

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: P367562

Luminaire Tested: **MSA-SA2D-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367562
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-SA2D-730-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: 12266 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

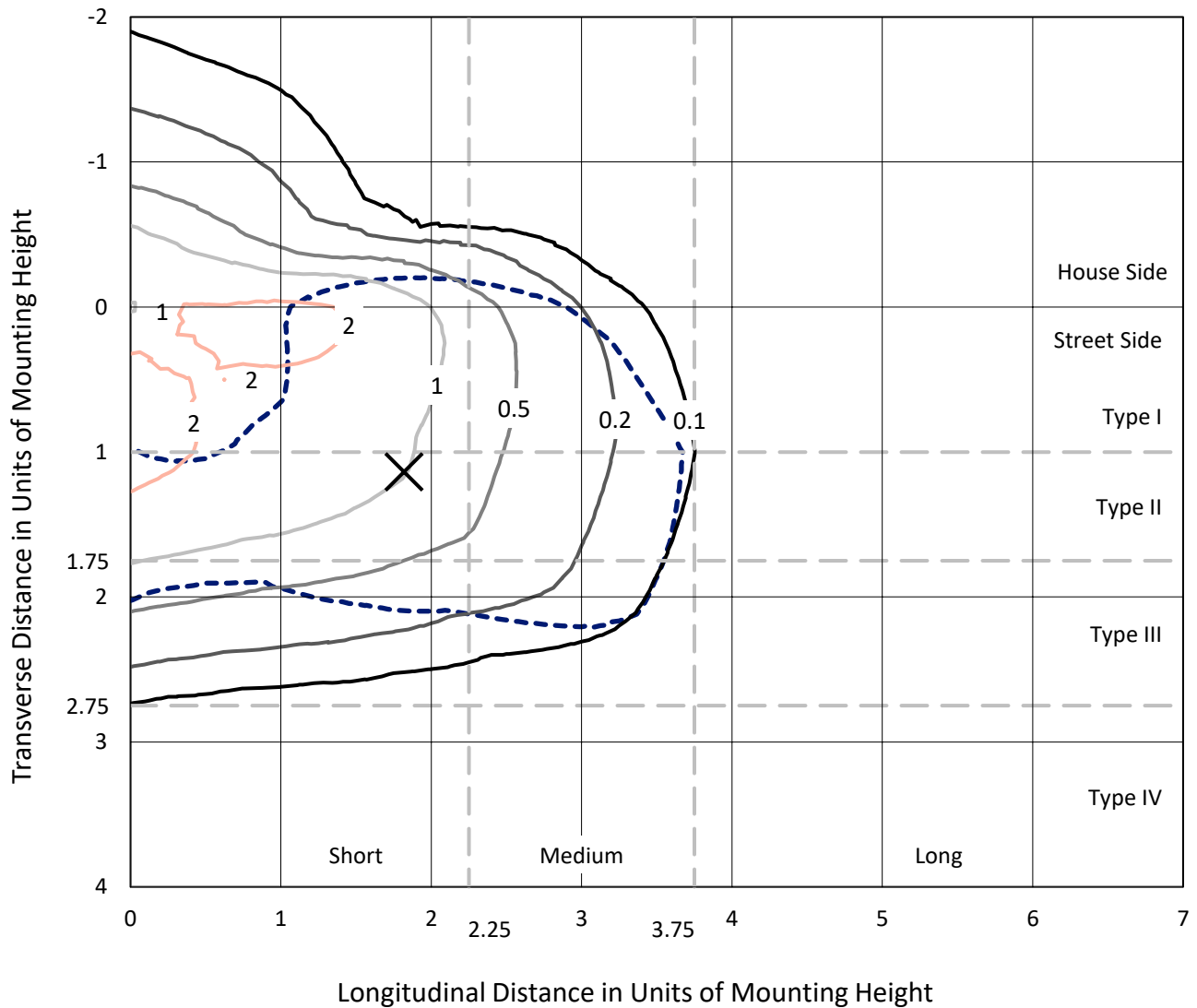
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

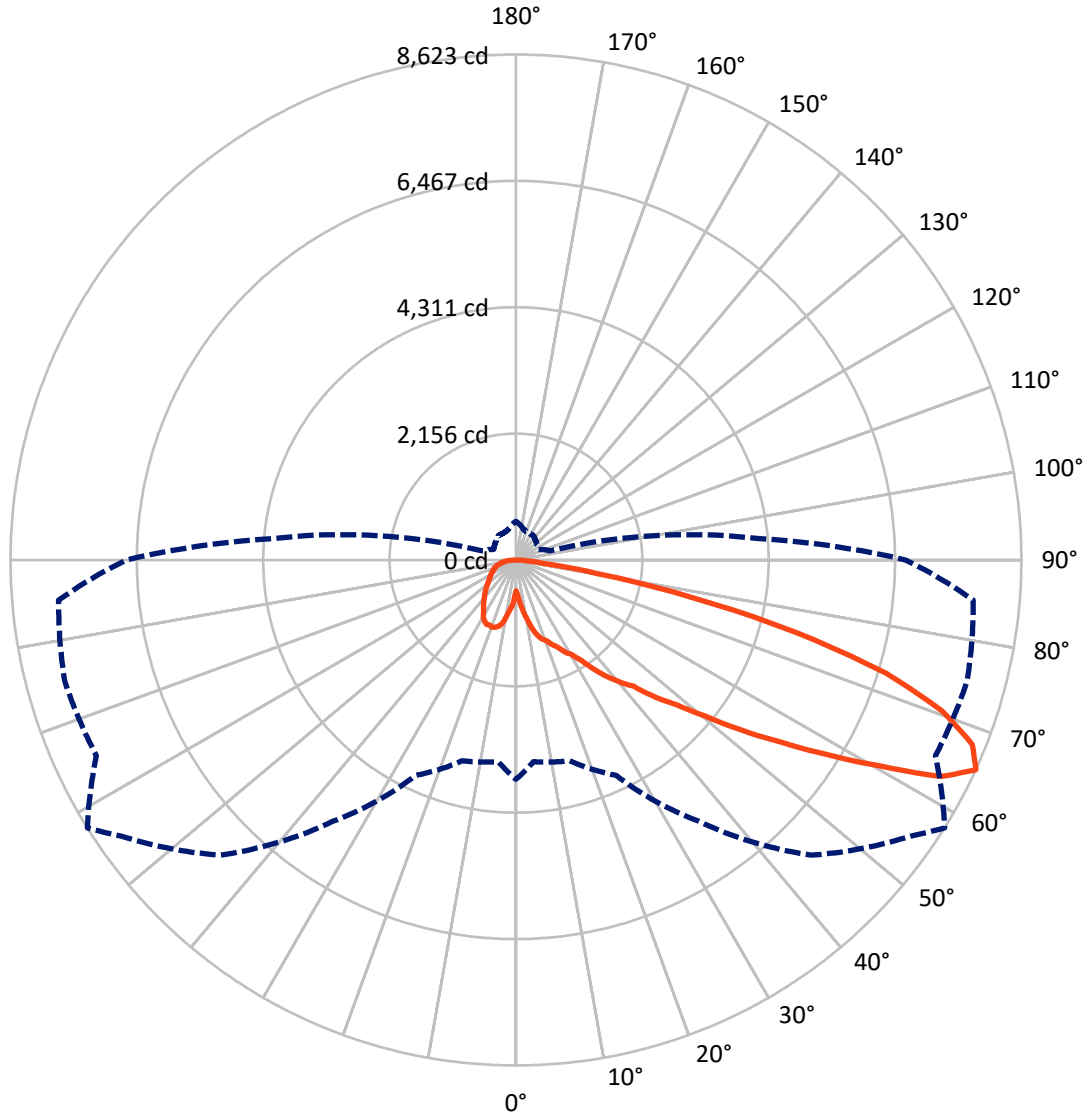
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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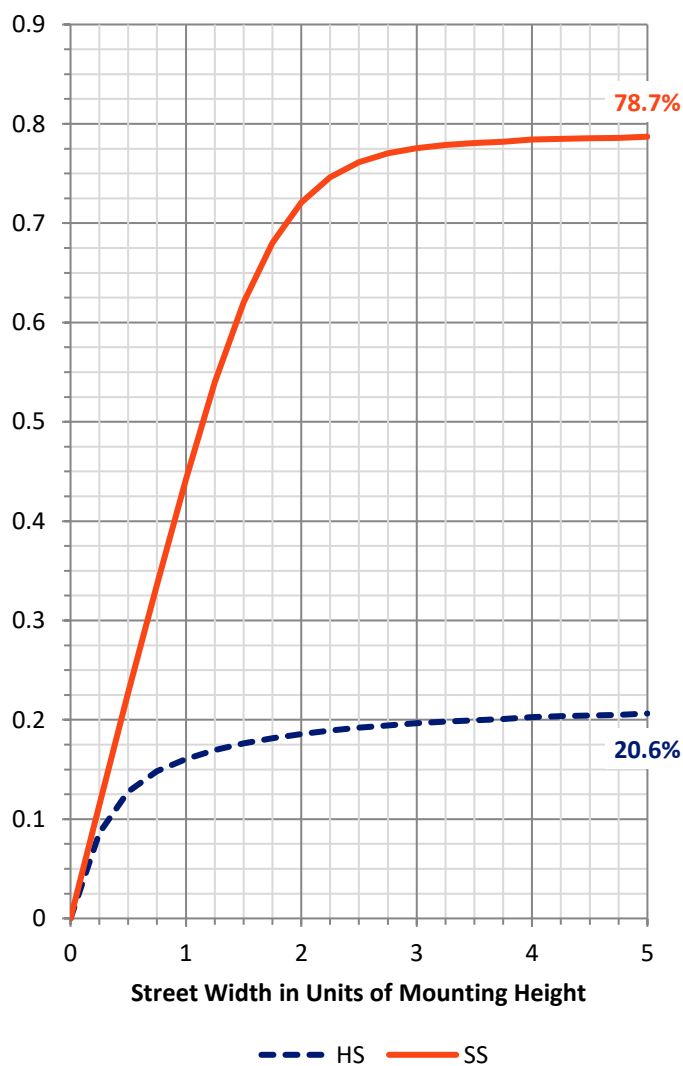
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2583.6	0.0	2583.6
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	9682.4	0.0	9682.4
	% Fixture	78.9	0.0	78.9
Total	Lumens	12266.0	0.0	12266.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	0.7
10°-20°	350.1	2.9
20°-30°	671.7	5.5
30°-40°	1108.9	9.0
40°-50°	1843.2	15.0
50°-60°	3044.1	24.8
60°-70°	3414.9	27.8
70°-80°	1552.7	12.7
80°-90°	200.2	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°	12266.0	100.0
0°-180°	12266.0	100.0

Coefficient of Utilization

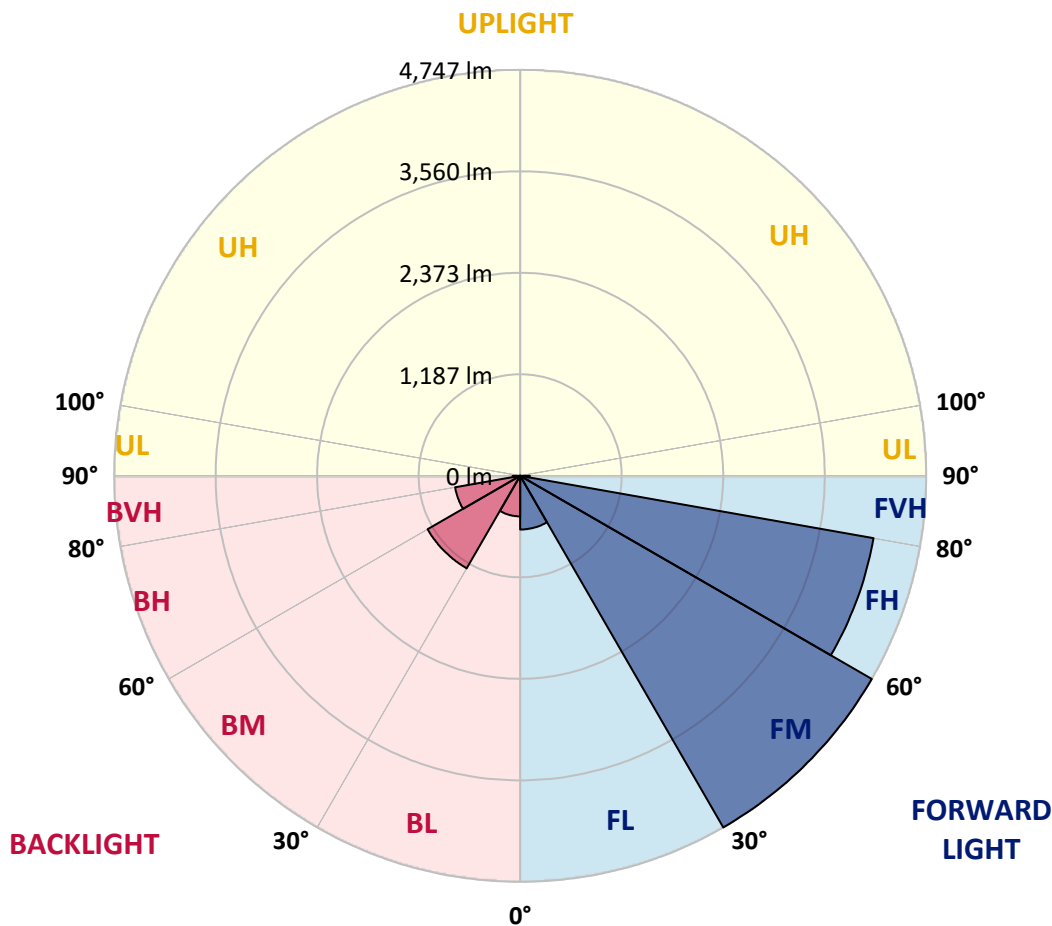


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	627.7	5.1			
FM (30°-60°)	4746.7	38.7			
FH (60°-80°)	4195.2	34.2			G2/5000
FVH (80°-90°)	112.8	0.9			G2/225
BL (0°-30°)	474.3	3.9	B1/500		
BM (30°-60°)	1249.5	10.2	B2/2500		
BH (60°-80°)	772.3	6.3	B2/1000		G2/1000
BVH (80°-90°)	87.5	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°	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6
2.5°	628.8	609.9	578.2	585.9	604.3	614.5	608.4	600.2	589.5	587.4	634.4
5°	814.2	778.0	763.2	757.0	734.5	721.3	744.3	741.2	753.4	775.9	821.9
7.5°	949.6	924.1	899.5	897.0	853.6	838.2	868.9	885.2	907.2	907.7	970.0
10°	1022.1	1000.2	999.7	976.7	973.1	1002.2	1002.7	1015.0	1017.5	1043.6	1031.3
12.5°	1100.8	1099.3	1127.4	1126.8	1159.5	1207.6	1183.5	1183.5	1190.7	1159.0	1197.9
15°	1288.3	1304.6	1252.0	1260.7	1260.7	1307.7	1306.1	1315.3	1337.3	1329.1	1311.8
17.5°	1483.4	1493.6	1435.4	1381.2	1385.3	1375.1	1411.9	1415.5	1394.5	1489.5	1468.6
20°	1609.1	1648.9	1526.3	1458.4	1471.6	1483.4	1484.9	1463.0	1452.2	1598.3	1569.7
22.5°	1764.3	1730.6	1618.2	1543.2	1563.1	1547.2	1544.2	1561.0	1575.9	1631.0	1677.5
25°	1868.0	1865.5	1730.6	1648.4	1626.4	1621.8	1653.0	1646.3	1681.6	1781.7	1752.6
27.5°	2018.7	2065.7	1826.7	1847.1	1750.5	1648.9	1749.0	1779.2	1842.5	1826.1	1891.0
30°	2310.9	2275.7	2025.9	2020.3	1910.9	1825.6	1895.1	1869.6	1983.5	1979.9	2027.9
32.5°	2549.5	2574.0	2259.8	2201.1	2119.9	2017.2	1971.2	2042.2	2103.5	2204.1	2231.2
35°	2801.8	2796.2	2499.4	2380.9	2246.5	2204.1	2260.8	2290.5	2420.7	2513.2	2448.8
37.5°	3194.1	3149.7	2810.0	2585.7	2485.1	2469.8	2566.8	2523.9	2664.9	2686.9	2723.1
40°	3558.8	3425.0	3094.0	2837.0	2677.2	2734.4	2737.4	2743.1	2818.7	2878.4	3057.7
42.5°	3905.7	3811.7	3382.6	3189.5	2954.0	2898.3	2933.1	2944.8	3135.9	3258.0	3506.2
45°	4379.7	4127.9	3797.4	3599.2	3335.6	3264.6	3240.1	3341.2	3525.6	3803.5	4016.5
47.5°	4780.7	4553.4	4238.2	3977.2	3682.4	3885.2	3746.3	3689.6	3937.3	4281.6	4620.8
50°	5113.2	4862.9	4553.9	4403.2	4356.2	4537.0	4176.4	4183.0	4409.8	4895.6	5284.3
52.5°	5370.7	5103.5	4829.7	4753.1	5015.7	5119.9	4859.3	4820.0	4985.5	5559.7	6026.5
55°	5611.3	5327.8	5116.3	5272.6	5715.0	5726.7	5708.3	5490.2	5689.4	6271.2	6794.8
57.5°	5673.1	5367.6	5227.1	5451.4	6049.5	6514.9	6697.8	6269.7	6472.5	6918.4	7452.7
60°	5354.8	5093.3	5037.1	5341.6	6230.4	6910.8	7388.4	7132.5	7056.3	7437.9	7913.5
62.5°	4703.0	4399.6	4445.1	4868.0	6039.8	7067.6	7933.9	8133.6	7672.9	7851.2	8114.7
65°	3743.2	3453.6	3545.5	4054.3	5441.7	7119.7	8212.8	8622.5	7895.6	7968.1	7829.7
67.5°	2639.9	2376.8	2492.8	3150.7	4526.8	6452.6	8260.8	8394.7	7658.6	7634.6	7051.2
70°	1495.7	1330.7	1456.3	2004.9	3195.1	5140.3	7884.4	7708.1	7233.6	6893.4	5899.9
72.5°	686.0	629.3	689.6	1020.6	1839.4	3420.4	6436.7	6596.6	6232.9	5807.4	4488.5
75°	364.7	344.8	370.3	509.8	860.7	1860.9	4573.3	4932.9	4739.3	4404.7	2928.0
77.5°	271.2	255.9	268.2	330.5	459.7	727.9	2598.5	3052.1	3125.7	2817.6	1625.9
80°	207.9	195.6	207.9	249.8	318.2	345.8	1111.0	1422.6	1620.3	1309.2	646.2
82.5°	154.3	146.1	165.0	187.5	223.7	216.1	394.3	490.9	632.9	432.7	251.8
85°	122.6	112.4	119.5	127.2	143.0	118.5	180.3	201.8	213.5	178.8	93.0
87.5°	48.0	44.4	86.8	68.4	58.2	35.8	54.1	61.3	62.8	60.3	27.1
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°	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6	526.6
2.5°	639.5	634.4	604.3	614.0	629.8	632.9	639.5	621.1	612.0	645.7	647.2
5°	826.0	798.4	784.1	785.6	775.4	759.6	783.6	799.4	805.5	830.6	839.8
7.5°	970.5	937.3	913.3	885.7	846.9	821.9	863.8	894.4	910.8	962.9	983.3
10°	1034.9	1008.3	1003.2	968.5	967.5	967.0	964.9	954.2	989.4	984.3	998.6
12.5°	1167.7	1162.1	1113.6	1099.8	1101.3	1099.8	1056.9	1054.8	1055.3	1102.3	1085.5
15°	1291.3	1292.4	1247.9	1197.9	1152.9	1139.1	1122.3	1114.6	1125.8	1152.4	1136.0
17.5°	1444.1	1449.2	1322.0	1242.8	1183.5	1182.0	1141.7	1094.2	1162.6	1179.0	1161.1
20°	1542.6	1521.2	1364.9	1232.1	1215.2	1169.2	1119.2	1053.8	1113.1	1152.9	1164.1
22.5°	1636.1	1598.8	1404.7	1251.0	1170.3	1115.6	1067.1	1024.7	1043.6	1088.0	1080.9
25°	1699.5	1689.3	1459.9	1296.4	1168.7	1047.2	981.8	954.7	964.4	1033.4	1026.7
27.5°	1850.7	1740.3	1450.2	1308.2	1119.7	953.7	921.0	891.9	882.2	956.7	977.2
30°	1951.8	1906.3	1515.1	1289.8	1057.9	877.1	829.0	822.9	826.0	910.8	916.4
32.5°	2123.4	2005.4	1621.3	1219.3	968.0	820.4	765.2	767.7	781.5	843.3	856.1
35°	2302.2	2231.7	1635.6	1168.7	894.9	760.1	737.6	719.7	727.4	781.5	784.1
37.5°	2634.3	2390.6	1723.5	1090.6	841.3	737.1	694.2	678.4	682.4	713.1	735.1
40°	2926.4	2709.9	1682.6	1015.0	774.9	706.5	652.8	641.1	628.8	658.9	672.7
42.5°	3394.8	2937.7	1668.8	931.7	743.7	665.1	628.3	597.1	585.4	610.9	636.0
45°	3863.3	3179.3	1593.7	847.4	699.8	662.0	592.5	562.9	566.0	589.0	614.5
47.5°	4385.3	3503.7	1466.5	765.7	651.8	647.2	556.8	544.0	553.2	578.7	604.3
50°	5002.4	3847.9	1361.3	692.1	617.6	602.8	552.2	536.9	545.5	575.7	600.7
52.5°	5677.2	4225.4	1284.7	624.2	578.7	567.5	558.3	543.5	553.7	579.8	605.8
55°	6347.8	4570.2	1232.6	577.7	545.5	552.7	571.1	560.4	565.5	584.9	610.9
57.5°	6845.4	4752.1	1127.9	528.2	518.5	544.0	572.6	554.7	557.8	584.9	613.0
60°	7134.5	4786.8	955.7	487.8	497.0	526.6	556.8	533.8	531.8	576.2	611.4
62.5°	7102.8	4585.0	758.0	451.0	472.5	500.6	532.8	510.8	516.4	577.2	614.5
65°	6649.2	4172.8	602.8	419.9	442.9	472.0	512.9	504.2	531.2	618.1	658.4
67.5°	5852.4	3570.6	484.2	390.8	415.3	452.6	526.6	549.6	561.4	660.0	701.3
70°	4742.9	2774.2	403.5	365.2	393.3	461.8	566.5	561.9	552.2	640.0	672.7
72.5°	3426.5	1901.7	355.0	340.2	366.3	434.2	567.5	543.0	530.7	584.4	607.9
75°	2143.9	1134.5	310.1	308.5	324.9	389.2	542.0	520.0	486.8	513.4	544.0
77.5°	1224.4	580.8	261.0	274.8	284.5	337.6	485.3	465.3	435.7	447.0	477.1
80°	467.4	280.9	220.2	244.2	241.6	286.1	411.2	406.6	372.9	376.5	394.9
82.5°	220.2	157.3	182.9	209.9	196.2	227.8	334.1	332.5	302.9	274.3	289.1
85°	81.7	83.8	133.8	159.9	136.4	147.1	241.6	235.0	206.4	174.2	192.6
87.5°	18.4	30.1	65.9	83.3	47.5	45.5	97.6	84.8	81.7	48.5	51.1
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)