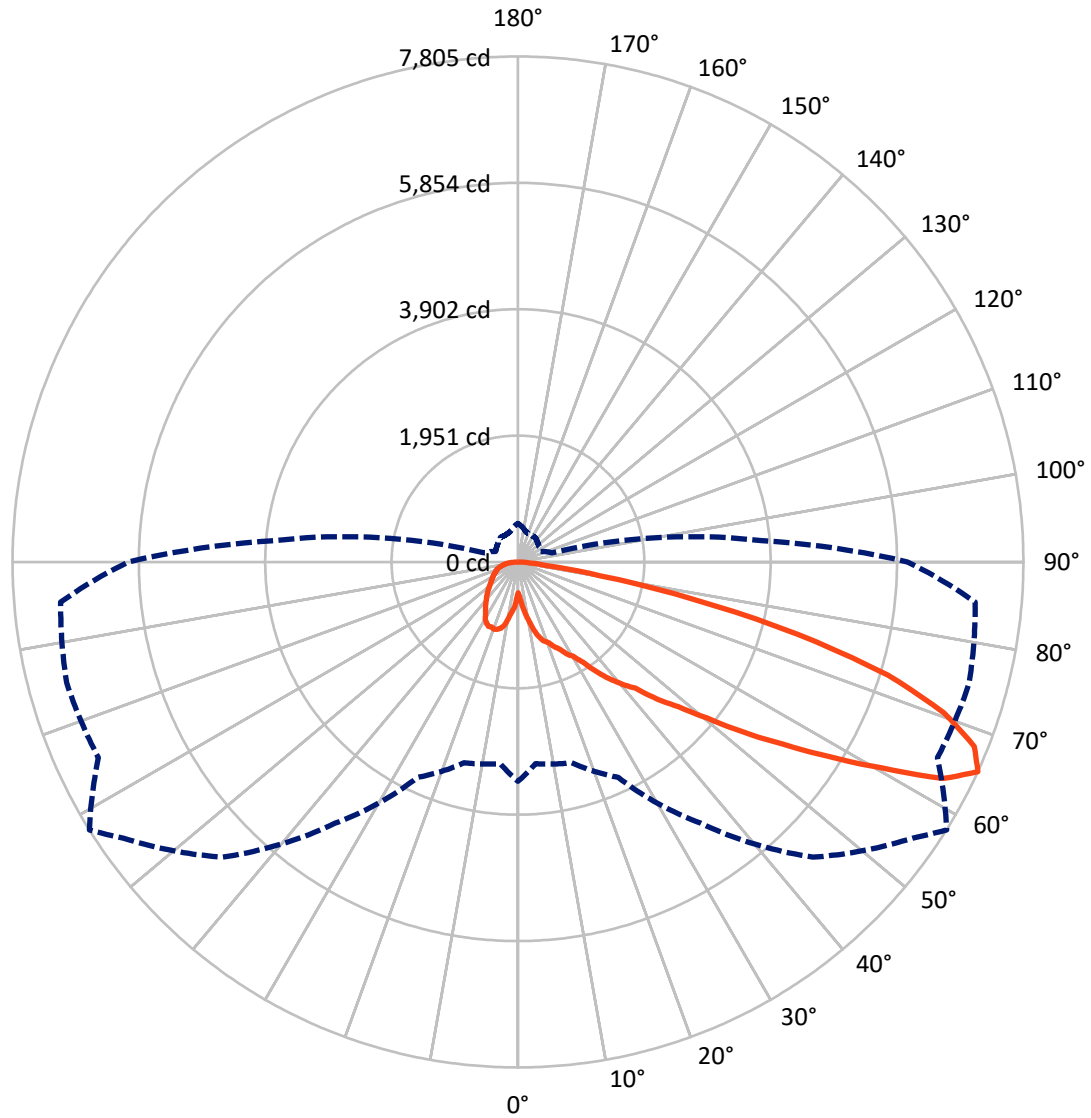
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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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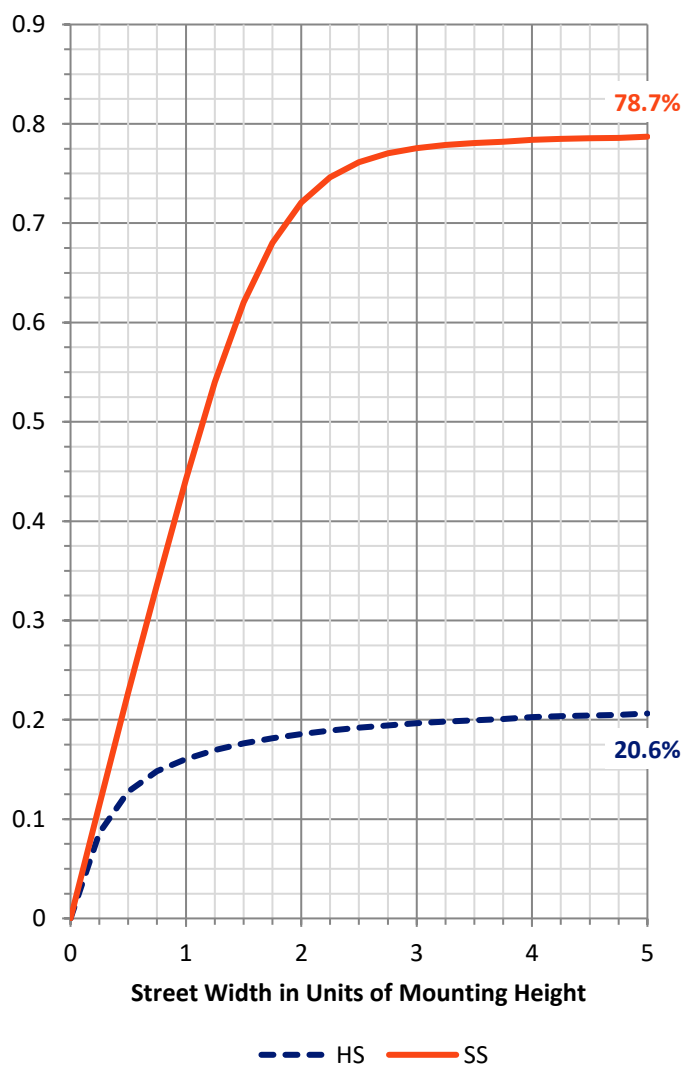
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2338.6	0.0	2338.6
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	8764.4	0.0	8764.4
	% Fixture	78.9	0.0	78.9
Total	Lumens	11103.0	0.0	11103.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	0.7
10°-20°	316.9	2.9
20°-30°	608.0	5.5
30°-40°	1003.8	9.0
40°-50°	1668.5	15.0
50°-60°	2755.4	24.8
60°-70°	3091.1	27.8
70°-80°	1405.4	12.7
80°-90°	181.3	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°	11103.0	100.0
0°-180°	11103.0	100.0

Coefficient of Utilization

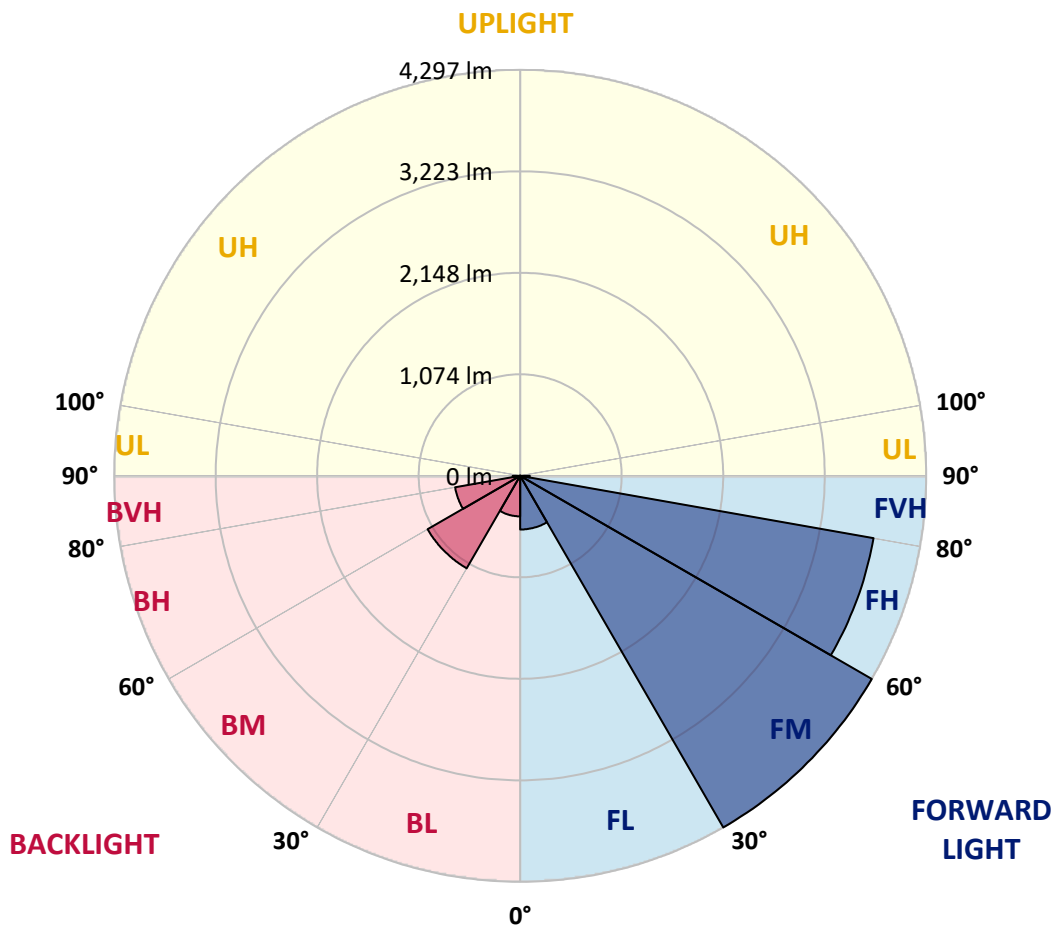


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	568.2	5.1			
FM (30°-60°)	4296.7	38.7			
FH (60°-80°)	3797.5	34.2			G2/5000
FVH (80°-90°)	102.1	0.9			G2/225
BL (0°-30°)	429.3	3.9	B1/500		
BM (30°-60°)	1131.0	10.2	B2/2500		
BH (60°-80°)	699.1	6.3	B2/1000		G2/1000
BVH (80°-90°)	79.2	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7
2.5°	569.2	552.1	523.4	530.3	547.0	556.2	550.7	543.3	533.6	531.7	574.3
5°	737.0	704.2	690.8	685.2	664.9	652.9	673.7	670.9	682.0	702.4	744.0
7.5°	859.6	836.4	814.2	811.9	772.6	758.8	786.5	801.3	821.2	821.6	878.1
10°	925.2	905.3	904.9	884.1	880.8	907.2	907.6	918.7	921.1	944.6	933.5
12.5°	996.4	995.0	1020.5	1020.0	1049.6	1093.1	1071.3	1071.3	1077.8	1049.1	1084.3
15°	1166.1	1180.9	1133.3	1141.2	1141.2	1183.7	1182.3	1190.6	1210.5	1203.1	1187.4
17.5°	1342.7	1352.0	1299.3	1250.3	1254.0	1244.7	1278.0	1281.3	1262.3	1348.3	1329.3
20°	1456.5	1492.6	1381.6	1320.1	1332.1	1342.7	1344.1	1324.3	1314.5	1446.8	1420.9
22.5°	1597.1	1566.5	1464.8	1396.8	1414.9	1400.5	1397.8	1413.0	1426.4	1476.4	1518.5
25°	1690.9	1688.6	1566.5	1492.1	1472.2	1468.1	1496.3	1490.2	1522.1	1612.8	1586.4
27.5°	1827.3	1869.9	1653.5	1672.0	1584.6	1492.6	1583.2	1610.5	1667.8	1653.0	1711.7
30°	2091.8	2059.9	1833.8	1828.7	1729.8	1652.5	1715.4	1692.3	1795.4	1792.2	1835.6
32.5°	2307.7	2329.9	2045.6	1992.4	1918.9	1825.9	1784.3	1848.6	1904.1	1995.2	2019.7
35°	2536.1	2531.1	2262.4	2155.1	2033.5	1995.2	2046.5	2073.3	2191.2	2274.9	2216.6
37.5°	2891.3	2851.0	2543.5	2340.6	2249.5	2235.6	2323.5	2284.6	2412.2	2432.1	2464.9
40°	3221.4	3100.2	2800.6	2568.0	2423.3	2475.1	2477.9	2483.0	2551.4	2605.5	2767.8
42.5°	3535.3	3450.3	3061.9	2887.1	2673.9	2623.5	2655.0	2665.6	2838.5	2949.0	3173.8
45°	3964.4	3736.5	3437.3	3257.9	3019.3	2955.1	2932.9	3024.4	3191.3	3442.9	3635.7
47.5°	4327.4	4121.6	3836.4	3600.1	3333.3	3516.9	3391.1	3339.8	3564.0	3875.7	4182.7
50°	4628.4	4401.8	4122.1	3985.7	3943.2	4106.8	3780.4	3786.4	3991.7	4431.4	4783.3
52.5°	4861.4	4619.6	4371.8	4302.4	4540.1	4634.4	4398.6	4363.0	4512.8	5032.5	5455.1
55°	5079.2	4822.6	4631.2	4772.7	5173.1	5183.7	5167.1	4969.6	5150.0	5676.6	6150.6
57.5°	5135.2	4858.7	4731.5	4934.5	5475.9	5897.2	6062.7	5675.2	5858.8	6262.5	6746.1
60°	4847.1	4610.4	4559.5	4835.1	5639.6	6255.5	6687.8	6456.2	6387.3	6732.7	7163.2
62.5°	4257.1	3982.5	4023.6	4406.5	5467.2	6397.5	7181.7	7362.5	6945.4	7106.8	7345.3
65°	3388.3	3126.1	3209.4	3669.9	4925.7	6444.6	7434.1	7804.9	7147.0	7212.6	7087.3
67.5°	2389.6	2151.4	2256.4	2852.0	4097.6	5840.8	7477.6	7598.7	6932.4	6910.7	6382.7
70°	1353.8	1204.5	1318.2	1814.8	2892.2	4652.9	7136.8	6977.3	6547.7	6239.8	5340.5
72.5°	621.0	569.7	624.2	923.8	1665.0	3096.1	5826.4	5971.2	5641.9	5256.8	4062.9
75°	330.1	312.1	335.2	461.5	779.1	1684.4	4139.7	4465.2	4289.9	3987.1	2650.4
77.5°	245.5	231.7	242.7	299.2	416.1	658.9	2352.1	2762.7	2829.3	2550.5	1471.8
80°	188.2	177.1	188.2	226.1	288.1	313.0	1005.7	1287.7	1466.7	1185.1	584.9
82.5°	139.6	132.2	149.3	169.7	202.5	195.6	357.0	444.3	572.9	391.6	228.0
85°	111.0	101.7	108.2	115.1	129.5	107.3	163.2	182.6	193.3	161.8	84.2
87.5°	43.5	40.2	78.6	62.0	52.7	32.4	49.0	55.5	56.9	54.6	24.5
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°	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7	476.7
2.5°	578.9	574.3	547.0	555.8	570.1	572.9	578.9	562.3	553.9	584.4	585.8
5°	747.7	722.7	709.8	711.1	701.9	687.6	709.3	723.6	729.2	751.8	760.2
7.5°	878.5	848.5	826.7	801.8	766.6	744.0	781.9	809.6	824.4	871.6	890.1
10°	936.8	912.7	908.1	876.7	875.7	875.3	873.4	863.7	895.6	891.0	903.9
12.5°	1057.0	1051.9	1008.0	995.5	996.9	995.5	956.7	954.8	955.3	997.8	982.6
15°	1168.9	1169.8	1129.6	1084.3	1043.6	1031.1	1015.8	1008.9	1019.1	1043.1	1028.3
17.5°	1307.1	1311.8	1196.6	1125.0	1071.3	1069.9	1033.4	990.4	1052.4	1067.2	1051.0
20°	1396.4	1377.0	1235.5	1115.3	1100.0	1058.4	1013.1	953.9	1007.5	1043.6	1053.8
22.5°	1481.0	1447.2	1271.5	1132.4	1059.3	1009.8	965.9	927.5	944.6	984.9	978.4
25°	1538.3	1529.1	1321.5	1173.5	1057.9	947.9	888.7	864.2	873.0	935.4	929.4
27.5°	1675.2	1575.3	1312.7	1184.2	1013.5	863.3	833.7	807.3	798.5	866.0	884.5
30°	1766.7	1725.6	1371.4	1167.5	957.6	793.9	750.4	744.9	747.7	824.4	829.5
32.5°	1922.1	1815.3	1467.6	1103.7	876.2	742.6	692.6	695.0	707.4	763.4	774.9
35°	2083.9	2020.1	1480.5	1057.9	810.1	688.0	667.7	651.5	658.4	707.4	709.8
37.5°	2384.5	2163.9	1560.1	987.2	761.5	667.2	628.4	614.0	617.7	645.5	665.4
40°	2649.0	2452.9	1523.1	918.7	701.4	639.5	590.9	580.3	569.2	596.5	609.0
42.5°	3073.0	2659.1	1510.6	843.4	673.2	602.0	568.7	540.5	529.9	553.0	575.7
45°	3497.0	2877.8	1442.6	767.1	633.5	599.2	536.4	509.5	512.3	533.1	556.2
47.5°	3969.5	3171.5	1327.5	693.1	590.0	585.8	504.0	492.4	500.8	523.9	547.0
50°	4528.1	3483.1	1232.2	626.5	559.0	545.6	499.8	486.0	493.8	521.1	543.8
52.5°	5138.9	3824.8	1162.9	565.0	523.9	513.7	505.4	492.0	501.2	524.8	548.4
55°	5746.0	4136.9	1115.7	523.0	493.8	500.3	516.9	507.2	511.9	529.4	553.0
57.5°	6196.3	4301.5	1020.9	478.1	469.3	492.4	518.3	502.1	504.9	529.4	554.9
60°	6458.0	4332.9	865.1	441.6	449.9	476.7	504.0	483.2	481.3	521.6	553.5
62.5°	6429.4	4150.3	686.2	408.3	427.7	453.1	482.3	462.4	467.5	522.5	556.2
65°	6018.8	3777.2	545.6	380.1	400.9	427.2	464.2	456.4	480.9	559.5	596.0
67.5°	5297.5	3232.0	438.3	353.7	375.9	409.7	476.7	497.5	508.2	597.4	634.8
70°	4293.2	2511.2	365.3	330.6	356.0	418.0	512.8	508.6	499.8	579.4	609.0
72.5°	3101.6	1721.4	321.4	307.9	331.5	393.0	513.7	491.5	480.4	529.0	550.2
75°	1940.6	1026.9	280.7	279.3	294.1	352.3	490.6	470.7	440.6	464.7	492.4
77.5°	1108.3	525.7	236.3	248.8	257.5	305.6	439.3	421.2	394.4	404.6	431.9
80°	423.1	254.3	199.3	221.0	218.7	258.9	372.2	368.1	337.5	340.8	357.4
82.5°	199.3	142.4	165.5	190.0	177.6	206.2	302.4	301.0	274.2	248.3	261.7
85°	74.0	75.8	121.1	144.7	123.5	133.2	218.7	212.7	186.8	157.7	174.3
87.5°	16.6	27.3	59.6	75.4	43.0	41.2	88.3	76.8	74.0	43.9	46.2
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)