

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: P368050

Luminaire Tested: **MSA-SA3C-830-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-830-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14668 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

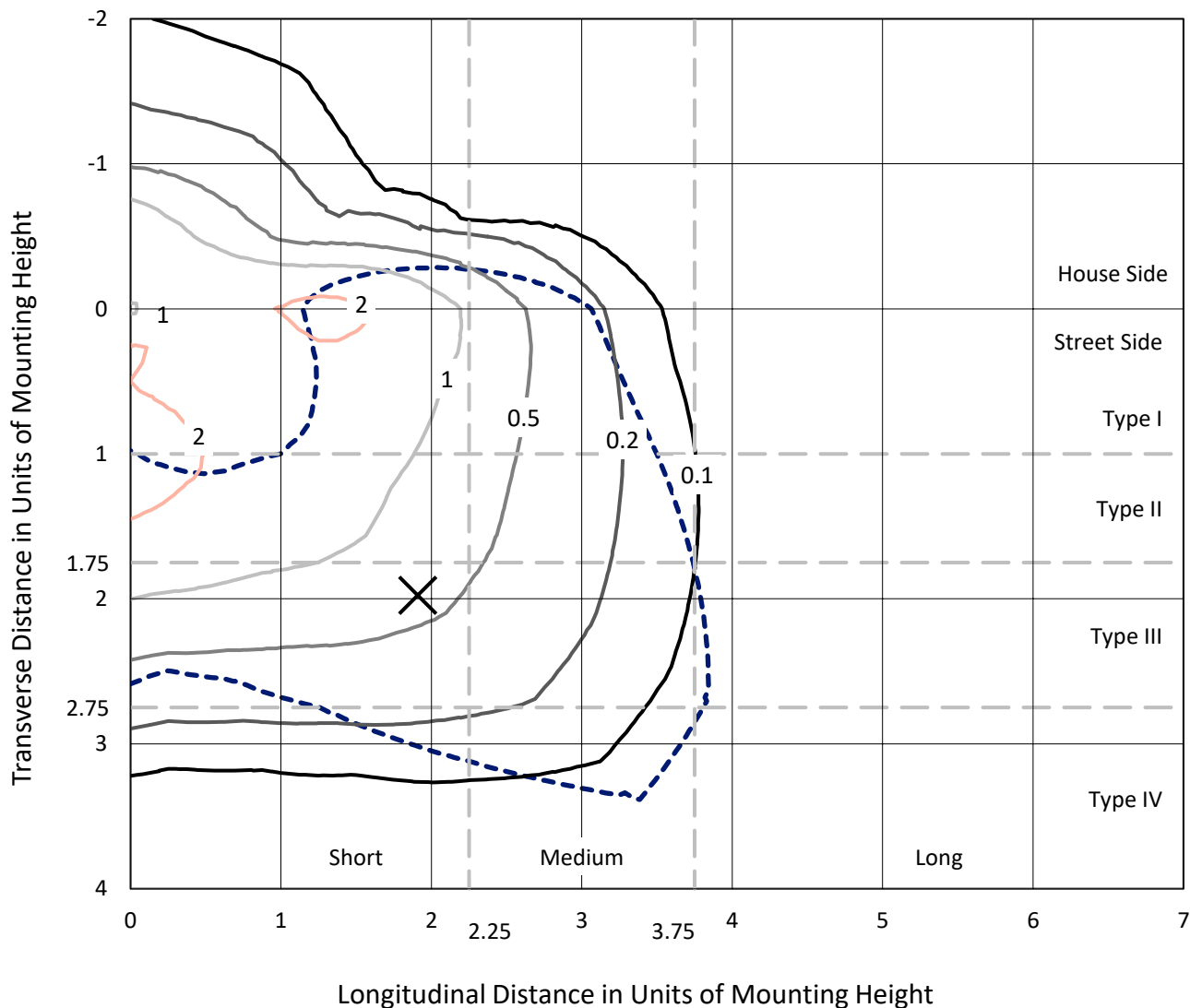
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

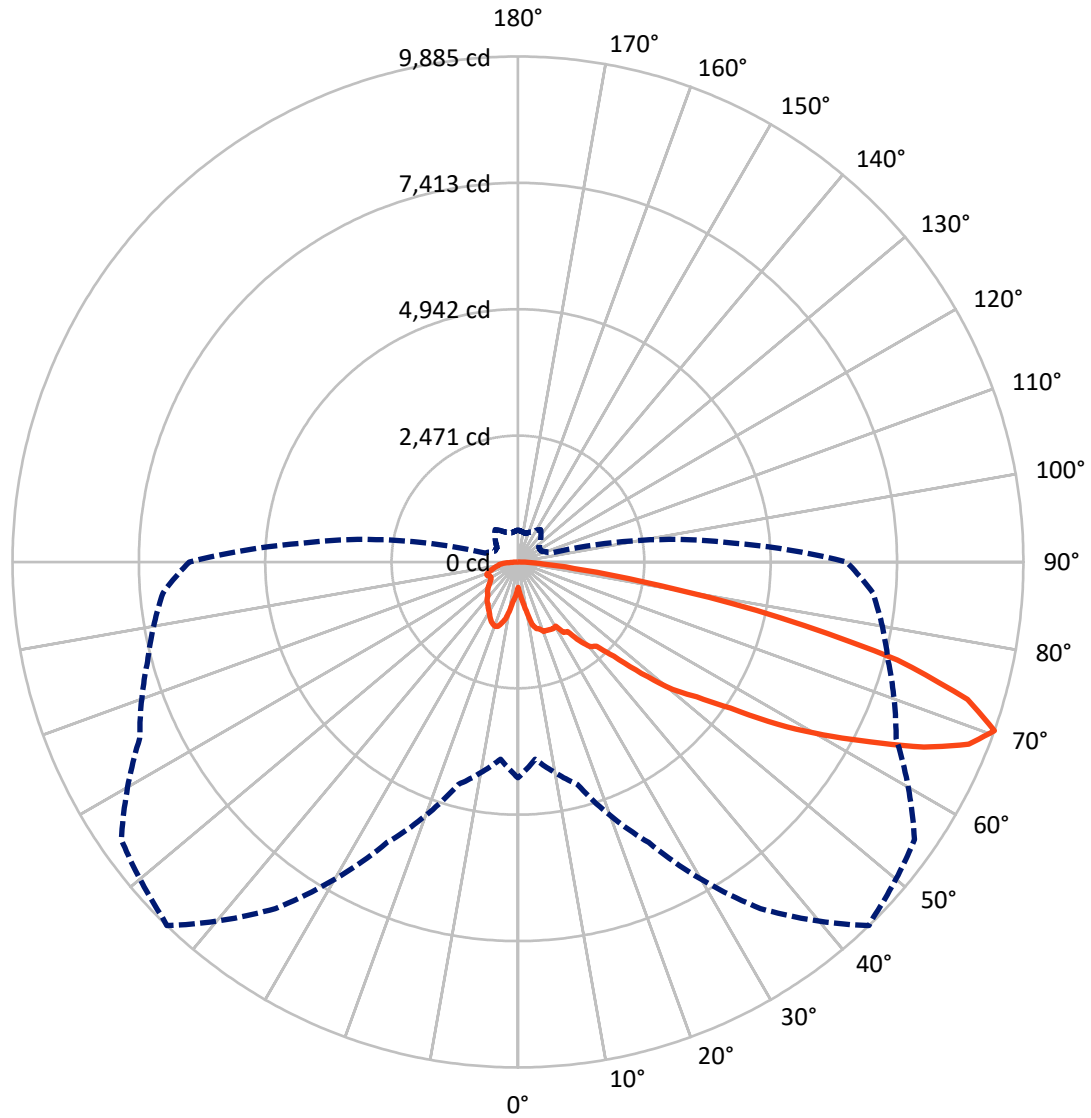
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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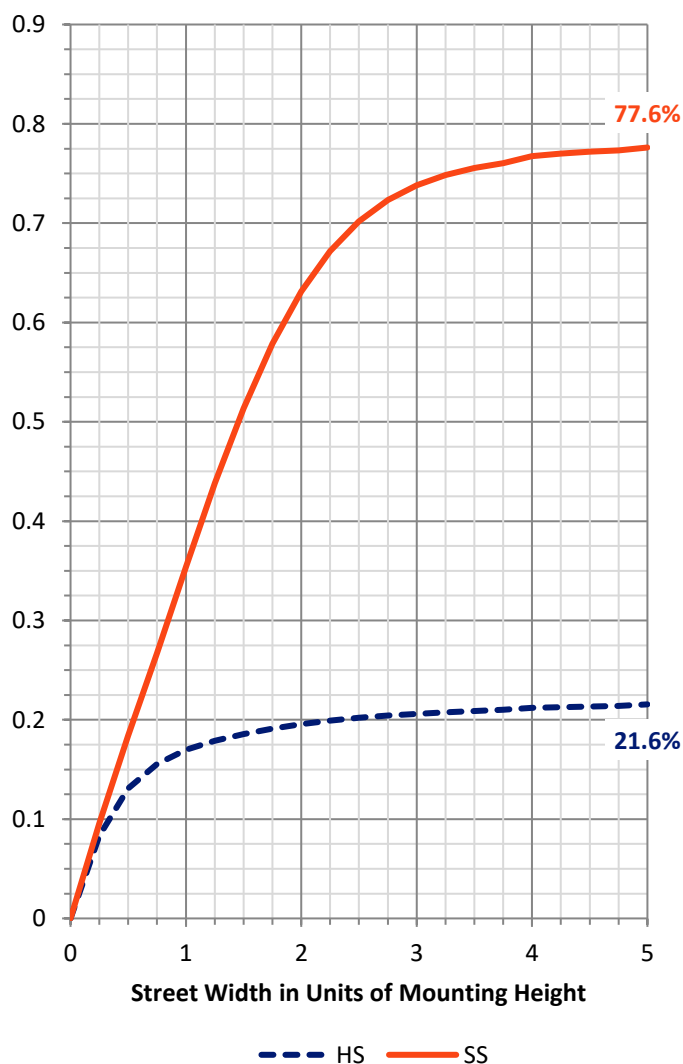
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3236.3	0.0	3236.3
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	11431.7	0.0	11431.7
	% Fixture	77.9	0.0	77.9
Total	Lumens	14668.0	0.0	14668.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.2	0.5
10°-20°	360.0	2.5
20°-30°	672.7	4.6
30°-40°	1079.8	7.4
40°-50°	1822.6	12.4
50°-60°	3247.8	22.1
60°-70°	4442.6	30.3
70°-80°	2612.5	17.8
80°-90°	351.8	2.4
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°	14668.0	100.0
0°-180°	14668.0	100.0

Coefficient of Utilization

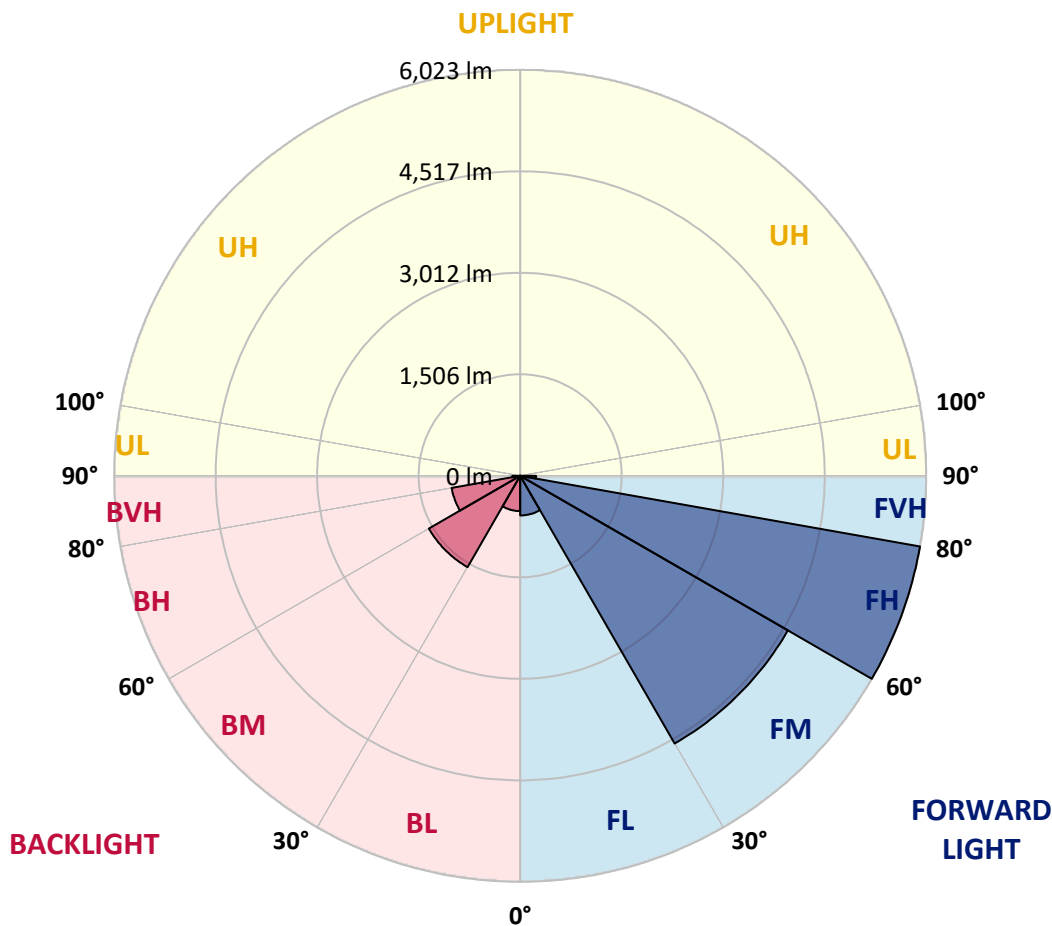


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	587.8	4.0			
FM (30°-60°)	4586.3	31.3			
FH (60°-80°)	6023.1	41.1			G3/7500
FVH (80°-90°)	234.4	1.6			G3/500
BL (0°-30°)	523.1	3.6	B2/1000		
BM (30°-60°)	1564.0	10.7	B2/2500		
BH (60°-80°)	1032.0	7.0	B3/2500		G3/2500
BVH (80°-90°)	117.3	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	605.0	593.0	564.1	573.8	585.8	590.6	589.4	588.2	569.6	562.9	596.0
5°	822.2	795.7	774.6	766.2	738.6	716.9	703.7	738.6	733.1	742.2	765.0
7.5°	1026.6	1009.8	962.3	945.4	888.9	851.6	847.4	875.1	882.3	867.9	907.0
10°	1158.4	1129.5	1119.9	1079.6	1040.5	1034.5	1030.8	1018.2	1000.8	999.6	964.7
12.5°	1260.6	1275.6	1283.4	1237.1	1238.3	1260.0	1248.6	1197.4	1168.0	1116.3	1120.5
15°	1444.0	1465.7	1403.7	1374.3	1317.7	1350.2	1346.0	1303.3	1299.1	1265.4	1226.3
17.5°	1604.0	1613.6	1510.2	1442.8	1423.6	1376.7	1389.3	1390.5	1335.2	1395.3	1360.4
20°	1617.2	1651.5	1532.4	1398.3	1456.1	1450.0	1451.8	1439.8	1367.0	1466.3	1453.1
22.5°	1682.2	1629.9	1522.8	1424.8	1439.8	1448.8	1457.3	1442.8	1438.6	1493.9	1534.2
25°	1670.2	1653.3	1545.1	1462.1	1463.9	1465.7	1469.9	1513.2	1508.4	1583.6	1604.6
27.5°	1782.6	1756.8	1551.7	1531.2	1484.3	1474.1	1445.2	1535.4	1605.8	1604.0	1720.1
30°	1996.7	1970.3	1705.7	1646.1	1561.3	1456.7	1512.0	1632.3	1687.6	1706.3	1853.6
32.5°	2331.1	2374.4	2008.8	1768.8	1663.6	1640.7	1634.7	1622.7	1759.8	1851.8	1985.9
35°	2811.1	2776.8	2366.0	2031.6	1771.2	1673.2	1686.4	1759.8	1922.8	1982.3	2106.2
37.5°	3360.8	3289.8	2823.7	2329.3	2081.5	1958.9	1915.0	1985.9	2022.0	2068.9	2322.1
40°	3919.5	3746.3	3273.0	2720.9	2268.0	2175.4	2136.9	2049.7	2134.5	2229.5	2551.3
42.5°	4459.0	4324.9	3761.9	3188.2	2581.9	2251.8	2230.7	2145.3	2408.1	2508.6	2882.0
45°	5024.3	4713.4	4262.9	3715.6	3040.8	2626.4	2595.2	2441.8	2778.6	2987.9	3348.8
47.5°	5404.4	5116.4	4721.8	4143.8	3425.1	3253.1	3193.6	2931.4	3236.9	3508.7	4069.9
50°	5764.1	5467.6	5053.2	4612.4	4121.0	3923.1	3796.2	3359.6	3807.6	4250.3	4994.3
52.5°	6278.9	6013.7	5438.1	5084.5	4868.6	4382.0	4287.6	4047.6	4475.2	5072.5	6004.7
55°	6829.2	6467.8	5946.3	5750.3	5663.1	5040.0	4963.0	4810.2	5364.1	5913.9	6986.8
57.5°	7072.2	6695.1	6407.6	6290.3	6283.1	5996.2	5907.8	5801.4	6272.9	6635.6	7911.2
60°	7265.3	6860.5	6745.6	6811.2	7049.3	6860.5	6745.6	6651.8	7012.7	7348.9	8665.4
62.5°	7229.8	6823.8	6882.8	7082.4	7690.5	7745.8	7657.4	7430.1	7745.8	7933.5	9097.8
65°	6657.2	6281.9	6625.3	7099.3	8286.5	8728.5	8723.7	8128.9	8238.4	8238.4	9052.1
67.5°	5654.0	5265.5	5827.8	6950.7	8698.5	9507.4	9508.6	8869.9	8283.5	8207.7	8344.8
70°	4222.0	3870.2	4502.3	6053.4	8273.3	9884.5	9829.8	9467.7	8159.6	7497.4	6970.6
72.5°	2521.8	2294.5	2876.0	4406.7	7057.2	9191.0	9336.6	8779.1	7469.7	6235.0	4982.8
75°	1145.1	1046.5	1351.4	2531.4	5038.2	7666.4	7824.6	7409.0	5933.1	4484.3	2879.6
77.5°	490.2	463.7	590.0	1122.9	2778.0	5242.7	5566.8	5295.0	4020.0	2606.0	1273.8
80°	315.1	298.3	362.7	540.1	1290.1	2832.7	3111.8	3010.2	2047.9	1013.4	448.7
82.5°	188.2	182.8	242.4	339.2	703.7	1246.8	1404.9	1442.2	850.4	454.7	256.8
85°	102.8	104.0	132.9	205.7	422.2	485.4	519.6	565.3	400.6	263.4	124.5
87.5°	34.3	39.7	53.5	83.6	150.4	137.1	137.7	160.0	169.0	109.5	39.7
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°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	601.4	590.6	562.9	564.7	575.0	577.4	580.4	562.9	559.3	592.4	595.4
5°	768.6	733.1	716.9	711.5	695.9	690.4	719.3	732.5	745.8	771.6	784.3
7.5°	902.7	863.1	833.6	806.5	783.7	770.4	819.1	856.4	879.3	932.2	956.3
10°	964.1	929.8	919.0	897.3	914.8	954.5	963.5	964.7	1015.2	1014.0	1024.2
12.5°	1086.2	1063.9	1028.4	1036.3	1082.0	1122.9	1111.4	1128.9	1146.9	1190.2	1170.4
15°	1197.4	1191.4	1158.4	1163.8	1172.8	1223.9	1230.5	1248.0	1275.6	1309.9	1286.5
17.5°	1334.6	1332.2	1251.6	1244.4	1265.4	1315.3	1299.7	1269.0	1360.4	1397.1	1387.5
20°	1427.8	1409.7	1306.3	1275.6	1329.2	1335.8	1317.7	1269.0	1348.4	1428.4	1450.0
22.5°	1505.4	1484.3	1377.9	1317.7	1306.9	1309.9	1309.9	1300.9	1340.0	1405.5	1404.9
25°	1567.9	1587.8	1452.5	1394.7	1337.0	1264.8	1255.8	1263.6	1285.9	1412.2	1407.9
27.5°	1724.9	1670.2	1477.7	1434.4	1315.9	1202.3	1226.9	1238.9	1246.2	1384.5	1407.3
30°	1827.1	1844.0	1567.9	1457.9	1285.3	1132.5	1140.9	1175.8	1217.9	1381.5	1388.1
32.5°	1964.9	1928.8	1708.7	1418.8	1203.5	1090.4	1074.8	1121.7	1184.2	1332.8	1350.8
35°	2093.0	2135.7	1768.2	1411.6	1146.3	1027.2	1044.1	1060.3	1125.3	1278.6	1299.7
37.5°	2393.7	2296.3	1935.4	1376.7	1098.8	995.4	977.3	1002.0	1057.3	1175.8	1224.5
40°	2622.2	2628.2	1971.5	1332.8	1008.0	949.7	911.2	935.8	959.3	1053.7	1074.8
42.5°	3051.0	2919.9	2059.9	1236.5	950.9	881.1	859.4	870.3	873.9	913.6	948.5
45°	3596.5	3289.2	2094.8	1107.2	875.7	852.8	808.9	803.5	783.7	789.1	819.7
47.5°	4351.3	3865.4	2069.5	969.5	808.9	816.1	753.0	728.3	700.7	707.3	736.1
50°	5327.5	4601.5	2067.7	852.8	763.2	768.0	716.3	671.8	644.1	658.0	683.2
52.5°	6422.7	5340.1	2076.1	772.8	713.3	710.9	692.2	638.1	615.9	630.3	659.2
55°	7470.4	5975.2	2138.7	722.3	661.6	665.8	673.0	627.3	602.6	615.9	645.9
57.5°	8382.1	6476.8	2115.2	668.8	613.5	632.7	651.9	612.3	593.6	612.9	642.9
60°	9019.6	6709.5	1930.0	617.7	578.0	604.4	641.7	610.5	608.0	649.5	685.6
62.5°	9252.4	6623.5	1569.1	577.4	556.9	600.8	665.2	650.1	652.6	703.7	753.6
65°	8912.6	6171.3	1170.4	551.5	540.7	618.3	719.3	673.6	640.5	682.6	728.3
67.5°	7946.1	5367.2	855.2	529.3	522.0	645.9	769.2	671.2	609.8	652.6	689.8
70°	6428.7	4236.5	662.2	501.0	497.4	627.3	774.0	653.2	576.8	604.4	625.5
72.5°	4404.9	2900.7	548.5	473.9	454.7	555.7	734.9	612.9	537.1	553.3	570.8
75°	2461.6	1628.1	461.3	440.2	398.1	495.0	689.2	588.8	507.6	512.4	536.5
77.5°	1104.8	704.3	391.5	395.7	347.0	437.8	629.7	550.3	462.5	451.7	475.7
80°	418.0	343.4	317.6	334.4	291.7	379.5	567.7	515.4	415.0	401.2	415.0
82.5°	242.4	208.1	235.8	257.4	231.6	348.8	541.9	483.5	365.7	330.8	342.8
85°	112.5	107.7	141.3	167.2	161.8	271.8	463.7	363.9	260.4	220.1	243.6
87.5°	29.5	33.1	49.9	58.9	60.1	93.2	178.6	135.3	101.6	77.0	74.0
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)