

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: P367674

Luminaire Tested: **MSA-SA3A-727-U-T4FT**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367674
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-SA3A-727-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 9833 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

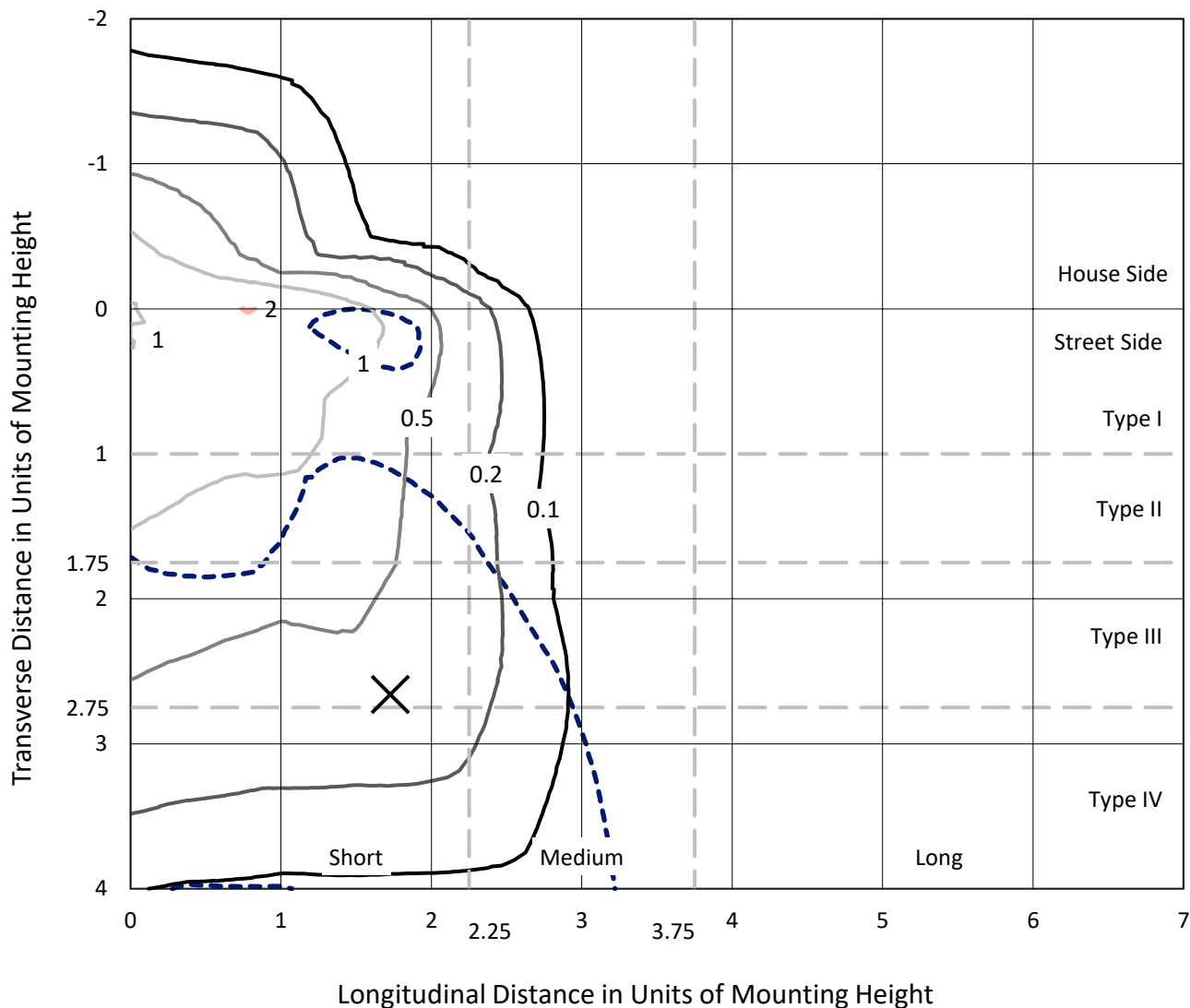
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367674
 CATALOG NUMBER: MSA-SA3A-727-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

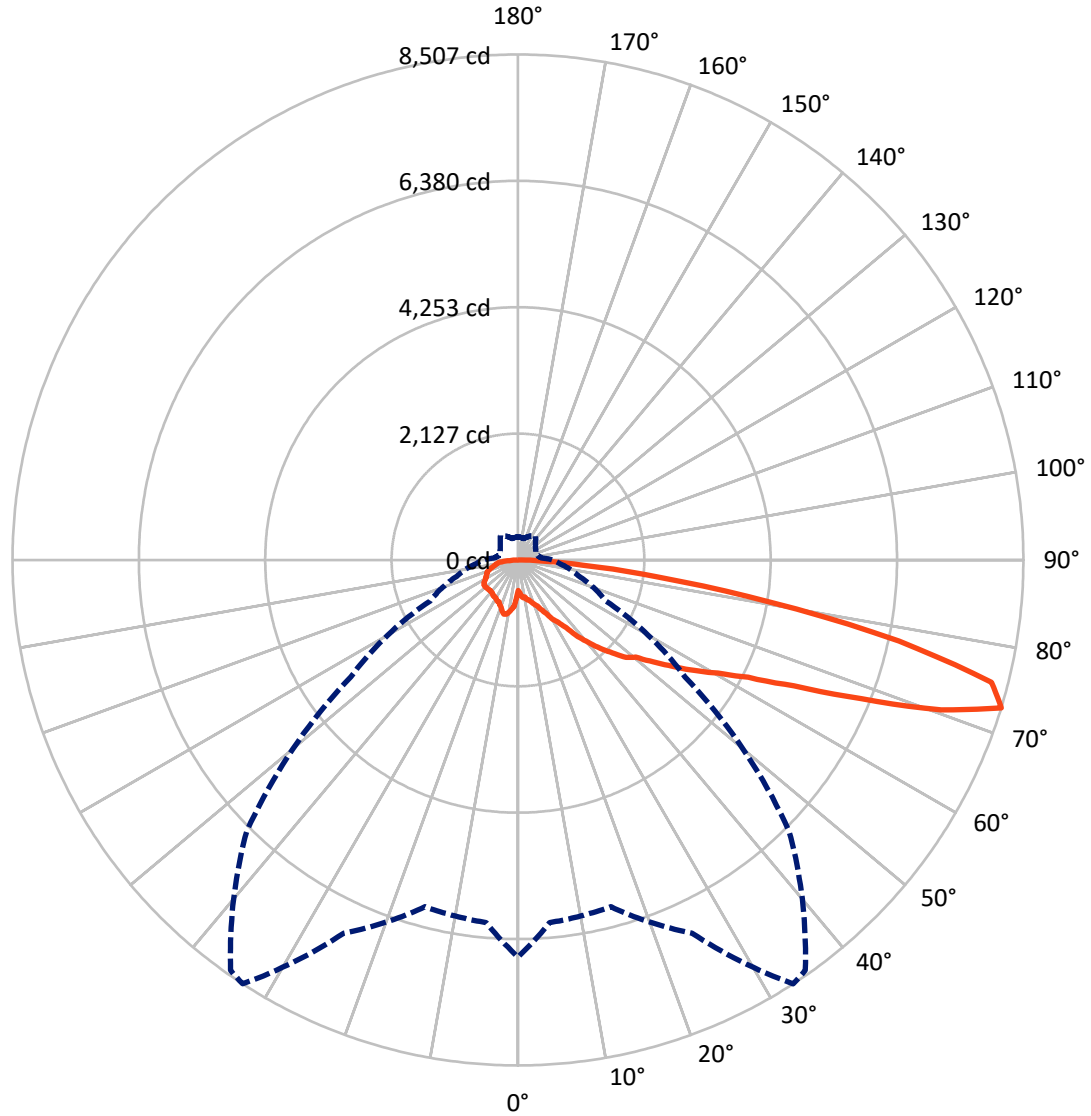
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - N/A

REPORT NUMBER: P367674
CATALOG NUMBER: MSA-SA3A-727-U-T4FT

Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P367674
 CATALOG NUMBER: MSA-SA3A-727-U-T4FT

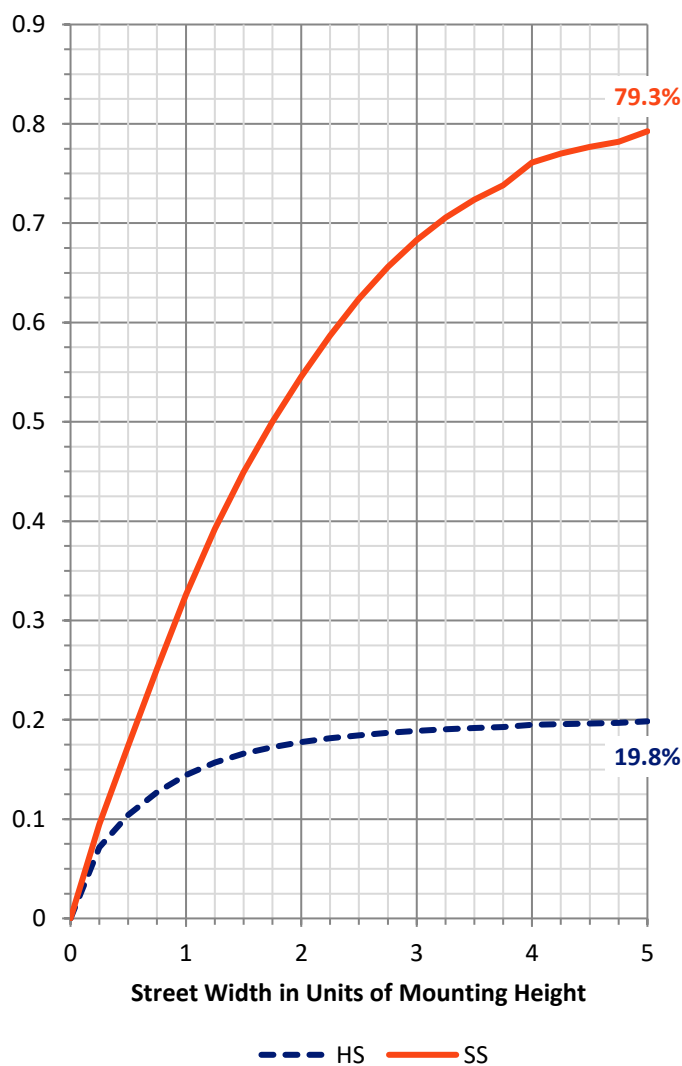
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1989.2	0.0	1989.2
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	7843.8	0.0	7843.8
	% Fixture	79.8	0.0	79.8
Total	Lumens	9833.0	0.0	9833.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	0.7
10°-20°	262.0	2.7
20°-30°	477.7	4.9
30°-40°	808.2	8.2
40°-50°	1344.6	13.7
50°-60°	1973.3	20.1
60°-70°	2524.3	25.7
70°-80°	2053.8	20.9
80°-90°	318.1	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°	9833.0	100.0
0°-180°	9833.0	100.0

Coefficient of Utilization



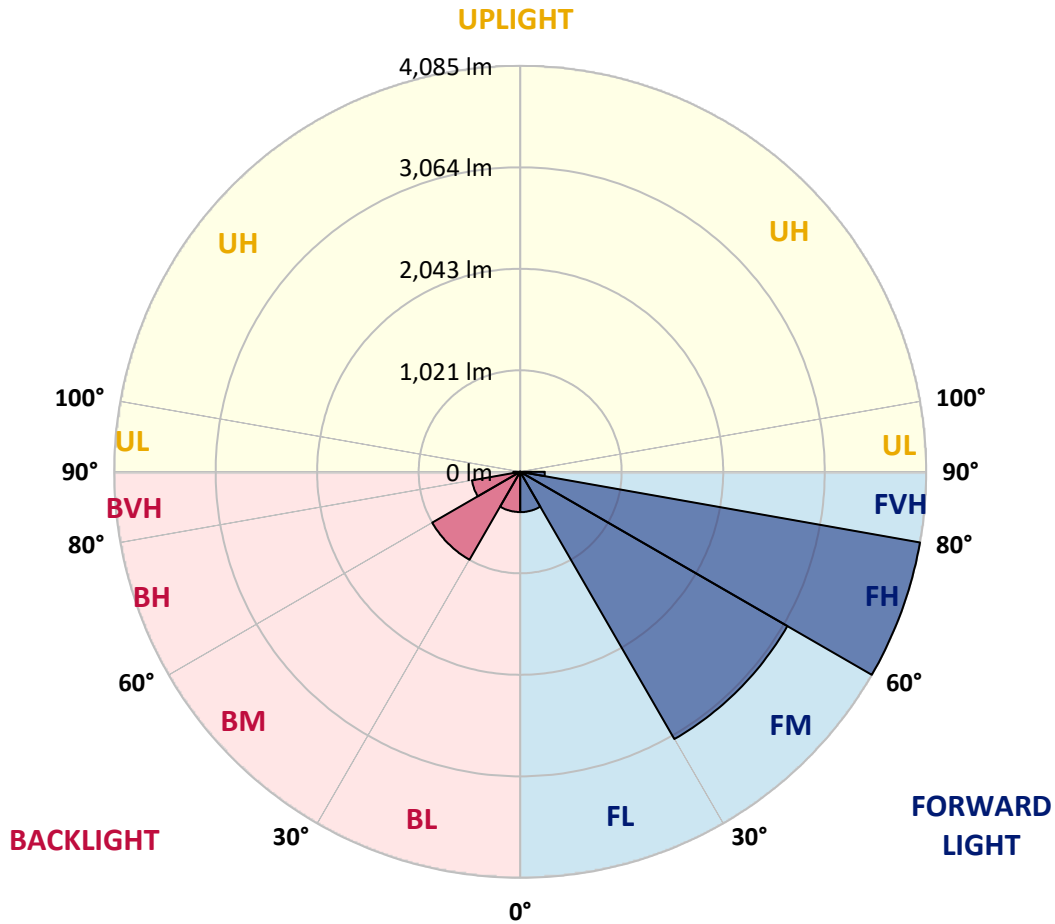
REPORT NUMBER: P367674
 CATALOG NUMBER: MSA-SA3A-727-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	405.8	4.1			
FM (30°-60°)	3104.5	31.6			
FH (60°-80°)	4085.2	41.5			G2/5000
FVH (80°-90°)	248.3	2.5			G3/500
BL (0°-30°)	404.8	4.1	B1/500		
BM (30°-60°)	1021.6	10.4	B2/2500		
BH (60°-80°)	492.9	5.0	B1/500		G1/500
BVH (80°-90°)	69.8	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





REPORT NUMBER: P367674

CATALOG NUMBER: MSA-SA3A-727-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	584.5	566.2	536.0	535.2	551.9	555.6	566.6	567.4	571.5	565.0	611.5
5°	644.9	625.3	613.5	617.6	609.8	619.2	619.2	646.1	682.0	723.6	782.8
7.5°	659.2	644.9	631.5	641.6	643.3	634.3	642.9	706.1	771.0	812.6	907.2
10°	630.6	616.4	626.6	629.8	629.4	649.8	694.3	744.9	817.1	893.7	944.7
12.5°	625.3	635.5	640.4	646.1	684.9	691.0	758.3	810.5	883.1	950.4	1083.0
15°	704.1	717.5	687.3	685.3	697.9	703.7	773.4	826.0	932.1	1045.1	1164.2
17.5°	816.2	821.1	766.9	739.1	748.5	753.0	783.6	849.7	915.0	1123.8	1272.3
20°	924.7	928.0	826.0	764.0	797.1	802.0	830.5	868.5	919.8	1167.9	1345.3
22.5°	1038.6	1017.7	906.0	827.7	846.8	848.1	864.8	885.6	958.6	1160.9	1434.2
25°	1163.0	1149.9	1009.2	934.1	933.3	916.6	917.4	947.2	999.8	1235.2	1492.6
27.5°	1328.2	1329.8	1125.4	1085.1	1021.8	1010.8	955.7	1011.2	1071.2	1236.0	1618.6
30°	1542.3	1502.8	1287.4	1222.1	1159.7	1136.5	1061.8	1109.1	1135.2	1306.6	1755.7
32.5°	1716.5	1705.1	1456.3	1357.5	1255.6	1282.5	1200.1	1158.5	1205.4	1428.1	1963.3
35°	1883.3	1845.8	1634.9	1506.4	1399.1	1382.8	1329.4	1336.3	1364.9	1581.9	2234.6
37.5°	2132.2	2111.8	1887.8	1682.2	1632.1	1565.6	1531.7	1553.3	1530.9	1778.9	2641.2
40°	2410.4	2292.1	2099.1	1916.0	1822.2	1775.2	1787.1	1766.7	1749.5	2000.0	3005.9
42.5°	2676.7	2569.0	2239.5	2157.1	2034.7	2054.3	1989.4	2003.7	2052.2	2313.7	3343.3
45°	2966.8	2733.8	2388.3	2315.7	2228.0	2252.9	2304.7	2289.2	2368.8	2683.7	3661.0
47.5°	3111.6	2890.1	2571.1	2452.8	2451.6	2399.8	2715.1	2749.3	2624.9	2957.8	3983.7
50°	3251.1	3033.3	2706.9	2627.0	2569.0	2680.0	3108.7	3030.0	2856.6	3272.3	4338.6
52.5°	3445.2	3196.8	2862.7	2777.5	2849.3	2952.1	3422.8	3407.3	3083.8	3595.8	4647.0
55°	3593.3	3342.5	3097.3	3018.2	3155.2	3256.0	3742.6	3649.2	3278.4	3833.2	4842.4
57.5°	3852.8	3595.4	3443.6	3267.8	3514.2	3512.6	4051.0	3978.8	3486.4	4028.2	4921.1
60°	4265.2	3962.9	3804.2	3601.5	3865.4	3959.6	4403.4	4195.4	3633.7	4151.3	4779.1
62.5°	4844.0	4485.0	4227.6	4026.9	4348.8	4519.3	4838.7	4353.3	3643.1	4116.3	4405.9
65°	5559.9	5123.4	4786.1	4573.9	5105.1	5348.6	5364.9	4450.8	3556.6	3753.6	3621.1
67.5°	6258.2	5767.5	5415.5	5455.9	6231.3	6346.7	5935.2	4532.3	3092.0	3014.1	2514.4
70°	6717.9	6186.0	5951.5	6379.8	7557.8	7439.5	6397.3	4317.4	2434.8	1953.9	1415.9
72.5°	6683.3	6126.5	6042.0	6928.8	8506.7	8432.8	6453.6	3433.4	1630.8	1068.3	706.1
75°	5444.8	5012.0	5203.8	6559.3	8233.4	8229.7	5603.1	2125.2	836.6	548.6	446.3
77.5°	3010.4	2842.3	3405.7	4966.4	6555.6	6589.0	3785.9	963.9	451.2	388.7	336.1
80°	1054.5	1039.0	1475.8	2680.0	4312.5	4320.6	1760.6	441.0	328.0	294.1	246.8
82.5°	385.5	382.2	611.9	1245.0	2374.5	2369.2	667.8	274.5	243.1	208.0	162.8
85°	153.8	150.5	279.8	552.7	1090.8	1073.2	259.4	155.8	159.1	124.0	80.0
87.5°	42.4	44.1	95.0	173.0	334.1	309.6	65.3	52.6	64.5	50.6	25.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P367674
 CATALOG NUMBER: MSA-SA3A-727-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	619.6	623.7	583.3	597.6	616.0	625.7	630.6	609.8	616.8	646.1	644.9
5°	795.0	778.7	763.2	779.1	768.5	753.4	777.9	776.7	792.6	808.5	812.2
7.5°	926.0	904.8	897.4	861.5	825.6	789.3	820.7	840.3	844.4	884.0	900.7
10°	973.3	965.1	968.0	920.7	916.2	919.8	890.9	859.5	878.6	862.3	874.6
12.5°	1082.6	1103.0	1052.4	1020.2	1017.3	994.9	937.0	916.6	895.0	917.4	906.0
15°	1170.3	1208.2	1154.0	1097.3	1033.2	998.6	949.2	918.2	903.9	908.8	895.0
17.5°	1298.8	1334.3	1196.4	1109.5	1043.4	992.5	917.0	850.9	886.0	888.8	872.9
20°	1384.1	1386.5	1210.7	1079.3	1019.8	931.3	857.8	799.9	840.3	881.5	899.5
22.5°	1467.3	1448.9	1228.2	1055.3	933.7	848.1	812.2	808.5	838.7	873.3	877.4
25°	1529.7	1532.5	1238.4	1046.3	883.1	766.5	766.5	793.0	819.5	901.9	897.8
27.5°	1681.0	1569.7	1198.9	1005.1	813.0	718.7	766.9	802.4	815.0	904.3	913.3
30°	1791.2	1718.5	1207.0	934.5	742.0	696.3	735.9	780.3	815.4	918.6	915.4
32.5°	1975.9	1780.5	1226.2	835.4	689.0	687.7	722.8	769.7	811.8	903.1	908.0
35°	2180.3	1963.3	1172.8	759.9	676.3	682.8	728.1	746.9	796.2	897.0	901.5
37.5°	2558.4	2058.7	1138.9	701.6	668.2	686.9	704.1	733.0	782.8	866.4	895.8
40°	2780.3	2255.4	1013.3	667.8	651.0	683.7	692.2	716.7	743.6	829.7	848.5
42.5°	3072.4	2317.4	906.0	630.2	642.5	670.2	695.9	702.0	720.0	771.8	806.0
45°	3315.9	2363.9	792.2	600.0	613.5	700.0	701.6	698.8	695.5	714.7	742.8
47.5°	3568.0	2488.7	687.3	566.6	602.5	724.5	704.5	678.4	664.9	667.3	693.5
50°	3846.2	2579.2	613.1	539.3	604.9	724.5	718.3	657.6	630.6	623.7	651.0
52.5°	4091.0	2589.9	556.8	517.2	594.7	699.6	727.7	644.5	599.2	582.5	608.2
55°	4224.4	2455.6	516.0	497.2	568.6	677.1	722.8	637.2	561.3	548.6	571.5
57.5°	4221.5	2232.9	481.3	469.5	538.9	645.7	695.5	597.2	538.0	530.7	553.1
60°	4069.4	1971.9	454.8	446.7	508.3	600.0	646.5	571.1	515.6	511.9	536.4
62.5°	3724.3	1702.2	429.1	422.6	479.7	567.8	623.3	542.1	492.4	491.9	515.2
65°	3050.0	1366.5	405.1	403.4	453.2	536.0	601.3	517.6	468.3	476.4	500.1
67.5°	2101.6	960.2	379.4	384.3	428.7	505.4	584.5	501.3	443.0	459.7	480.9
70°	1153.2	593.9	350.8	360.6	397.7	469.9	558.4	474.8	410.0	435.7	450.3
72.5°	586.6	396.1	315.3	330.8	359.8	417.7	509.5	436.5	374.5	384.3	392.0
75°	394.0	298.2	275.8	292.9	313.7	367.9	452.0	400.6	340.6	339.4	348.0
77.5°	297.8	232.9	234.1	253.7	267.2	323.5	406.3	370.4	312.1	309.2	321.8
80°	217.8	176.6	188.5	208.9	221.1	290.4	376.5	336.9	273.3	261.9	272.5
82.5°	144.4	125.2	139.5	159.9	169.7	242.7	341.8	285.9	222.7	193.8	195.4
85°	68.1	65.7	83.2	93.0	105.6	150.5	255.8	197.8	142.0	117.5	122.8
87.5°	15.5	20.8	27.3	26.9	31.4	40.4	79.5	55.5	41.2	28.1	18.8
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)