

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: P597088

Luminaire Tested: **MSA-SA3D-835-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597088
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-SA3D-835-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 16448 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

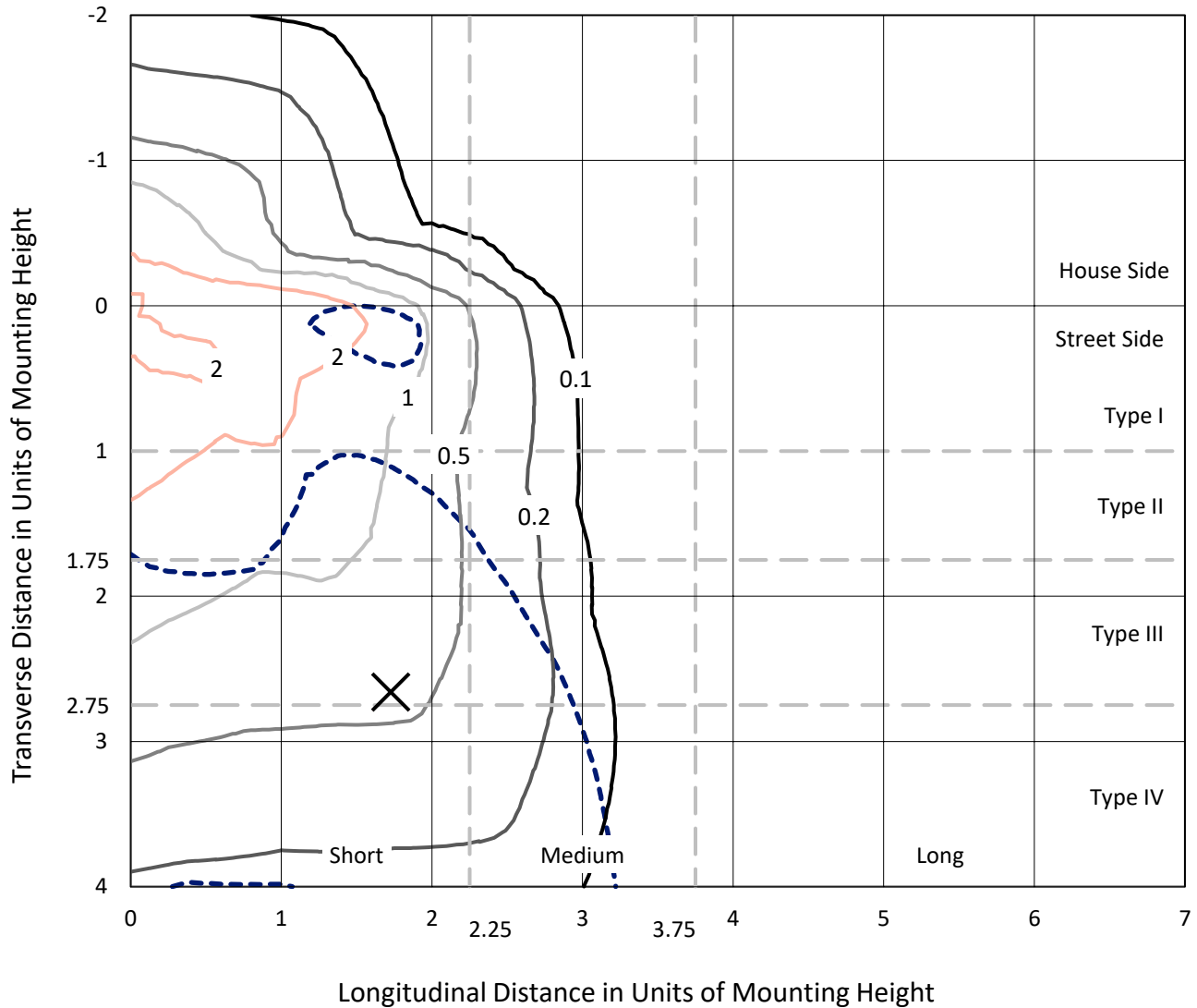
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

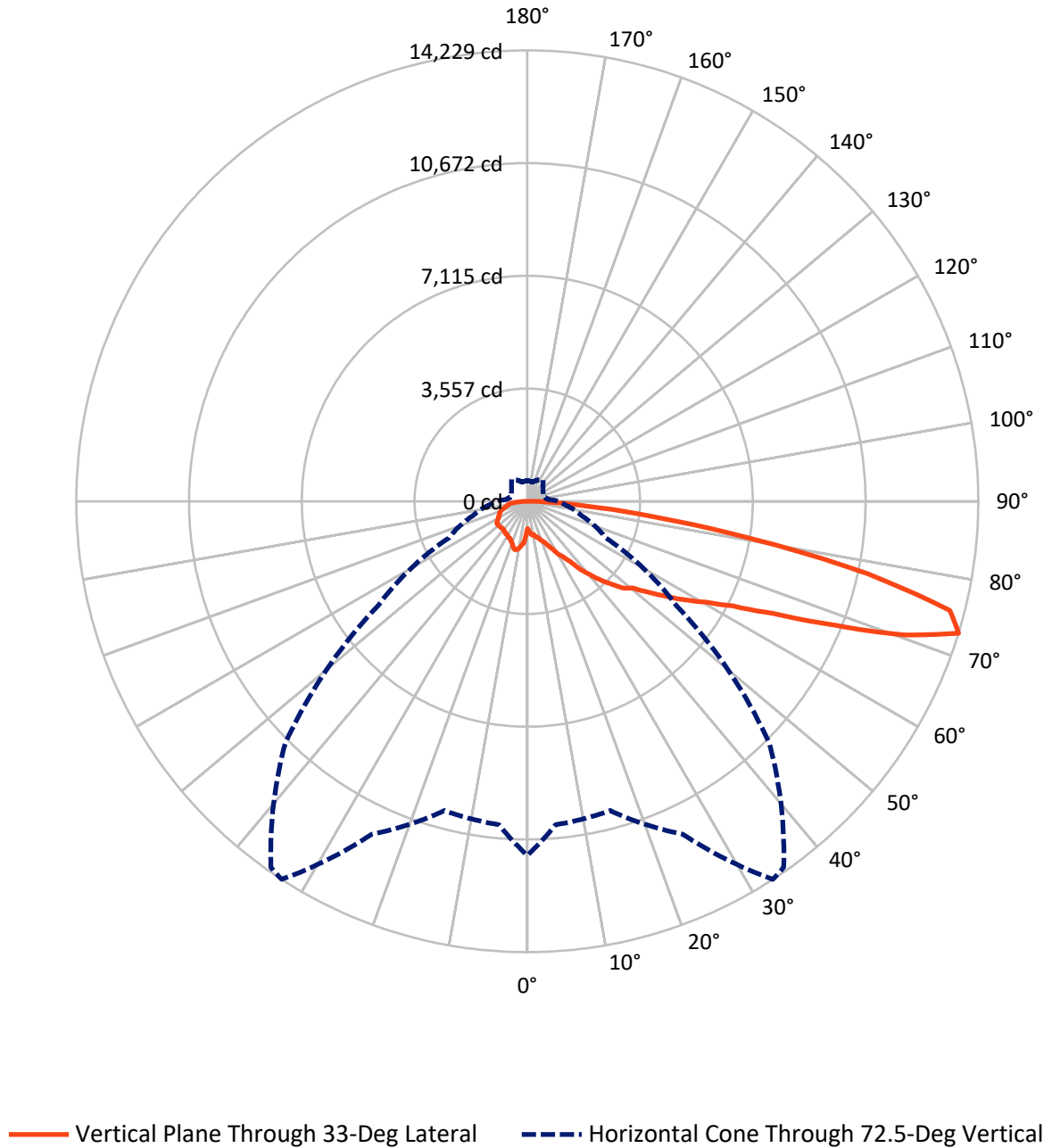
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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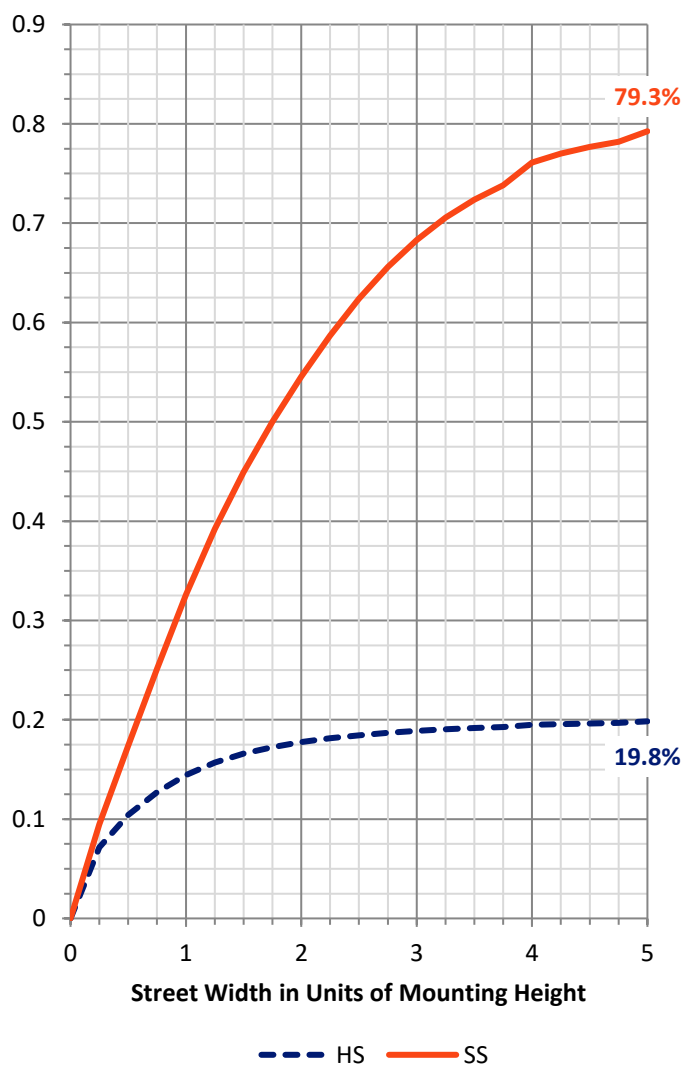
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3327.4	0.0	3327.4
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	13120.6	0.0	13120.6
	% Fixture	79.8	0.0	79.8
Total	Lumens	16448.0	0.0	16448.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.6	0.7
10°-20°	438.2	2.7
20°-30°	799.1	4.9
30°-40°	1352.0	8.2
40°-50°	2249.2	13.7
50°-60°	3300.8	20.1
60°-70°	4222.5	25.7
70°-80°	3435.4	20.9
80°-90°	532.1	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°	16448.0	100.0
0°-180°	16448.0	100.0

Coefficient of Utilization



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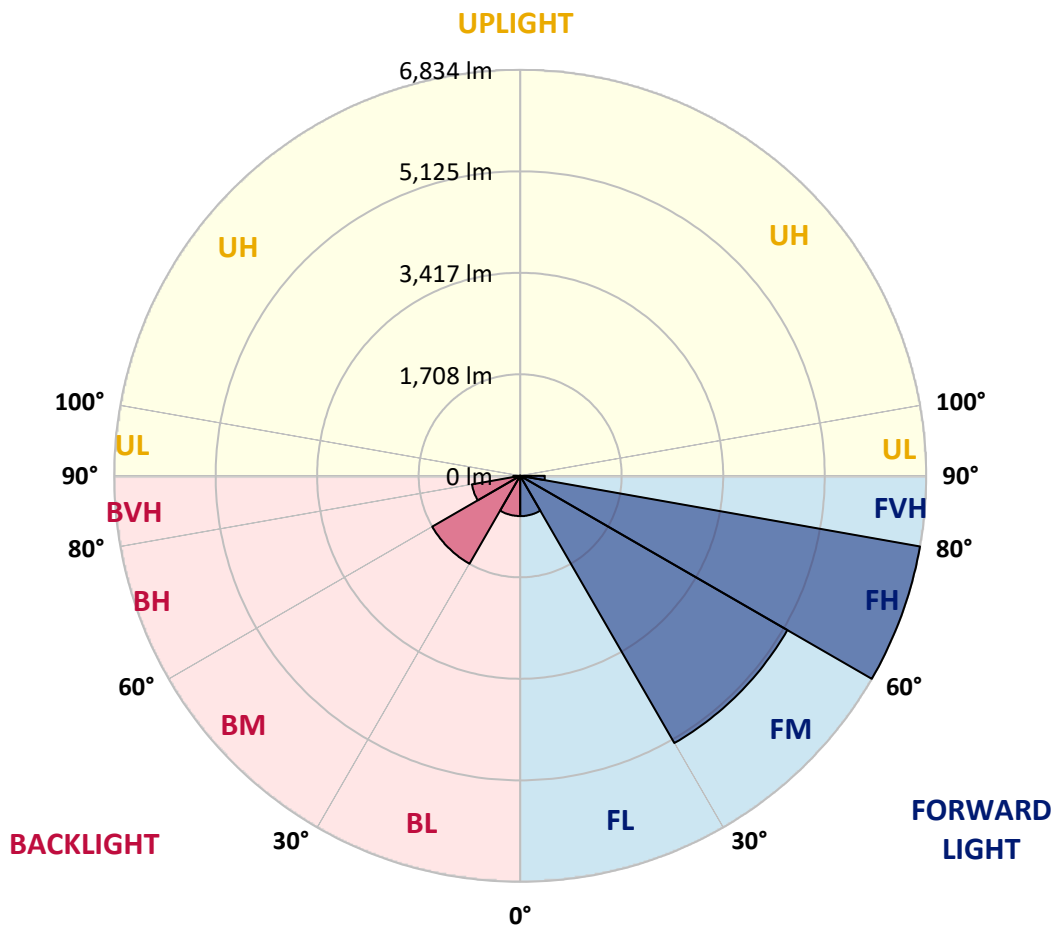
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	678.8	4.1			
FM (30°-60°)	5193.0	31.6			
FH (60°-80°)	6833.5	41.5			G3/7500
FVH (80°-90°)	415.3	2.5			G3/500
BL (0°-30°)	677.2	4.1	B2/1000		
BM (30°-60°)	1708.9	10.4	B2/2500		
BH (60°-80°)	824.5	5.0	B2/1000		G2/1000
BVH (80°-90°)	116.8	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°	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5
2.5°	977.8	947.1	896.6	895.2	923.2	929.3	947.8	949.1	955.9	945.0	1022.8
5°	1078.8	1046.0	1026.2	1033.1	1020.1	1035.8	1035.8	1080.8	1140.9	1210.5	1309.4
7.5°	1102.7	1078.8	1056.3	1073.3	1076.0	1061.0	1075.4	1181.1	1289.6	1359.2	1517.5
10°	1054.9	1031.0	1048.1	1053.5	1052.8	1087.0	1161.3	1245.9	1366.7	1495.0	1580.3
12.5°	1046.0	1063.1	1071.3	1080.8	1145.6	1155.9	1268.5	1355.8	1477.3	1589.8	1811.6
15°	1177.7	1200.2	1149.7	1146.3	1167.5	1177.0	1293.7	1381.7	1559.1	1748.1	1947.4
17.5°	1365.3	1373.5	1282.8	1236.4	1252.1	1259.6	1310.8	1421.3	1530.5	1879.8	2128.2
20°	1546.8	1552.3	1381.7	1278.0	1333.3	1341.5	1389.2	1452.7	1538.7	1953.5	2250.3
22.5°	1737.2	1702.4	1515.5	1384.5	1416.5	1418.6	1446.5	1481.3	1603.5	1941.9	2399.1
25°	1945.3	1923.5	1688.1	1562.5	1561.2	1533.2	1534.6	1584.4	1672.4	2066.1	2496.7
27.5°	2221.7	2224.4	1882.6	1815.0	1709.2	1690.8	1598.7	1691.5	1791.8	2067.5	2707.5
30°	2579.9	2513.7	2153.4	2044.3	1939.9	1901.0	1776.1	1855.3	1898.9	2185.5	2936.8
32.5°	2871.3	2852.2	2435.9	2270.8	2100.2	2145.3	2007.4	1937.8	2016.3	2388.8	3284.1
35°	3150.3	3087.6	2734.8	2519.9	2340.4	2313.1	2223.7	2235.3	2283.1	2646.1	3737.8
37.5°	3566.6	3532.4	3157.8	2813.9	2730.0	2618.8	2562.2	2598.3	2560.8	2975.7	4418.1
40°	4031.9	3834.0	3511.3	3204.9	3048.0	2969.5	2989.3	2955.2	2926.5	3345.5	5028.1
42.5°	4477.5	4297.3	3746.0	3608.2	3403.5	3436.2	3327.7	3351.6	3432.8	3870.2	5592.4
45°	4962.6	4573.0	3995.1	3873.6	3726.9	3768.5	3855.2	3829.3	3962.3	4489.1	6123.9
47.5°	5204.8	4834.3	4300.7	4102.9	4100.8	4014.2	4541.6	4598.9	4390.8	4947.6	6663.7
50°	5438.2	5073.8	4528.0	4394.2	4297.3	4482.9	5200.1	5068.4	4778.4	5473.7	7257.3
52.5°	5763.0	5347.4	4788.6	4646.0	4766.1	4938.0	5725.5	5699.5	5158.4	6014.8	7773.1
55°	6010.7	5591.0	5181.0	5048.6	5277.8	5446.4	6260.4	6104.2	5483.9	6411.9	8100.0
57.5°	6444.6	6014.1	5760.3	5466.2	5878.3	5875.6	6776.3	6655.5	5831.9	6738.0	8231.7
60°	7134.5	6628.9	6363.4	6024.3	6465.8	6623.4	7365.8	7017.8	6078.2	6944.1	7994.2
62.5°	8102.7	7502.3	7071.7	6736.0	7274.4	7559.6	8093.8	7281.9	6093.9	6885.4	7369.9
65°	9300.2	8570.1	8005.8	7651.0	8539.4	8946.8	8974.0	7444.9	5949.3	6278.8	6057.1
67.5°	10468.4	9647.5	9058.7	9126.2	10423.3	10616.4	9927.9	7581.4	5172.1	5041.8	4205.9
70°	11237.3	10347.6	9955.2	10671.7	12642.3	12444.4	10701.0	7221.8	4072.8	3268.4	2368.4
72.5°	11179.3	10248.0	10106.7	11590.1	14229.4	14105.9	10795.2	5743.2	2728.0	1787.0	1181.1
75°	9107.8	8383.8	8704.5	10971.9	13772.2	13766.1	9372.5	3555.0	1399.5	917.7	746.5
77.5°	5035.6	4754.5	5696.8	8307.4	10965.8	11021.7	6332.7	1612.4	754.7	650.3	562.2
80°	1763.8	1737.9	2468.7	4482.9	7213.6	7227.3	2944.9	737.6	548.6	492.0	412.8
82.5°	644.8	639.3	1023.5	2082.5	3971.9	3963.0	1117.0	459.2	406.7	348.0	272.3
85°	257.2	251.8	468.1	924.6	1824.6	1795.2	434.0	260.7	266.1	207.4	133.7
87.5°	71.0	73.7	159.0	289.3	558.8	517.9	109.2	88.0	107.8	84.6	42.3
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°	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5	862.5
2.5°	1036.5	1043.3	975.7	999.6	1030.3	1046.7	1054.9	1020.1	1031.7	1080.8	1078.8
5°	1329.9	1302.6	1276.6	1303.3	1285.5	1260.3	1301.2	1299.2	1325.8	1352.4	1358.5
7.5°	1548.9	1513.4	1501.1	1441.1	1381.0	1320.3	1372.9	1405.6	1412.4	1478.6	1506.6
10°	1628.0	1614.4	1619.2	1540.0	1532.5	1538.7	1490.2	1437.7	1469.7	1442.5	1462.9
12.5°	1810.9	1845.0	1760.4	1706.5	1701.7	1664.2	1567.3	1533.2	1497.0	1534.6	1515.5
15°	1957.6	2021.1	1930.3	1835.5	1728.3	1670.4	1587.8	1535.9	1512.1	1520.2	1497.0
17.5°	2172.5	2231.9	2001.3	1855.9	1745.4	1660.1	1533.9	1423.3	1482.0	1486.8	1460.2
20°	2315.2	2319.3	2025.2	1805.5	1705.8	1557.8	1434.9	1338.1	1405.6	1474.5	1504.5
22.5°	2454.4	2423.6	2054.5	1765.2	1561.9	1418.6	1358.5	1352.4	1402.9	1460.9	1467.7
25°	2558.7	2563.5	2071.6	1750.2	1477.3	1282.1	1282.1	1326.5	1370.8	1508.6	1501.8
27.5°	2811.9	2625.6	2005.4	1681.3	1359.9	1202.3	1282.8	1342.1	1363.3	1512.7	1527.7
30°	2996.1	2874.7	2019.0	1563.2	1241.2	1164.7	1230.9	1305.3	1364.0	1536.6	1531.2
32.5°	3305.2	2978.4	2051.1	1397.4	1152.5	1150.4	1209.1	1287.6	1357.8	1510.7	1518.9
35°	3647.1	3284.1	1961.7	1271.2	1131.3	1142.2	1218.0	1249.4	1331.9	1500.5	1508.0
37.5°	4279.6	3443.7	1905.1	1173.6	1117.7	1149.0	1177.7	1226.2	1309.4	1449.3	1498.4
40°	4650.8	3772.6	1694.9	1117.0	1089.0	1143.6	1157.9	1198.9	1243.9	1387.9	1419.3
42.5°	5139.3	3876.3	1515.5	1054.2	1074.7	1121.1	1164.1	1174.3	1204.3	1291.0	1348.3
45°	5546.7	3954.1	1325.1	1003.7	1026.2	1170.9	1173.6	1168.8	1163.4	1195.4	1242.5
47.5°	5968.4	4162.9	1149.7	947.8	1007.8	1211.8	1178.4	1134.7	1112.2	1116.3	1160.0
50°	6433.7	4314.4	1025.5	902.0	1011.9	1211.8	1201.6	1099.9	1054.9	1043.3	1089.0
52.5°	6843.1	4332.1	931.4	865.2	994.8	1170.2	1217.3	1078.1	1002.3	974.4	1017.4
55°	7066.2	4107.6	863.2	831.8	951.2	1132.7	1209.1	1065.8	938.9	917.7	955.9
57.5°	7061.5	3735.1	805.2	785.4	901.4	1080.1	1163.4	998.9	900.0	887.7	925.2
60°	6807.0	3298.4	760.8	747.2	850.2	1003.7	1081.5	955.3	862.5	856.3	897.3
62.5°	6229.7	2847.4	717.8	706.9	802.4	949.8	1042.6	906.8	823.6	822.9	861.8
65°	5101.8	2285.8	677.6	674.8	758.1	896.6	1005.8	865.9	783.3	797.0	836.5
67.5°	3515.4	1606.2	634.6	642.8	717.1	845.4	977.8	838.6	741.0	769.0	804.5
70°	1929.0	993.5	586.8	603.2	665.3	786.0	934.1	794.2	685.7	728.7	753.3
72.5°	981.2	662.5	527.4	553.4	601.8	698.7	852.2	730.1	626.4	642.8	655.7
75°	659.1	498.8	461.3	489.9	524.7	615.5	756.0	670.1	569.7	567.7	582.0
77.5°	498.1	389.6	391.7	424.4	446.9	541.1	679.6	619.6	522.0	517.2	538.4
80°	364.4	295.5	315.2	349.4	369.8	485.8	629.8	563.6	457.2	438.1	455.8
82.5°	241.5	209.5	233.4	267.5	283.9	406.0	571.8	478.3	372.6	324.1	326.8
85°	113.9	109.9	139.2	155.6	176.7	251.8	427.8	330.9	237.5	196.5	205.4
87.5°	25.9	34.8	45.7	45.0	52.5	67.6	133.1	92.8	68.9	47.1	31.4
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)