

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: P597132

Luminaire Tested: **MSA-SA4B-835-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597132
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-835-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16054 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

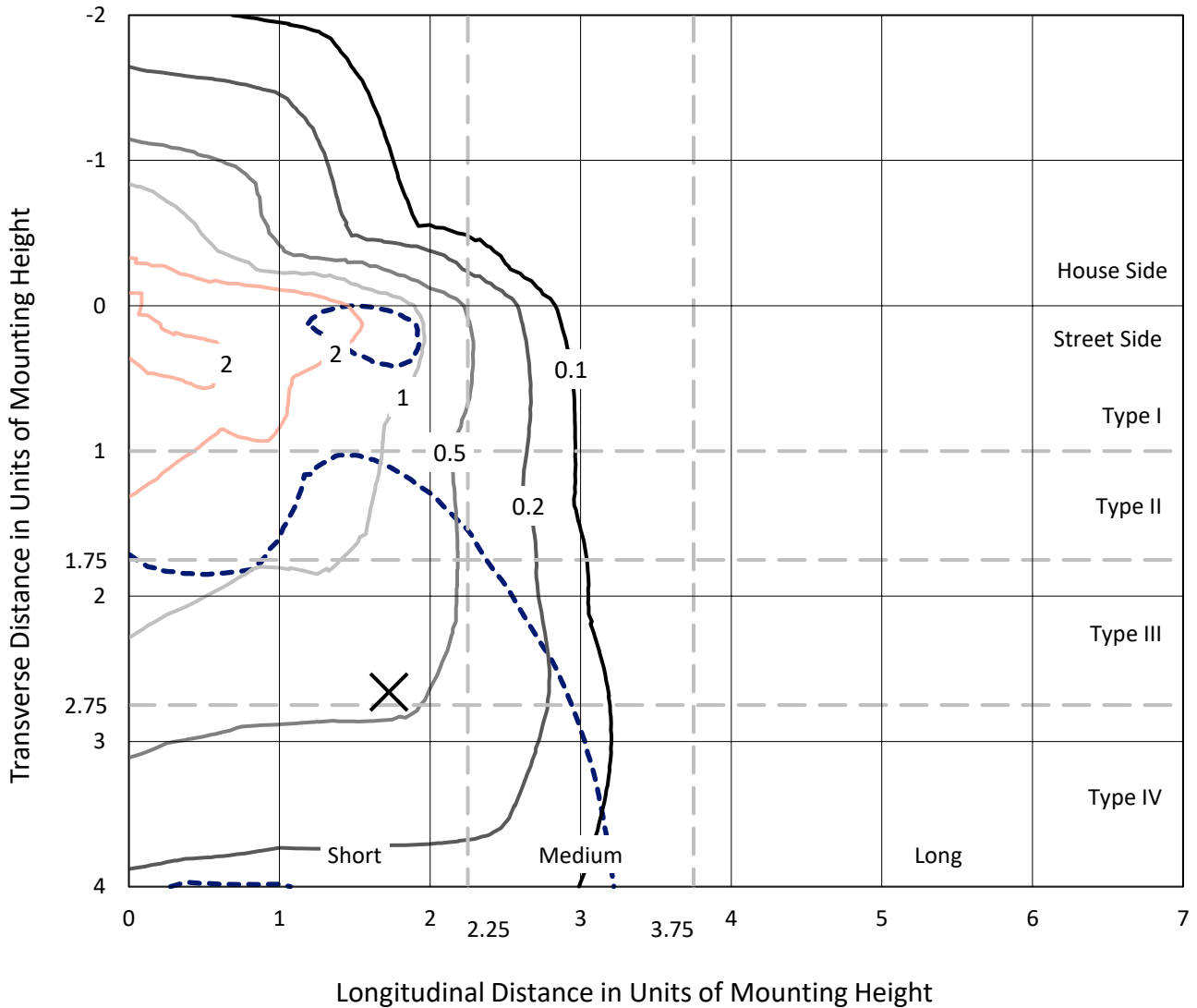
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

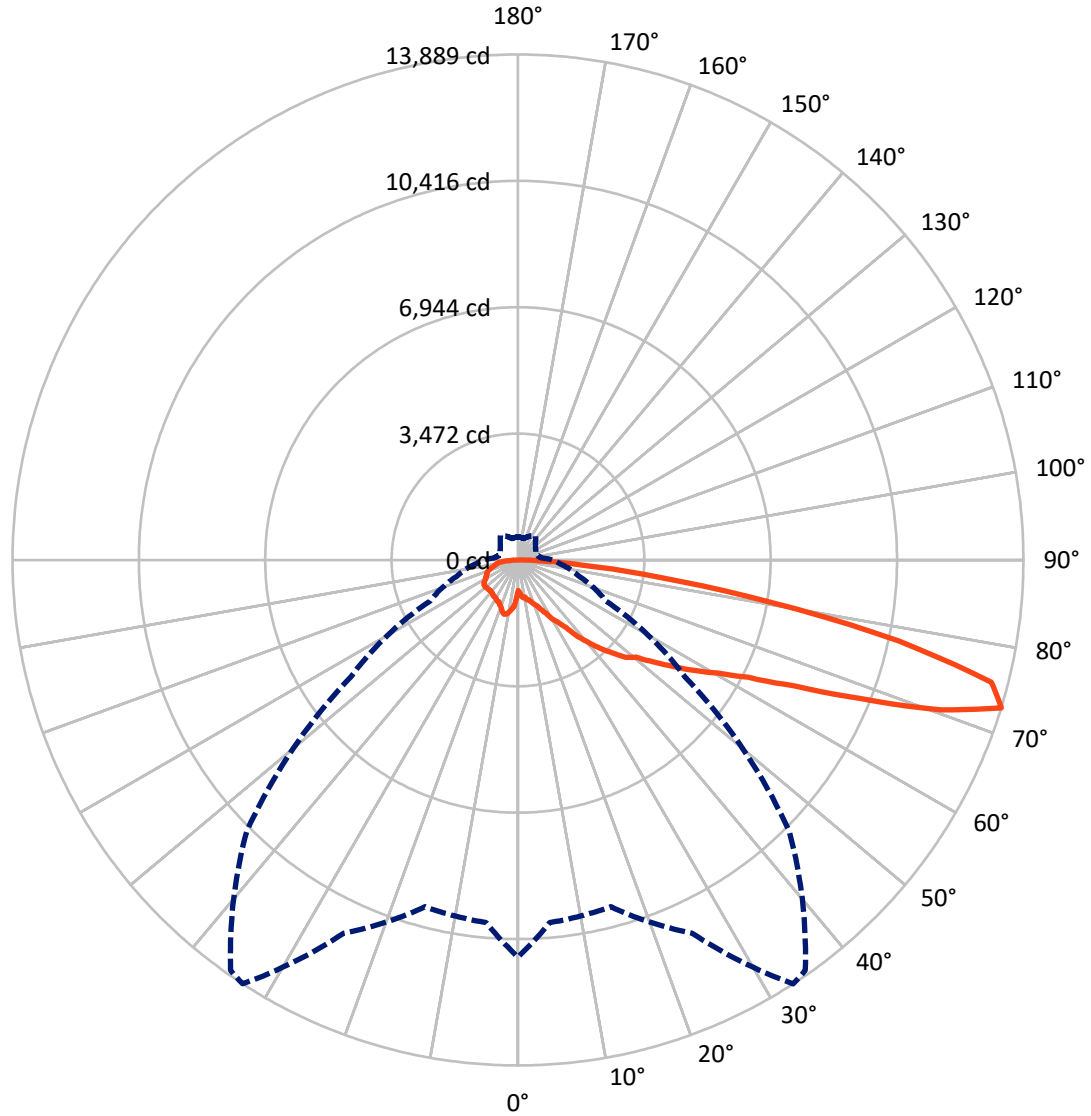
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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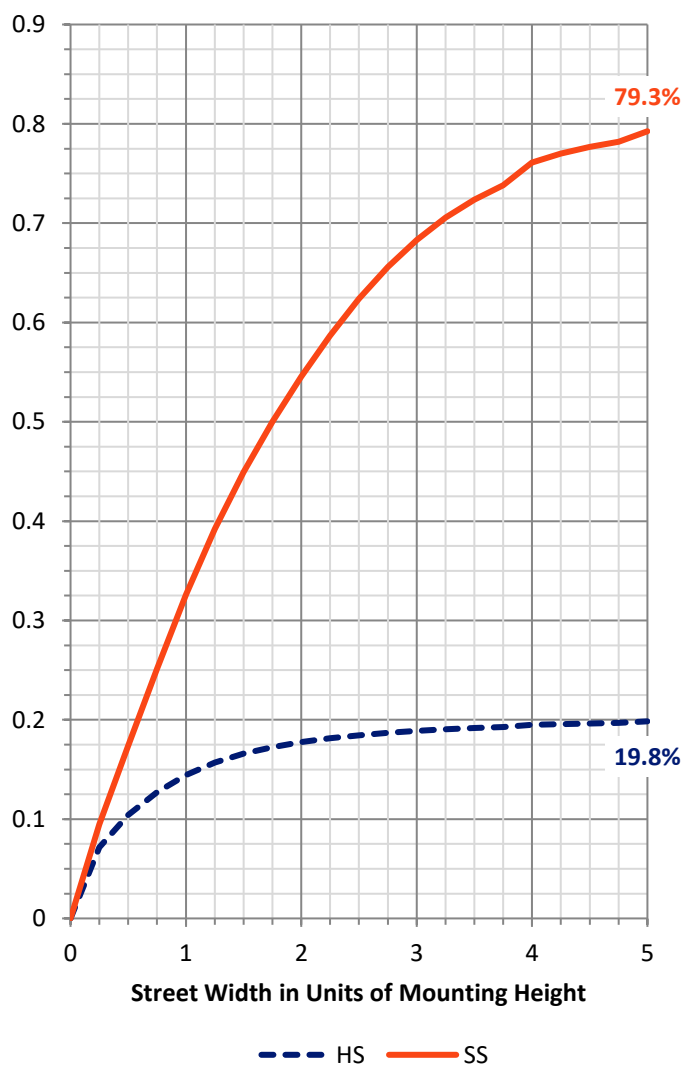
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3247.7	0.0	3247.7
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	12806.3	0.0	12806.3
	% Fixture	79.8	0.0	79.8
Total	Lumens	16054.0	0.0	16054.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.8	0.7
10°-20°	427.7	2.7
20°-30°	780.0	4.9
30°-40°	1319.6	8.2
40°-50°	2195.3	13.7
50°-60°	3221.8	20.1
60°-70°	4121.4	25.7
70°-80°	3353.1	20.9
80°-90°	519.3	3.2
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°	16054.0	100.0
0°-180°	16054.0	100.0

Coefficient of Utilization



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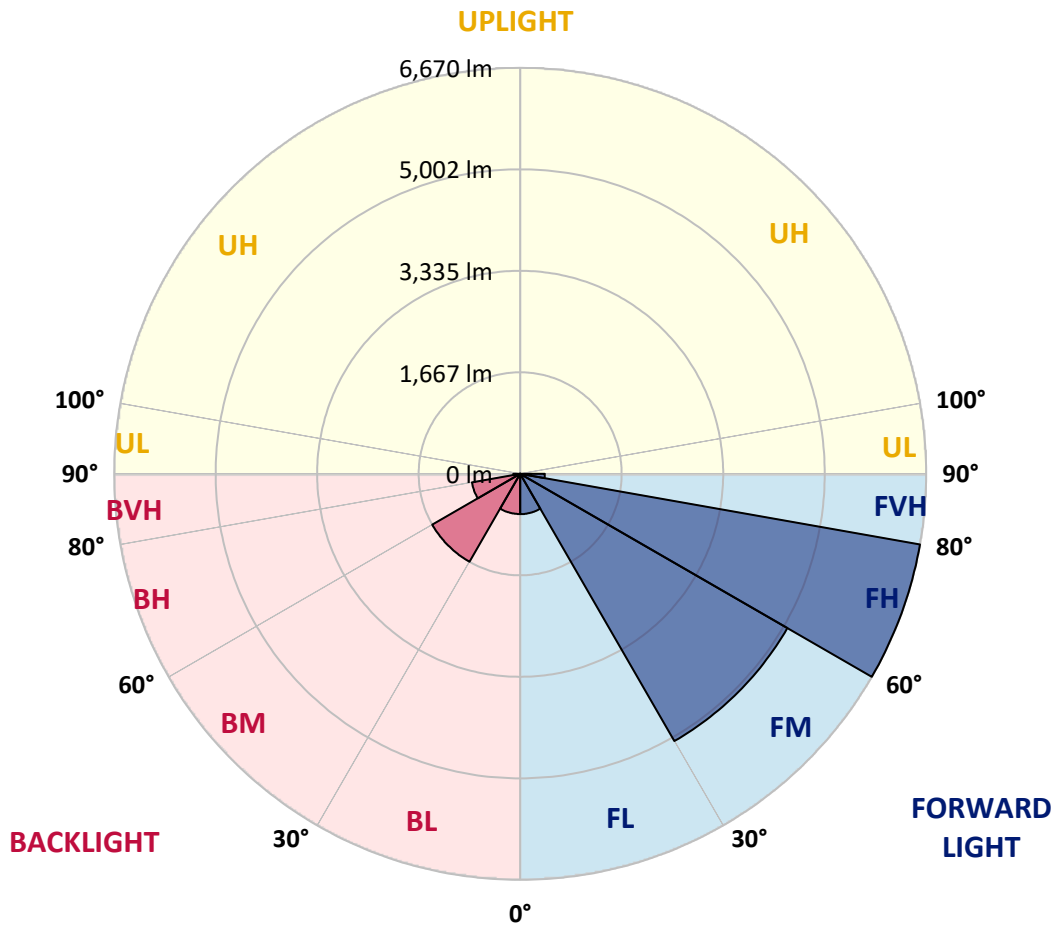
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	662.5	4.1			
FM (30°-60°)	5068.6	31.6			
FH (60°-80°)	6669.8	41.5			G3/7500
FVH (80°-90°)	405.3	2.5			G3/500
BL (0°-30°)	661.0	4.1	B2/1000		
BM (30°-60°)	1668.0	10.4	B2/2500		
BH (60°-80°)	804.7	5.0	B2/1000		G2/1000
BVH (80°-90°)	114.0	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8
2.5°	954.4	924.4	875.1	873.8	901.1	907.1	925.1	926.4	933.0	922.4	998.3
5°	1052.9	1021.0	1001.6	1008.3	995.7	1011.0	1011.0	1054.9	1113.5	1181.5	1278.0
7.5°	1076.2	1052.9	1030.9	1047.6	1050.3	1035.6	1049.6	1152.8	1258.7	1326.6	1481.2
10°	1029.6	1006.3	1023.0	1028.3	1027.6	1060.9	1133.5	1216.1	1334.0	1459.2	1542.4
12.5°	1021.0	1037.6	1045.6	1054.9	1118.2	1128.2	1238.1	1323.3	1441.9	1551.8	1768.2
15°	1149.5	1171.5	1122.2	1118.9	1139.5	1148.8	1262.7	1348.6	1521.8	1706.3	1900.7
17.5°	1332.6	1340.6	1252.1	1206.8	1222.1	1229.4	1279.4	1387.3	1493.8	1834.8	2077.2
20°	1509.8	1515.1	1348.6	1247.4	1301.3	1309.3	1356.0	1417.9	1501.8	1906.7	2196.4
22.5°	1695.6	1661.6	1479.2	1351.3	1382.6	1384.6	1411.9	1445.9	1565.1	1895.4	2341.6
25°	1898.7	1877.4	1647.7	1525.1	1523.8	1496.5	1497.8	1546.4	1632.3	2016.6	2436.9
27.5°	2168.5	2171.1	1837.5	1771.5	1668.3	1650.3	1560.4	1651.0	1748.9	2017.9	2642.6
30°	2518.1	2453.5	2101.9	1995.3	1893.4	1855.4	1733.6	1810.8	1853.4	2133.2	2866.4
32.5°	2802.5	2783.8	2377.6	2216.4	2049.9	2093.9	1959.3	1891.4	1968.0	2331.6	3205.4
35°	3074.9	3013.6	2669.3	2459.5	2284.3	2257.7	2170.5	2181.8	2228.4	2582.7	3648.3
37.5°	3481.1	3447.8	3082.2	2746.5	2664.6	2556.1	2500.8	2536.1	2499.5	2904.4	4312.3
40°	3935.3	3742.2	3427.2	3128.1	2975.0	2898.4	2917.7	2884.4	2856.4	3265.3	4907.7
42.5°	4370.2	4194.4	3656.3	3521.7	3321.9	3353.9	3248.0	3271.3	3350.6	3777.5	5458.4
45°	4843.7	4463.5	3899.4	3780.8	3637.6	3678.3	3762.8	3737.5	3867.4	4381.5	5977.2
47.5°	5080.2	4718.5	4197.7	4004.6	4002.6	3918.0	4432.8	4488.8	4285.6	4829.1	6504.0
50°	5307.9	4952.3	4419.5	4289.0	4194.4	4375.5	5075.5	4947.0	4663.9	5342.6	7083.5
52.5°	5624.9	5219.4	4673.9	4534.7	4651.9	4819.8	5588.3	5563.0	5034.9	5870.7	7586.9
55°	5866.7	5457.1	5056.8	4927.6	5151.4	5315.9	6110.4	5957.9	5352.5	6258.3	7905.9
57.5°	6290.3	5870.0	5622.3	5335.2	5737.5	5734.8	6613.9	6496.1	5692.2	6576.6	8034.5
60°	6963.6	6470.1	6211.0	5880.0	6310.9	6464.7	7189.3	6849.7	5932.6	6777.8	7802.7
62.5°	7908.6	7322.5	6902.3	6574.6	7100.1	7378.5	7900.0	7107.4	5947.9	6720.5	7193.3
65°	9077.4	8364.8	7814.0	7467.7	8334.8	8732.4	8759.1	7266.6	5806.8	6128.4	5912.0
67.5°	10217.6	9416.4	8841.7	8907.6	10173.6	10362.1	9690.1	7399.8	5048.2	4921.0	4105.2
70°	10968.2	10099.7	9716.8	10416.1	12339.4	12146.3	10444.7	7048.8	3975.3	3190.1	2311.6
72.5°	10911.6	10002.5	9864.6	11312.5	13888.5	13768.0	10536.6	5605.6	2662.6	1744.2	1152.8
75°	8889.6	8183.0	8496.0	10709.1	13442.3	13436.3	9148.0	3469.8	1365.9	895.8	728.6
77.5°	4915.0	4640.6	5560.3	8108.4	10703.1	10757.7	6181.0	1573.7	736.6	634.7	548.8
80°	1721.6	1696.3	2409.5	4375.5	7040.8	7054.1	2874.4	719.9	535.5	480.2	402.9
82.5°	629.4	624.0	999.0	2032.6	3876.7	3868.1	1090.2	448.2	396.9	339.7	265.7
85°	251.1	245.7	456.9	902.4	1780.9	1752.2	423.6	254.4	259.7	202.5	130.5
87.5°	69.3	71.9	155.2	282.4	545.4	505.5	106.6	85.9	105.2	82.6	41.3
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°	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8	841.8
2.5°	1011.6	1018.3	952.4	975.7	1005.6	1021.6	1029.6	995.7	1007.0	1054.9	1052.9
5°	1298.0	1271.4	1246.1	1272.0	1254.7	1230.1	1270.0	1268.0	1294.0	1320.0	1326.0
7.5°	1511.8	1477.2	1465.2	1406.6	1348.0	1288.7	1340.0	1371.9	1378.6	1443.2	1470.5
10°	1589.0	1575.7	1580.4	1503.1	1495.8	1501.8	1454.5	1403.2	1434.5	1407.9	1427.9
12.5°	1767.5	1800.8	1718.2	1665.6	1661.0	1624.3	1529.8	1496.5	1461.2	1497.8	1479.2
15°	1910.7	1972.7	1884.1	1791.5	1686.9	1630.3	1549.8	1499.1	1475.8	1483.8	1461.2
17.5°	2120.5	2178.4	1953.3	1811.5	1703.6	1620.3	1497.1	1389.3	1446.5	1451.2	1425.2
20°	2259.7	2263.7	1976.7	1762.2	1665.0	1520.5	1400.6	1306.0	1371.9	1439.2	1468.5
22.5°	2395.6	2365.6	2005.3	1722.9	1524.4	1384.6	1326.0	1320.0	1369.3	1425.9	1432.5
25°	2497.5	2502.1	2021.9	1708.3	1441.9	1251.4	1251.4	1294.7	1338.0	1472.5	1465.8
27.5°	2744.5	2562.7	1957.3	1641.0	1327.3	1173.5	1252.1	1310.0	1330.6	1476.5	1491.1
30°	2924.4	2805.8	1970.7	1525.8	1211.4	1136.8	1201.4	1274.0	1331.3	1499.8	1494.5
32.5°	3226.0	2907.0	2002.0	1363.9	1124.9	1122.9	1180.1	1256.7	1325.3	1474.5	1482.5
35°	3559.7	3205.4	1914.7	1240.7	1104.2	1114.9	1188.8	1219.4	1300.0	1464.5	1471.8
37.5°	4177.1	3361.2	1859.4	1145.5	1090.9	1121.5	1149.5	1196.8	1278.0	1414.6	1462.5
40°	4539.4	3682.2	1654.3	1090.2	1062.9	1116.2	1130.2	1170.1	1214.1	1354.6	1385.3
42.5°	5016.2	3783.5	1479.2	1029.0	1048.9	1094.2	1136.2	1146.2	1175.5	1260.0	1316.0
45°	5413.8	3859.4	1293.3	979.7	1001.6	1142.8	1145.5	1140.8	1135.5	1166.8	1212.8
47.5°	5825.4	4063.2	1122.2	925.1	983.7	1182.8	1150.2	1107.5	1085.6	1089.6	1132.2
50°	6279.6	4211.0	1001.0	880.4	987.7	1182.8	1172.8	1073.6	1029.6	1018.3	1062.9
52.5°	6679.2	4228.4	909.1	844.5	971.0	1142.2	1188.1	1052.3	978.3	951.0	993.0
55°	6897.0	4009.2	842.5	811.8	928.4	1105.5	1180.1	1040.3	916.4	895.8	933.0
57.5°	6892.3	3645.6	785.9	766.6	879.8	1054.3	1135.5	975.0	878.4	866.5	903.1
60°	6643.9	3219.4	742.6	729.3	829.8	979.7	1055.6	932.4	841.8	835.8	875.8
62.5°	6080.5	2779.2	700.6	690.0	783.2	927.1	1017.6	885.1	803.8	803.2	841.1
65°	4979.6	2231.1	661.3	658.7	739.9	875.1	981.7	845.1	764.6	777.9	816.5
67.5°	3431.2	1567.7	619.4	627.4	700.0	825.2	954.4	818.5	723.3	750.6	785.2
70°	1882.7	969.7	572.7	588.7	649.3	767.2	911.7	775.2	669.3	711.3	735.3
72.5°	957.7	646.7	514.8	540.1	587.4	682.0	831.8	712.6	611.4	627.4	640.0
75°	643.3	486.8	450.2	478.2	512.1	600.7	737.9	654.0	556.1	554.1	568.1
77.5°	486.2	380.3	382.3	414.2	436.2	528.1	663.3	604.7	509.5	504.8	525.5
80°	355.6	288.4	307.7	341.0	361.0	474.2	614.7	550.1	446.2	427.6	444.9
82.5°	235.8	204.5	227.8	261.1	277.1	396.3	558.1	466.9	363.6	316.3	319.0
85°	111.2	107.2	135.9	151.8	172.5	245.7	417.6	323.0	231.8	191.8	200.5
87.5°	25.3	34.0	44.6	44.0	51.3	65.9	129.9	90.6	67.3	46.0	30.6
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)