

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: P596996

Luminaire Tested: **MSA-SA2D-835-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2D-835-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11090 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

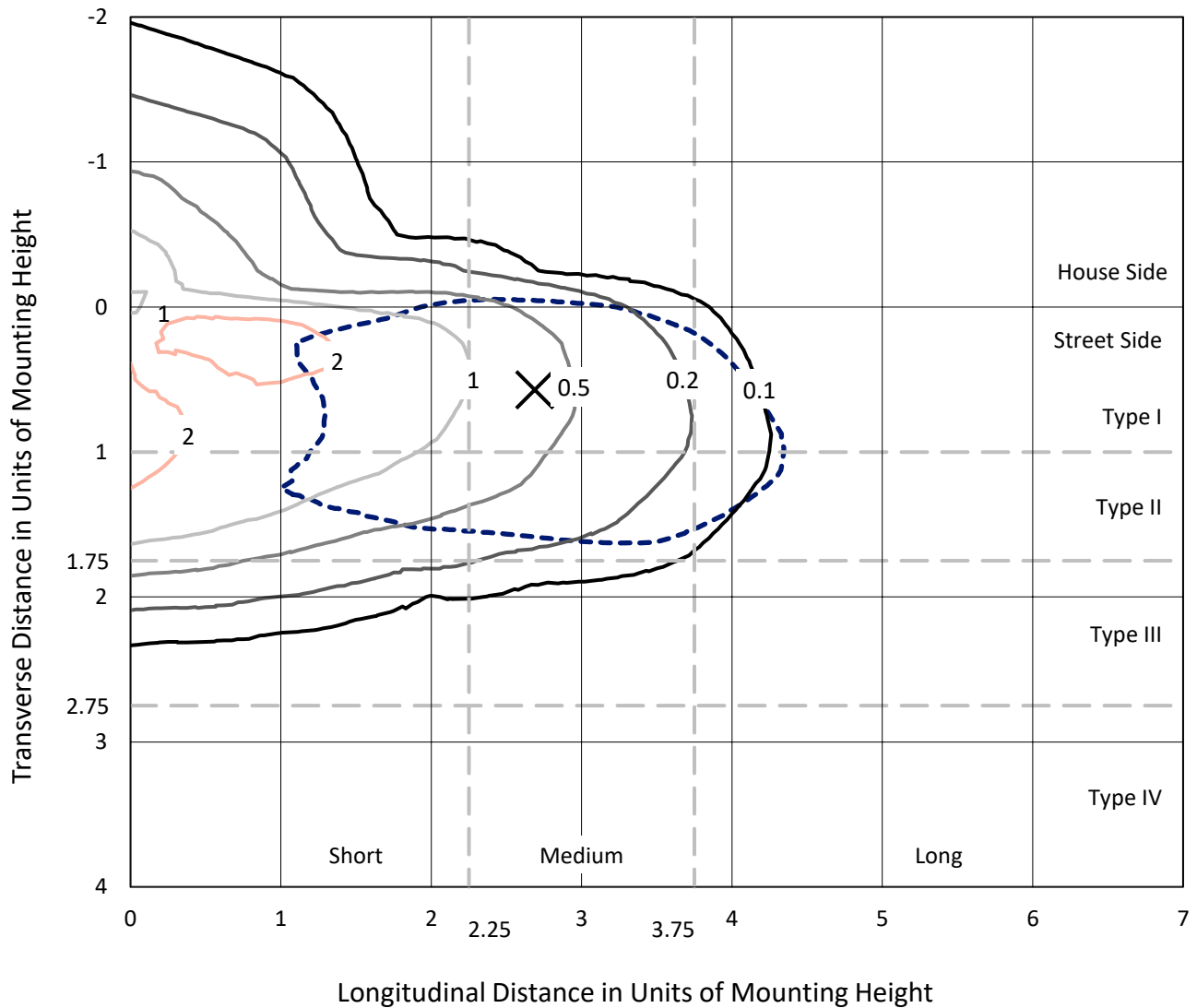
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596996
 CATALOG NUMBER: MSA-SA2D-835-U-T2

Iso-Footcandle Lines of Horizontal Illumination

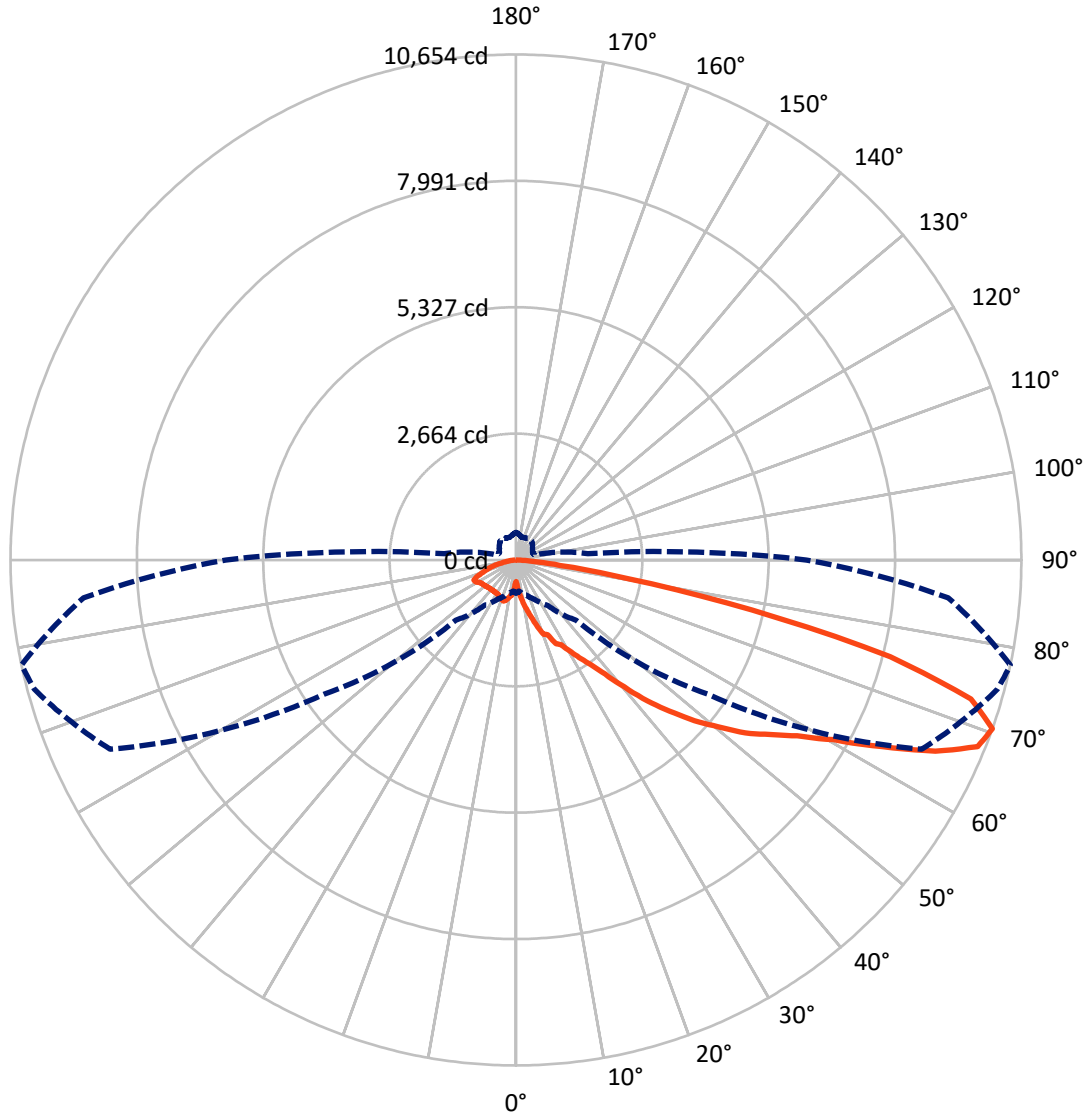
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type II - Medium - N/A

REPORT NUMBER: P596996
CATALOG NUMBER: MSA-SA2D-835-U-T2

Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P596996
 CATALOG NUMBER: MSA-SA2D-835-U-T2

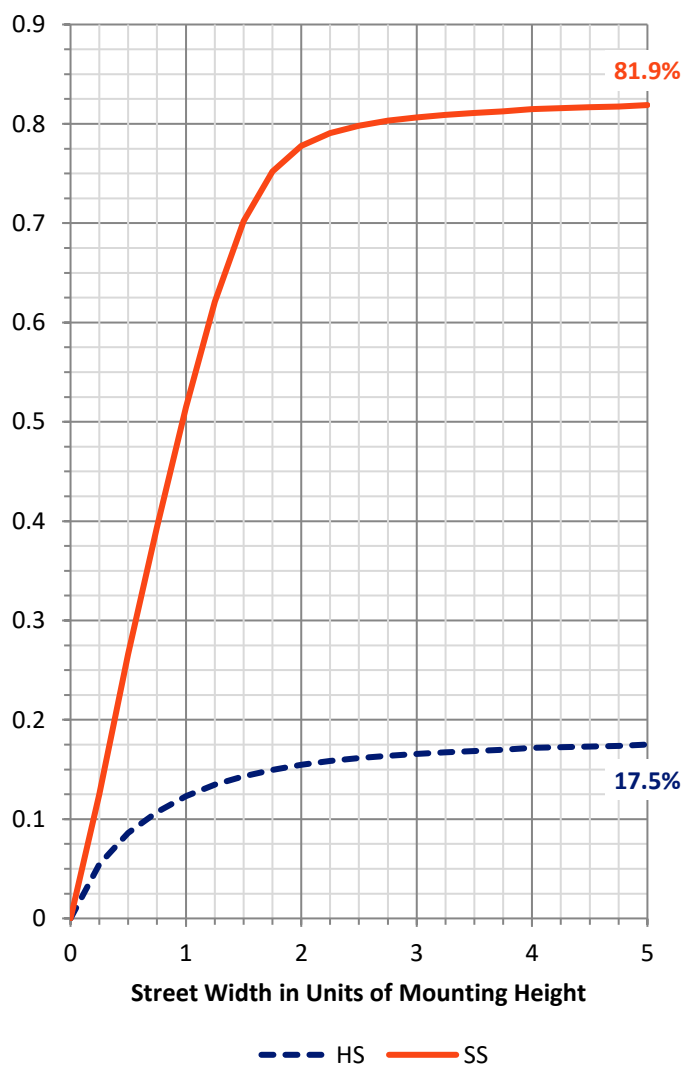
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1979.4	0.0	1979.4
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	9110.6	0.0	9110.6
	% Fixture	82.2	0.0	82.2
Total	Lumens	11090.0	0.0	11090.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	0.6
10°-20°	307.9	2.8
20°-30°	592.6	5.3
30°-40°	998.1	9.0
40°-50°	1727.0	15.6
50°-60°	2607.6	23.5
60°-70°	2888.2	26.0
70°-80°	1665.2	15.0
80°-90°	233.5	2.1
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°	11090.0	100.0
0°-180°	11090.0	100.0

Coefficient of Utilization

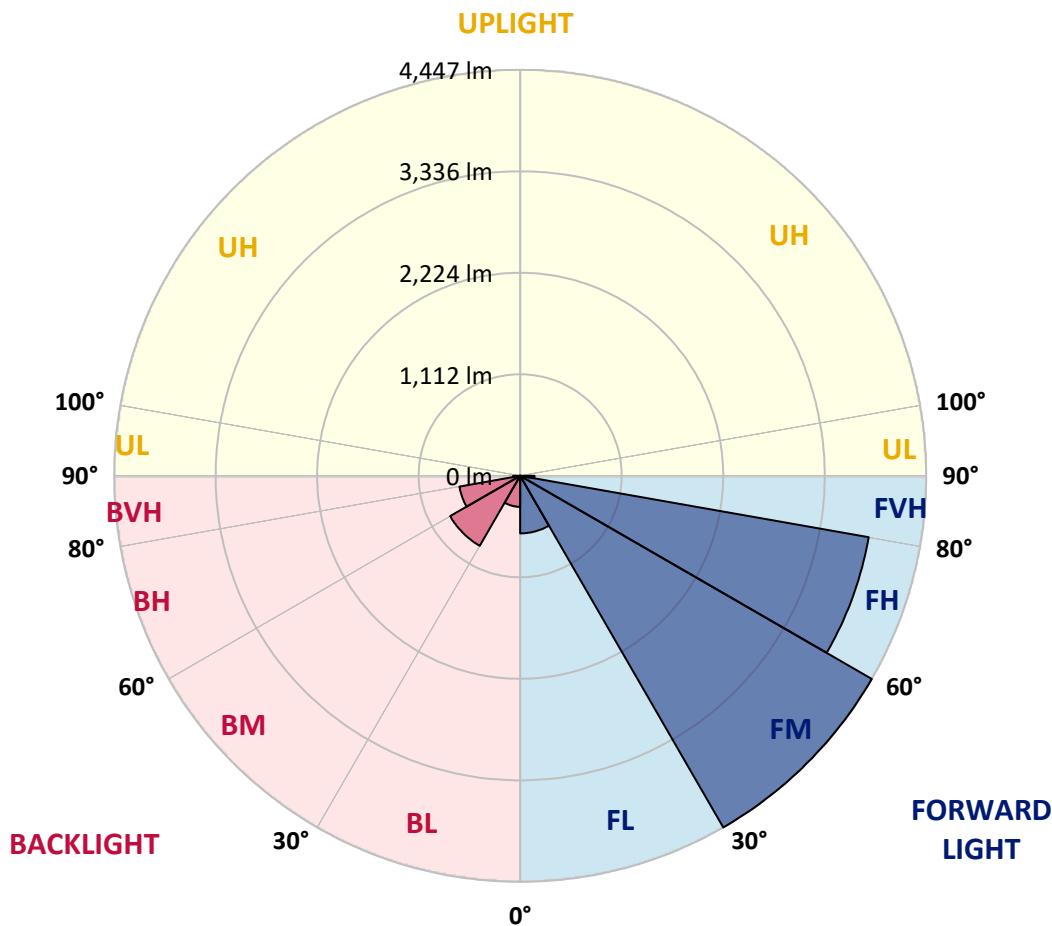


REPORT NUMBER: P596996
 CATALOG NUMBER: MSA-SA2D-835-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	630.4	5.7			
FM (30°-60°)	4447.4	40.1			
FH (60°-80°)	3876.9	35.0			G2/5000
FVH (80°-90°)	155.8	1.4			G2/225
BL (0°-30°)	339.9	3.1	B1/500		
BM (30°-60°)	885.3	8.0	B1/1000		
BH (60°-80°)	676.5	6.1	B2/1000		G2/1000
BVH (80°-90°)	77.7	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 II Medium





REPORT NUMBER: P596996

CATALOG NUMBER: MSA-SA2D-835-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1
2.5°	582.1	561.3	529.8	542.8	558.5	560.3	555.2	526.6	516.9	538.6	545.1
5°	815.5	780.4	759.1	752.2	728.6	679.6	714.7	696.7	700.4	689.8	710.6
7.5°	1012.0	988.4	957.0	948.2	894.1	855.7	879.8	871.9	834.0	819.2	842.8
10°	1111.9	1086.0	1087.4	1068.4	1054.1	1057.8	1045.8	1011.1	982.9	963.0	906.1
12.5°	1172.0	1178.4	1213.1	1203.4	1257.5	1301.9	1268.1	1216.8	1127.6	1109.6	1053.2
15°	1314.8	1338.9	1306.5	1321.3	1344.4	1429.5	1415.6	1404.5	1310.2	1275.1	1171.0
17.5°	1461.8	1466.5	1417.5	1409.6	1465.1	1508.1	1562.2	1499.8	1511.3	1486.8	1318.5
20°	1493.3	1525.2	1454.9	1406.4	1520.6	1605.6	1672.7	1606.5	1667.6	1674.0	1440.1
22.5°	1608.4	1570.0	1477.6	1429.9	1529.8	1634.3	1743.4	1780.4	1761.0	1706.4	1557.5
25°	1688.4	1668.0	1573.7	1521.0	1558.9	1655.1	1846.5	1943.1	1960.2	1952.8	1669.4
27.5°	1836.8	1846.9	1652.8	1667.6	1614.9	1623.7	1908.4	2159.0	2052.2	2022.6	1808.1
30°	2071.2	2025.9	1808.1	1820.1	1732.8	1718.0	2039.3	2345.3	2249.6	2214.0	1922.3
32.5°	2315.7	2319.9	2055.5	1952.8	1906.1	1891.3	2013.4	2442.9	2499.3	2453.0	2094.8
35°	2660.6	2636.6	2323.6	2188.6	2019.9	1994.0	2197.8	2725.8	2829.4	2699.9	2299.6
37.5°	3185.8	3113.2	2748.9	2436.9	2312.0	2282.5	2461.4	2979.6	3212.6	3051.7	2634.3
40°	3607.4	3460.0	3128.9	2748.9	2537.6	2574.2	2648.6	3287.5	3610.2	3519.6	2944.0
42.5°	3943.5	3812.7	3398.0	3130.8	2843.7	2798.4	2879.8	3668.9	4151.1	4062.4	3330.5
45°	4265.8	3999.5	3700.4	3460.0	3184.0	3239.0	3227.0	4058.2	4814.6	4541.3	3672.2
47.5°	4583.9	4333.7	4020.8	3697.6	3419.7	3762.3	3634.3	4347.6	5262.1	5059.6	4031.9
50°	4992.5	4717.5	4361.0	4036.0	3869.6	4120.2	3905.2	4592.6	5763.2	5525.6	4371.2
52.5°	5263.9	4996.2	4683.7	4451.6	4436.4	4339.8	4284.7	4902.9	6202.4	6058.2	4730.9
55°	5232.0	4974.1	4832.6	4858.0	5046.6	4720.7	4675.9	5361.9	6660.6	6493.7	5119.2
57.5°	4832.1	4550.6	4580.6	4731.3	5238.0	5389.7	5313.4	5852.4	7069.3	6993.4	5599.6
60°	3764.2	3619.5	3864.0	4139.6	4981.9	5585.7	6122.0	6450.7	7572.3	7693.4	6354.1
62.5°	2445.2	2251.9	2638.4	3106.3	4217.7	5456.2	6945.4	7585.2	8396.1	8671.2	7500.6
65°	1266.7	1235.8	1506.2	1936.2	2936.2	4652.3	7235.7	8775.2	9397.5	9717.9	8595.8
67.5°	920.9	863.6	988.9	1241.8	1792.4	3172.4	6685.5	9685.5	10201.4	10495.0	9232.4
70°	701.3	658.8	754.5	911.2	1170.6	1791.9	4935.2	9437.2	10511.7	10654.1	9147.8
72.5°	525.2	488.7	572.3	718.4	902.0	1008.8	2917.2	7759.5	9982.3	10030.9	8210.3
75°	419.3	391.1	427.2	567.3	735.1	686.5	1549.7	5621.8	8110.4	8152.0	6271.3
77.5°	344.0	319.9	334.7	425.3	571.9	516.4	768.8	3576.0	5149.3	5085.5	3528.4
80°	280.6	259.8	266.8	307.4	435.5	385.6	431.8	1865.4	2456.3	2357.3	1467.4
82.5°	215.9	198.3	212.2	226.1	315.3	276.9	252.0	848.8	1006.0	937.1	538.1
85°	144.7	128.5	184.5	169.7	206.2	170.1	137.8	338.0	374.9	349.5	189.1
87.5°	39.8	37.4	62.0	84.6	84.6	64.3	50.4	81.8	104.5	91.5	44.4
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: P596996
 CATALOG NUMBER: MSA-SA2D-835-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1	452.1
2.5°	547.8	537.7	510.9	508.5	515.0	515.9	511.8	502.1	497.0	524.7	520.6
5°	705.5	669.4	647.7	627.8	600.1	580.2	585.3	599.2	603.8	624.6	626.9
7.5°	828.0	780.4	732.8	669.0	626.9	600.1	620.4	635.2	646.8	676.4	688.4
10°	881.2	829.4	761.9	694.9	683.3	687.9	676.4	680.1	698.1	699.5	705.5
12.5°	980.1	921.4	799.8	739.2	736.0	745.7	741.6	758.7	771.1	804.9	790.6
15°	1074.9	1000.0	828.5	766.5	753.1	772.5	795.2	823.8	850.7	882.6	866.4
17.5°	1190.0	1077.2	829.9	754.0	756.3	798.0	821.5	837.3	917.2	961.2	939.0
20°	1262.6	1085.1	798.9	723.1	756.3	793.8	826.6	843.7	933.4	999.5	1014.8
22.5°	1328.2	1087.8	774.8	706.4	727.7	777.2	826.6	864.5	921.9	985.2	987.5
25°	1364.3	1085.5	743.9	707.8	727.2	751.7	795.6	830.3	872.9	961.2	963.5
27.5°	1456.8	1055.5	713.4	713.4	723.5	724.4	780.4	800.7	806.7	887.2	901.5
30°	1483.6	1061.9	709.7	712.4	717.5	708.3	732.8	746.2	755.0	824.3	826.6
32.5°	1526.6	1010.2	720.7	704.1	697.6	696.2	702.3	714.3	718.0	760.5	768.4
35°	1578.8	989.4	724.4	701.8	688.8	681.9	699.9	685.2	696.7	746.6	752.2
37.5°	1748.9	960.7	743.4	701.8	685.2	677.3	668.5	675.4	716.6	764.7	794.3
40°	1857.6	969.5	738.8	708.7	672.7	665.3	650.5	675.9	739.7	824.8	847.0
42.5°	2048.1	974.6	744.3	705.5	676.8	648.2	657.9	685.6	752.6	801.2	835.4
45°	2245.0	990.3	740.6	695.8	667.6	681.0	667.6	692.5	724.4	725.8	751.7
47.5°	2438.3	1053.6	732.8	675.9	665.3	700.4	666.2	670.4	672.7	681.0	711.5
50°	2665.2	1121.1	721.7	648.2	668.5	701.3	671.3	650.9	648.6	675.9	710.1
52.5°	2923.2	1197.4	707.3	621.4	649.6	692.5	688.8	652.3	632.4	658.8	693.0
55°	3227.0	1284.3	690.7	594.5	628.7	693.5	698.6	642.6	632.9	661.6	698.1
57.5°	3630.6	1410.1	658.3	555.7	603.3	679.1	673.6	631.5	622.3	652.8	690.7
60°	4319.4	1651.9	612.1	517.3	576.0	644.0	653.3	611.6	602.4	636.1	675.9
62.5°	5241.7	1942.6	556.2	479.9	542.8	606.1	627.8	583.0	582.1	625.1	666.7
65°	6100.3	2107.7	498.4	445.7	508.5	571.0	599.2	556.2	558.0	612.1	653.7
67.5°	6457.2	1913.5	446.6	415.2	469.3	530.7	575.6	535.4	529.4	594.5	632.9
70°	6122.0	1520.1	401.8	382.8	424.9	487.3	542.8	507.6	493.8	552.9	583.0
72.5°	5416.9	1267.2	359.7	344.9	386.0	441.5	498.4	470.2	452.1	497.5	524.3
75°	4234.3	1039.7	311.6	307.4	341.7	399.9	452.1	432.7	409.6	438.3	465.1
77.5°	2411.0	657.9	261.7	264.4	288.9	350.4	396.7	381.4	357.8	369.9	400.8
80°	964.9	331.9	210.4	212.2	233.0	288.0	328.7	323.2	298.7	308.4	329.6
82.5°	360.6	182.2	155.3	156.3	177.1	227.9	280.6	277.9	254.7	247.8	259.8
85°	143.3	90.2	95.2	99.4	119.3	164.1	225.1	199.7	172.4	151.2	158.6
87.5°	34.2	28.7	33.3	35.1	38.8	51.3	82.3	66.1	68.0	54.6	40.7
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)