

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: P597028

Luminaire Tested: **MSA-SA3B-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-835-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12446 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

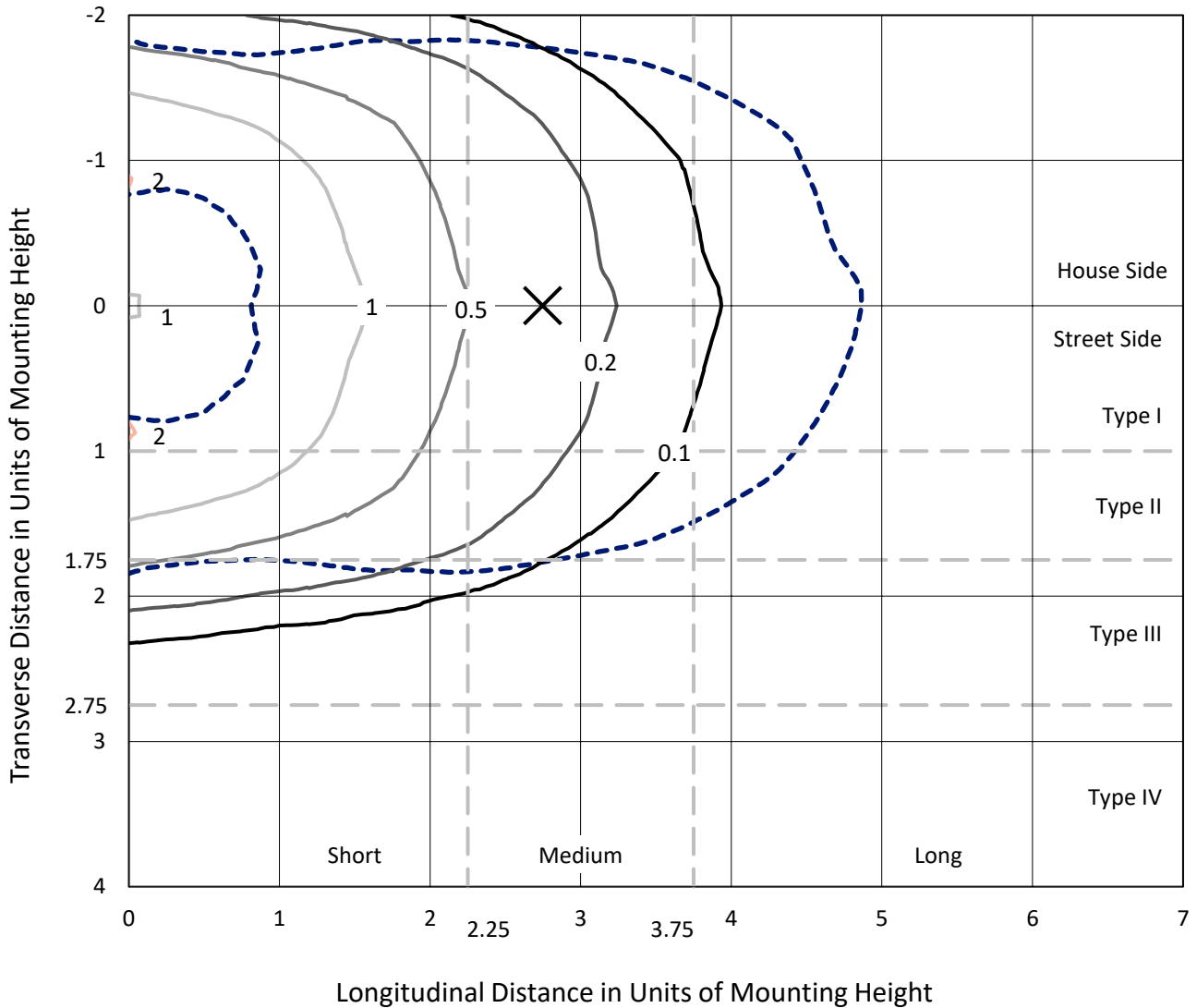
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

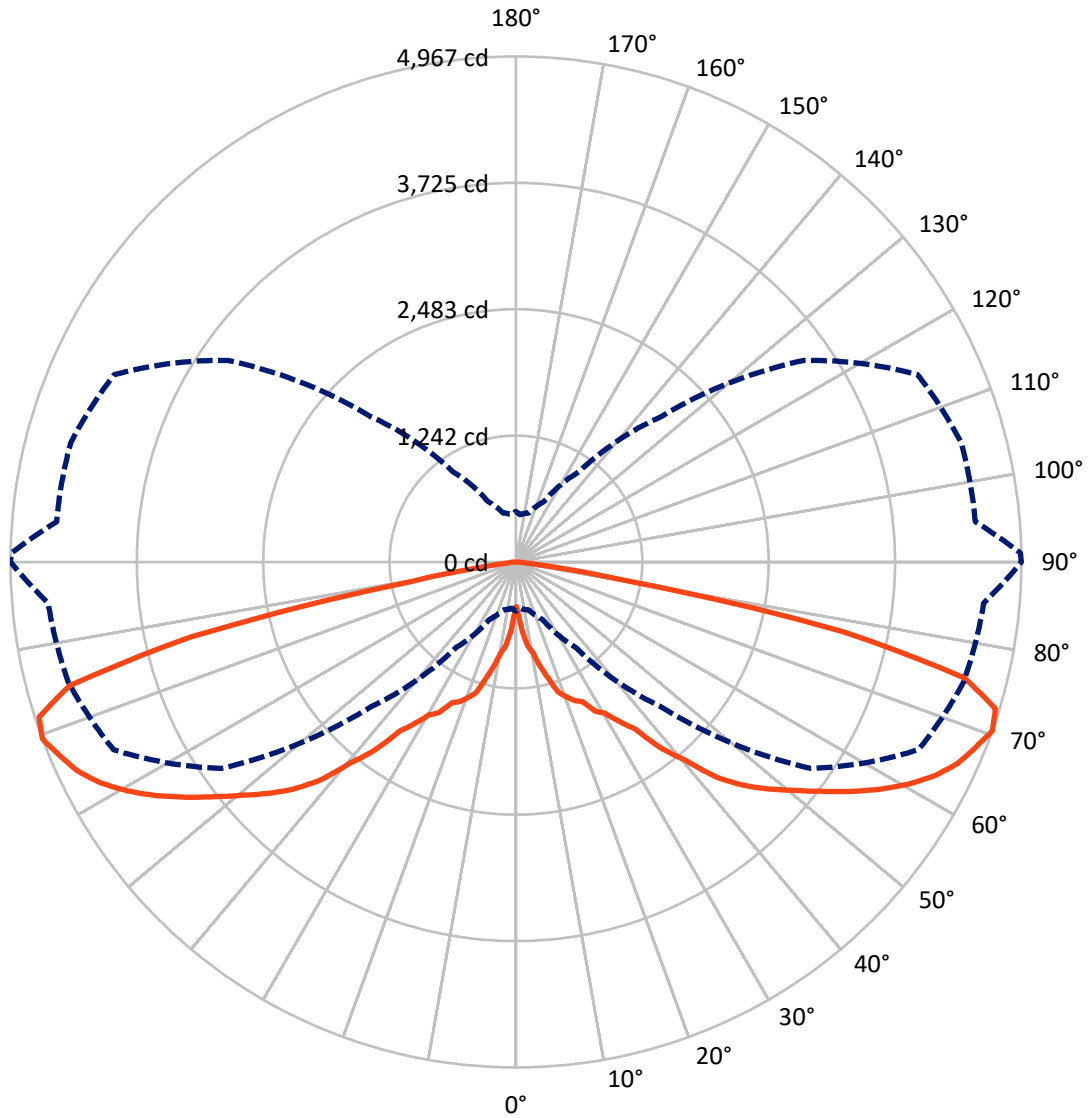
× Max cd
 - - - 1/2 Max cd



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 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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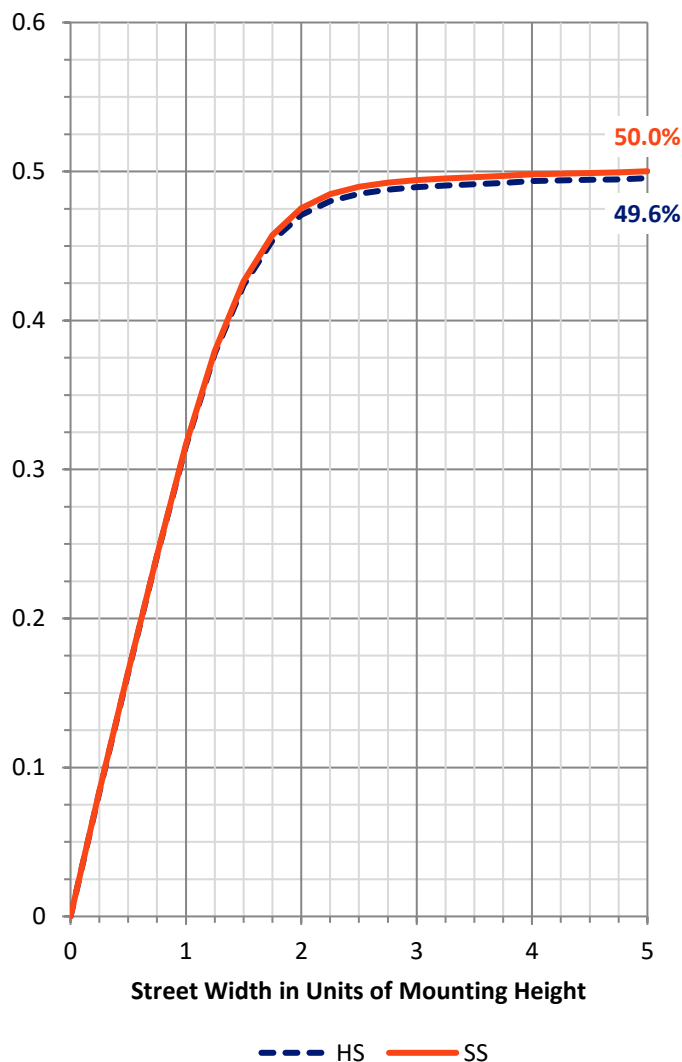
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6199.9	0.0	6199.9
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	6246.1	0.0	6246.1
	% Fixture	50.2	0.0	50.2
Total	Lumens	12446.0	0.0	12446.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	0.5
10°-20°	302.0	2.4
20°-30°	653.0	5.2
30°-40°	1245.9	10.0
40°-50°	2263.3	18.2
50°-60°	3179.4	25.5
60°-70°	3035.7	24.4
70°-80°	1558.0	12.5
80°-90°	142.8	1.1
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°	12446.0	100.0
0°-180°	12446.0	100.0

Coefficient of Utilization



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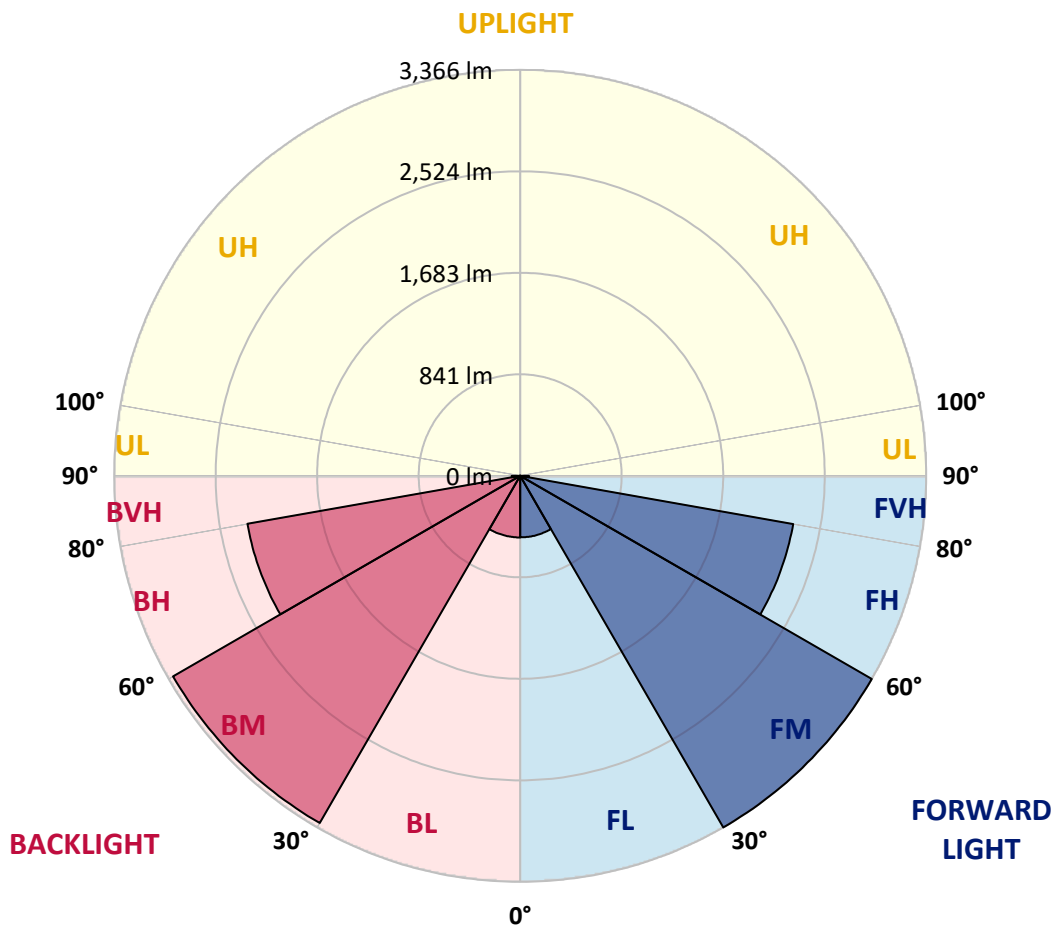
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	510.0	4.1			
FM (30°-60°)	3365.5	27.0			
FH (60°-80°)	2298.1	18.5			G2/5000
FVH (80°-90°)	72.5	0.6			G1/100
BL (0°-30°)	511.0	4.1	B2/1000		
BM (30°-60°)	3323.1	26.7	B3/5000		
BH (60°-80°)	2295.6	18.4	B3/2500		G3/2500
BVH (80°-90°)	70.4	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8
2.5°	529.1	509.5	484.7	499.4	505.4	516.0	514.5	509.5	487.8	524.1	528.1
5°	662.3	631.0	619.4	617.4	620.4	610.3	643.1	633.5	651.2	684.0	691.6
7.5°	754.1	730.9	706.2	713.8	682.5	677.9	720.3	758.1	767.7	827.8	831.8
10°	797.5	774.8	781.3	776.8	773.3	802.5	822.2	849.9	889.8	895.3	903.9
12.5°	834.3	843.4	872.1	871.1	918.5	970.5	962.9	991.7	998.2	1067.9	1046.7
15°	927.6	946.3	944.3	961.9	982.6	1067.9	1068.4	1117.3	1162.2	1189.4	1182.4
17.5°	1064.3	1070.9	1043.6	1044.7	1104.7	1139.5	1178.3	1169.7	1286.8	1340.2	1343.8
20°	1146.0	1162.7	1131.4	1090.0	1196.5	1244.4	1266.1	1216.2	1341.2	1413.4	1413.4
22.5°	1288.8	1245.9	1198.5	1170.8	1264.6	1315.5	1313.0	1298.9	1365.5	1493.1	1481.0
25°	1367.5	1343.3	1319.6	1326.6	1374.0	1400.3	1435.1	1402.3	1464.8	1559.7	1519.8
27.5°	1516.8	1471.9	1355.4	1448.2	1448.2	1428.5	1502.2	1517.8	1476.9	1631.3	1661.1
30°	1685.8	1670.1	1505.2	1603.5	1573.3	1517.8	1659.0	1648.9	1580.3	1737.7	1724.1
32.5°	1845.7	1897.1	1740.7	1686.8	1732.2	1753.4	1679.2	1709.5	1722.6	1874.4	1867.9
35°	2090.8	2134.2	1926.9	1913.3	1837.6	1817.9	1874.4	1884.5	1885.5	2045.4	2016.2
37.5°	2515.0	2452.5	2247.7	2151.3	2159.9	2136.2	2147.3	2067.6	2078.7	2310.7	2325.4
40°	2825.2	2754.6	2526.6	2457.5	2288.0	2389.4	2299.6	2291.6	2269.4	2570.0	2561.9
42.5°	3167.7	3070.9	2818.7	2726.4	2546.3	2504.9	2463.6	2556.9	2550.8	2829.3	2890.8
45°	3426.5	3230.8	3099.1	3041.6	2933.7	2832.3	2793.0	2834.8	2815.7	3022.5	3129.9
47.5°	3589.9	3420.0	3268.6	3147.6	3044.2	3292.8	3093.6	3037.6	2998.8	3230.3	3333.7
50°	3720.1	3523.9	3345.3	3304.9	3386.7	3606.6	3292.3	3168.8	3216.2	3386.7	3527.4
52.5°	3755.4	3547.6	3387.2	3361.4	3582.4	3622.2	3571.3	3363.5	3350.9	3574.3	3744.3
55°	3647.5	3448.2	3372.0	3512.8	3756.9	3723.6	3801.3	3668.6	3579.4	3766.0	3979.9
57.5°	3369.5	3171.8	3153.6	3356.4	3664.1	3947.6	3985.9	3881.0	3764.0	3961.7	4213.9
60°	2913.0	2732.4	2778.3	3002.3	3466.4	3869.9	4073.7	3977.8	3941.5	4138.2	4430.8
62.5°	2202.3	2061.6	2184.1	2496.4	3105.2	3769.5	4194.7	4179.6	4127.2	4325.9	4622.5
65°	1404.3	1330.2	1455.2	1772.5	2544.8	3586.9	4252.8	4272.9	4321.4	4470.7	4770.8
67.5°	816.1	776.8	853.0	1112.7	1812.4	2945.3	4144.8	4434.3	4459.6	4545.3	4868.1
70°	482.7	457.0	488.3	625.0	1026.0	2006.6	3535.5	4363.7	4554.4	4613.9	4966.5
72.5°	368.2	344.0	330.4	369.7	535.7	1036.6	2390.4	3698.9	4478.2	4568.5	4925.1
75°	318.3	295.1	278.9	282.5	318.8	492.3	1295.9	2645.7	3815.9	4159.9	4549.4
77.5°	273.4	252.7	241.1	240.1	244.6	270.4	541.7	1434.6	2389.9	2990.2	3279.7
80°	218.9	202.8	200.3	200.3	193.7	191.7	269.4	545.8	909.5	1078.4	1034.1
82.5°	159.9	143.8	159.9	157.9	147.8	139.7	171.5	236.1	280.5	221.4	175.0
85°	107.9	93.3	105.4	107.4	97.9	72.6	102.9	118.0	121.1	75.7	62.5
87.5°	37.8	36.8	59.5	52.0	42.4	24.7	37.8	40.9	42.9	26.7	18.2
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8
2.5°	529.6	523.6	493.3	497.9	509.5	515.0	520.6	497.9	486.8	522.1	518.5
5°	693.6	671.4	646.7	643.1	644.6	623.0	635.6	630.0	632.5	655.2	659.8
7.5°	830.8	804.0	771.3	745.5	701.1	665.8	695.6	710.7	715.3	755.6	770.8
10°	904.9	882.2	872.6	824.2	809.6	805.1	798.0	773.8	800.5	790.9	798.5
12.5°	1050.2	1045.7	995.7	963.9	967.0	975.5	931.2	906.9	872.1	926.6	906.9
15°	1173.8	1193.5	1143.5	1085.5	1056.8	1071.4	1037.6	1002.3	971.0	987.7	966.5
17.5°	1331.7	1331.2	1233.8	1171.8	1169.2	1168.2	1118.3	1040.6	1077.9	1066.3	1067.3
20°	1415.4	1401.8	1280.7	1209.1	1270.1	1248.4	1203.5	1103.7	1147.0	1161.2	1170.3
22.5°	1485.5	1477.9	1331.2	1278.7	1318.0	1318.5	1273.7	1221.2	1215.6	1259.5	1235.8
25°	1534.4	1564.7	1426.5	1413.9	1431.0	1413.9	1370.0	1335.7	1313.5	1379.1	1313.5
27.5°	1650.5	1607.6	1441.1	1512.8	1523.3	1437.1	1492.1	1451.7	1390.2	1471.4	1498.1
30°	1733.2	1758.4	1544.0	1652.0	1639.4	1559.7	1582.4	1580.8	1507.2	1665.6	1646.9
32.5°	1875.4	1845.2	1712.0	1703.4	1733.7	1730.2	1691.8	1710.5	1728.6	1843.6	1871.4
35°	2021.2	2053.5	1819.4	1877.4	1868.9	1814.4	1914.8	1903.2	1957.1	2193.2	2115.0
37.5°	2350.1	2196.2	2060.5	2053.0	2110.5	2119.1	2086.8	2137.7	2254.2	2435.8	2519.6
40°	2565.5	2495.4	2264.8	2273.9	2194.2	2331.4	2240.6	2404.6	2493.3	2799.5	2769.8
42.5°	2891.3	2720.3	2498.9	2529.2	2513.0	2446.9	2566.5	2650.7	2777.8	3011.4	3162.2
45°	3134.0	2899.4	2794.5	2775.8	2773.8	2888.8	2873.7	3008.4	3053.7	3229.3	3354.4
47.5°	3318.1	3118.8	2963.5	2984.6	2923.1	3251.5	3076.4	3118.3	3210.1	3375.6	3521.3
50°	3536.5	3314.5	3138.0	3190.4	3340.3	3466.4	3308.0	3236.3	3281.2	3476.5	3638.9
52.5°	3738.7	3505.2	3311.0	3354.9	3599.5	3542.0	3524.9	3343.8	3338.2	3495.1	3679.7
55°	3975.3	3712.0	3540.5	3679.7	3766.5	3695.4	3668.1	3447.7	3311.5	3398.8	3572.8
57.5°	4207.4	3916.8	3746.3	3775.1	3885.0	3814.4	3610.1	3270.6	3100.7	3117.8	3293.9
60°	4424.8	4105.0	3964.2	3936.5	4024.3	3747.3	3389.7	2946.3	2720.8	2679.5	2831.8
62.5°	4610.9	4262.3	4129.2	4053.5	4137.2	3749.8	3046.2	2425.7	2178.1	2037.9	2156.4
65°	4758.7	4393.0	4298.1	4258.8	4289.1	3521.8	2511.0	1781.1	1477.4	1322.1	1391.2
67.5°	4857.0	4466.1	4422.7	4474.2	4070.7	2933.2	1860.3	1140.0	859.0	774.3	817.7
70°	4958.9	4530.7	4529.2	4354.1	3451.7	2022.2	1086.5	657.3	499.9	467.1	494.3
72.5°	4924.6	4454.0	4476.7	3807.9	2392.0	1081.0	573.5	371.8	338.5	350.1	374.3
75°	4560.4	4049.5	3940.0	2737.5	1356.9	502.4	330.4	281.5	279.4	297.1	320.8
77.5°	3308.0	2820.2	2530.7	1551.6	581.6	271.9	243.1	235.1	235.1	249.2	270.4
80°	1090.6	943.8	983.6	600.3	274.9	187.6	189.7	193.2	192.2	195.7	213.4
82.5°	179.1	185.6	287.0	245.1	166.0	128.1	143.3	150.3	152.3	136.2	154.9
85°	63.6	71.6	122.1	113.5	95.8	64.6	94.3	105.4	103.9	90.8	100.4
87.5°	19.7	25.2	44.4	34.3	28.8	17.7	35.3	41.4	52.0	21.2	19.2
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)