

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: P597134

Luminaire Tested: **MSA-SA4B-835-U-T4W**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597134  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4B-835-U-T4W  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16240 lumens  
Efficiency: N/A  
Efficacy: 95.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

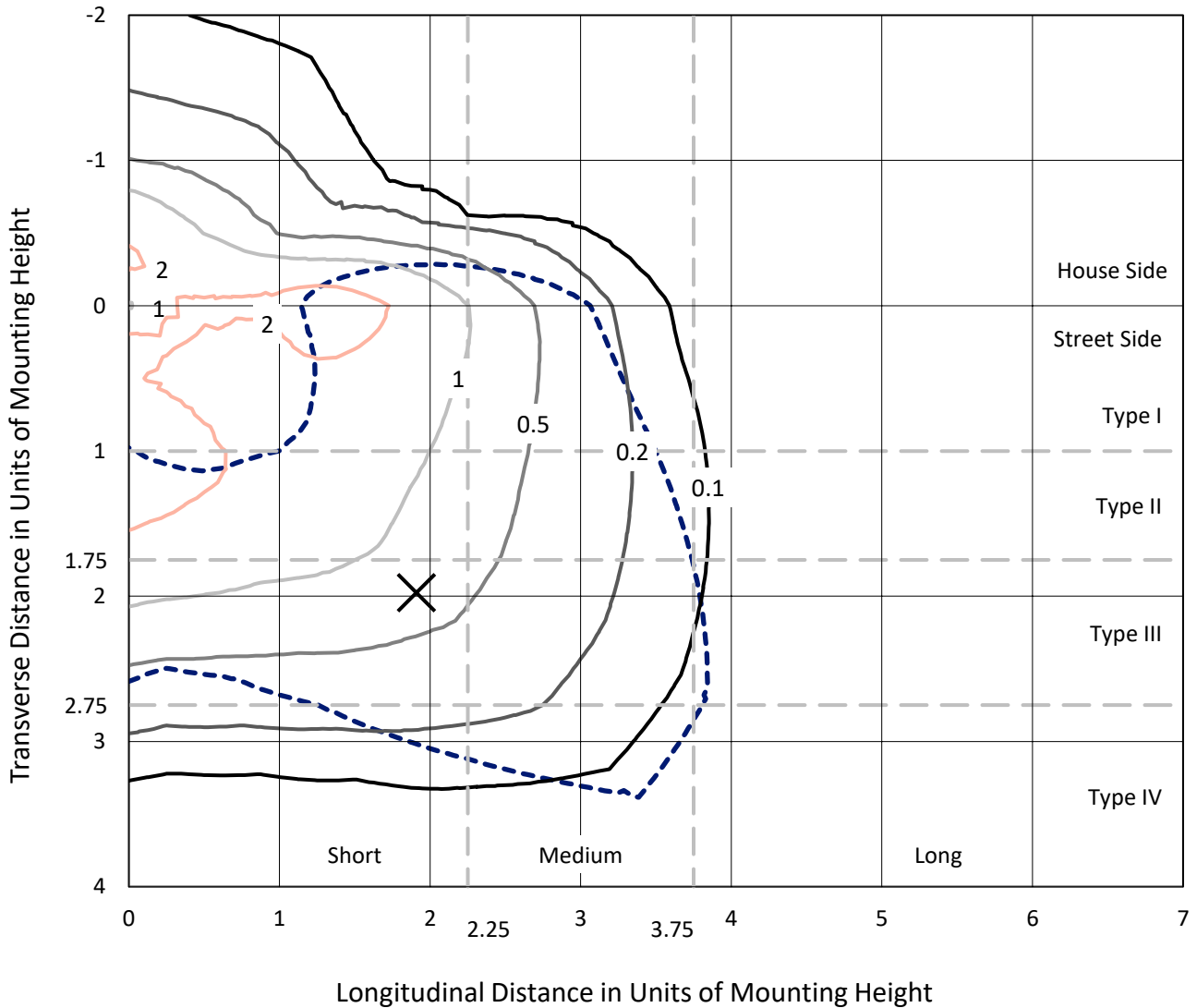
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

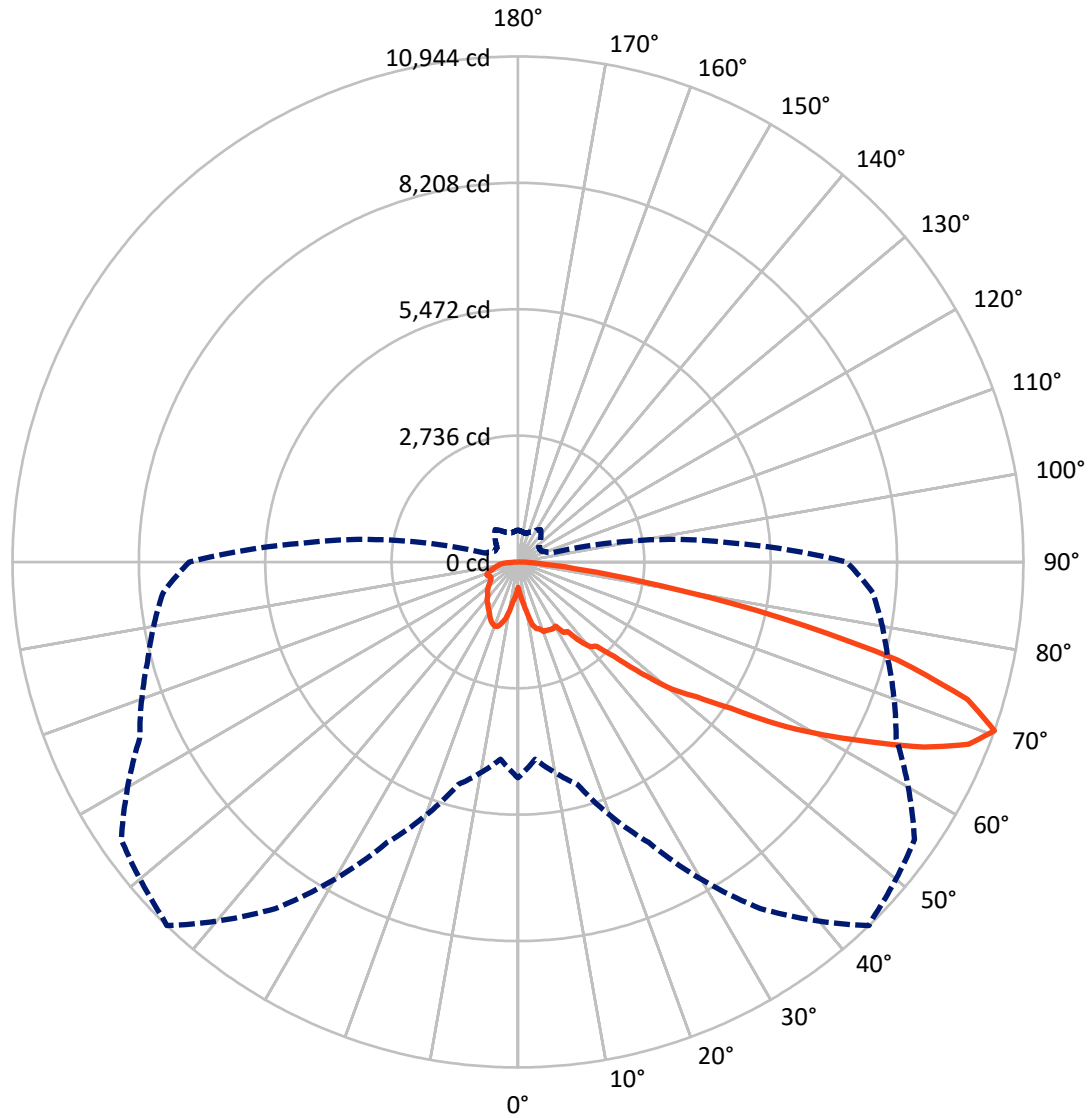
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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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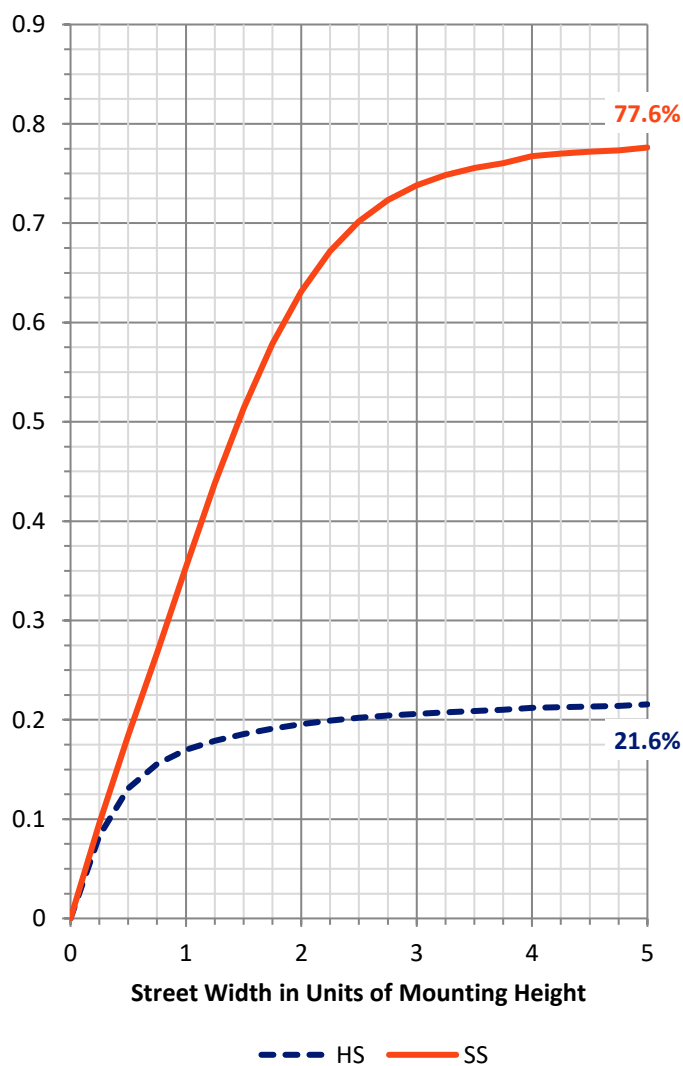
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3583.2	0.0	3583.2
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	12656.8	0.0	12656.8
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	16240.0	0.0	16240.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.5	0.5
10°-20°	398.6	2.5
20°-30°	744.8	4.6
30°-40°	1195.5	7.4
40°-50°	2017.9	12.4
50°-60°	3595.9	22.1
60°-70°	4918.8	30.3
70°-80°	2892.5	17.8
80°-90°	389.5	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°	16240.0	100.0
0°-180°	16240.0	100.0

**Coefficient of Utilization**



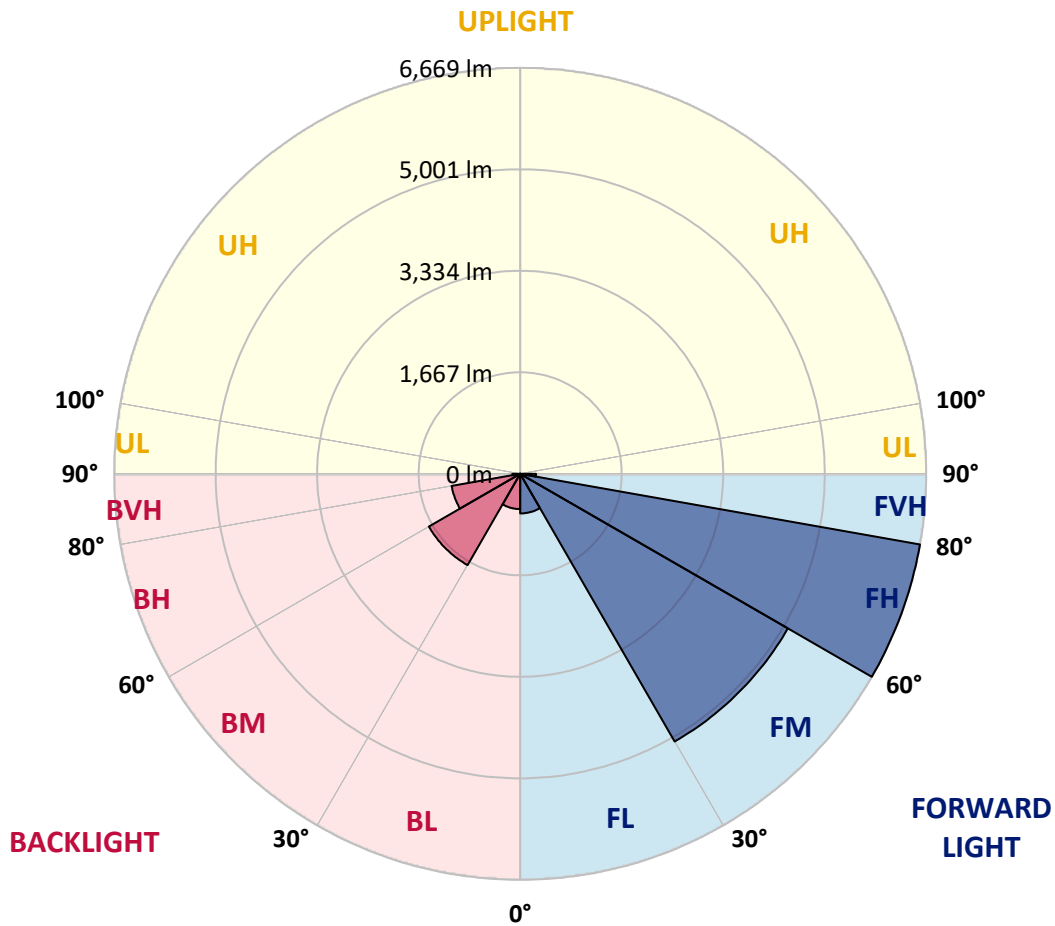
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	650.8	4.0			
FM (30°-60°)	5077.8	31.3			
FH (60°-80°)	6668.6	41.1			G3/7500
FVH (80°-90°)	259.6	1.6			G3/500
BL (0°-30°)	579.1	3.6	B2/1000		
BM (30°-60°)	1731.6	10.7	B2/2500		
BH (60°-80°)	1142.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	129.9	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°	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0
2.5°	669.9	656.6	624.6	635.3	648.6	653.9	652.6	651.2	630.6	623.3	659.9
5°	910.3	881.0	857.7	848.3	817.7	793.7	779.1	817.7	811.7	821.7	847.0
7.5°	1136.7	1118.0	1065.4	1046.8	984.2	942.9	938.2	968.9	976.9	960.9	1004.2
10°	1282.5	1250.5	1239.9	1195.3	1152.0	1145.3	1141.3	1127.3	1108.0	1106.7	1068.1
12.5°	1395.7	1412.3	1421.0	1369.7	1371.1	1395.0	1382.4	1325.8	1293.1	1235.9	1240.5
15°	1598.8	1622.8	1554.2	1521.5	1459.0	1494.9	1490.3	1443.0	1438.3	1401.0	1357.7
17.5°	1775.9	1786.6	1672.0	1597.5	1576.2	1524.2	1538.2	1539.5	1478.3	1544.9	1506.2
20°	1790.6	1828.5	1696.7	1548.2	1612.1	1605.4	1607.4	1594.1	1513.6	1623.4	1608.8
22.5°	1862.5	1804.5	1686.0	1577.5	1594.1	1604.1	1613.4	1597.5	1592.8	1654.1	1698.7
25°	1849.2	1830.5	1710.7	1618.8	1620.8	1622.8	1627.4	1675.4	1670.0	1753.3	1776.6
27.5°	1973.7	1945.1	1718.0	1695.3	1643.4	1632.1	1600.1	1700.0	1777.9	1775.9	1904.4
30°	2210.7	2181.4	1888.5	1822.5	1728.6	1612.8	1674.0	1807.2	1868.5	1889.1	2052.3
32.5°	2581.0	2628.9	2224.1	1958.4	1841.8	1816.5	1809.9	1796.6	1948.4	2050.3	2198.8
35°	3112.3	3074.4	2619.6	2249.4	1961.0	1852.5	1867.1	1948.4	2128.8	2194.8	2331.9
37.5°	3721.0	3642.4	3126.3	2579.0	2304.6	2168.8	2120.2	2198.8	2238.7	2290.6	2571.0
40°	4339.6	4147.8	3623.7	3012.5	2511.1	2408.5	2365.9	2269.3	2363.2	2468.4	2824.7
42.5°	4936.9	4788.4	4165.1	3529.9	2858.6	2493.1	2469.8	2375.2	2666.2	2777.4	3190.9
45°	5562.8	5218.5	4719.8	4113.8	3366.7	2907.9	2873.3	2703.5	3076.4	3308.1	3707.7
47.5°	5983.6	5664.7	5227.9	4588.0	3792.2	3601.8	3535.9	3245.5	3583.8	3884.8	4506.0
50°	6381.8	6053.6	5594.8	5106.7	4562.6	4343.6	4203.1	3719.6	4215.7	4705.8	5529.5
52.5°	6951.8	6658.2	6020.9	5629.4	5390.3	4851.6	4747.1	4481.4	4954.9	5616.1	6648.2
55°	7561.1	7160.9	6583.6	6366.5	6270.0	5580.1	5494.9	5325.8	5939.0	6547.7	7735.6
57.5°	7830.1	7412.6	7094.3	6964.5	6956.5	6638.9	6541.0	6423.1	6945.2	7346.7	8759.1
60°	8043.9	7595.8	7468.6	7541.2	7804.8	7595.8	7468.6	7364.7	7764.2	8136.5	9594.1
62.5°	8004.6	7555.1	7620.4	7841.5	8514.7	8575.9	8478.1	8226.3	8575.9	8783.7	10072.8
65°	7370.7	6955.2	7335.4	7860.1	9174.6	9664.0	9658.7	9000.1	9121.3	9121.3	10022.2
67.5°	6260.0	5829.8	6452.4	7695.6	9630.7	10526.3	10527.6	9820.5	9171.2	9087.3	9239.2
70°	4674.5	4285.0	4984.8	6702.1	9159.9	10943.8	10883.2	10482.4	9034.1	8300.9	7717.6
72.5°	2792.1	2540.4	3184.3	4878.9	7813.5	10176.1	10337.2	9719.9	8270.3	6903.2	5516.9
75°	1267.8	1158.6	1496.2	2802.7	5578.1	8488.0	8663.2	8203.0	6569.0	4964.8	3188.3
77.5°	542.7	513.4	653.2	1243.2	3075.7	5804.5	6163.4	5862.5	4450.8	2885.3	1410.3
80°	348.9	330.3	401.5	598.0	1428.3	3136.3	3445.3	3332.8	2267.3	1122.0	496.8
82.5°	208.4	202.4	268.4	375.6	779.1	1380.4	1555.5	1596.8	941.6	503.4	284.3
85°	113.9	115.2	147.2	227.7	467.5	537.4	575.3	625.9	443.5	291.7	137.8
87.5°	38.0	43.9	59.3	92.6	166.5	151.8	152.5	177.1	187.1	121.2	43.9
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°	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0
2.5°	665.9	653.9	623.3	625.3	636.6	639.3	642.6	623.3	619.3	655.9	659.2
5°	851.0	811.7	793.7	787.7	770.4	764.4	796.4	811.0	825.7	854.3	868.3
7.5°	999.5	955.5	922.9	893.0	867.6	853.0	906.9	948.2	973.5	1032.1	1058.8
10°	1067.4	1029.5	1017.5	993.5	1012.8	1056.8	1066.7	1068.1	1124.0	1122.7	1134.0
12.5°	1202.6	1178.0	1138.7	1147.3	1197.9	1243.2	1230.6	1249.9	1269.8	1317.8	1295.8
15°	1325.8	1319.1	1282.5	1288.5	1298.5	1355.1	1362.4	1381.7	1412.3	1450.3	1424.3
17.5°	1477.6	1474.9	1385.7	1377.7	1401.0	1456.3	1439.0	1405.0	1506.2	1546.9	1536.2
20°	1580.8	1560.8	1446.3	1412.3	1471.6	1478.9	1459.0	1405.0	1492.9	1581.5	1605.4
22.5°	1666.7	1643.4	1525.5	1459.0	1447.0	1450.3	1450.3	1440.3	1483.6	1556.2	1555.5
25°	1736.0	1757.9	1608.1	1544.2	1480.3	1400.4	1390.4	1399.0	1423.7	1563.5	1558.8
27.5°	1909.8	1849.2	1636.1	1588.1	1457.0	1331.1	1358.4	1371.7	1379.7	1532.9	1558.2
30°	2023.0	2041.6	1736.0	1614.1	1423.0	1253.9	1263.2	1301.8	1348.4	1529.5	1536.9
32.5°	2175.4	2135.5	1891.8	1570.8	1332.4	1207.3	1189.9	1241.9	1311.1	1475.6	1495.6
35°	2317.3	2364.6	1957.7	1562.8	1269.2	1137.3	1156.0	1174.0	1245.9	1415.7	1439.0
37.5°	2650.2	2542.4	2142.8	1524.2	1216.6	1102.0	1082.1	1109.4	1170.6	1301.8	1355.7
40°	2903.3	2909.9	2182.8	1475.6	1116.0	1051.4	1008.8	1036.1	1062.1	1166.6	1189.9
42.5°	3378.0	3232.9	2280.7	1369.1	1052.8	975.5	951.6	963.5	967.5	1011.5	1050.1
45°	3982.0	3641.7	2319.3	1225.9	969.5	944.2	895.6	889.6	867.6	873.6	907.6
47.5°	4817.7	4279.6	2291.3	1073.4	895.6	903.6	833.7	806.4	775.8	783.1	815.0
50°	5898.4	5094.7	2289.3	944.2	845.0	850.3	793.1	743.8	713.2	728.5	756.4
52.5°	7111.0	5912.4	2298.6	855.7	789.7	787.1	766.4	706.5	681.9	697.8	729.8
55°	8271.0	6615.6	2367.9	799.7	732.5	737.1	745.1	694.5	667.2	681.9	715.2
57.5°	9280.4	7170.9	2341.9	740.5	679.2	700.5	721.8	677.9	657.2	678.5	711.8
60°	9986.3	7428.6	2136.8	683.9	639.9	669.2	710.5	675.9	673.2	719.2	759.1
62.5°	10244.0	7333.4	1737.3	639.3	616.6	665.2	736.5	719.8	722.5	779.1	834.4
65°	9867.8	6832.7	1295.8	610.6	598.6	684.5	796.4	745.8	709.2	755.8	806.4
67.5°	8797.7	5942.4	946.9	586.0	578.0	715.2	851.7	743.1	675.2	722.5	763.8
70°	7117.6	4690.5	733.1	554.7	550.7	694.5	857.0	723.2	638.6	669.2	692.5
72.5°	4876.9	3211.6	607.3	524.7	503.4	615.3	813.7	678.5	594.6	612.6	631.9
75°	2725.5	1802.6	510.7	487.4	440.8	548.0	763.1	651.9	562.0	567.3	594.0
77.5°	1223.2	779.8	433.5	438.2	384.2	484.8	697.2	609.3	512.1	500.1	526.7
80°	462.8	380.2	351.6	370.2	323.0	420.2	628.6	570.7	459.5	444.1	459.5
82.5°	268.4	230.4	261.0	285.0	256.4	386.2	600.0	535.4	404.9	366.2	379.6
85°	124.5	119.2	156.5	185.1	179.1	301.0	513.4	402.9	288.3	243.7	269.7
87.5°	32.6	36.6	55.3	65.3	66.6	103.2	197.8	149.8	112.5	85.2	81.9
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)