

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: P472186

Luminaire Tested: **CCW-VA-4-830-U-T4W**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472186
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-4-830-U-T4W
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4W DISTRIBUTION LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5761.3 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

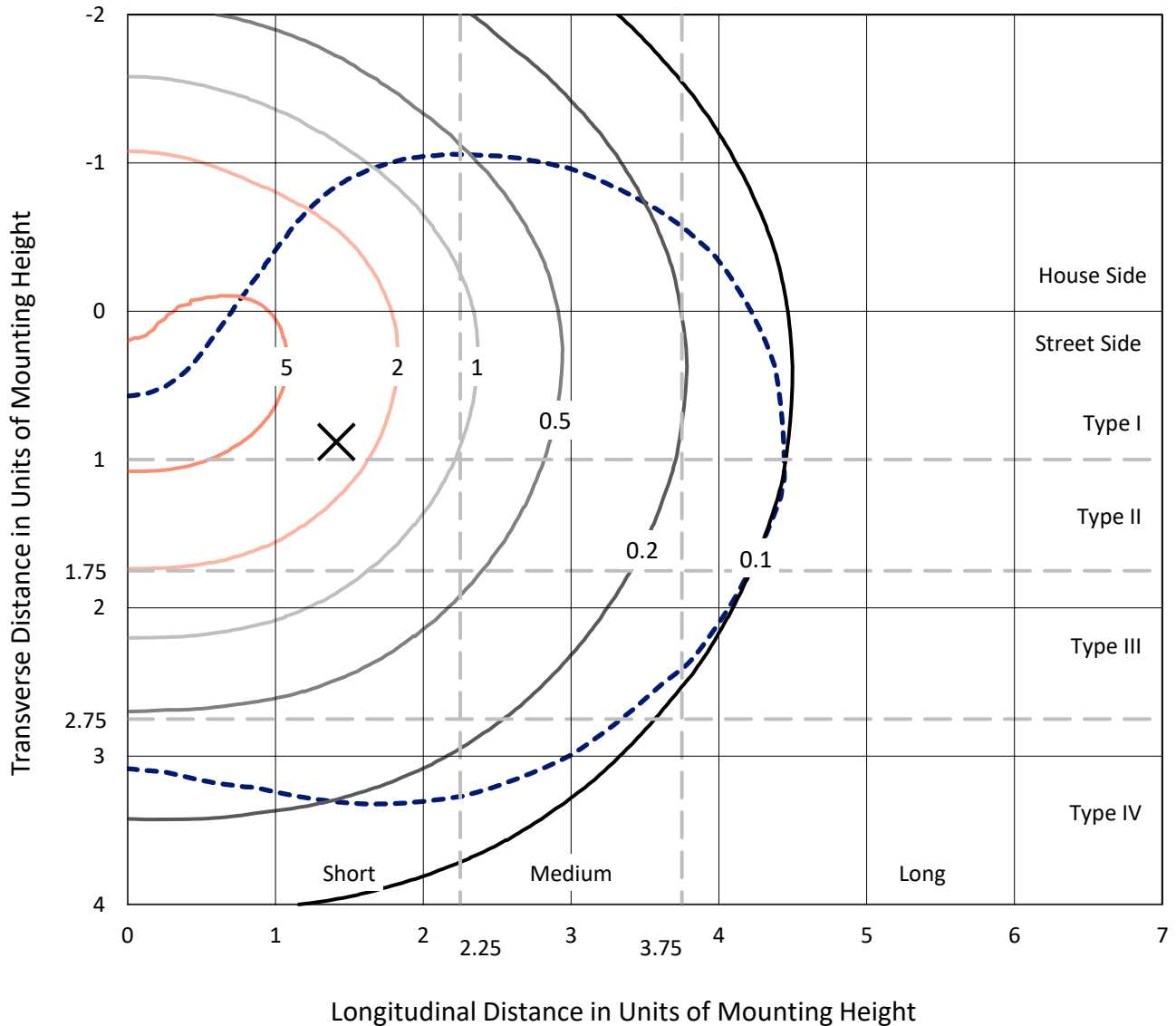
Input Watts (W): 57.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

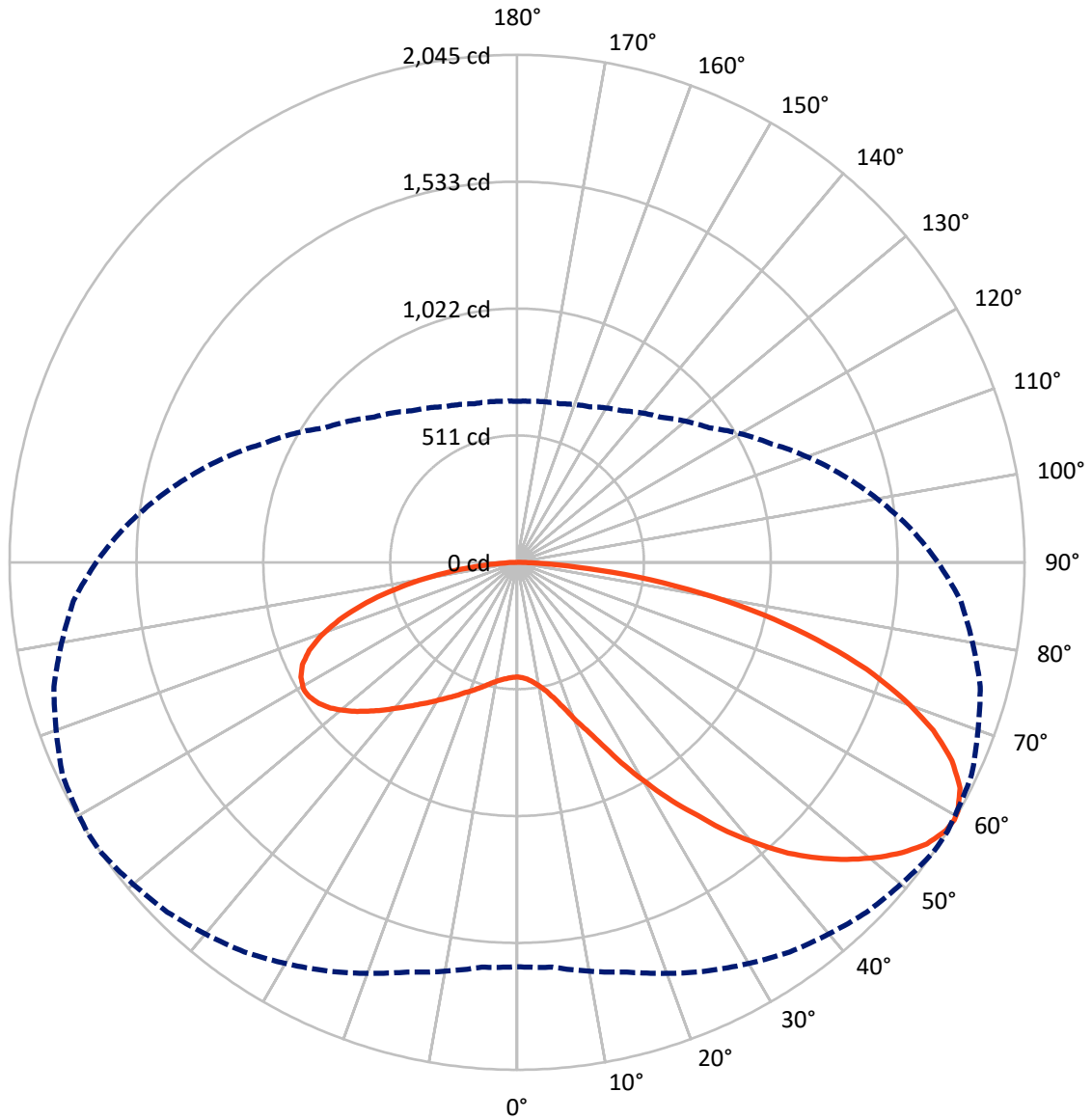
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 59-Deg Vertical

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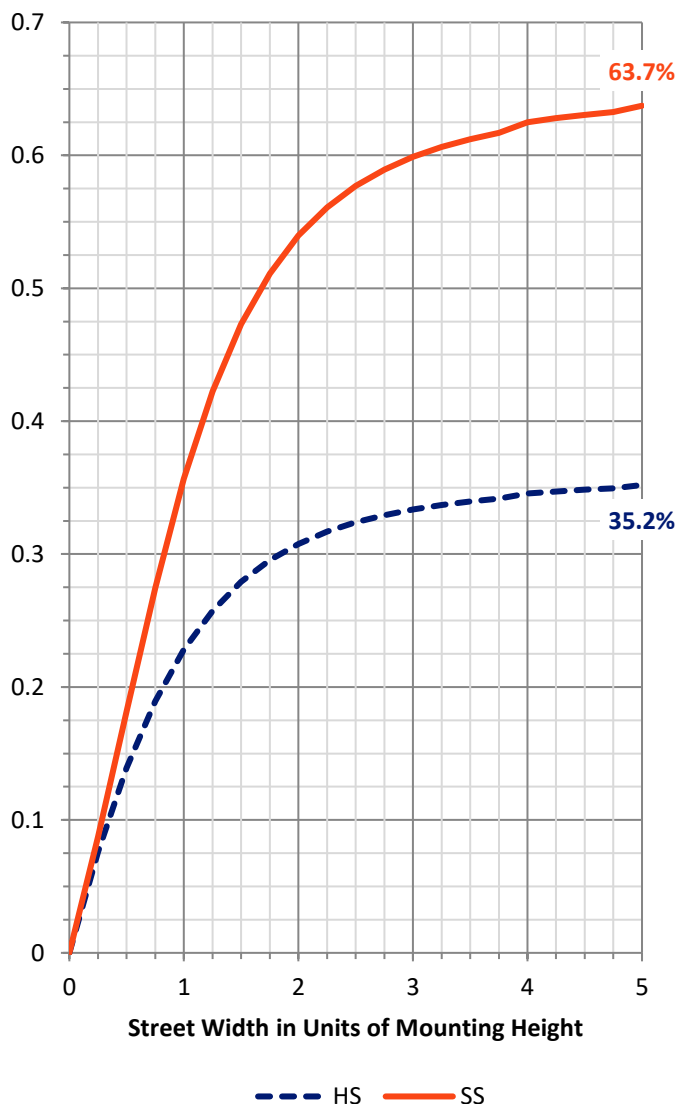
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2054.7	0.0	2054.7
	% Fixture	35.7	0.0	35.7
Street Side	Lumens	3706.6	0.0	3706.6
	% Fixture	64.3	0.0	64.3
Total	Lumens	5761.3	0.0	5761.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	0.8
10°-20°	156.3	2.7
20°-30°	329.8	5.7
30°-40°	607.0	10.5
40°-50°	946.2	16.4
50°-60°	1243.3	21.6
60°-70°	1302.8	22.6
70°-80°	903.2	15.7
80°-90°	226.8	3.9
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°	5761.3	100.0
0°-180°	5761.3	100.0

Coefficient of Utilization



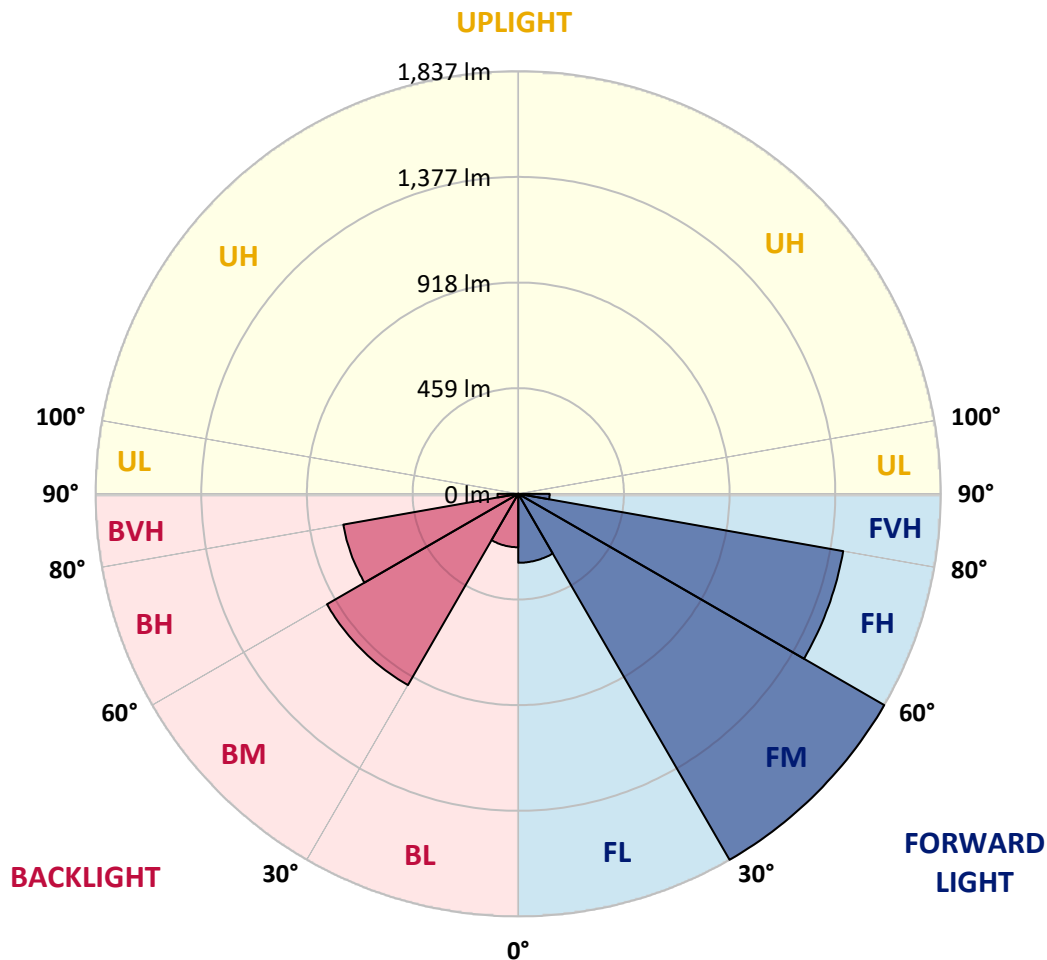
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	299.7	5.2			
FM (30°-60°)	1836.6	31.9			
FH (60°-80°)	1434.0	24.9			G1/1800
FVH (80°-90°)	136.3	2.4			G2/225
BL (0°-30°)	232.2	4.0	B1/500		
BM (30°-60°)	959.9	16.7	B1/1000		
BH (60°-80°)	772.0	13.4	B2/1000		G2/1000
BVH (80°-90°)	90.5	1.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9
2.5°	468.3	468.3	468.3	467.0	467.0	467.0	465.7	465.7	465.7	464.4	463.2
5°	478.7	478.7	477.4	478.7	477.4	476.1	474.8	474.8	474.8	473.5	472.2
7.5°	493.0	494.3	493.0	494.3	493.0	491.7	489.1	489.1	487.8	485.2	482.6
10°	515.0	515.0	515.0	513.7	512.4	511.2	509.9	508.6	507.3	503.4	499.5
12.5°	542.3	542.3	542.3	539.7	539.7	537.1	535.8	534.5	531.9	526.7	521.5
15°	576.0	574.7	578.6	578.6	577.3	577.3	573.4	570.8	568.2	560.5	548.8
17.5°	621.4	620.1	624.0	626.6	626.6	627.9	621.4	618.8	609.7	599.4	583.8
20°	682.4	679.8	683.7	686.3	683.7	686.3	679.8	681.1	668.1	650.0	625.3
22.5°	748.6	748.6	752.5	752.5	753.8	756.3	748.6	744.7	734.3	708.3	677.2
25°	830.3	836.8	836.8	836.8	842.0	843.3	835.5	829.0	814.7	779.7	736.9
27.5°	930.2	928.9	927.6	935.4	935.4	938.0	932.8	930.2	913.3	870.5	805.6
30°	1036.6	1028.8	1034.0	1036.6	1041.8	1045.7	1040.5	1032.7	1011.9	965.2	884.8
32.5°	1133.9	1139.1	1146.8	1149.4	1157.2	1158.5	1145.6	1145.6	1124.8	1065.1	982.1
35°	1244.1	1244.1	1264.9	1274.0	1274.0	1281.8	1262.3	1251.9	1237.7	1175.4	1070.3
37.5°	1340.2	1342.7	1359.6	1380.4	1383.0	1394.6	1380.4	1376.5	1350.5	1287.0	1170.2
40°	1429.7	1432.3	1453.0	1477.7	1491.9	1510.1	1495.8	1489.3	1462.1	1389.5	1270.1
42.5°	1499.7	1504.9	1530.9	1567.2	1590.5	1612.6	1606.1	1602.2	1564.6	1488.0	1362.2
45°	1552.9	1562.0	1598.3	1641.1	1673.6	1706.0	1707.3	1699.5	1664.5	1578.9	1451.7
47.5°	1595.7	1606.1	1646.3	1700.8	1750.1	1790.3	1798.1	1789.0	1756.6	1667.1	1532.2
50°	1630.8	1635.9	1681.4	1751.4	1812.4	1863.0	1878.5	1870.8	1842.2	1741.0	1602.2
52.5°	1648.9	1656.7	1708.6	1789.0	1863.0	1924.0	1947.3	1943.4	1909.7	1808.5	1664.5
55°	1658.0	1665.8	1726.8	1818.9	1901.9	1973.3	2001.8	2003.1	1970.7	1869.5	1722.9
57.5°	1647.6	1658.0	1724.2	1826.7	1918.8	1995.3	2039.4	2038.1	2012.2	1916.2	1772.2
59°	1629.5	1637.2	1708.6	1816.3	1916.2	1992.7	2043.3	2044.6	2021.3	1931.7	1794.2
60°	1608.7	1617.8	1690.4	1803.3	1905.8	1983.6	2036.8	2039.4	2020.0	1935.6	1803.3
62.5°	1537.3	1549.0	1629.5	1750.1	1861.7	1935.6	1999.2	2003.1	1992.7	1925.3	1809.8
65°	1437.5	1447.8	1534.8	1663.2	1780.0	1856.5	1916.2	1925.3	1924.0	1878.5	1783.8
67.5°	1315.5	1316.8	1398.5	1538.6	1660.6	1735.8	1792.9	1808.5	1820.2	1790.3	1707.3
70°	1168.9	1167.6	1246.7	1385.6	1507.5	1586.6	1643.7	1654.1	1683.9	1660.6	1593.1
72.5°	987.3	1002.8	1076.8	1193.6	1314.2	1402.4	1453.0	1472.5	1489.3	1494.5	1438.8
75°	816.0	832.9	891.3	1000.2	1104.0	1185.8	1240.3	1249.3	1280.5	1288.3	1236.4
77.5°	652.6	653.9	696.7	783.6	878.3	945.8	989.9	1013.2	1030.1	1045.7	991.2
80°	458.0	464.4	494.3	556.6	630.5	701.9	738.2	753.8	765.4	775.8	757.6
82.5°	286.7	289.3	308.8	346.4	397.0	437.2	474.8	487.8	490.4	513.7	511.2
85°	136.2	137.5	150.5	168.7	190.7	223.1	237.4	237.4	255.6	272.4	272.4
87.5°	18.2	18.2	22.1	24.6	31.1	40.2	55.8	57.1	67.5	75.2	81.7
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°	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9	461.9
2.5°	463.2	463.2	463.2	463.2	463.2	461.9	463.2	463.2	463.2	463.2	463.2
5°	472.2	470.9	469.6	468.3	468.3	467.0	467.0	467.0	467.0	467.0	467.0
7.5°	481.3	480.0	478.7	476.1	474.8	473.5	473.5	472.2	472.2	472.2	472.2
10°	496.9	495.6	490.4	486.5	483.9	482.6	481.3	480.0	478.7	478.7	478.7
12.5°	517.6	515.0	506.0	500.8	496.9	494.3	491.7	490.4	489.1	487.8	487.8
15°	543.6	537.1	525.4	517.6	512.4	508.6	504.7	502.1	500.8	499.5	499.5
17.5°	574.7	566.9	551.4	537.1	528.0	521.5	516.3	512.4	511.2	511.2	511.2
20°	613.6	600.7	578.6	559.2	544.9	535.8	528.0	524.1	522.8	521.5	520.2
22.5°	659.0	642.2	609.7	579.9	561.7	548.8	539.7	534.5	530.6	529.3	529.3
25°	710.9	686.3	643.5	607.2	582.5	564.3	552.7	546.2	539.7	537.1	537.1
27.5°	773.2	740.8	683.7	635.7	602.0	579.9	566.9	557.9	551.4	546.2	543.6
30°	840.7	804.4	727.8	666.8	624.0	599.4	583.8	573.4	564.3	555.3	554.0
32.5°	926.3	874.4	781.0	701.9	650.0	618.8	600.7	587.7	576.0	566.9	564.3
35°	1013.2	951.0	836.8	738.2	674.6	637.0	614.9	600.7	589.0	578.6	577.3
37.5°	1102.7	1036.6	897.8	781.0	703.2	657.8	630.5	614.9	600.7	590.3	589.0
40°	1196.1	1118.3	960.0	825.1	733.0	678.5	647.4	627.9	612.3	603.3	602.0
42.5°	1284.4	1200.0	1027.5	877.0	768.0	700.6	664.2	643.5	624.0	614.9	613.6
45°	1368.7	1277.9	1095.0	925.0	803.1	723.9	681.1	656.5	635.7	626.6	625.3
47.5°	1445.2	1354.4	1157.2	976.9	839.4	749.9	699.3	669.4	646.1	637.0	637.0
50°	1514.0	1419.3	1218.2	1024.9	873.1	775.8	714.8	681.1	657.8	648.7	647.4
52.5°	1578.9	1476.4	1271.4	1066.4	905.5	799.2	730.4	690.2	665.5	655.2	653.9
55°	1630.8	1528.3	1315.5	1100.1	927.6	814.7	740.8	695.4	668.1	659.0	657.8
57.5°	1676.2	1571.1	1346.6	1123.5	941.9	823.8	746.0	695.4	666.8	656.5	655.2
59°	1695.6	1589.2	1357.0	1130.0	944.5	825.1	744.7	691.5	661.6	651.3	648.7
60°	1706.0	1597.0	1360.9	1131.3	943.2	822.5	743.4	687.6	656.5	644.8	644.8
62.5°	1716.4	1603.5	1355.7	1120.9	928.9	808.2	730.4	672.0	637.0	624.0	624.0
65°	1694.3	1580.2	1325.9	1092.4	900.4	783.6	705.8	646.1	607.2	594.2	594.2
67.5°	1629.5	1523.1	1271.4	1039.2	853.6	740.8	665.5	604.6	568.2	554.0	550.1
70°	1519.2	1429.7	1185.8	962.6	790.1	686.3	614.9	556.6	518.9	504.7	499.5
72.5°	1371.3	1283.1	1071.6	869.2	705.8	614.9	552.7	496.9	455.4	441.1	442.4
75°	1167.6	1105.3	923.7	751.2	608.5	524.1	472.2	425.5	390.5	378.8	380.1
77.5°	947.1	895.2	748.6	612.3	496.9	432.0	387.9	350.3	326.9	320.4	316.6
80°	725.2	674.6	561.7	456.7	377.5	332.1	302.3	276.3	258.2	249.1	251.7
82.5°	486.5	455.4	372.3	302.3	256.9	224.4	214.1	197.2	190.7	185.5	189.4
85°	262.1	234.8	194.6	162.2	141.4	132.3	134.9	133.6	128.4	127.1	131.0
87.5°	85.6	73.9	57.1	48.0	49.3	44.1	44.1	41.5	37.6	36.3	38.9
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)