

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: P367322

Luminaire Tested: **MSA-SA2B-740-U-T4FT**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367322
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-740-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 9984 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

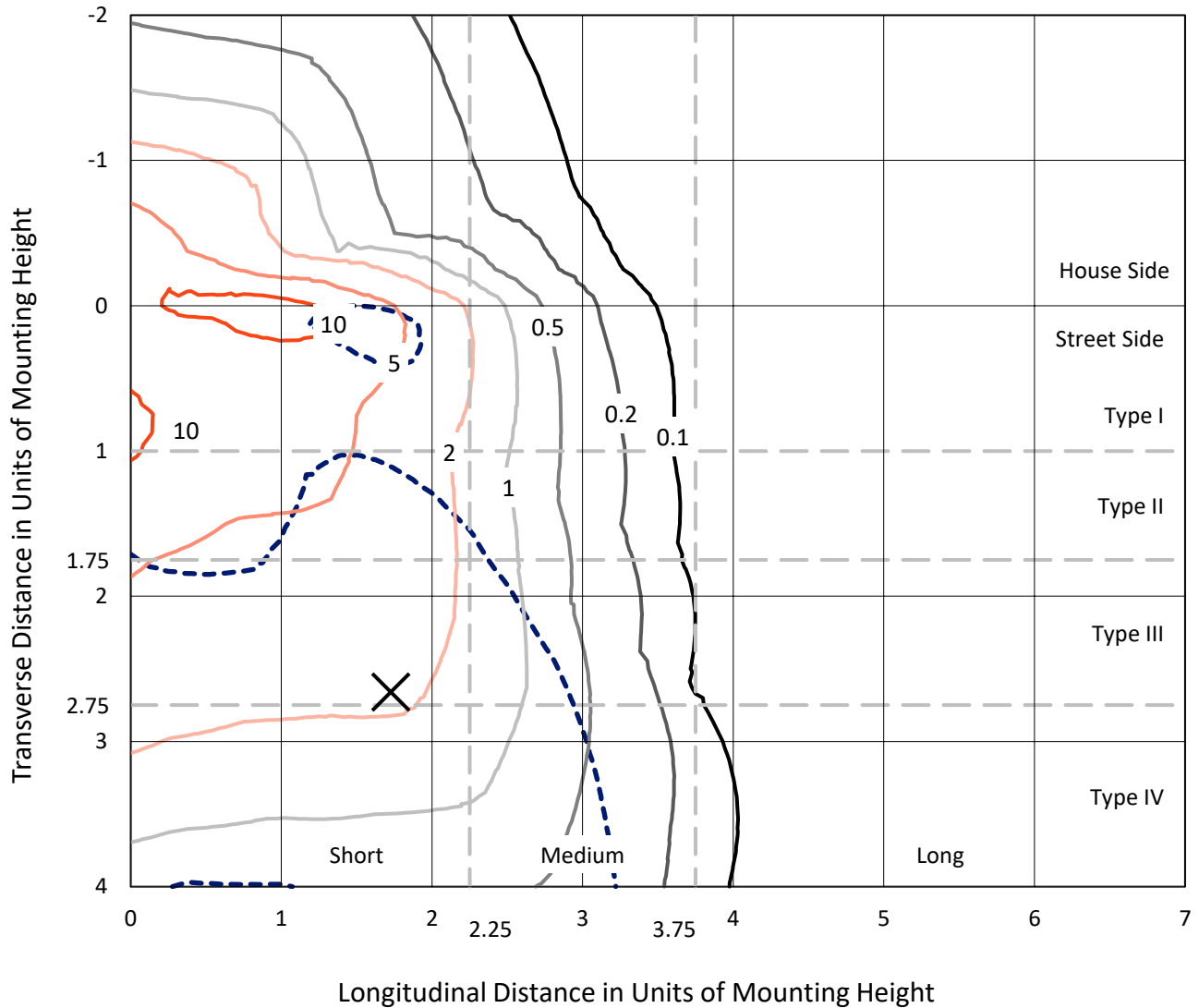
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

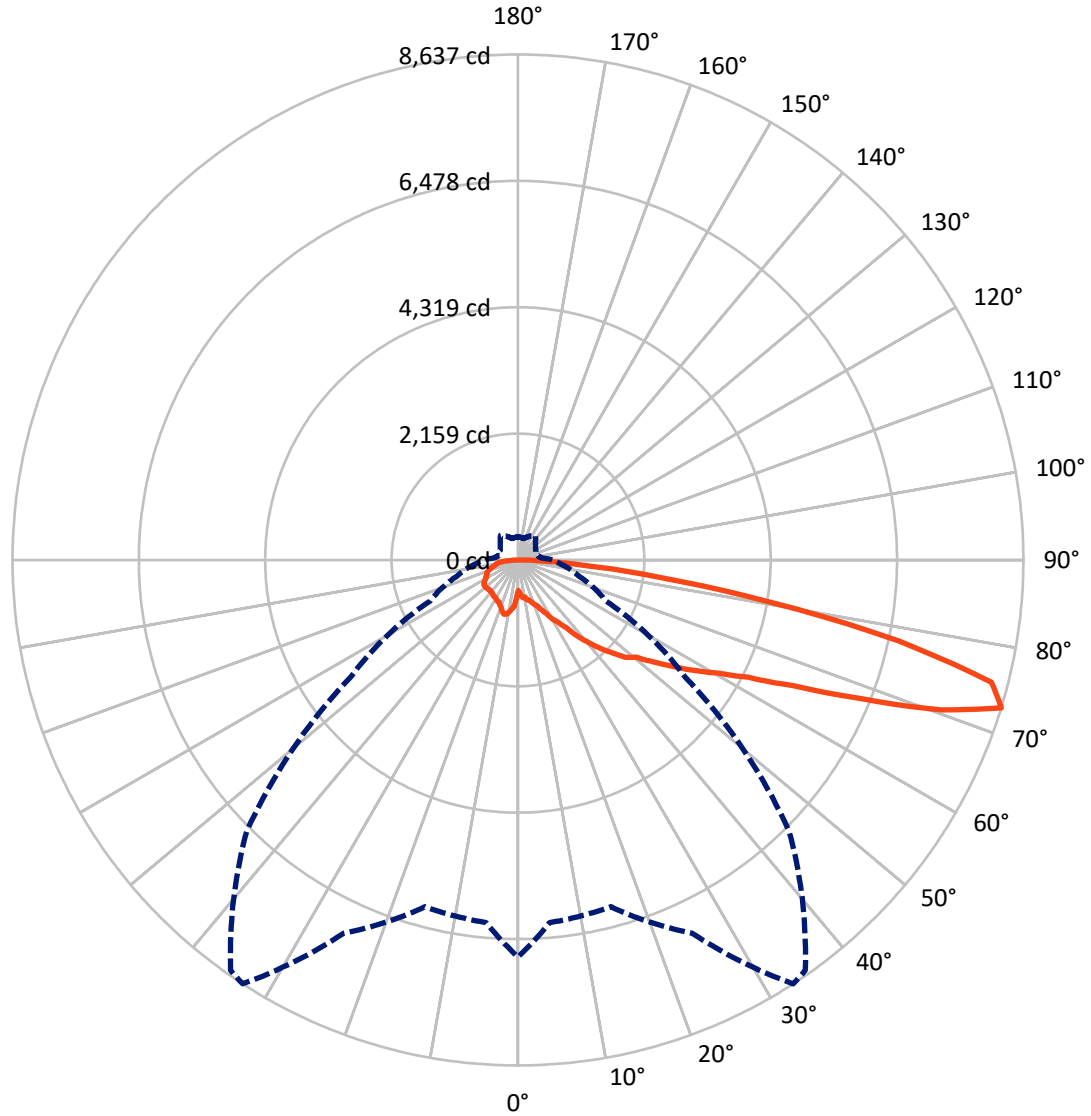
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.8 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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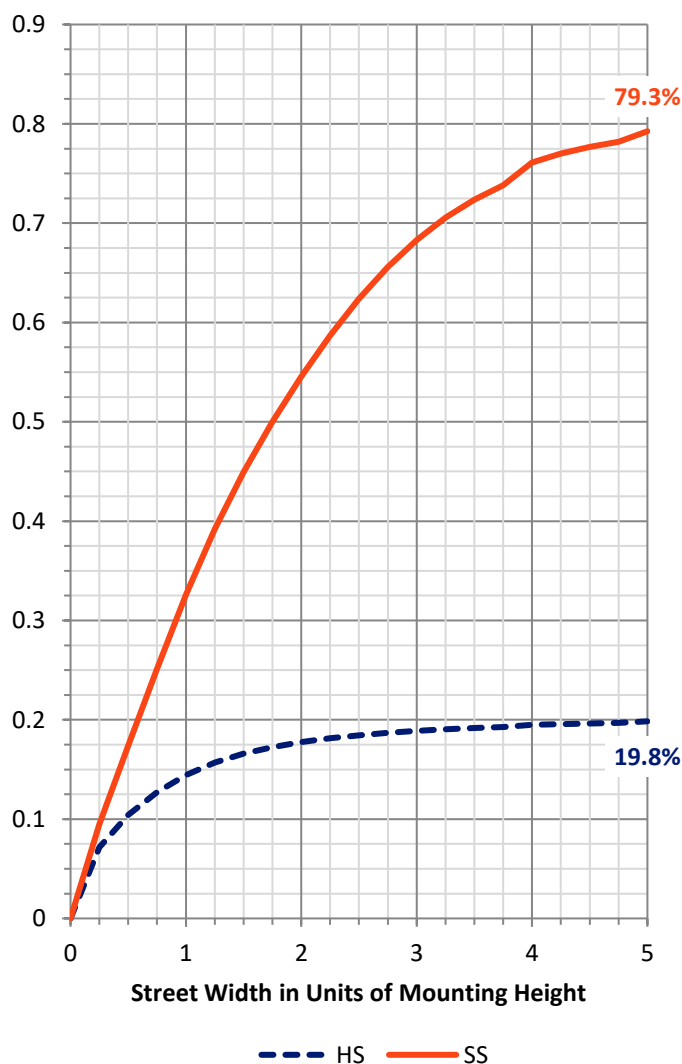
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2019.7	0.0	2019.7
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	7964.3	0.0	7964.3
	% Fixture	79.8	0.0	79.8
Total	Lumens	9984.0	0.0	9984.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	0.7
10°-20°	266.0	2.7
20°-30°	485.1	4.9
30°-40°	820.6	8.2
40°-50°	1365.3	13.7
50°-60°	2003.6	20.1
60°-70°	2563.1	25.7
70°-80°	2085.3	20.9
80°-90°	323.0	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°	9984.0	100.0
0°-180°	9984.0	100.0

Coefficient of Utilization



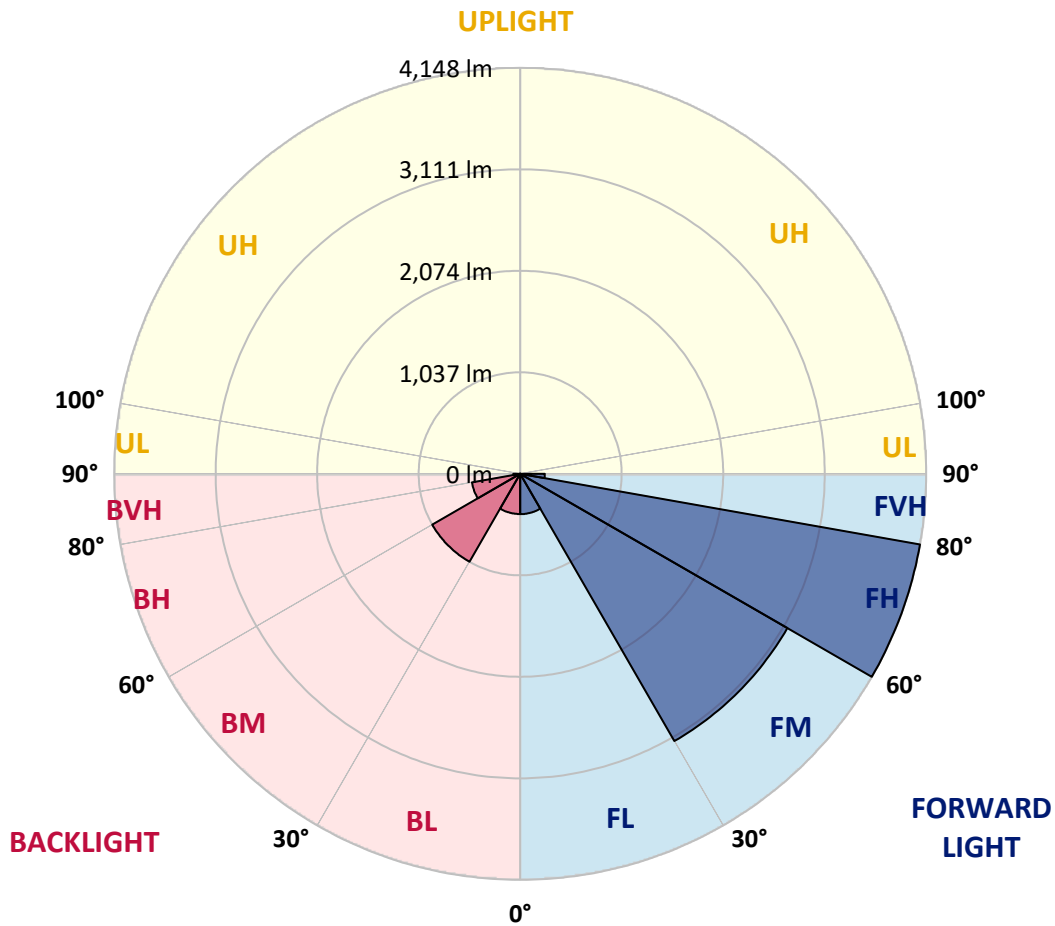
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	412.0	4.1			
FM (30°-60°)	3152.2	31.6			
FH (60°-80°)	4148.0	41.5			G2/5000
FVH (80°-90°)	252.1	2.5			G3/500
BL (0°-30°)	411.1	4.1	B1/500		
BM (30°-60°)	1037.3	10.4	B2/2500		
BH (60°-80°)	500.5	5.0	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5
2.5°	593.5	574.9	544.2	543.4	560.4	564.1	575.3	576.1	580.3	573.6	620.9
5°	654.8	634.9	622.9	627.1	619.2	628.7	628.7	656.1	692.5	734.8	794.8
7.5°	669.3	654.8	641.1	651.5	653.2	644.0	652.7	716.9	782.8	825.0	921.1
10°	640.3	625.8	636.2	639.5	639.1	659.8	704.9	756.3	829.6	907.5	959.2
12.5°	634.9	645.3	650.3	656.1	695.4	701.6	770.0	823.0	896.7	965.0	1099.6
15°	714.9	728.5	697.9	695.8	708.7	714.5	785.3	838.7	946.4	1061.1	1182.1
17.5°	828.8	833.7	778.7	750.5	760.0	764.6	795.6	862.7	929.0	1141.1	1291.8
20°	938.9	942.3	838.7	775.8	809.3	814.3	843.3	881.8	934.0	1185.8	1366.0
22.5°	1054.5	1033.4	919.9	840.4	859.8	861.1	878.1	899.2	973.3	1178.8	1456.3
25°	1180.8	1167.6	1024.7	948.5	947.6	930.7	931.5	961.7	1015.2	1254.1	1515.5
27.5°	1348.6	1350.2	1142.7	1101.7	1037.5	1026.3	970.4	1026.7	1087.6	1255.0	1643.5
30°	1566.0	1525.8	1307.1	1240.9	1177.5	1153.9	1078.1	1126.2	1152.7	1326.6	1782.6
32.5°	1742.9	1731.3	1478.6	1378.4	1274.8	1302.2	1218.5	1176.3	1223.9	1450.0	1993.4
35°	1912.3	1874.2	1660.0	1529.6	1420.6	1404.1	1349.8	1356.8	1385.8	1606.2	2268.9
37.5°	2164.9	2144.2	1916.8	1708.1	1657.1	1589.6	1555.2	1577.2	1554.4	1806.2	2681.8
40°	2447.4	2327.3	2131.4	1945.4	1850.1	1802.5	1814.5	1793.8	1776.4	2030.7	3052.1
42.5°	2717.8	2608.5	2273.8	2190.2	2065.9	2085.8	2020.0	2034.4	2083.7	2349.2	3394.6
45°	3012.3	2775.8	2425.0	2351.3	2262.2	2287.5	2340.1	2324.4	2405.1	2724.9	3717.3
47.5°	3159.4	2934.5	2610.6	2490.5	2489.2	2436.6	2756.8	2791.6	2665.2	3003.2	4044.9
50°	3301.0	3079.8	2748.5	2667.3	2608.5	2721.2	3156.5	3076.5	2900.5	3322.5	4405.2
52.5°	3498.2	3245.9	2906.7	2820.1	2893.0	2997.4	3475.4	3459.6	3131.2	3651.0	4718.3
55°	3648.5	3393.8	3144.9	3064.5	3203.7	3306.0	3800.1	3705.2	3328.8	3892.0	4916.7
57.5°	3911.9	3650.6	3496.5	3318.0	3568.2	3566.5	4113.2	4039.9	3540.0	4090.0	4996.7
60°	4330.7	4023.7	3862.6	3656.8	3924.8	4020.4	4471.1	4259.8	3689.5	4215.1	4852.5
62.5°	4918.4	4553.9	4292.5	4088.8	4415.6	4588.7	4913.0	4420.1	3699.0	4179.5	4473.5
65°	5645.3	5202.1	4859.6	4644.2	5183.4	5430.7	5447.3	4519.1	3611.2	3811.3	3676.7
67.5°	6354.3	5856.1	5498.6	5539.6	6327.0	6444.2	6026.3	4601.9	3139.5	3060.4	2553.0
70°	6821.1	6281.0	6042.9	6477.8	7673.9	7553.8	6495.6	4383.7	2472.2	1983.9	1437.6
72.5°	6785.9	6220.6	6134.8	7035.2	8637.3	8562.3	6552.7	3486.1	1655.9	1084.7	716.9
75°	5528.5	5089.0	5283.7	6660.0	8359.8	8356.1	5689.2	2157.9	849.5	557.1	453.1
77.5°	3056.6	2886.0	3458.0	5042.6	6656.3	6690.2	3844.0	978.7	458.1	394.7	341.3
80°	1070.7	1054.9	1498.5	2721.2	4378.7	4387.0	1787.6	447.7	333.0	298.6	250.6
82.5°	391.4	388.1	621.3	1264.1	2410.9	2405.6	678.0	278.7	246.9	211.2	165.3
85°	156.1	152.8	284.1	561.2	1107.5	1089.7	263.4	158.2	161.5	125.9	81.2
87.5°	43.1	44.7	96.5	175.6	339.2	314.4	66.3	53.4	65.4	51.4	25.7
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°	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5
2.5°	629.1	633.3	592.3	606.8	625.4	635.4	640.3	619.2	626.2	656.1	654.8
5°	807.2	790.7	774.9	791.1	780.3	765.0	789.8	788.6	804.7	820.9	824.6
7.5°	940.2	918.6	911.2	874.7	838.3	801.4	833.3	853.2	857.4	897.5	914.5
10°	988.2	979.9	982.8	934.8	930.2	934.0	904.6	872.7	892.1	875.6	888.0
12.5°	1099.2	1119.9	1068.6	1035.9	1033.0	1010.2	951.4	930.7	908.7	931.5	919.9
15°	1188.3	1226.8	1171.7	1114.1	1049.1	1013.9	963.8	932.3	917.8	922.8	908.7
17.5°	1318.7	1354.8	1214.8	1126.6	1059.5	1007.7	931.1	864.0	899.6	902.5	886.3
20°	1405.3	1407.8	1229.3	1095.9	1035.4	945.6	871.0	812.2	853.2	895.0	913.3
22.5°	1489.8	1471.2	1247.1	1071.5	948.1	861.1	824.6	820.9	851.6	886.8	890.9
25°	1553.2	1556.1	1257.4	1062.4	896.7	778.2	778.2	805.2	832.1	915.7	911.6
27.5°	1706.8	1593.8	1217.3	1020.5	825.5	729.8	778.7	814.7	827.5	918.2	927.3
30°	1818.7	1744.9	1225.6	948.9	753.4	707.0	747.2	792.3	827.9	932.7	929.4
32.5°	2006.3	1807.9	1245.0	848.2	699.5	698.3	733.9	781.6	824.2	917.0	922.0
35°	2213.8	1993.4	1190.8	771.6	686.7	693.3	739.3	758.4	808.5	910.8	915.3
37.5°	2597.7	2090.4	1156.4	712.4	678.4	697.5	714.9	744.3	794.8	879.7	909.5
40°	2823.0	2290.0	1028.8	678.0	661.0	694.2	702.9	727.7	755.0	842.4	861.5
42.5°	3119.6	2353.0	919.9	639.9	652.3	680.5	706.6	712.8	731.0	783.6	818.4
45°	3366.9	2400.2	804.3	609.3	622.9	710.7	712.4	709.5	706.2	725.6	754.2
47.5°	3622.8	2526.9	697.9	575.3	611.7	735.6	715.3	688.8	675.1	677.6	704.1
50°	3905.3	2618.9	622.5	547.5	614.2	735.6	729.4	667.7	640.3	633.3	661.0
52.5°	4153.8	2629.6	565.4	525.2	603.9	710.3	738.9	654.4	608.4	591.4	617.5
55°	4289.2	2493.4	523.9	504.9	577.4	687.5	733.9	646.9	569.9	557.1	580.3
57.5°	4286.3	2267.2	488.7	476.7	547.1	655.6	706.2	606.4	546.3	538.8	561.6
60°	4131.8	2002.1	461.8	453.5	516.1	609.3	656.5	579.9	523.5	519.8	544.6
62.5°	3781.5	1728.4	435.7	429.1	487.1	576.5	632.9	550.4	499.9	499.5	523.1
65°	3096.8	1387.5	411.3	409.6	460.2	544.2	610.5	525.6	475.5	483.8	507.8
67.5°	2133.8	975.0	385.2	390.2	435.3	513.2	593.5	509.0	449.8	466.8	488.3
70°	1170.9	603.0	356.2	366.1	403.8	477.1	567.0	482.1	416.2	442.3	457.3
72.5°	595.6	402.2	320.2	335.9	365.3	424.1	517.3	443.2	380.2	390.2	398.0
75°	400.1	302.8	280.0	297.4	318.5	373.6	458.9	406.7	345.8	344.6	353.3
77.5°	302.4	236.5	237.7	257.6	271.3	328.4	412.5	376.1	316.8	313.9	326.8
80°	221.2	179.3	191.4	212.1	224.5	294.9	382.3	342.1	277.5	265.9	276.7
82.5°	146.6	127.2	141.6	162.4	172.3	246.4	347.1	290.3	226.1	196.7	198.4
85°	69.2	66.7	84.5	94.4	107.3	152.8	259.7	200.9	144.1	119.3	124.7
87.5°	15.7	21.1	27.7	27.3	31.9	41.0	80.8	56.3	41.8	28.6	19.1
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)