

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: P367518

Luminaire Tested: **MSA-SA2C-830-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367518
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-SA2C-830-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: 9789 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

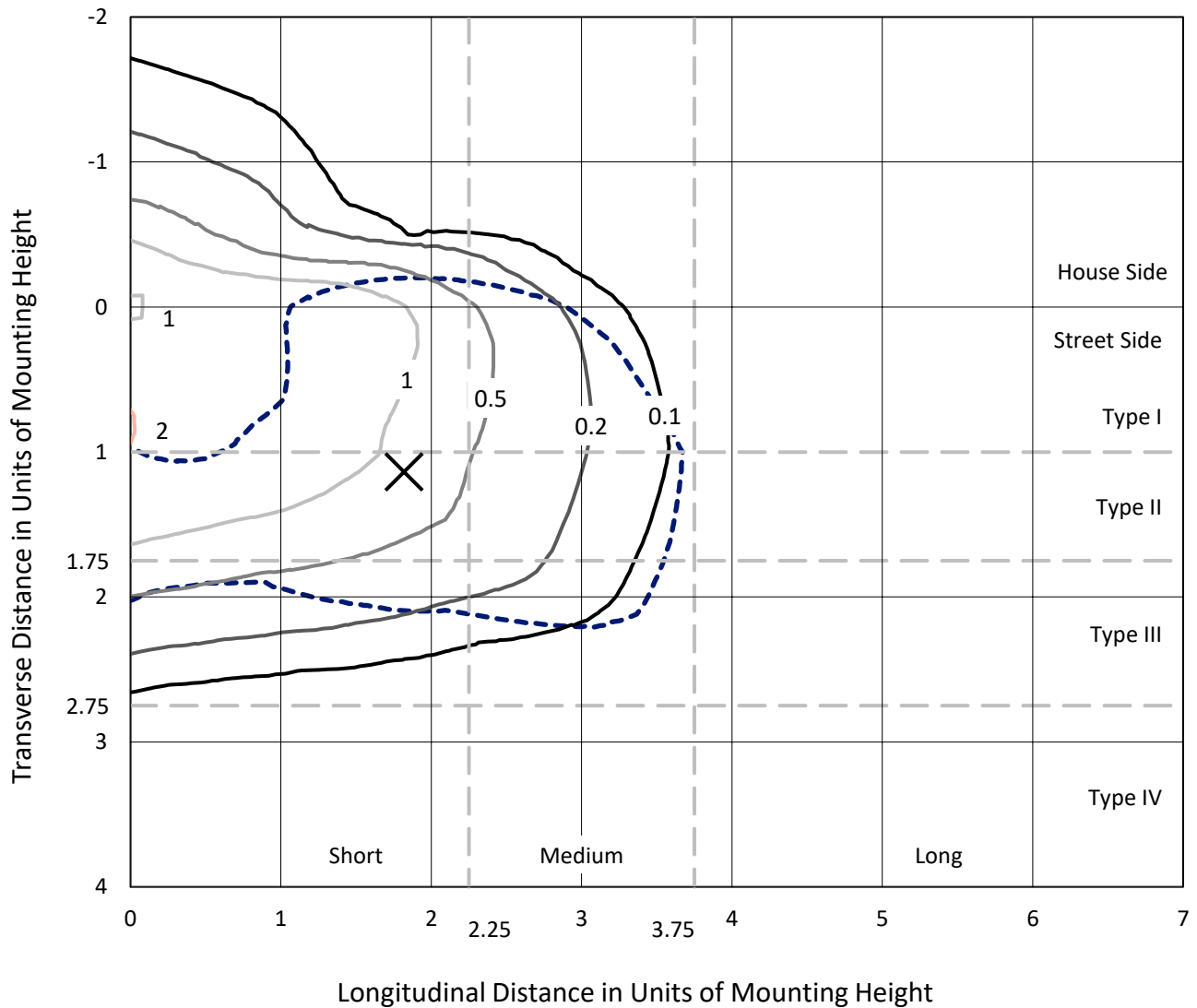
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

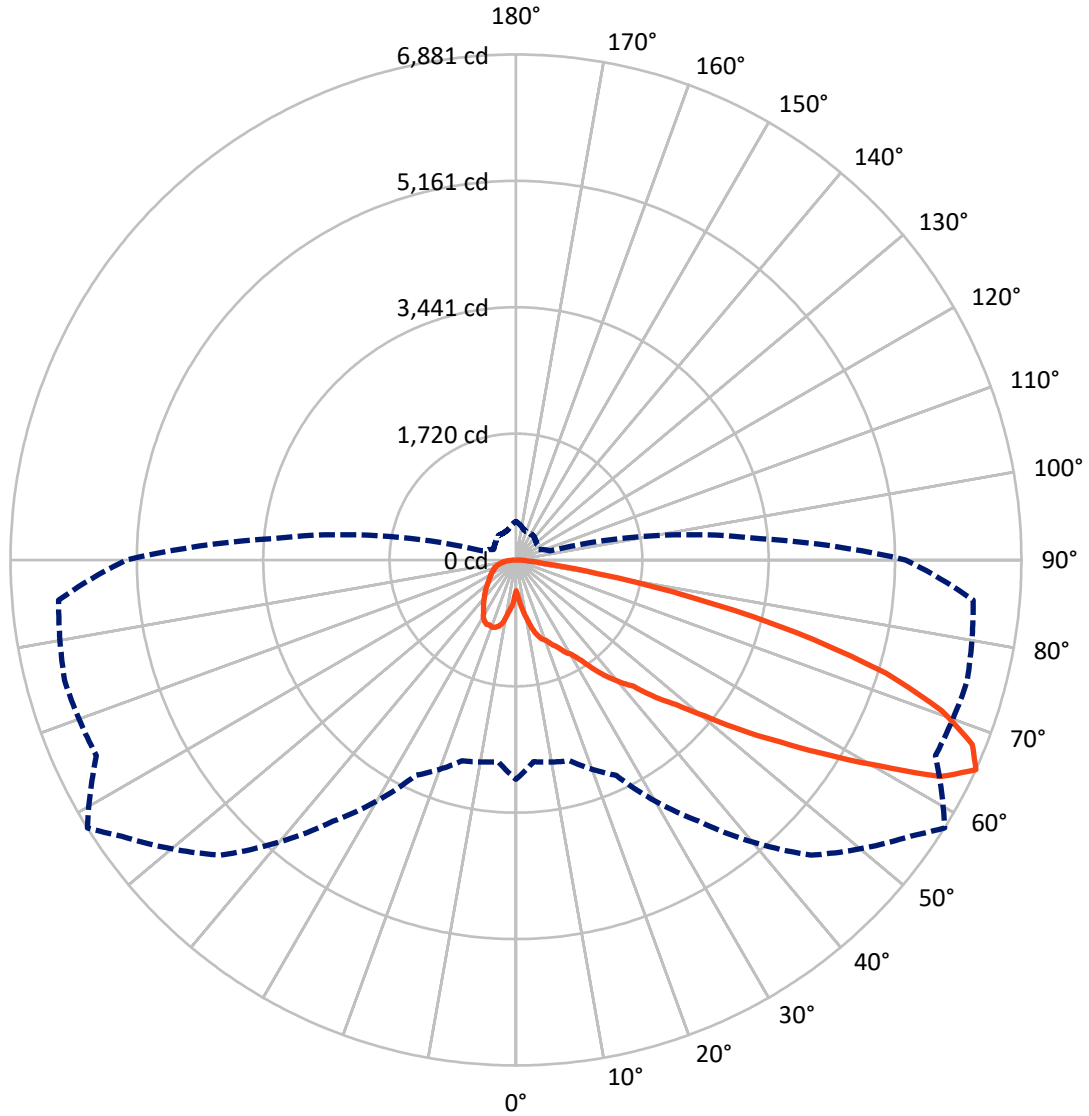
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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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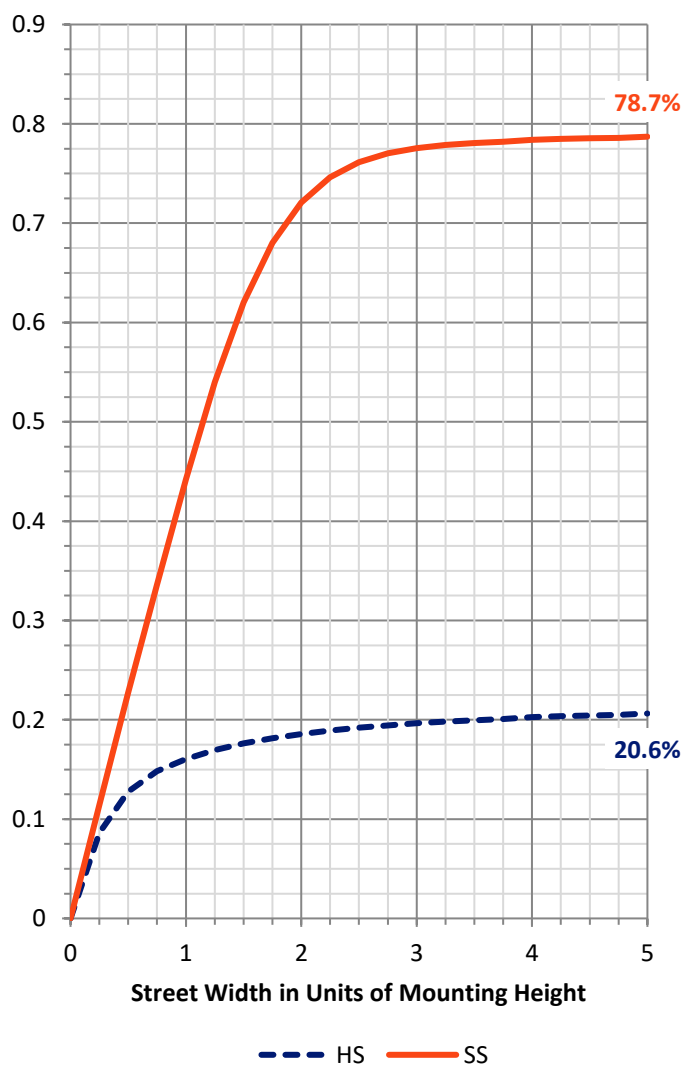
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2061.9	0.0	2061.9
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	7727.1	0.0	7727.1
	% Fixture	78.9	0.0	78.9
Total	Lumens	9789.0	0.0	9789.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	0.7
10°-20°	279.4	2.9
20°-30°	536.1	5.5
30°-40°	885.0	9.0
40°-50°	1471.0	15.0
50°-60°	2429.3	24.8
60°-70°	2725.3	27.8
70°-80°	1239.1	12.7
80°-90°	159.8	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°	9789.0	100.0
0°-180°	9789.0	100.0

Coefficient of Utilization



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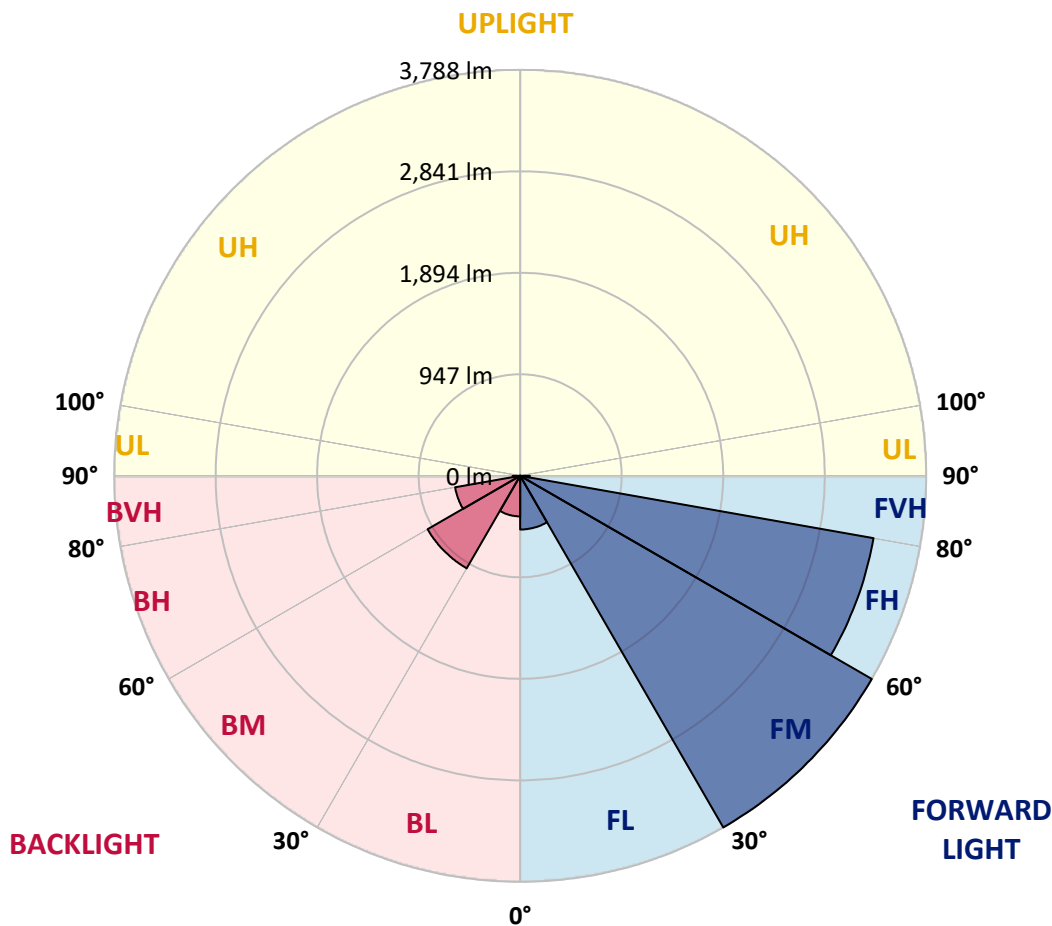
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	500.9	5.1			
FM (30°-60°)	3788.2	38.7			
FH (60°-80°)	3348.0	34.2			G2/5000
FVH (80°-90°)	90.0	0.9			G1/100
BL (0°-30°)	378.5	3.9	B1/500		
BM (30°-60°)	997.2	10.2	B1/1000		
BH (60°-80°)	616.3	6.3	B2/1000		G2/1000
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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3
2.5°	501.8	486.7	461.5	467.6	482.3	490.4	485.5	479.0	470.4	468.8	506.3
5°	649.8	620.9	609.0	604.1	586.2	575.6	594.0	591.5	601.3	619.2	655.9
7.5°	757.8	737.5	717.9	715.8	681.2	669.0	693.4	706.5	724.0	724.4	774.1
10°	815.7	798.2	797.8	779.4	776.6	799.8	800.2	810.0	812.1	832.8	823.1
12.5°	878.5	877.3	899.7	899.3	925.4	963.7	944.5	944.5	950.2	925.0	956.0
15°	1028.1	1041.2	999.2	1006.1	1006.1	1043.6	1042.4	1049.7	1067.2	1060.7	1046.9
17.5°	1183.8	1192.0	1145.5	1102.3	1105.6	1097.4	1126.8	1129.6	1112.9	1188.7	1172.0
20°	1284.1	1315.9	1218.1	1163.9	1174.5	1183.8	1185.1	1167.5	1159.0	1275.6	1252.7
22.5°	1408.0	1381.1	1291.5	1231.5	1247.4	1234.8	1232.3	1245.8	1257.6	1301.7	1338.7
25°	1490.8	1488.8	1381.1	1315.5	1298.0	1294.3	1319.2	1313.9	1342.0	1421.9	1398.7
27.5°	1611.1	1648.6	1457.8	1474.1	1397.0	1315.9	1395.8	1419.9	1470.4	1457.4	1509.1
30°	1844.2	1816.1	1616.8	1612.3	1525.0	1457.0	1512.4	1492.0	1582.9	1580.1	1618.4
32.5°	2034.6	2054.2	1803.5	1756.6	1691.8	1609.8	1573.2	1629.8	1678.7	1759.0	1780.6
35°	2236.0	2231.5	1994.7	1900.1	1792.9	1759.0	1804.3	1827.9	1931.9	2005.7	1954.3
37.5°	2549.1	2513.6	2242.5	2063.6	1983.3	1971.0	2048.5	2014.2	2126.7	2144.3	2173.2
40°	2840.2	2733.3	2469.2	2264.1	2136.5	2182.2	2184.6	2189.1	2249.5	2297.2	2440.2
42.5°	3117.0	3041.9	2699.5	2545.4	2357.5	2313.0	2340.8	2350.1	2502.6	2600.0	2798.2
45°	3495.3	3294.3	3030.5	2872.4	2662.0	2605.3	2585.8	2666.5	2813.7	3035.4	3205.4
47.5°	3815.3	3633.9	3382.3	3174.0	2938.8	3100.6	2989.8	2944.5	3142.2	3417.0	3687.7
50°	4080.7	3880.9	3634.3	3514.0	3476.5	3620.8	3333.0	3338.3	3519.3	3907.0	4217.2
52.5°	4286.1	4072.9	3854.4	3793.3	4002.8	4086.0	3878.0	3846.7	3978.7	4436.9	4809.5
55°	4478.1	4251.9	4083.1	4207.8	4560.9	4570.2	4555.6	4381.5	4540.5	5004.8	5422.7
57.5°	4527.4	4283.7	4171.6	4350.5	4827.9	5199.3	5345.2	5003.6	5165.4	5521.3	5947.7
60°	4273.5	4064.8	4019.9	4262.9	4972.2	5515.2	5896.4	5692.1	5631.4	5935.9	6315.4
62.5°	3753.3	3511.2	3547.4	3885.0	4820.1	5640.4	6331.7	6491.1	6123.4	6265.7	6476.0
65°	2987.3	2756.2	2829.6	3235.6	4342.8	5681.9	6554.3	6881.3	6301.2	6359.1	6248.6
67.5°	2106.8	1896.8	1989.4	2514.4	3612.7	5149.5	6592.6	6699.4	6112.0	6092.9	5627.3
70°	1193.6	1061.9	1162.2	1600.1	2549.9	4102.3	6292.2	6151.6	5772.8	5501.3	4708.4
72.5°	547.5	502.2	550.3	814.5	1468.0	2729.7	5136.9	5264.5	4974.2	4634.7	3582.1
75°	291.1	275.2	295.6	406.8	686.9	1485.1	3649.8	3936.7	3782.2	3515.2	2336.7
77.5°	216.5	204.2	214.0	263.8	366.9	580.9	2073.8	2435.8	2494.5	2248.6	1297.6
80°	165.9	156.1	165.9	199.3	254.0	276.0	886.7	1135.3	1293.1	1044.8	515.7
82.5°	123.1	116.6	131.7	149.6	178.6	172.4	314.7	391.8	505.1	345.3	201.0
85°	97.8	89.7	95.4	101.5	114.1	94.6	143.9	161.0	170.4	142.7	74.2
87.5°	38.3	35.5	69.3	54.6	46.5	28.5	43.2	48.9	50.1	48.1	21.6
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°	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3
2.5°	510.4	506.3	482.3	490.0	502.6	505.1	510.4	495.7	488.4	515.3	516.5
5°	659.2	637.2	625.8	627.0	618.8	606.2	625.3	638.0	642.9	662.9	670.2
7.5°	774.5	748.1	728.9	706.9	675.9	655.9	689.3	713.8	726.9	768.4	784.7
10°	825.9	804.7	800.6	772.9	772.1	771.7	770.1	761.5	789.6	785.6	797.0
12.5°	931.9	927.4	888.7	877.7	878.9	877.7	843.4	841.8	842.2	879.7	866.3
15°	1030.6	1031.4	995.9	956.0	920.1	909.1	895.6	889.5	898.5	919.7	906.6
17.5°	1152.4	1156.5	1055.0	991.8	944.5	943.3	911.1	873.2	927.8	940.9	926.6
20°	1231.1	1214.0	1089.3	983.3	969.8	933.1	893.2	841.0	888.3	920.1	929.1
22.5°	1305.7	1276.0	1121.1	998.4	933.9	890.3	851.6	817.8	832.8	868.3	862.6
25°	1356.3	1348.1	1165.1	1034.6	932.7	835.7	783.5	761.9	769.7	824.7	819.4
27.5°	1476.9	1388.9	1157.3	1044.0	893.6	761.1	735.0	711.8	704.0	763.5	779.8
30°	1557.7	1521.4	1209.1	1029.3	844.3	699.9	661.6	656.7	659.2	726.9	731.3
32.5°	1694.6	1600.5	1293.9	973.1	772.5	654.7	610.7	612.7	623.7	673.0	683.2
35°	1837.3	1781.1	1305.3	932.7	714.2	606.6	588.7	574.4	580.5	623.7	625.8
37.5°	2102.3	1907.8	1375.4	870.3	671.4	588.2	554.0	541.4	544.6	569.1	586.6
40°	2335.5	2162.6	1342.8	810.0	618.4	563.8	521.0	511.6	501.8	525.9	536.9
42.5°	2709.3	2344.4	1331.8	743.6	593.5	530.8	501.4	476.6	467.2	487.6	507.5
45°	3083.1	2537.3	1271.9	676.3	558.5	528.3	472.9	449.2	451.7	470.0	490.4
47.5°	3499.7	2796.1	1170.4	611.1	520.2	516.5	444.3	434.2	441.5	461.9	482.3
50°	3992.2	3070.9	1086.4	552.4	492.9	481.0	440.7	428.4	435.4	459.4	479.4
52.5°	4530.7	3372.1	1025.3	498.2	461.9	452.9	445.6	433.7	441.9	462.7	483.5
55°	5066.0	3647.3	983.7	461.1	435.4	441.1	455.8	447.2	451.3	466.8	487.6
57.5°	5463.0	3792.4	900.1	421.5	413.8	434.2	457.0	442.7	445.2	466.8	489.2
60°	5693.8	3820.2	762.7	389.3	396.7	420.3	444.3	426.0	424.4	459.8	488.0
62.5°	5668.5	3659.1	605.0	360.0	377.1	399.5	425.2	407.7	412.1	460.7	490.4
65°	5306.5	3330.2	481.0	335.1	353.4	376.7	409.3	402.4	424.0	493.3	525.5
67.5°	4670.5	2849.5	386.5	311.9	331.4	361.2	420.3	438.6	448.0	526.7	559.7
70°	3785.1	2214.0	322.0	291.5	313.9	368.5	452.1	448.4	440.7	510.8	536.9
72.5°	2734.6	1517.7	283.3	271.5	292.3	346.5	452.9	433.3	423.6	466.4	485.1
75°	1710.9	905.4	247.4	246.2	259.3	310.6	432.5	415.0	388.5	409.7	434.2
77.5°	977.2	463.5	208.3	219.3	227.1	269.5	387.3	371.4	347.7	356.7	380.8
80°	373.0	224.2	175.7	194.9	192.8	228.3	328.2	324.5	297.6	300.4	315.1
82.5°	175.7	125.6	145.9	167.5	156.5	181.8	266.6	265.4	241.7	218.9	230.7
85°	65.2	66.9	106.8	127.6	108.8	117.4	192.8	187.5	164.7	139.0	153.7
87.5°	14.7	24.1	52.6	66.4	37.9	36.3	77.9	67.7	65.2	38.7	40.8
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)