

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: P368090

Luminaire Tested: **MSA-SA3D-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368090
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-SA3D-730-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18101 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

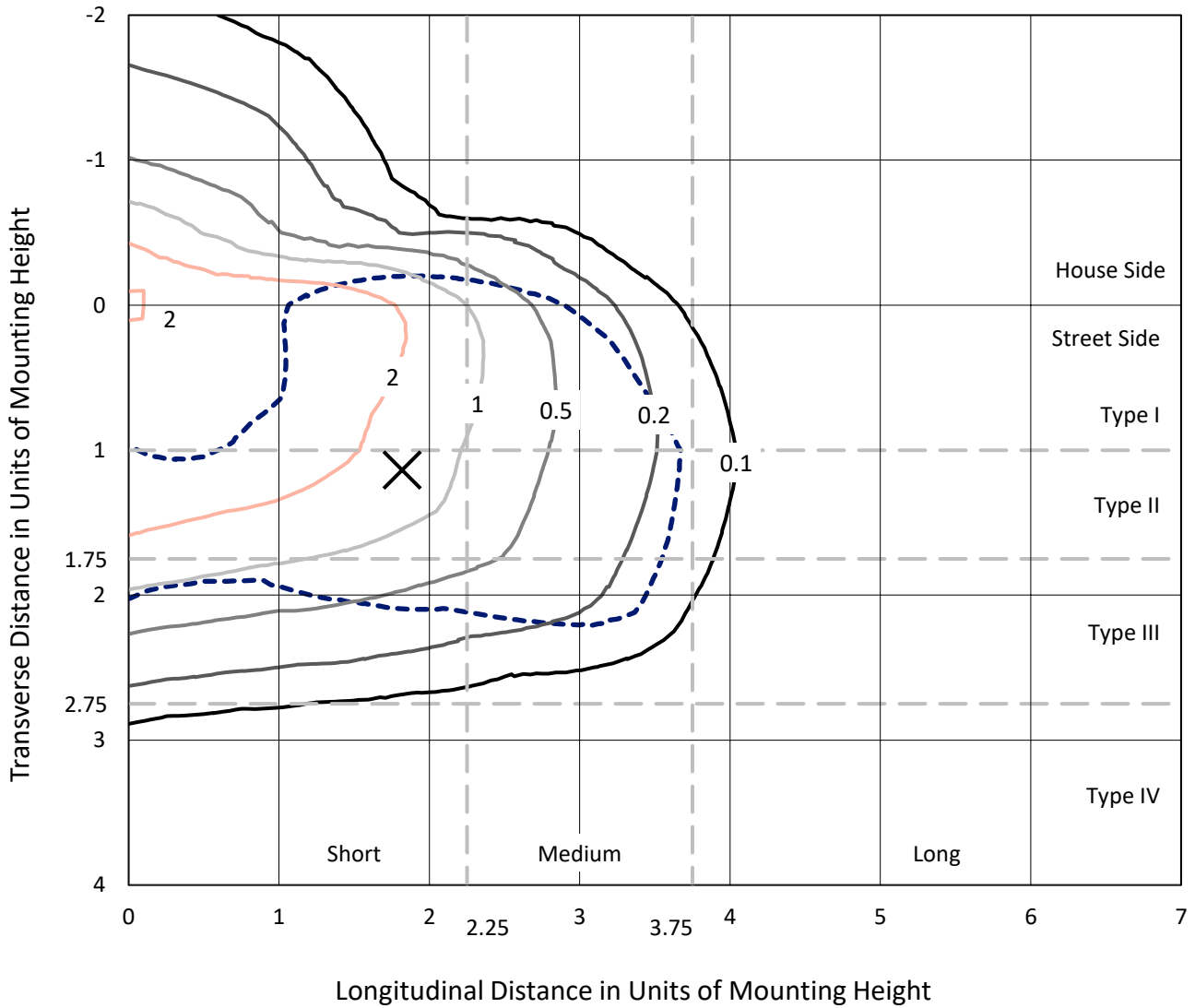
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

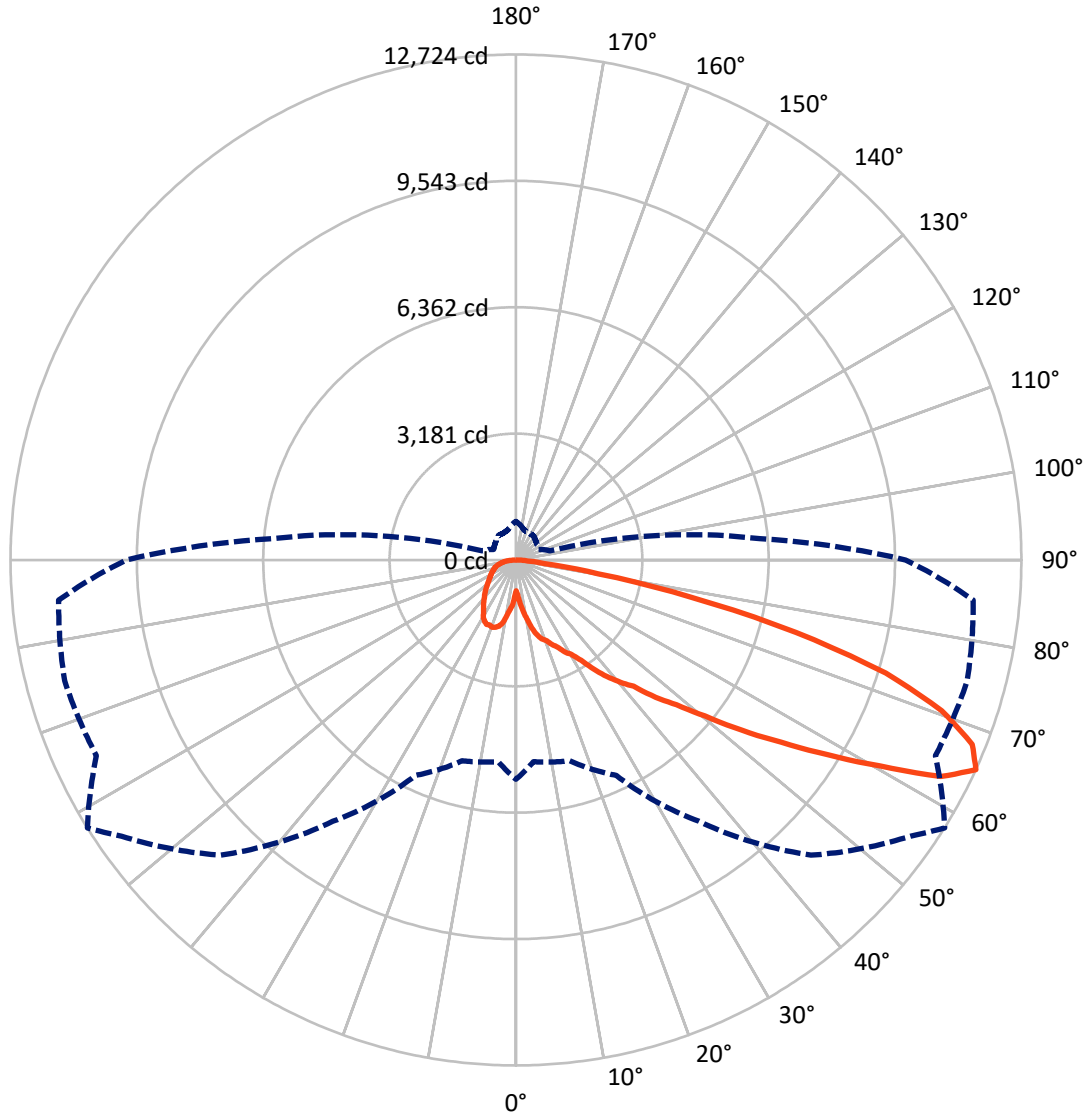
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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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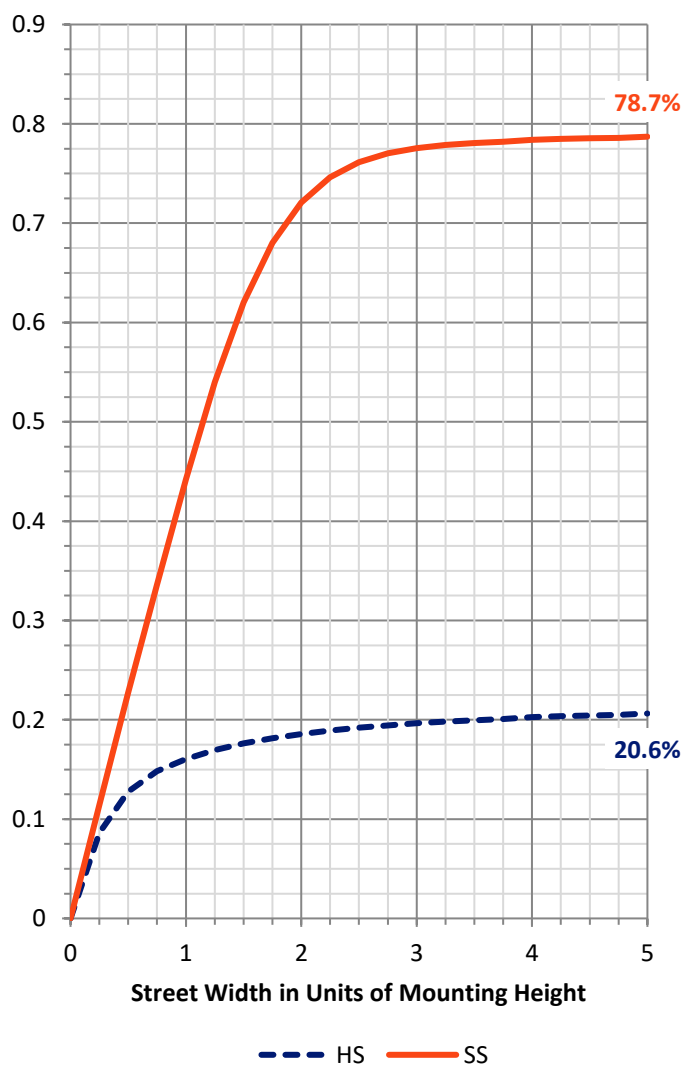
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3812.6	0.0	3812.6
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	14288.4	0.0	14288.4
	% Fixture	78.9	0.0	78.9
Total	Lumens	18101.0	0.0	18101.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	0.7
10°-20°	516.6	2.9
20°-30°	991.2	5.5
30°-40°	1636.5	9.0
40°-50°	2720.1	15.0
50°-60°	4492.1	24.8
60°-70°	5039.3	27.8
70°-80°	2291.3	12.7
80°-90°	295.5	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°	18101.0	100.0
0°-180°	18101.0	100.0

Coefficient of Utilization

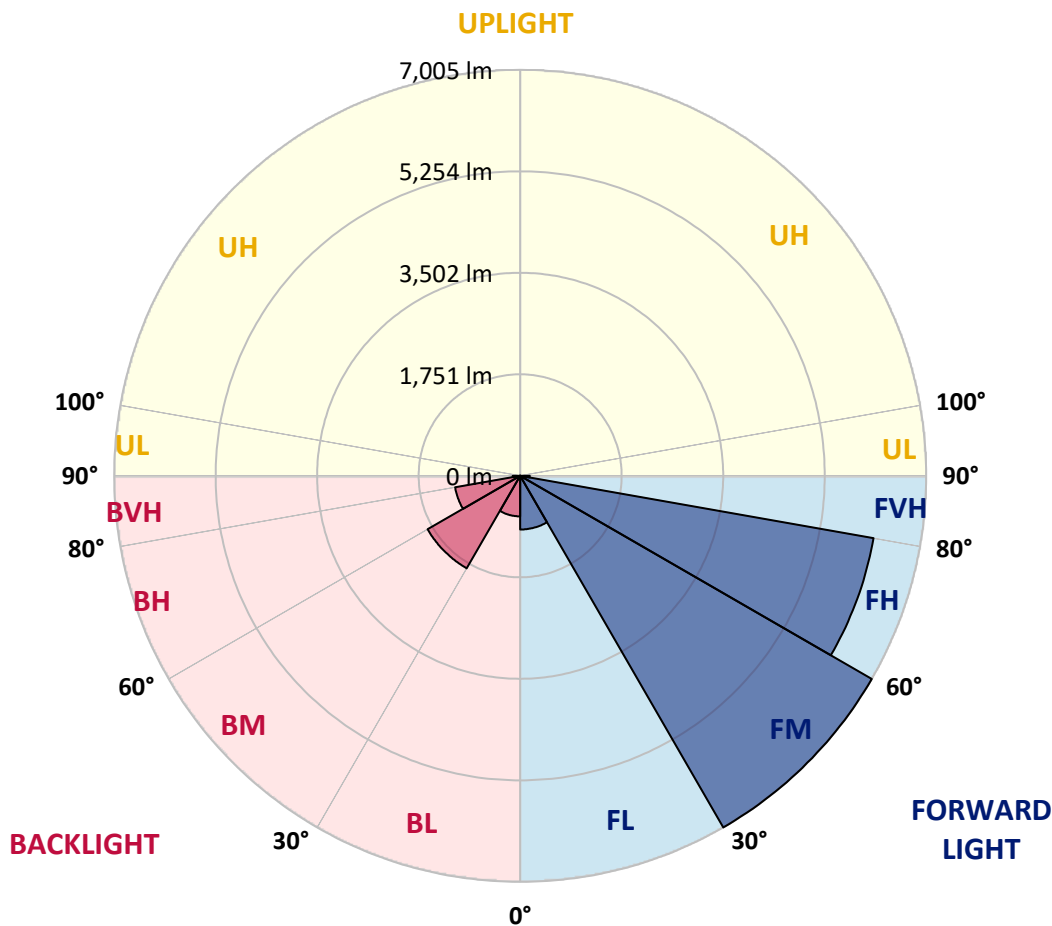


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	926.3	5.1			
FM (30°-60°)	7004.8	38.7			
FH (60°-80°)	6190.9	34.2			G3/7500
FVH (80°-90°)	166.4	0.9			G2/225
BL (0°-30°)	699.9	3.9	B2/1000		
BM (30°-60°)	1843.9	10.2	B2/2500		
BH (60°-80°)	1139.7	6.3	B3/2500		G3/2500
BVH (80°-90°)	129.1	0.7			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2
2.5°	927.9	900.0	853.3	864.6	891.8	906.8	897.8	885.7	869.9	866.9	936.2
5°	1201.6	1148.0	1126.2	1117.1	1084.0	1064.4	1098.3	1093.8	1111.9	1145.0	1212.9
7.5°	1401.3	1363.6	1327.5	1323.7	1259.6	1237.0	1282.2	1306.3	1338.8	1339.5	1431.5
10°	1508.4	1476.0	1475.2	1441.3	1436.0	1479.0	1479.7	1497.8	1501.6	1540.0	1521.9
12.5°	1624.5	1622.2	1663.7	1662.9	1711.1	1782.0	1746.6	1746.6	1757.1	1710.4	1767.7
15°	1901.1	1925.2	1847.6	1860.4	1860.4	1929.7	1927.5	1941.1	1973.5	1961.4	1935.8
17.5°	2189.1	2204.1	2118.2	2038.3	2044.3	2029.2	2083.5	2088.8	2057.9	2198.1	2167.2
20°	2374.5	2433.3	2252.4	2152.1	2171.7	2189.1	2191.3	2158.9	2143.1	2358.7	2316.4
22.5°	2603.6	2553.9	2388.1	2277.2	2306.6	2283.3	2278.8	2303.6	2325.5	2406.9	2475.5
25°	2756.7	2752.9	2553.9	2432.5	2400.1	2393.3	2439.3	2429.5	2481.5	2629.3	2586.3
27.5°	2979.0	3048.4	2695.6	2725.8	2583.3	2433.3	2581.0	2625.5	2719.0	2694.9	2790.6
30°	3410.2	3358.2	2989.6	2981.3	2820.0	2694.1	2796.6	2758.9	2927.0	2921.8	2992.6
32.5°	3762.2	3798.4	3334.8	3248.2	3128.3	2976.8	2908.9	3013.7	3104.2	3252.7	3292.6
35°	4134.6	4126.3	3688.4	3513.5	3315.2	3252.7	3336.3	3380.1	3572.3	3708.7	3613.7
37.5°	4713.6	4648.0	4146.7	3815.8	3667.3	3644.7	3787.9	3724.6	3932.6	3965.0	4018.5
40°	5251.8	5054.3	4565.8	4186.6	3950.7	4035.1	4039.6	4047.9	4159.5	4247.7	4512.3
42.5°	5763.6	5624.9	4991.7	4706.8	4359.3	4277.1	4328.4	4345.7	4627.6	4807.8	5174.1
45°	6463.1	6091.5	5603.8	5311.3	4922.4	4817.6	4781.4	4930.6	5202.8	5612.8	5927.2
47.5°	7054.9	6719.4	6254.3	5869.1	5434.2	5733.5	5528.4	5444.7	5810.3	6318.4	6818.9
50°	7545.6	7176.2	6720.2	6497.8	6428.5	6695.3	6163.1	6172.9	6507.6	7224.5	7798.1
52.5°	7925.5	7531.3	7127.2	7014.2	7401.6	7555.4	7171.0	7112.9	7357.2	8204.4	8893.4
55°	8280.6	7862.2	7550.1	7780.8	8433.6	8450.9	8423.8	8101.9	8395.9	9254.5	10027.1
57.5°	8371.8	7921.0	7713.7	8044.6	8927.3	9614.0	9883.9	9252.2	9551.5	10209.6	10998.0
60°	7902.2	7516.2	7433.3	7882.6	9194.2	10198.2	10903.1	10525.4	10413.1	10976.2	11678.0
62.5°	6940.3	6492.5	6559.6	7183.8	8913.0	10429.7	11708.1	12002.9	11322.9	11586.0	11975.0
65°	5523.9	5096.5	5232.2	5983.0	8030.3	10506.6	12119.7	12724.3	11651.6	11758.6	11554.3
67.5°	3895.7	3507.5	3678.6	4649.5	6680.2	9522.1	12190.6	12388.1	11301.8	11266.4	10405.5
70°	2207.1	1963.7	2149.1	2958.7	4715.1	7585.6	11635.0	11374.9	10674.7	10172.6	8706.5
72.5°	1012.4	928.7	1017.6	1506.1	2714.5	5047.5	9498.7	9734.7	9197.9	8570.0	6623.7
75°	538.2	508.8	546.5	752.3	1270.2	2746.1	6748.8	7279.5	6993.8	6500.1	4320.8
77.5°	400.3	377.7	395.7	487.7	678.4	1074.2	3834.6	4504.0	4612.5	4158.0	2399.4
80°	306.8	288.7	306.8	368.6	469.6	510.3	1639.5	2099.4	2391.1	1932.0	953.6
82.5°	227.6	215.6	243.5	276.6	330.2	318.9	581.9	724.4	934.0	638.5	371.6
85°	180.9	165.8	176.4	187.7	211.1	174.9	266.1	297.8	315.1	263.8	137.2
87.5°	70.9	65.6	128.1	101.0	85.9	52.8	79.9	90.5	92.7	88.9	40.0
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°	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2	777.2
2.5°	943.8	936.2	891.8	906.1	929.4	934.0	943.8	916.6	903.1	952.8	955.1
5°	1218.9	1178.2	1157.1	1159.4	1144.3	1120.9	1156.3	1179.7	1188.8	1225.7	1239.3
7.5°	1432.2	1383.2	1347.8	1307.1	1249.8	1212.9	1274.7	1319.9	1344.0	1420.9	1451.1
10°	1527.2	1488.0	1480.5	1429.2	1427.7	1427.0	1423.9	1408.1	1460.1	1452.6	1473.7
12.5°	1723.2	1714.9	1643.3	1622.9	1625.2	1622.9	1559.6	1556.6	1557.4	1626.7	1601.8
15°	1905.6	1907.1	1841.5	1767.7	1701.3	1681.0	1656.1	1644.8	1661.4	1700.6	1676.5
17.5°	2131.0	2138.5	1950.9	1834.0	1746.6	1744.3	1684.8	1614.7	1715.7	1739.8	1713.4
20°	2276.5	2244.8	2014.2	1818.2	1793.3	1725.5	1651.6	1555.1	1642.5	1701.3	1717.9
22.5°	2414.4	2359.4	2073.0	1846.1	1727.0	1646.3	1574.7	1512.1	1540.0	1605.6	1595.1
25°	2507.9	2492.8	2154.4	1913.2	1724.7	1545.3	1448.8	1408.9	1423.2	1525.0	1515.2
27.5°	2731.0	2568.2	2140.1	1930.5	1652.3	1407.4	1359.1	1316.1	1301.8	1411.9	1442.0
30°	2880.3	2813.2	2235.8	1903.4	1561.1	1294.3	1223.4	1214.4	1218.9	1344.0	1352.3
32.5°	3133.6	2959.4	2392.6	1799.3	1428.5	1210.6	1129.2	1133.0	1153.3	1244.5	1263.4
35°	3397.4	3293.4	2413.7	1724.7	1320.7	1121.7	1088.5	1062.1	1073.4	1153.3	1157.1
37.5°	3887.4	3527.8	2543.3	1609.4	1241.5	1087.7	1024.4	1001.1	1007.1	1052.3	1084.7
40°	4318.6	3998.9	2483.0	1497.8	1143.5	1042.5	963.4	946.0	927.9	972.4	992.8
42.5°	5009.8	4335.1	2462.7	1374.9	1097.5	981.5	927.2	881.2	863.9	901.6	938.5
45°	5701.0	4691.7	2351.9	1250.6	1032.7	976.9	874.4	830.7	835.2	869.1	906.8
47.5°	6471.4	5170.4	2164.2	1130.0	961.9	955.1	821.6	802.8	816.4	854.1	891.8
50°	7382.0	5678.4	2008.9	1021.4	911.4	889.5	814.9	792.3	805.1	849.5	886.5
52.5°	8377.8	6235.5	1895.8	921.2	854.1	837.5	823.9	802.1	817.1	855.6	894.0
55°	9367.6	6744.3	1818.9	852.6	805.1	815.6	842.8	826.9	834.5	863.1	901.6
57.5°	10101.8	7012.7	1664.4	779.4	765.1	802.8	845.0	818.6	823.2	863.1	904.6
60°	10528.4	7063.9	1410.4	719.9	733.5	777.2	821.6	787.7	784.7	850.3	902.3
62.5°	10481.7	6766.2	1118.6	665.6	697.3	738.7	786.2	753.8	762.1	851.8	906.8
65°	9812.3	6157.8	889.5	619.6	653.6	696.5	756.8	744.0	784.0	912.1	971.7
67.5°	8636.4	5269.1	714.6	576.7	612.8	667.9	777.2	811.1	828.4	973.9	1035.0
70°	6999.1	4093.9	595.5	539.0	580.4	681.4	836.0	829.2	814.9	944.5	992.8
72.5°	5056.5	2806.4	523.9	502.0	540.5	640.7	837.5	801.3	783.2	862.4	897.0
75°	3163.7	1674.2	457.6	455.3	479.4	574.4	799.8	767.4	718.4	757.6	802.8
77.5°	1806.9	857.1	385.2	405.5	419.9	498.3	716.1	686.7	643.0	659.6	704.1
80°	689.7	414.6	324.9	360.3	356.6	422.1	606.8	600.0	550.3	555.6	582.7
82.5°	324.9	232.2	269.9	309.8	289.5	336.2	493.0	490.7	447.0	404.8	426.7
85°	120.6	123.6	197.5	235.9	201.3	217.1	356.6	346.8	304.5	257.0	284.2
87.5°	27.1	44.5	97.2	122.9	70.1	67.1	144.0	125.1	120.6	71.6	75.4
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)