

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: P367364

Luminaire Tested: **MSA-SA2B-760-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-760-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: 9947 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

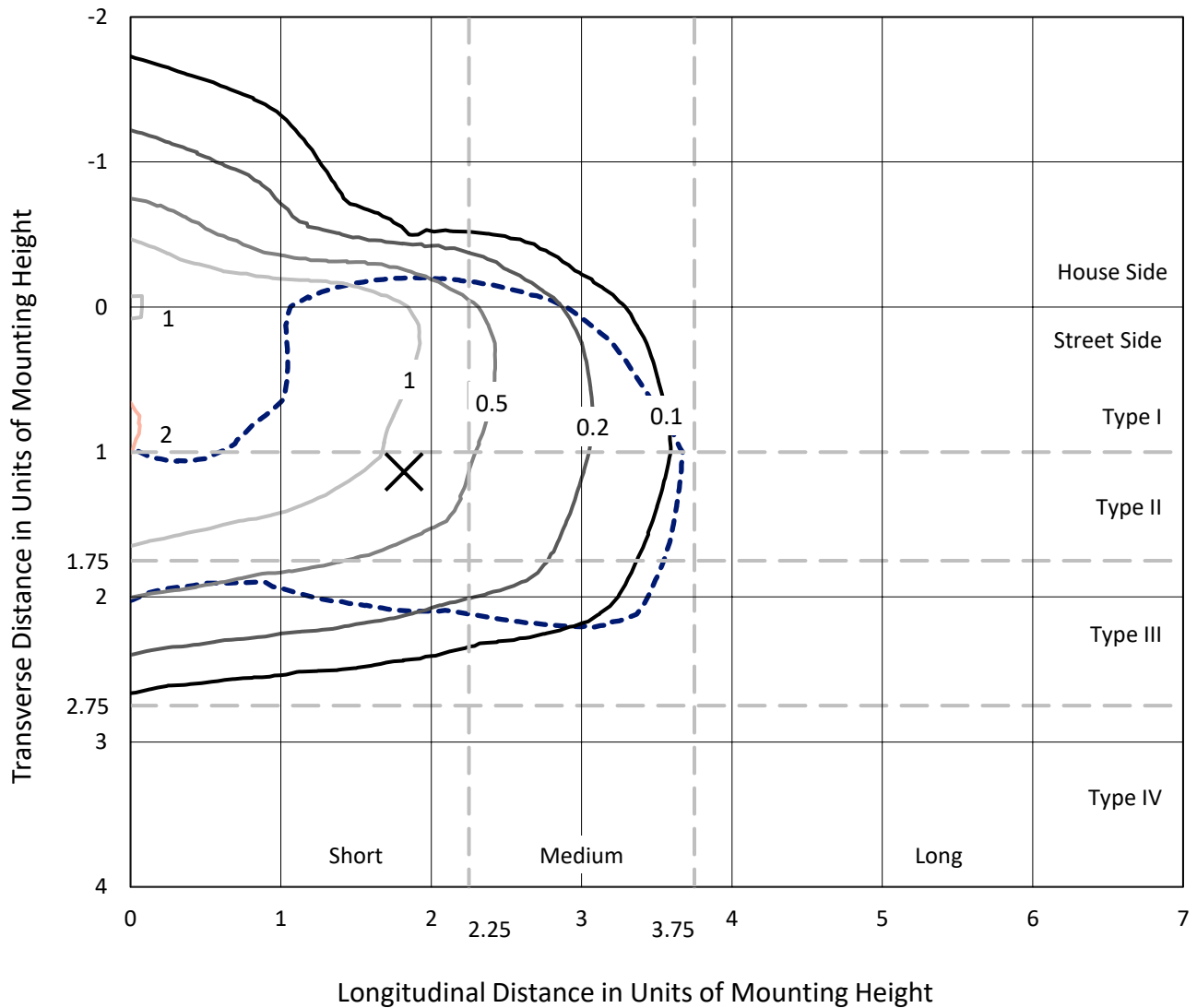
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

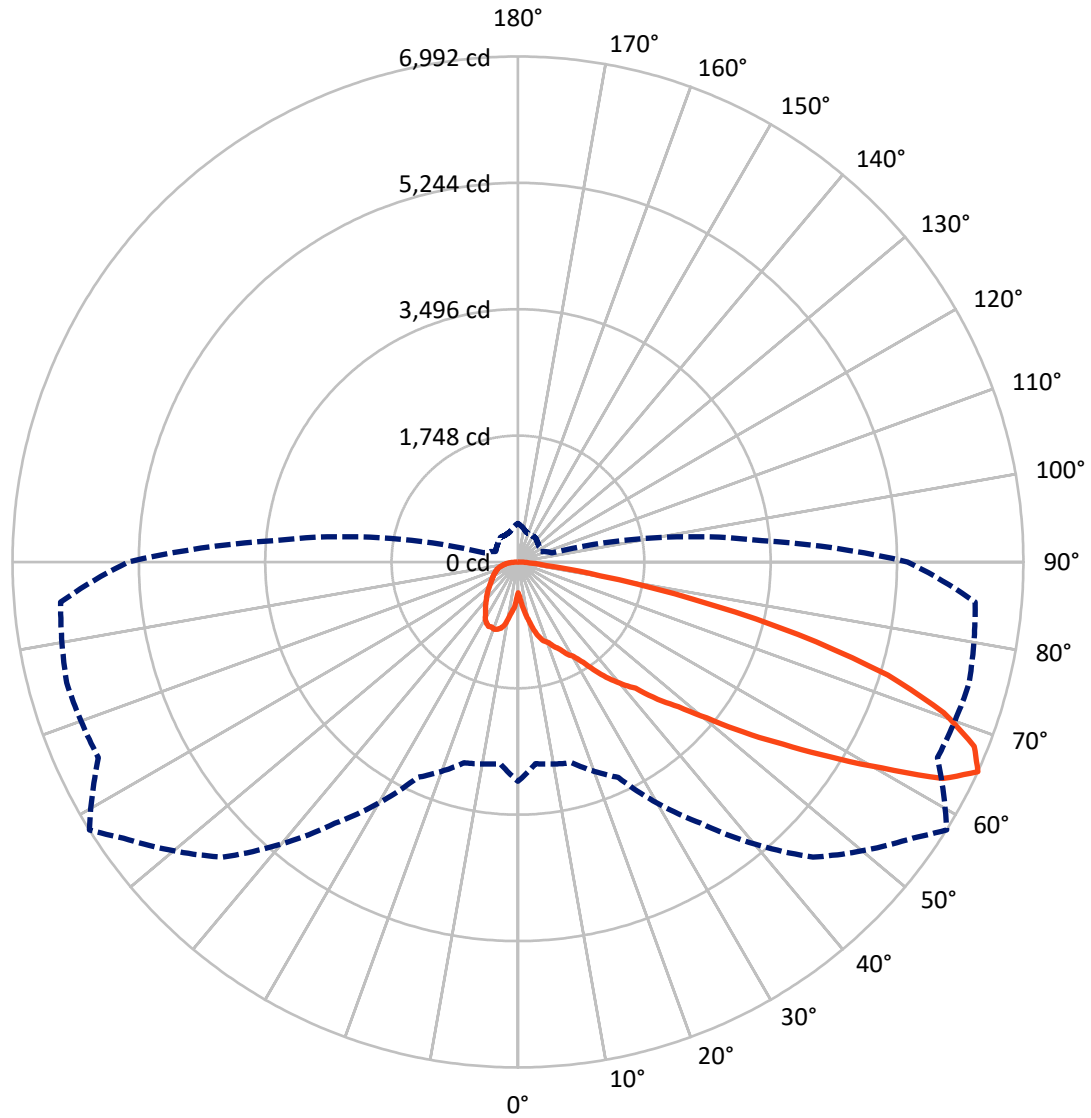
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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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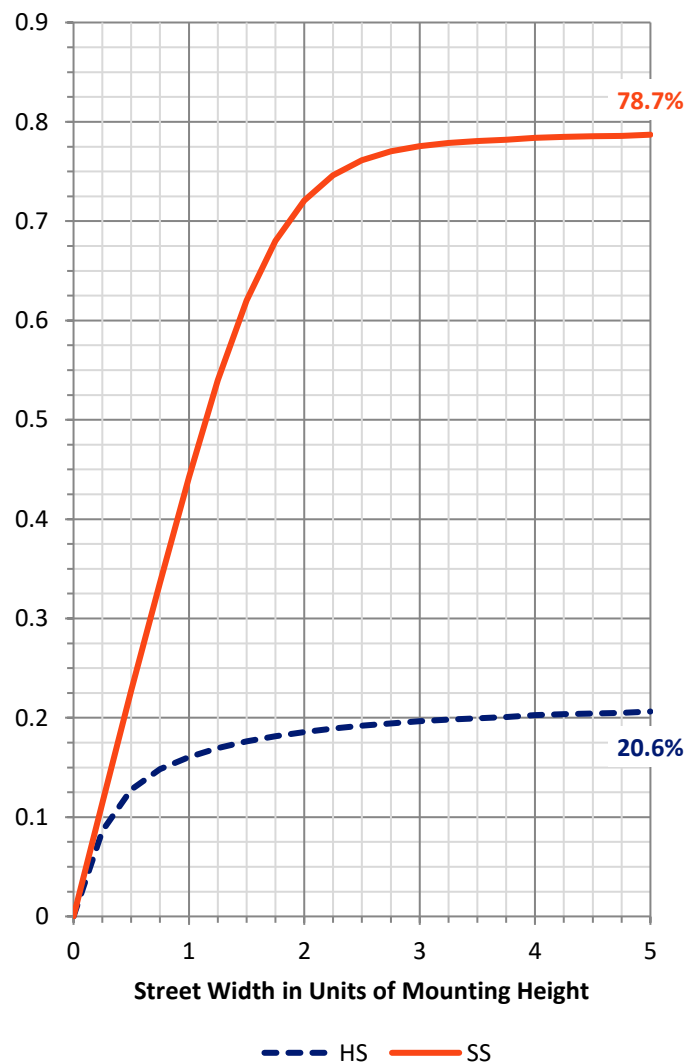
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2095.1	0.0	2095.1
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	7851.9	0.0	7851.9
	% Fixture	78.9	0.0	78.9
Total	Lumens	9947.0	0.0	9947.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	0.7
10°-20°	283.9	2.9
20°-30°	544.7	5.5
30°-40°	899.3	9.0
40°-50°	1494.7	15.0
50°-60°	2468.6	24.8
60°-70°	2769.3	27.8
70°-80°	1259.1	12.7
80°-90°	162.4	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°	9947.0	100.0
0°-180°	9947.0	100.0

Coefficient of Utilization

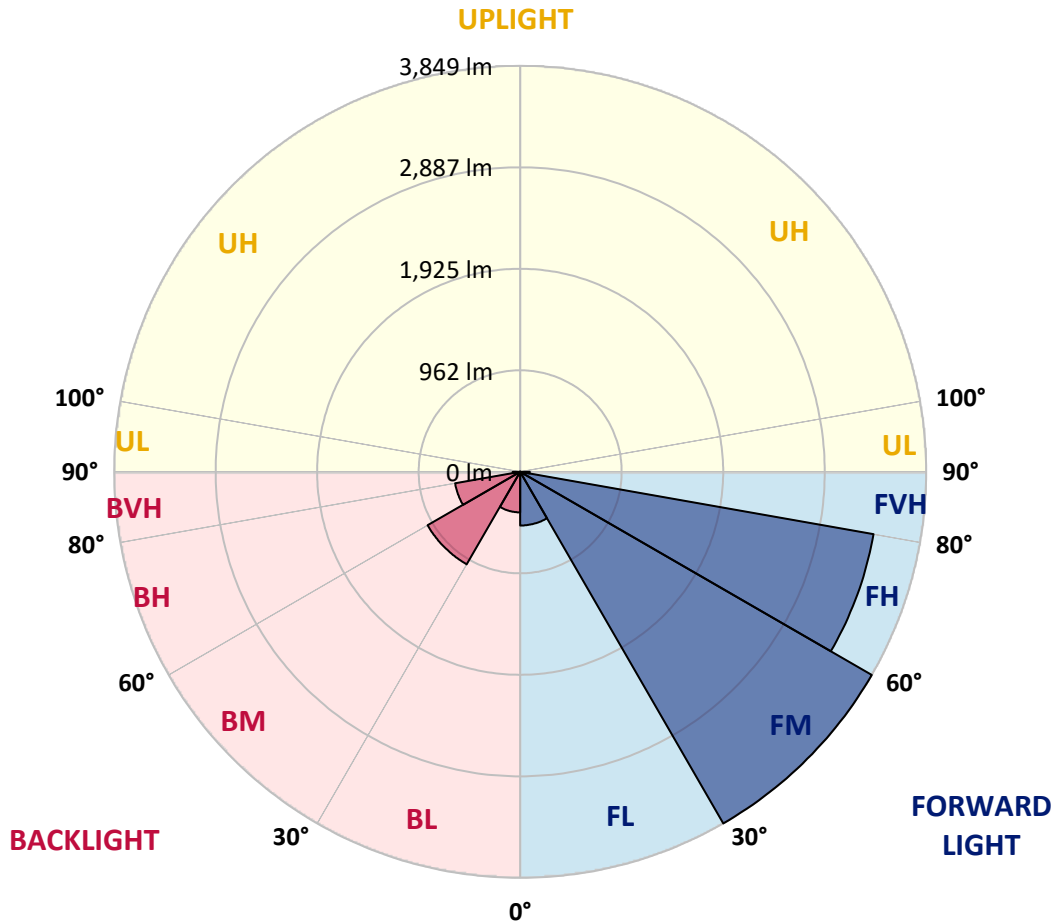


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	509.0	5.1			
FM (30°-60°)	3849.3	38.7			
FH (60°-80°)	3402.1	34.2			G2/5000
FVH (80°-90°)	91.4	0.9			G1/100
BL (0°-30°)	384.6	3.9	B1/500		
BM (30°-60°)	1013.3	10.2	B2/2500		
BH (60°-80°)	626.3	6.3	B2/1000		G2/1000
BVH (80°-90°)	70.9	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°	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1
2.5°	509.9	494.6	468.9	475.1	490.0	498.3	493.4	486.7	478.0	476.4	514.5
5°	660.3	630.9	618.9	613.9	595.7	584.9	603.5	601.1	611.0	629.2	666.5
7.5°	770.1	749.4	729.5	727.4	692.2	679.8	704.6	717.9	735.7	736.1	786.6
10°	828.9	811.1	810.7	792.0	789.1	812.7	813.1	823.1	825.2	846.3	836.3
12.5°	892.7	891.4	914.2	913.8	940.3	979.3	959.8	959.8	965.6	939.9	971.4
15°	1044.7	1058.0	1015.3	1022.3	1022.3	1060.4	1059.2	1066.7	1084.5	1077.8	1063.8
17.5°	1202.9	1211.2	1164.0	1120.1	1123.4	1115.1	1145.0	1147.9	1130.9	1207.9	1190.9
20°	1304.8	1337.2	1237.7	1182.6	1193.4	1202.9	1204.2	1186.4	1177.7	1296.1	1273.0
22.5°	1430.8	1403.4	1312.3	1251.4	1267.6	1254.7	1252.2	1265.9	1277.9	1322.7	1360.4
25°	1514.9	1512.8	1403.4	1336.7	1318.9	1315.2	1340.5	1335.1	1363.7	1444.9	1421.2
27.5°	1637.1	1675.2	1481.3	1497.9	1419.6	1337.2	1418.3	1442.8	1494.2	1480.9	1533.5
30°	1874.0	1845.4	1642.9	1638.3	1549.7	1480.5	1536.8	1516.1	1608.5	1605.6	1644.5
32.5°	2067.5	2087.3	1832.6	1784.9	1719.1	1635.8	1598.5	1656.1	1705.8	1787.4	1809.4
35°	2272.1	2267.5	2026.9	1930.8	1821.8	1787.4	1833.4	1857.4	1963.1	2038.0	1985.9
37.5°	2590.2	2554.2	2278.7	2096.9	2015.3	2002.8	2081.5	2046.7	2161.1	2178.9	2208.3
40°	2886.0	2777.5	2509.0	2300.7	2171.0	2217.4	2219.9	2224.5	2285.8	2334.2	2479.6
42.5°	3167.3	3091.0	2743.1	2586.5	2395.5	2350.4	2378.6	2388.1	2543.0	2642.0	2843.3
45°	3551.7	3347.5	3079.4	2918.7	2705.0	2647.4	2627.5	2709.5	2859.1	3084.4	3257.1
47.5°	3876.8	3692.5	3436.9	3225.3	2986.2	3150.7	3038.0	2992.0	3192.9	3472.1	3747.2
50°	4146.5	3943.5	3692.9	3570.7	3532.6	3679.3	3386.8	3392.2	3576.1	3970.1	4285.3
52.5°	4355.3	4138.6	3916.6	3854.5	4067.4	4151.9	3940.6	3908.7	4043.0	4508.6	4887.2
55°	4550.4	4320.5	4149.0	4275.8	4634.5	4644.0	4629.1	4452.2	4613.8	5085.6	5510.2
57.5°	4600.5	4352.8	4238.9	4420.7	4905.8	5283.2	5431.5	5084.4	5248.8	5610.4	6043.7
60°	4342.5	4130.4	4084.8	4331.7	5052.5	5604.2	5991.5	5784.0	5722.3	6031.7	6417.4
62.5°	3813.9	3567.8	3604.7	3947.7	4897.9	5731.4	6433.9	6595.9	6222.3	6366.8	6580.6
65°	3035.5	2800.7	2875.2	3287.8	4412.9	5773.6	6660.1	6992.3	6402.9	6461.7	6349.4
67.5°	2140.8	1927.4	2021.5	2555.0	3671.0	5232.6	6699.0	6807.6	6210.7	6191.2	5718.1
70°	1212.9	1079.1	1181.0	1625.9	2591.1	4168.5	6393.8	6250.8	5866.0	5590.1	4784.4
72.5°	556.3	510.3	559.2	827.6	1491.7	2773.7	5219.8	5349.5	5054.5	4709.5	3639.9
75°	295.8	279.6	300.3	413.4	698.0	1509.1	3708.7	4000.3	3843.3	3572.0	2374.4
77.5°	220.0	207.5	217.5	268.0	372.8	590.3	2107.2	2475.1	2534.7	2284.9	1318.5
80°	168.6	158.7	168.6	202.6	258.1	280.4	901.0	1153.7	1314.0	1061.7	524.0
82.5°	125.1	118.5	133.8	152.0	181.4	175.2	319.8	398.1	513.2	350.9	204.2
85°	99.4	91.1	96.9	103.1	116.0	96.1	146.2	163.6	173.2	145.0	75.4
87.5°	38.9	36.0	70.4	55.5	47.2	29.0	43.9	49.7	51.0	48.9	22.0
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°	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1	427.1
2.5°	518.6	514.5	490.0	497.9	510.8	513.2	518.6	503.7	496.3	523.6	524.8
5°	669.8	647.5	635.9	637.1	628.8	616.0	635.4	648.3	653.3	673.6	681.0
7.5°	787.1	760.1	740.7	718.3	686.8	666.5	700.5	725.3	738.6	780.8	797.4
10°	839.2	817.7	813.6	785.4	784.6	784.2	782.5	773.8	802.4	798.2	809.8
12.5°	946.9	942.4	903.0	891.9	893.1	891.9	857.1	855.4	855.8	893.9	880.3
15°	1047.2	1048.0	1012.0	971.4	934.9	923.7	910.1	903.9	913.0	934.5	921.3
17.5°	1171.0	1175.2	1072.0	1007.8	959.8	958.5	925.8	887.3	942.8	956.1	941.6
20°	1251.0	1233.6	1106.8	999.1	985.5	948.2	907.6	854.6	902.6	934.9	944.0
22.5°	1326.8	1296.6	1139.2	1014.5	949.0	904.7	865.3	831.0	846.3	882.3	876.5
25°	1378.2	1369.9	1183.9	1051.3	947.8	849.2	796.2	774.2	782.1	838.0	832.6
27.5°	1500.8	1411.3	1176.0	1060.9	908.0	773.4	746.9	723.3	715.4	775.9	792.4
30°	1582.8	1545.9	1228.6	1045.9	857.9	711.2	672.3	667.3	669.8	738.6	743.1
32.5°	1722.0	1626.3	1314.8	988.8	785.0	665.3	620.5	622.6	633.8	683.9	694.3
35°	1867.0	1809.8	1326.4	947.8	725.7	616.4	598.2	583.7	589.9	633.8	635.9
37.5°	2136.2	1938.6	1397.6	884.4	682.2	597.7	562.9	550.1	553.4	578.3	596.1
40°	2373.2	2197.5	1364.5	823.1	628.4	572.9	529.4	519.9	509.9	534.4	545.6
42.5°	2753.0	2382.3	1353.3	755.6	603.1	539.3	509.5	484.2	474.7	495.4	515.7
45°	3132.9	2578.2	1292.4	687.2	567.5	536.9	480.5	456.5	459.0	477.6	498.3
47.5°	3556.2	2841.3	1189.3	620.9	528.6	524.8	451.5	441.2	448.6	469.3	490.0
50°	4056.6	3120.5	1103.9	561.3	500.8	488.8	447.8	435.4	442.4	466.8	487.1
52.5°	4603.8	3426.6	1041.8	506.2	469.3	460.2	452.8	440.7	449.0	470.2	491.3
55°	5147.7	3706.2	999.6	468.5	442.4	448.2	463.1	454.4	458.6	474.3	495.4
57.5°	5551.2	3853.7	914.6	428.3	420.5	441.2	464.4	449.9	452.3	474.3	497.1
60°	5785.7	3881.8	775.0	395.6	403.1	427.1	451.5	432.9	431.2	467.3	495.8
62.5°	5760.0	3718.2	614.7	365.8	383.2	406.0	432.0	414.2	418.8	468.1	498.3
65°	5392.1	3383.9	488.8	340.5	359.1	382.8	415.9	408.9	430.8	501.2	534.0
67.5°	4745.9	2895.5	392.7	316.9	336.8	367.0	427.1	445.7	455.2	535.2	568.7
70°	3846.2	2249.7	327.2	296.2	319.0	374.5	459.4	455.7	447.8	519.0	545.6
72.5°	2778.7	1542.2	287.9	275.9	297.0	352.1	460.2	440.3	430.4	473.9	492.9
75°	1738.6	920.0	251.4	250.2	263.5	315.6	439.5	421.7	394.8	416.3	441.2
77.5°	992.9	471.0	211.7	222.9	230.7	273.8	393.5	377.4	353.3	362.5	386.9
80°	379.0	227.8	178.5	198.0	195.9	232.0	333.5	329.7	302.4	305.3	320.2
82.5°	178.5	127.6	148.3	170.3	159.1	184.7	270.9	269.7	245.6	222.4	234.5
85°	66.3	67.9	108.5	129.7	110.6	119.3	195.9	190.5	167.4	141.3	156.2
87.5°	14.9	24.4	53.4	67.5	38.5	36.9	79.1	68.8	66.3	39.4	41.4
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)