

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: P367900

Luminaire Tested: **MSA-SA3B-830-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-830-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: 11996 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

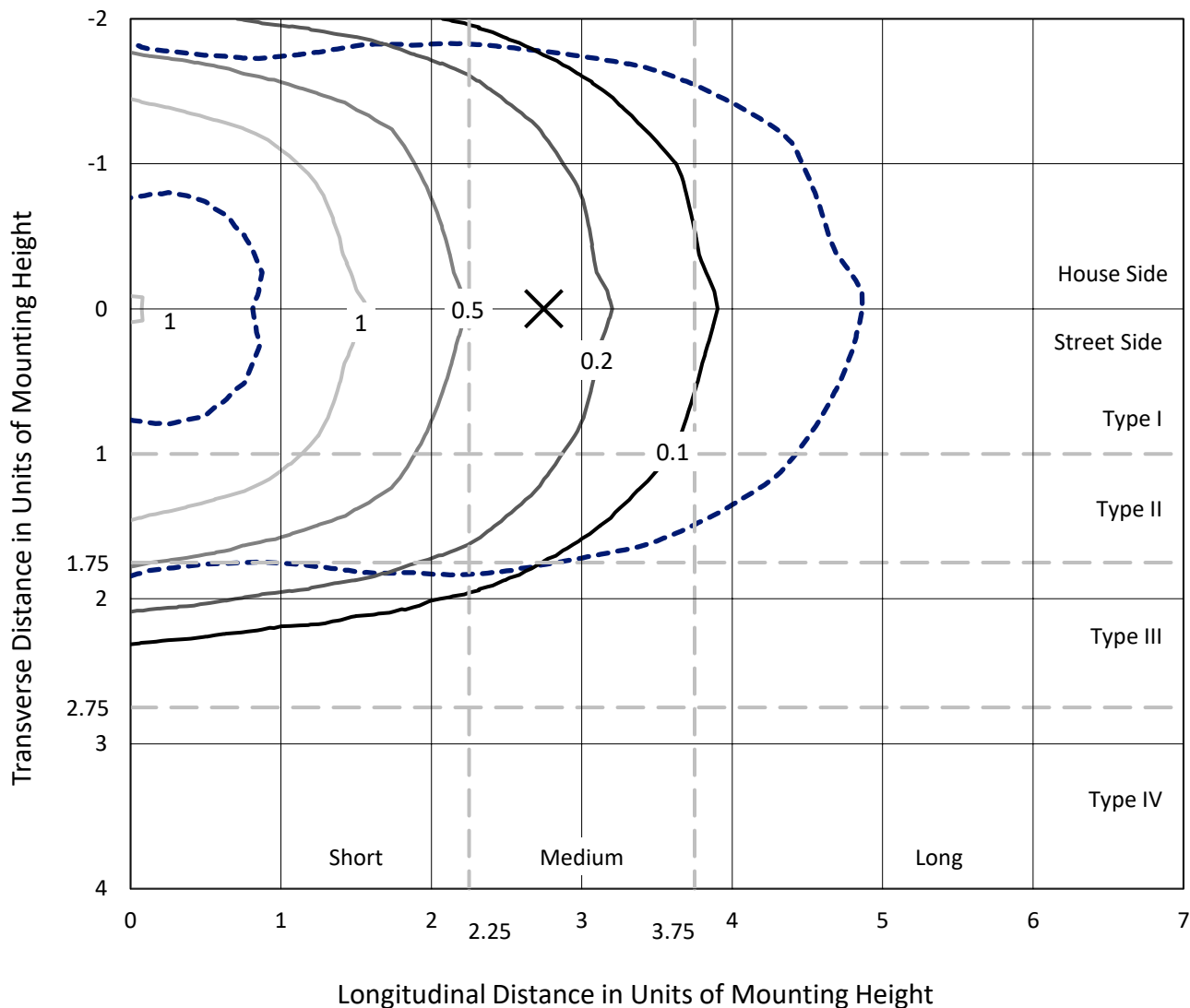
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

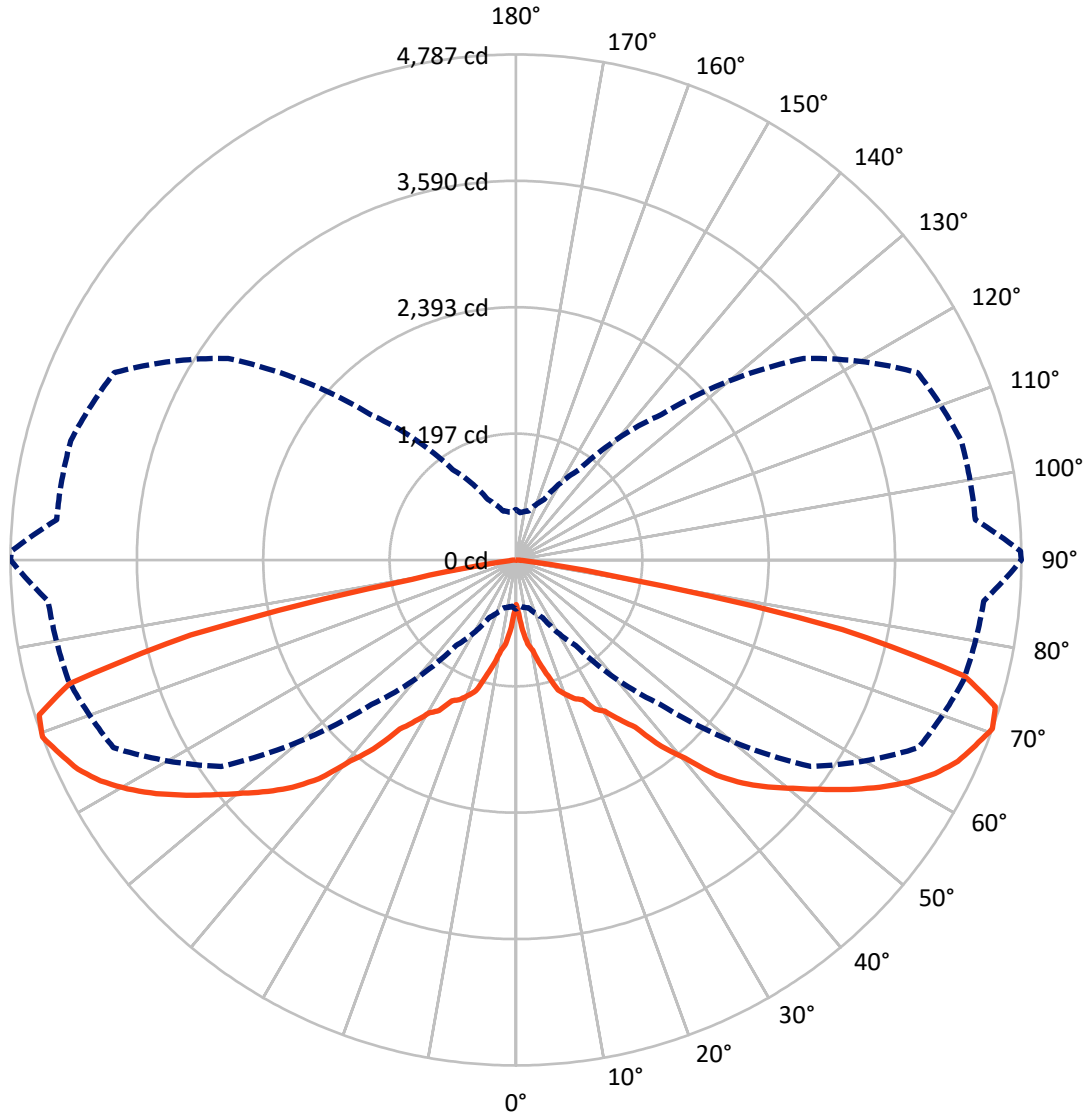
× Max cd
 - - - 1/2 Max cd



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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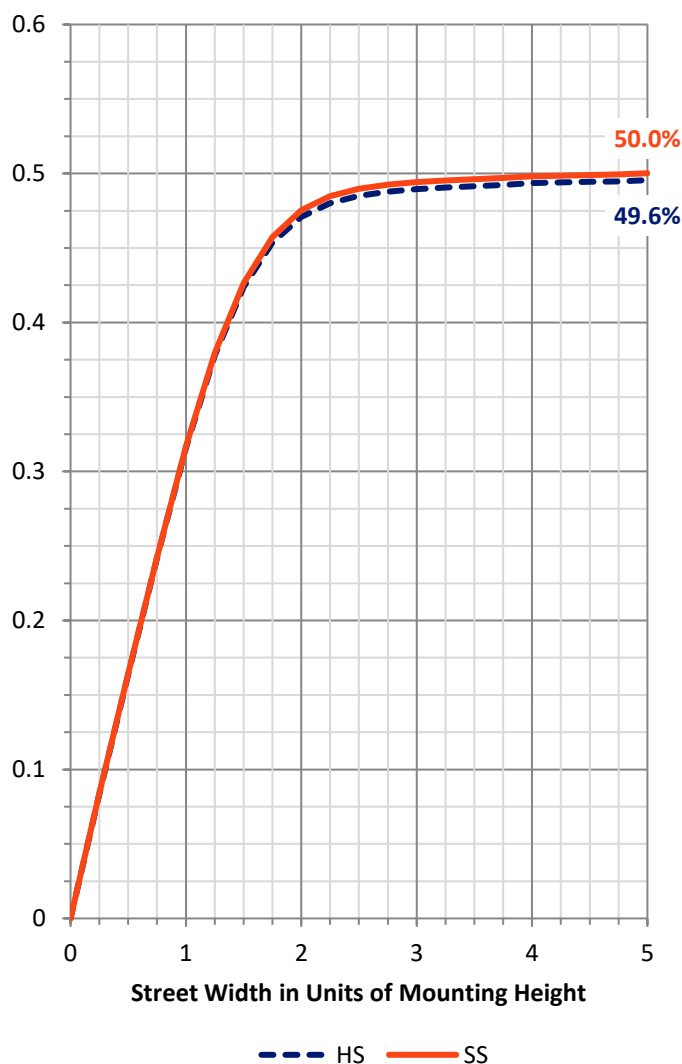
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5975.8	0.0	5975.8
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	6020.2	0.0	6020.2
	% Fixture	50.2	0.0	50.2
Total	Lumens	11996.0	0.0	11996.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	0.5
10°-20°	291.1	2.4
20°-30°	629.4	5.2
30°-40°	1200.8	10.0
40°-50°	2181.5	18.2
50°-60°	3064.5	25.5
60°-70°	2925.9	24.4
70°-80°	1501.6	12.5
80°-90°	137.7	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°	11996.0	100.0
0°-180°	11996.0	100.0

Coefficient of Utilization



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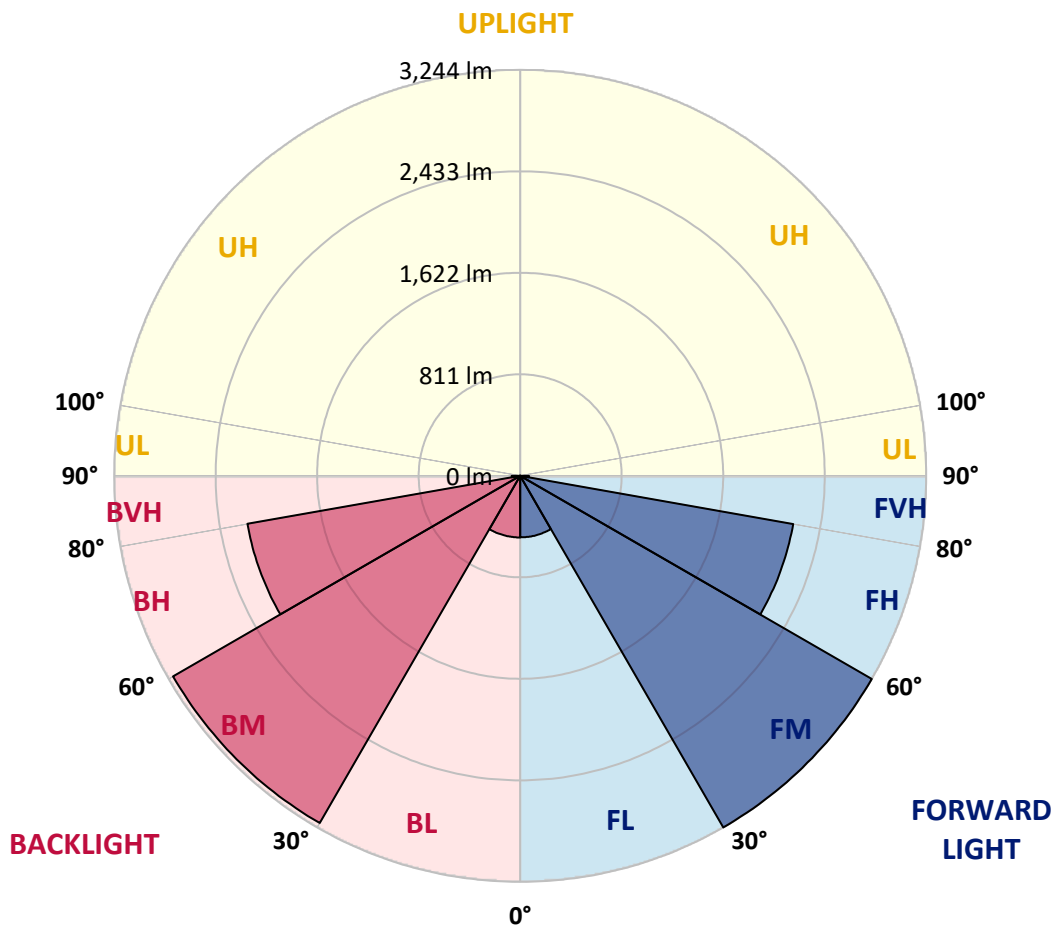
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	491.5	4.1			
FM (30°-60°)	3243.9	27.0			
FH (60°-80°)	2215.0	18.5			G2/5000
FVH (80°-90°)	69.9	0.6			G1/100
BL (0°-30°)	492.5	4.1	B1/500		
BM (30°-60°)	3202.9	26.7	B3/5000		
BH (60°-80°)	2212.6	18.4	B3/2500		G3/2500
BVH (80°-90°)	67.8	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°	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0
2.5°	510.0	491.0	467.2	481.3	487.2	497.4	495.9	491.0	470.1	505.1	509.0
5°	638.4	608.2	597.0	595.1	598.0	588.3	619.9	610.6	627.7	659.3	666.6
7.5°	726.8	704.5	680.7	687.9	657.8	653.4	694.3	730.7	740.0	797.8	801.7
10°	768.7	746.8	753.1	748.7	745.3	773.5	792.5	819.2	857.6	863.0	871.2
12.5°	804.1	812.9	840.6	839.6	885.3	935.4	928.1	955.8	962.2	1029.2	1008.8
15°	894.1	912.1	910.1	927.1	947.1	1029.2	1029.7	1076.9	1120.2	1146.4	1139.6
17.5°	1025.8	1032.2	1005.9	1006.9	1064.7	1098.3	1135.7	1127.5	1240.2	1291.8	1295.2
20°	1104.6	1120.6	1090.5	1050.6	1153.2	1199.4	1220.3	1172.2	1292.8	1362.3	1362.3
22.5°	1242.2	1200.9	1155.2	1128.4	1218.9	1268.0	1265.5	1251.9	1316.1	1439.1	1427.4
25°	1318.0	1294.7	1271.8	1278.7	1324.4	1349.6	1383.2	1351.6	1411.9	1503.3	1464.9
27.5°	1461.9	1418.7	1306.4	1395.8	1395.8	1376.9	1447.8	1462.9	1423.5	1572.3	1601.0
30°	1624.8	1609.7	1450.8	1545.6	1516.4	1462.9	1599.0	1589.3	1523.2	1674.9	1661.8
32.5°	1778.9	1828.5	1677.8	1625.8	1669.5	1690.0	1618.5	1647.7	1660.3	1806.6	1800.3
35°	2015.2	2057.0	1857.2	1844.1	1771.2	1752.2	1806.6	1816.4	1817.3	1971.5	1943.3
37.5°	2424.1	2363.8	2166.4	2073.6	2081.8	2059.0	2069.7	1992.9	2003.6	2227.2	2241.3
40°	2723.1	2655.0	2435.3	2368.7	2205.3	2303.0	2216.5	2208.7	2187.3	2477.1	2469.3
42.5°	3053.2	2959.9	2716.8	2627.8	2454.2	2414.4	2374.5	2464.4	2458.6	2727.0	2786.3
45°	3302.6	3114.0	2987.1	2931.7	2827.6	2729.9	2692.0	2732.3	2713.9	2913.2	3016.8
47.5°	3460.1	3296.3	3150.5	3033.8	2934.1	3173.8	2981.7	2927.8	2890.3	3113.5	3213.2
50°	3585.6	3396.5	3224.4	3185.5	3264.2	3476.2	3173.3	3054.2	3099.9	3264.2	3399.9
52.5°	3619.6	3419.3	3264.7	3239.9	3452.9	3491.3	3442.2	3241.9	3229.7	3445.1	3608.9
55°	3515.6	3323.5	3250.1	3385.8	3621.1	3589.0	3663.9	3536.0	3449.9	3629.8	3836.0
57.5°	3247.7	3057.1	3039.6	3235.0	3531.6	3804.8	3841.8	3740.7	3627.9	3818.5	4061.6
60°	2807.7	2633.6	2677.9	2893.7	3341.0	3730.0	3926.4	3834.0	3799.0	3988.6	4270.6
62.5°	2122.7	1987.0	2105.2	2406.1	2992.9	3633.2	4043.1	4028.5	3977.9	4169.5	4455.4
65°	1353.5	1282.1	1402.6	1708.4	2452.8	3457.2	4099.0	4118.4	4165.1	4309.0	4598.3
67.5°	786.6	748.7	822.1	1072.5	1746.8	2838.8	3994.9	4274.0	4298.3	4381.0	4692.1
70°	465.3	440.5	470.6	602.4	988.9	1934.0	3407.6	4205.9	4389.7	4447.1	4786.9
72.5°	354.9	331.6	318.4	356.4	516.3	999.1	2304.0	3565.2	4316.3	4403.3	4747.1
75°	306.8	284.4	268.9	272.3	307.3	474.5	1249.0	2550.0	3678.0	4009.5	4384.9
77.5°	263.5	243.6	232.4	231.4	235.8	260.6	522.2	1382.7	2303.5	2882.1	3161.1
80°	211.0	195.4	193.0	193.0	186.7	184.7	259.6	526.0	876.6	1039.5	996.7
82.5°	154.1	138.6	154.1	152.2	142.5	134.7	165.3	227.5	270.3	213.4	168.7
85°	104.0	89.9	101.6	103.6	94.3	70.0	99.2	113.8	116.7	72.9	60.3
87.5°	36.5	35.5	57.4	50.1	40.8	23.8	36.5	39.4	41.3	25.8	17.5
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°	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0
2.5°	510.5	504.7	475.5	479.9	491.0	496.4	501.7	479.9	469.2	503.2	499.8
5°	668.5	647.1	623.3	619.9	621.3	600.4	612.6	607.2	609.7	631.5	635.9
7.5°	800.7	775.0	743.4	718.6	675.8	641.8	670.4	685.0	689.4	728.3	742.9
10°	872.2	850.3	841.1	794.4	780.3	775.9	769.1	745.8	771.6	762.3	769.6
12.5°	1012.2	1007.9	959.7	929.1	932.0	940.3	897.5	874.2	840.6	893.1	874.2
15°	1131.3	1150.3	1102.2	1046.3	1018.5	1032.6	1000.1	966.0	935.9	951.9	931.5
17.5°	1283.5	1283.0	1189.2	1129.4	1127.0	1126.0	1077.9	1003.0	1039.0	1027.8	1028.8
20°	1364.2	1351.1	1234.4	1165.4	1224.2	1203.3	1160.0	1063.8	1105.6	1119.2	1127.9
22.5°	1431.8	1424.5	1283.0	1232.5	1270.4	1270.9	1227.6	1177.0	1171.7	1214.0	1191.1
25°	1479.0	1508.1	1374.9	1362.8	1379.3	1362.8	1320.5	1287.4	1266.0	1329.2	1266.0
27.5°	1590.8	1549.5	1389.0	1458.1	1468.3	1385.1	1438.1	1399.2	1339.9	1418.2	1444.0
30°	1670.5	1694.8	1488.2	1592.2	1580.1	1503.3	1525.1	1523.7	1452.7	1605.4	1587.4
32.5°	1807.6	1778.4	1650.1	1641.8	1671.0	1667.6	1630.6	1648.6	1666.1	1777.0	1803.7
35°	1948.1	1979.2	1753.7	1809.6	1801.3	1748.8	1845.5	1834.4	1886.4	2113.9	2038.6
37.5°	2265.1	2116.8	1986.0	1978.8	2034.2	2042.4	2011.3	2060.4	2172.7	2347.8	2428.5
40°	2472.7	2405.1	2183.0	2191.7	2114.9	2247.1	2159.6	2317.6	2403.2	2698.3	2669.6
42.5°	2786.8	2622.0	2408.5	2437.7	2422.2	2358.5	2473.7	2554.9	2677.4	2902.5	3047.9
45°	3020.6	2794.6	2693.4	2675.5	2673.5	2784.4	2769.8	2899.6	2943.3	3112.5	3233.1
47.5°	3198.1	3006.1	2856.3	2876.7	2817.4	3133.9	2965.2	3005.6	3094.1	3253.5	3394.0
50°	3408.6	3194.7	3024.5	3075.1	3219.5	3341.0	3188.4	3119.3	3162.6	3350.8	3507.3
52.5°	3603.6	3378.5	3191.3	3233.6	3469.4	3414.0	3397.4	3222.9	3217.5	3368.7	3546.7
55°	3831.6	3577.8	3412.5	3546.7	3630.3	3561.8	3535.5	3323.0	3191.8	3275.9	3443.6
57.5°	4055.2	3775.2	3610.9	3638.6	3744.6	3676.5	3479.6	3152.4	2988.6	3005.1	3174.8
60°	4264.8	3956.5	3820.9	3794.2	3878.7	3611.8	3267.1	2839.8	2622.5	2582.6	2729.4
62.5°	4444.2	4108.2	3979.9	3906.9	3987.7	3614.3	2936.0	2338.0	2099.3	1964.2	2078.4
65°	4586.6	4234.1	4142.7	4104.8	4134.0	3394.5	2420.2	1716.7	1424.0	1274.3	1340.9
67.5°	4681.4	4304.6	4262.8	4312.4	3923.5	2827.1	1793.0	1098.8	828.0	746.3	788.1
70°	4779.6	4366.9	4365.4	4196.7	3326.9	1949.1	1047.2	633.5	481.8	450.2	476.5
72.5°	4746.6	4293.0	4314.9	3670.2	2305.5	1041.9	552.8	358.3	326.2	337.4	360.7
75°	4395.6	3903.1	3797.6	2638.5	1307.8	484.2	318.4	271.3	269.3	286.4	309.2
77.5°	3188.4	2718.2	2439.2	1495.5	560.6	262.1	234.3	226.6	226.6	240.2	260.6
80°	1051.1	909.6	948.1	578.6	265.0	180.9	182.8	186.2	185.2	188.6	205.7
82.5°	172.6	178.9	276.6	236.3	160.0	123.5	138.1	144.9	146.8	131.3	149.3
85°	61.3	69.0	117.7	109.4	92.4	62.2	90.9	101.6	100.2	87.5	96.7
87.5°	19.0	24.3	42.8	33.1	27.7	17.0	34.0	39.9	50.1	20.4	18.5
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)