

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: P596648

Luminaire Tested: **MSA-SA2D-827-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2D-827-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: 9938 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

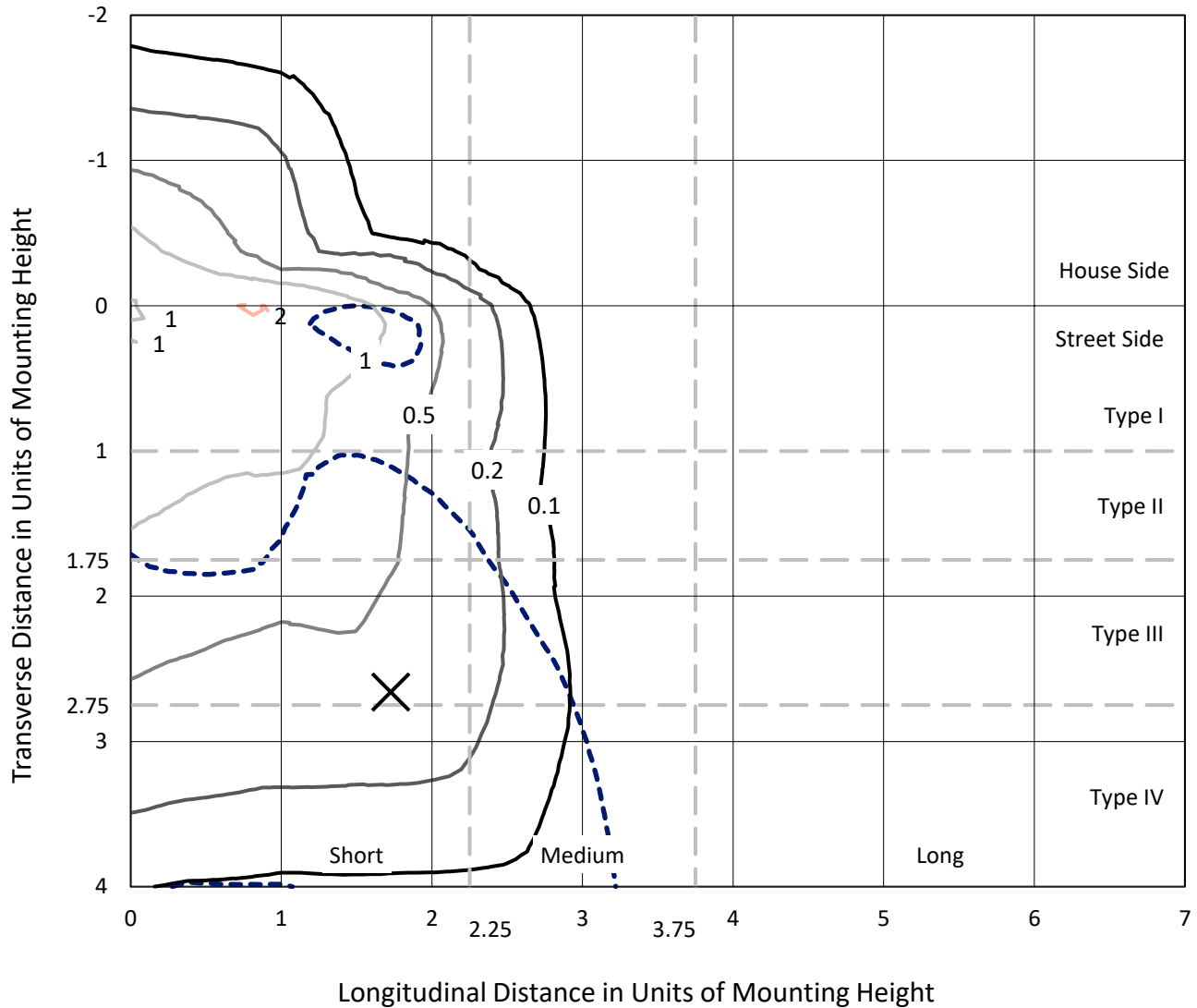
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596648
 CATALOG NUMBER: MSA-SA2D-827-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

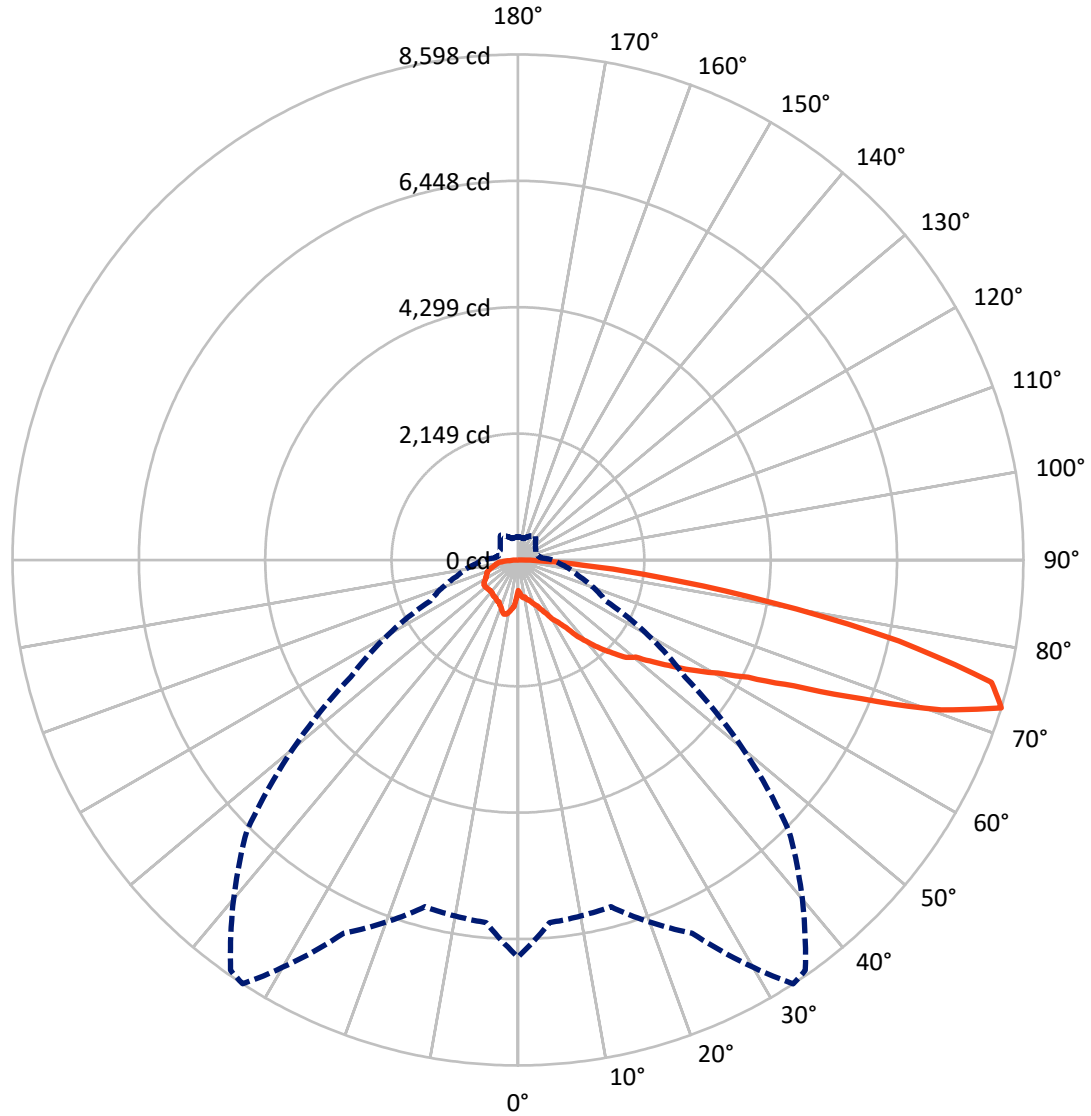
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P596648
CATALOG NUMBER: MSA-SA2D-827-U-T4FT

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596648
 CATALOG NUMBER: MSA-SA2D-827-U-T4FT

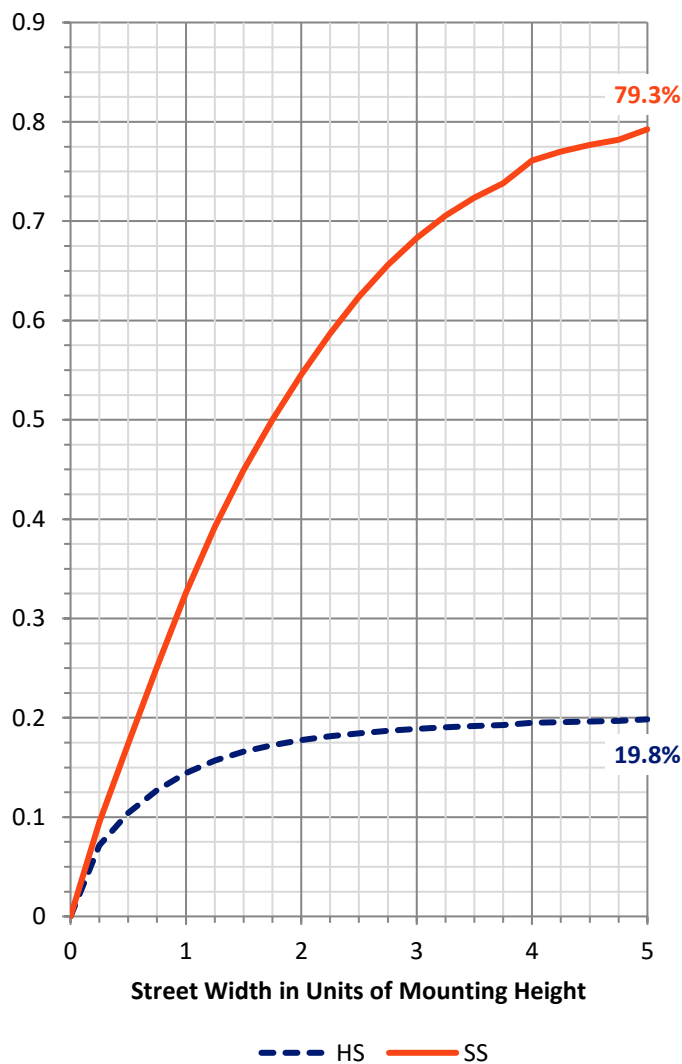
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2010.4	0.0	2010.4
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	7927.6	0.0	7927.6
	% Fixture	79.8	0.0	79.8
Total	Lumens	9938.0	0.0	9938.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	0.7
10°-20°	264.8	2.7
20°-30°	482.9	4.9
30°-40°	816.9	8.2
40°-50°	1359.0	13.7
50°-60°	1994.4	20.1
60°-70°	2551.3	25.7
70°-80°	2075.7	20.9
80°-90°	321.5	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°	9938.0	100.0
0°-180°	9938.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596648

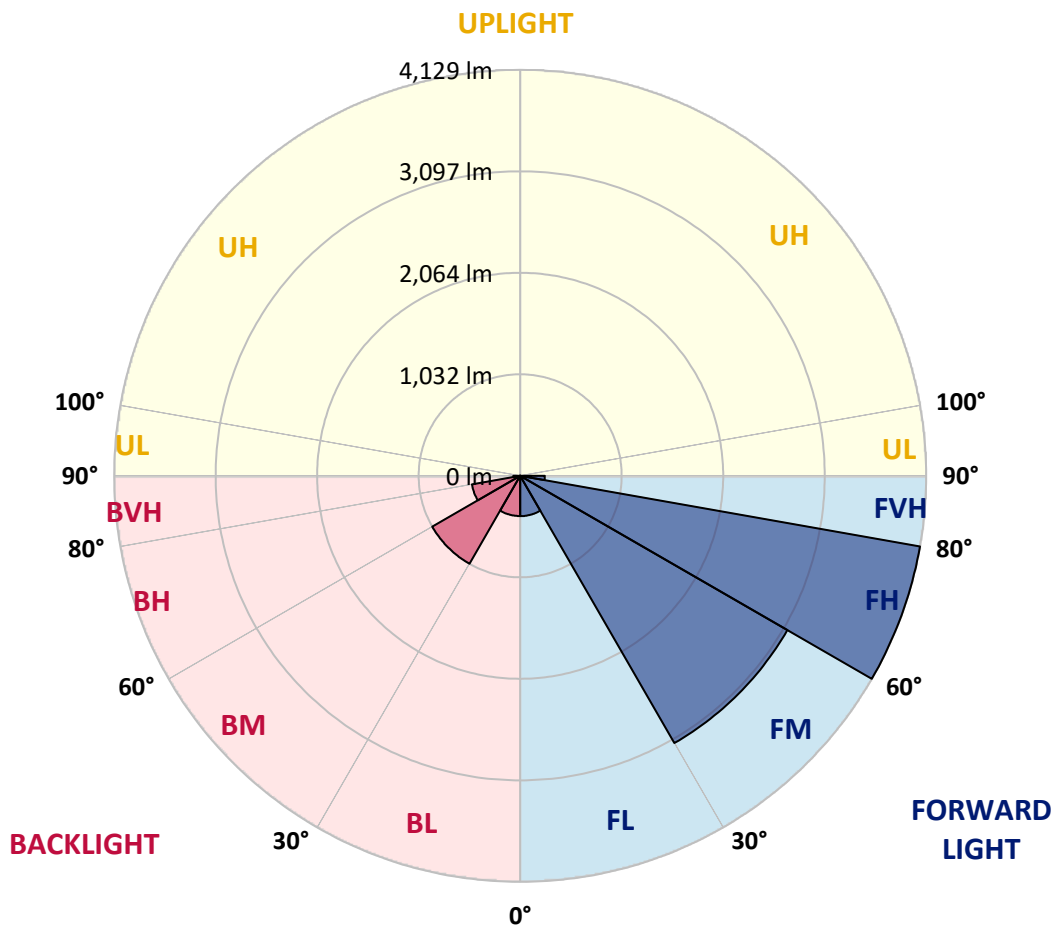
CATALOG NUMBER: MSA-SA2D-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	410.1	4.1			
FM (30°-60°)	3137.7	31.6			
FH (60°-80°)	4128.9	41.5			G2/5000
FVH (80°-90°)	250.9	2.5			G3/500
BL (0°-30°)	409.2	4.1	B1/500		
BM (30°-60°)	1032.6	10.4	B2/2500		
BH (60°-80°)	498.1	5.0	B1/500		G1/500
BVH (80°-90°)	70.6	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: P596648

CATALOG NUMBER: MSA-SA2D-827-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1
2.5°	590.8	572.2	541.7	540.9	557.8	561.5	572.6	573.5	577.6	571.0	618.0
5°	651.8	632.0	620.1	624.2	616.3	625.8	625.8	653.0	689.3	731.4	791.1
7.5°	666.2	651.8	638.2	648.5	650.2	641.1	649.7	713.6	779.2	821.2	916.9
10°	637.4	622.9	633.2	636.5	636.1	656.7	701.7	752.8	825.8	903.3	954.8
12.5°	632.0	642.3	647.3	653.0	692.2	698.4	766.4	819.2	892.6	960.6	1094.6
15°	711.6	725.2	694.7	692.6	705.4	711.2	781.7	834.8	942.0	1056.2	1176.6
17.5°	825.0	829.9	775.1	747.0	756.5	761.1	792.0	858.8	924.7	1135.8	1285.9
20°	934.6	937.9	834.8	772.2	805.6	810.5	839.4	877.7	929.7	1180.3	1359.7
22.5°	1049.6	1028.6	915.7	836.5	855.9	857.1	874.0	895.0	968.8	1173.3	1449.5
25°	1175.4	1162.2	1020.0	944.1	943.3	926.4	927.2	957.3	1010.5	1248.4	1508.5
27.5°	1342.4	1344.0	1137.5	1096.6	1032.7	1021.6	966.0	1022.0	1082.6	1249.2	1635.9
30°	1558.8	1518.8	1301.1	1235.2	1172.1	1148.6	1073.1	1121.0	1147.3	1320.5	1774.4
32.5°	1734.8	1723.3	1471.8	1372.0	1269.0	1296.2	1212.9	1170.8	1218.3	1443.4	1984.3
35°	1903.5	1865.5	1652.4	1522.5	1414.1	1397.6	1343.6	1350.6	1379.5	1598.8	2258.4
37.5°	2154.9	2134.3	1908.0	1700.2	1649.5	1582.3	1548.1	1569.9	1547.3	1797.9	2669.5
40°	2436.1	2316.5	2121.5	1936.4	1841.6	1794.2	1806.2	1785.5	1768.2	2021.4	3038.0
42.5°	2705.3	2596.5	2263.4	2180.1	2056.4	2076.2	2010.6	2025.1	2074.1	2338.4	3379.0
45°	2998.4	2763.0	2413.8	2340.5	2251.8	2277.0	2329.3	2313.7	2394.1	2712.3	3700.1
47.5°	3144.8	2920.9	2598.5	2479.0	2477.7	2425.4	2744.1	2778.7	2653.0	2989.4	4026.2
50°	3285.8	3065.6	2735.8	2655.0	2596.5	2708.6	3141.9	3062.3	2887.1	3307.2	4384.9
52.5°	3482.0	3231.0	2893.3	2807.2	2879.7	2983.6	3459.4	3443.7	3116.8	3634.2	4696.6
55°	3631.7	3378.1	3130.4	3050.4	3188.9	3290.7	3782.6	3688.2	3313.4	3874.1	4894.1
57.5°	3893.9	3633.8	3480.4	3302.7	3551.7	3550.1	4094.3	4021.3	3523.7	4071.2	4973.6
60°	4310.7	4005.2	3844.8	3639.9	3906.7	4001.9	4450.5	4240.2	3672.5	4195.7	4830.2
62.5°	4895.7	4532.9	4272.8	4069.9	4395.2	4567.5	4890.4	4399.8	3682.0	4160.2	4452.9
65°	5619.2	5178.1	4837.2	4622.8	5159.6	5405.7	5422.2	4498.3	3594.6	3793.7	3659.7
67.5°	6325.1	5829.1	5473.3	5514.1	6297.8	6414.5	5998.5	4580.7	3125.0	3046.3	2541.2
70°	6789.7	6252.1	6015.0	6447.9	7638.5	7519.0	6465.6	4363.5	2460.8	1974.8	1431.0
72.5°	6754.6	6191.9	6106.6	7002.8	8597.5	8522.9	6522.5	3470.1	1648.3	1079.7	713.6
75°	5503.0	5065.6	5259.3	6629.3	8321.3	8317.6	5662.9	2147.9	845.6	554.5	451.0
77.5°	3042.6	2872.7	3442.0	5019.4	6625.6	6659.4	3826.3	974.2	456.0	392.9	339.7
80°	1065.7	1050.1	1491.6	2708.6	4358.5	4366.8	1779.4	445.7	331.5	297.2	249.4
82.5°	389.6	386.3	618.4	1258.2	2399.8	2394.5	674.9	277.5	245.7	210.3	164.5
85°	155.4	152.1	282.8	558.6	1102.4	1084.7	262.2	157.5	160.8	125.3	80.8
87.5°	42.9	44.5	96.1	174.8	337.6	312.9	66.0	53.2	65.1	51.1	25.6
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: P596648
 CATALOG NUMBER: MSA-SA2D-827-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1	521.1
2.5°	626.2	630.4	589.5	604.0	622.5	632.4	637.4	616.3	623.4	653.0	651.8
5°	803.5	787.0	771.4	787.4	776.7	761.5	786.2	785.0	801.0	817.1	820.8
7.5°	935.9	914.4	907.0	870.7	834.4	797.7	829.5	849.3	853.4	893.4	910.3
10°	983.7	975.4	978.3	930.5	926.0	929.7	900.4	868.7	888.0	871.5	883.9
12.5°	1094.2	1114.8	1063.7	1031.1	1028.2	1005.5	947.0	926.4	904.5	927.2	915.7
15°	1182.8	1221.1	1166.3	1109.0	1044.3	1009.2	959.4	928.0	913.6	918.5	904.5
17.5°	1312.7	1348.5	1209.2	1121.4	1054.6	1003.1	926.8	860.0	895.5	898.3	882.3
20°	1398.8	1401.3	1223.6	1090.9	1030.7	941.2	867.0	808.5	849.3	890.9	909.1
22.5°	1482.9	1464.4	1241.3	1066.5	943.7	857.1	820.8	817.1	847.6	882.7	886.8
25°	1546.0	1548.9	1251.7	1057.5	892.6	774.7	774.7	801.5	828.3	911.5	907.4
27.5°	1699.0	1586.4	1211.7	1015.8	821.7	726.4	775.1	810.9	823.7	914.0	923.1
30°	1810.3	1736.9	1219.9	944.5	749.9	703.7	743.7	788.7	824.1	928.4	925.1
32.5°	1997.0	1799.6	1239.3	844.3	696.3	695.1	730.5	778.0	820.4	912.8	917.7
35°	2203.6	1984.3	1185.3	768.1	683.5	690.1	735.9	754.9	804.8	906.6	911.1
37.5°	2585.8	2080.7	1151.1	709.1	675.3	694.3	711.6	740.9	791.1	875.7	905.3
40°	2810.0	2279.4	1024.1	674.9	658.0	691.0	699.6	724.4	751.6	838.6	857.5
42.5°	3105.2	2342.1	915.7	637.0	649.3	677.4	703.3	709.5	727.7	780.0	814.6
45°	3351.3	2389.1	800.6	606.5	620.1	707.5	709.1	706.2	702.9	722.3	750.7
47.5°	3606.1	2515.3	694.7	572.6	608.9	732.2	712.0	685.6	672.0	674.5	700.9
50°	3887.3	2606.8	619.6	545.0	611.4	732.2	726.0	664.6	637.4	630.4	658.0
52.5°	4134.7	2617.5	562.7	522.8	601.1	707.0	735.5	651.4	605.6	588.7	614.7
55°	4269.5	2481.9	521.5	502.6	574.7	684.4	730.5	644.0	567.3	554.5	577.6
57.5°	4266.6	2256.8	486.5	474.5	544.6	652.6	702.9	603.6	543.8	536.4	559.0
60°	4112.8	1992.9	459.7	451.4	513.7	606.5	653.4	577.2	521.1	517.4	542.1
62.5°	3764.0	1720.4	433.7	427.1	484.8	573.9	629.9	547.9	497.6	497.2	520.7
65°	3082.5	1381.1	409.4	407.7	458.0	541.7	607.7	523.2	473.3	481.5	505.4
67.5°	2124.0	970.5	383.4	388.4	433.3	510.8	590.8	506.7	447.7	464.6	486.1
70°	1165.5	600.3	354.6	364.4	402.0	474.9	564.4	479.9	414.3	440.3	455.1
72.5°	592.8	400.3	318.7	334.4	363.6	422.2	514.9	441.1	378.5	388.4	396.2
75°	398.3	301.4	278.7	296.0	317.0	371.9	456.8	404.8	344.2	343.0	351.7
77.5°	301.0	235.4	236.6	256.4	270.0	326.9	410.6	374.3	315.4	312.5	325.3
80°	220.2	178.5	190.5	211.1	223.5	293.5	380.5	340.5	276.2	264.7	275.4
82.5°	145.9	126.6	141.0	161.6	171.5	245.3	345.5	289.0	225.1	195.8	197.5
85°	68.8	66.4	84.1	94.0	106.8	152.1	258.5	200.0	143.5	118.7	124.1
87.5°	15.7	21.0	27.6	27.2	31.7	40.8	80.4	56.1	41.6	28.4	19.0
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)