

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: P472162

Luminaire Tested: **CCW-VA-4-740-U-T4W**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472162  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-4-740-U-T4W  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4W DISTRIBUTION LENS  
Light Source: 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6331.7 lumens  
Efficiency: N/A  
Efficacy: 109.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

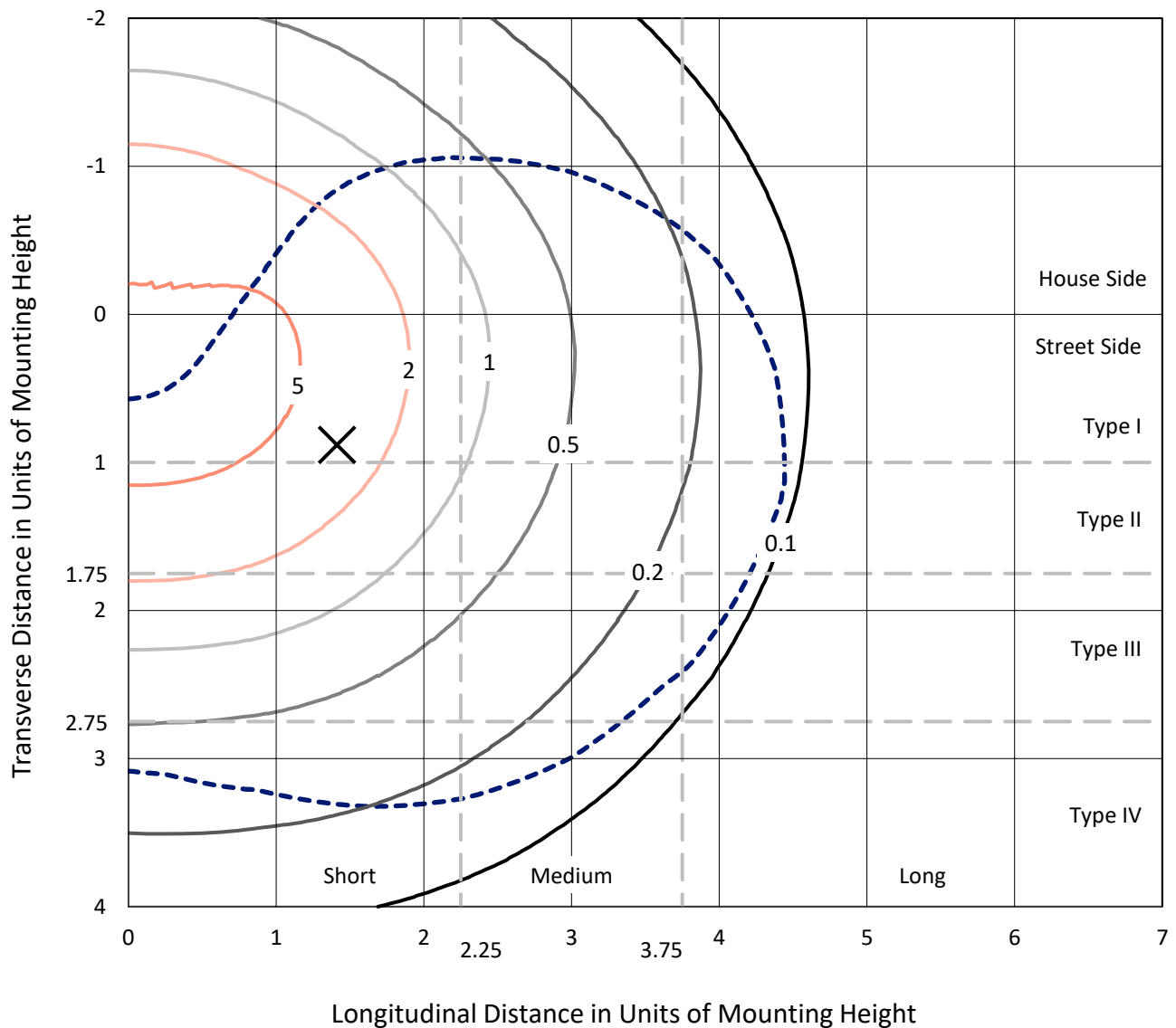
Input Watts (W): 57.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

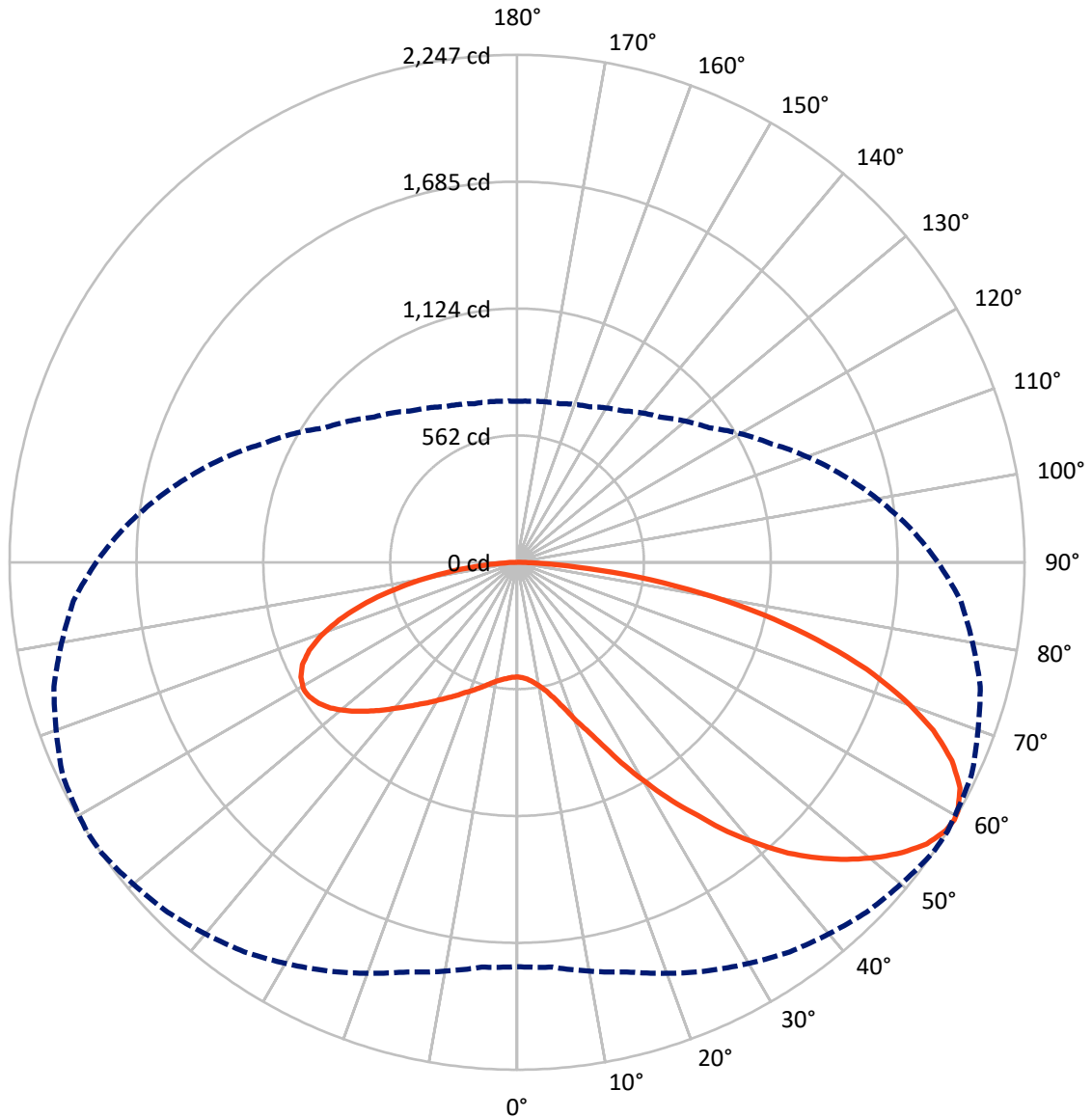
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 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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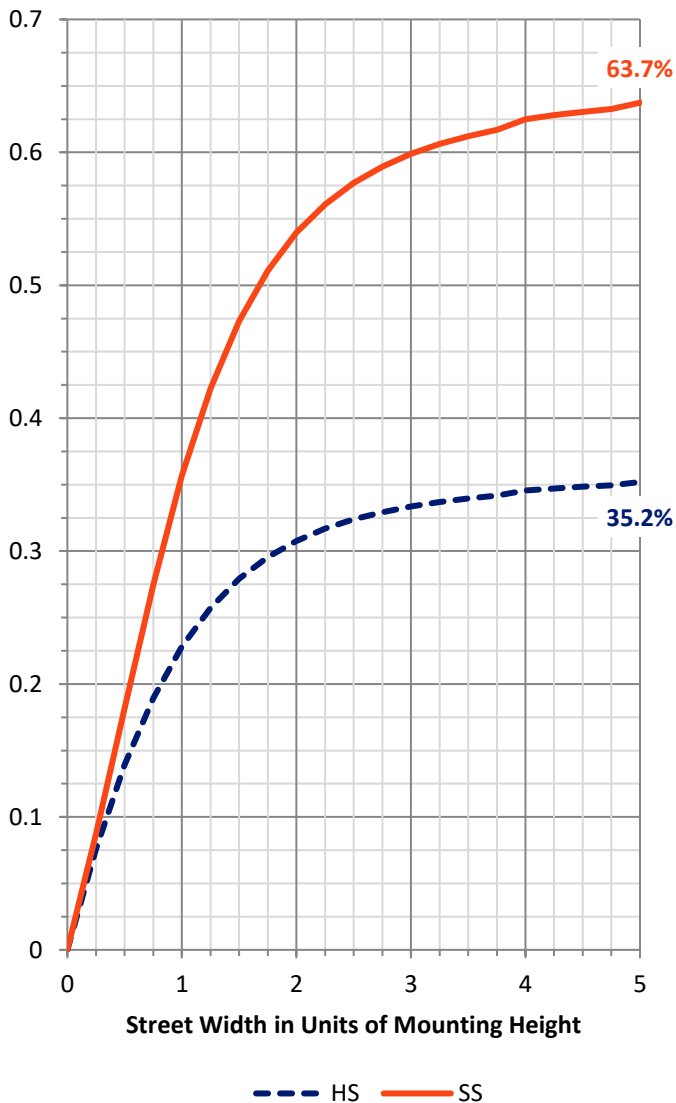
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2258.1	0.0	2258.1
	% Fixture	35.7	0.0	35.7
<b>Street Side</b>	Lumens	4073.6	0.0	4073.6
	% Fixture	64.3	0.0	64.3
<b>Total</b>	Lumens	6331.7	0.0	6331.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.4	0.8
10°-20°	171.8	2.7
20°-30°	362.5	5.7
30°-40°	667.1	10.5
40°-50°	1039.9	16.4
50°-60°	1366.4	21.6
60°-70°	1431.8	22.6
70°-80°	992.7	15.7
80°-90°	249.3	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°	6331.7	100.0
0°-180°	6331.7	100.0



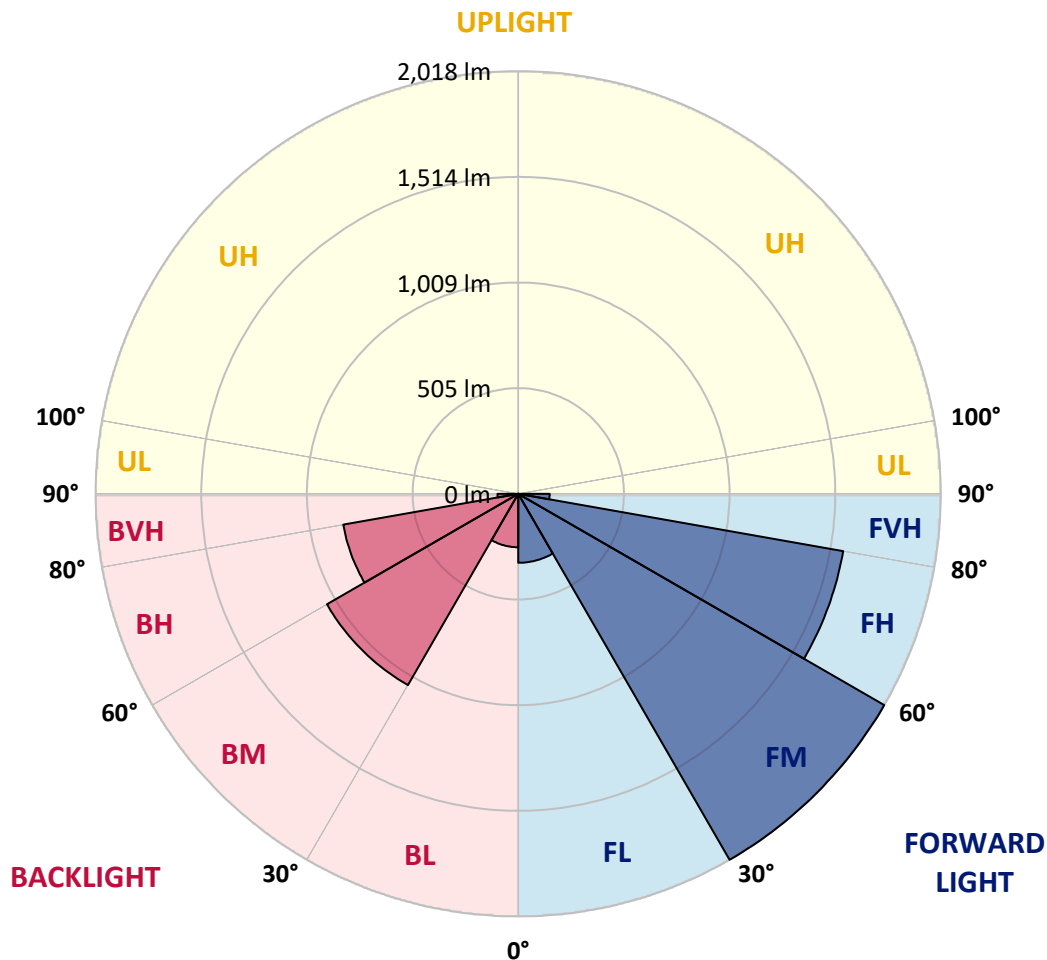
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	329.4	5.2			
FM (30°-60°)	2018.4	31.9			
FH (60°-80°)	1576.0	24.9			G1/1800
FVH (80°-90°)	149.8	2.4			G2/225
BL (0°-30°)	255.2	4.0	B1/500		
BM (30°-60°)	1055.0	16.7	B2/2500		
BH (60°-80°)	848.5	13.4	B2/1000		G2/1000
BVH (80°-90°)	99.5	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°	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6
2.5°	514.7	514.7	514.7	513.3	513.3	513.3	511.9	511.9	511.9	510.4	509.0
5°	526.1	526.1	524.7	526.1	524.7	523.3	521.8	521.8	521.8	520.4	519.0
7.5°	541.8	543.2	541.8	543.2	541.8	540.4	537.5	537.5	536.1	533.3	530.4
10°	566.0	566.0	566.0	564.6	563.2	561.8	560.3	558.9	557.5	553.2	548.9
12.5°	596.0	596.0	596.0	593.1	593.1	590.3	588.9	587.4	584.6	578.9	573.2
15°	633.1	631.6	635.9	635.9	634.5	634.5	630.2	627.4	624.5	615.9	603.1
17.5°	683.0	681.5	685.8	688.7	688.7	690.1	683.0	680.1	670.1	658.7	641.6
20°	750.0	747.1	751.4	754.3	751.4	754.3	747.1	748.5	734.3	714.3	687.2
22.5°	822.7	822.7	827.0	827.0	828.4	831.2	822.7	818.4	807.0	778.5	744.3
25°	912.5	919.6	919.6	919.6	925.3	926.8	918.2	911.1	895.4	856.9	809.9
27.5°	1022.3	1020.9	1019.5	1028.0	1028.0	1030.9	1025.2	1022.3	1003.8	956.7	885.4
30°	1139.2	1130.7	1136.4	1139.2	1144.9	1149.2	1143.5	1134.9	1112.1	1060.8	972.4
32.5°	1246.2	1251.9	1260.4	1263.3	1271.8	1273.2	1259.0	1259.0	1236.2	1170.6	1079.3
35°	1367.3	1367.3	1390.2	1400.1	1400.1	1408.7	1387.3	1375.9	1360.2	1291.8	1176.3
37.5°	1472.9	1475.7	1494.2	1517.1	1519.9	1532.7	1517.1	1512.8	1484.3	1414.4	1286.1
40°	1571.2	1574.1	1596.9	1624.0	1639.7	1659.6	1644.0	1636.8	1606.9	1527.0	1395.9
42.5°	1648.2	1653.9	1682.4	1722.4	1748.0	1772.3	1765.1	1760.9	1719.5	1635.4	1497.1
45°	1706.7	1716.7	1756.6	1803.6	1839.3	1874.9	1876.4	1867.8	1829.3	1735.2	1595.5
47.5°	1753.7	1765.1	1809.3	1869.2	1923.4	1967.6	1976.2	1966.2	1930.5	1832.2	1683.9
50°	1792.2	1797.9	1847.8	1924.8	1991.8	2047.5	2064.6	2056.0	2024.6	1913.4	1760.9
52.5°	1812.2	1820.8	1877.8	1966.2	2047.5	2114.5	2140.1	2135.9	2098.8	1987.6	1829.3
55°	1822.2	1830.7	1897.7	1999.0	2090.2	2168.6	2200.0	2201.4	2165.8	2054.6	1893.5
57.5°	1810.8	1822.2	1894.9	2007.5	2108.8	2192.9	2241.4	2239.9	2211.4	2105.9	1947.6
59°	1790.8	1799.4	1877.8	1996.1	2105.9	2190.0	2245.6	2247.1	2221.4	2123.0	1971.9
60°	1768.0	1778.0	1857.8	1981.9	2094.5	2180.1	2238.5	2241.4	2220.0	2127.3	1981.9
62.5°	1689.6	1702.4	1790.8	1923.4	2046.0	2127.3	2197.2	2201.4	2190.0	2115.9	1989.0
65°	1579.8	1591.2	1686.7	1827.9	1956.2	2040.3	2105.9	2115.9	2114.5	2064.6	1960.5
67.5°	1445.8	1447.2	1537.0	1691.0	1825.0	1907.7	1970.5	1987.6	2000.4	1967.6	1876.4
70°	1284.7	1283.2	1370.2	1522.8	1656.8	1743.8	1806.5	1817.9	1850.7	1825.0	1750.9
72.5°	1085.0	1102.1	1183.4	1311.7	1444.3	1541.3	1596.9	1618.3	1636.8	1642.5	1581.2
75°	896.8	915.4	979.5	1099.3	1213.4	1303.2	1363.1	1373.1	1407.3	1415.8	1358.8
77.5°	717.2	718.6	765.7	861.2	965.3	1039.4	1087.9	1113.6	1132.1	1149.2	1089.3
80°	503.3	510.4	543.2	611.7	692.9	771.4	811.3	828.4	841.2	852.6	832.7
82.5°	315.1	318.0	339.3	380.7	436.3	480.5	521.8	536.1	539.0	564.6	561.8
85°	149.7	151.1	165.4	185.4	209.6	245.2	260.9	260.9	280.9	299.4	299.4
87.5°	20.0	20.0	24.2	27.1	34.2	44.2	61.3	62.7	74.1	82.7	89.8
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°	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6
2.5°	509.0	509.0	509.0	509.0	509.0	507.6	509.0	509.0	509.0	509.0	509.0
5°	519.0	517.6	516.1	514.7	514.7	513.3	513.3	513.3	513.3	513.3	513.3
7.5°	529.0	527.5	526.1	523.3	521.8	520.4	520.4	519.0	519.0	519.0	519.0
10°	546.1	544.7	539.0	534.7	531.8	530.4	529.0	527.5	526.1	526.1	526.1
12.5°	568.9	566.0	556.1	550.4	546.1	543.2	540.4	539.0	537.5	536.1	536.1
15°	597.4	590.3	577.5	568.9	563.2	558.9	554.6	551.8	550.4	548.9	548.9
17.5°	631.6	623.1	606.0	590.3	580.3	573.2	567.5	563.2	561.8	561.8	561.8
20°	674.4	660.1	635.9	614.5	598.8	588.9	580.3	576.0	574.6	573.2	571.7
22.5°	724.3	705.8	670.1	637.3	617.4	603.1	593.1	587.4	583.2	581.7	581.7
25°	781.3	754.3	707.2	667.3	640.2	620.2	607.4	600.3	593.1	590.3	590.3
27.5°	849.8	814.1	751.4	698.6	661.6	637.3	623.1	613.1	606.0	600.3	597.4
30°	923.9	884.0	799.9	732.9	685.8	658.7	641.6	630.2	620.2	610.2	608.8
32.5°	1018.0	961.0	858.3	771.4	714.3	680.1	660.1	645.9	633.1	623.1	620.2
35°	1113.6	1045.1	919.6	811.3	741.4	700.1	675.8	660.1	647.3	635.9	634.5
37.5°	1211.9	1139.2	986.7	858.3	772.8	722.9	692.9	675.8	660.1	648.7	647.3
40°	1314.6	1229.0	1055.1	906.8	805.6	745.7	711.5	690.1	673.0	663.0	661.6
42.5°	1411.5	1318.9	1129.2	963.8	844.1	769.9	730.0	707.2	685.8	675.8	674.4
45°	1504.2	1404.4	1203.4	1016.6	882.6	795.6	748.5	721.5	698.6	688.7	687.2
47.5°	1588.3	1488.5	1271.8	1073.6	922.5	824.1	768.5	735.7	710.1	700.1	700.1
50°	1663.9	1559.8	1338.8	1126.4	959.6	852.6	785.6	748.5	722.9	712.9	711.5
52.5°	1735.2	1622.6	1397.3	1172.0	995.2	878.3	802.7	758.5	731.4	720.0	718.6
55°	1792.2	1679.6	1445.8	1209.1	1019.5	895.4	814.1	764.2	734.3	724.3	722.9
57.5°	1842.1	1726.6	1480.0	1234.7	1035.1	905.4	819.8	764.2	732.9	721.5	720.0
59°	1863.5	1746.6	1491.4	1241.9	1038.0	906.8	818.4	760.0	727.2	715.8	712.9
60°	1874.9	1755.2	1495.7	1243.3	1036.6	904.0	817.0	755.7	721.5	708.6	708.6
62.5°	1886.3	1762.3	1490.0	1231.9	1020.9	888.3	802.7	738.6	700.1	685.8	685.8
65°	1862.1	1736.6	1457.2	1200.5	989.5	861.2	775.6	710.1	667.3	653.0	653.0
67.5°	1790.8	1673.9	1397.3	1142.1	938.2	814.1	731.4	664.4	624.5	608.8	604.5
70°	1669.6	1571.2	1303.2	1057.9	868.3	754.3	675.8	611.7	570.3	554.6	548.9
72.5°	1507.1	1410.1	1177.7	955.3	775.6	675.8	607.4	546.1	500.5	484.8	486.2
75°	1283.2	1214.8	1015.2	825.5	668.7	576.0	519.0	467.7	429.2	416.3	417.8
77.5°	1040.8	983.8	822.7	673.0	546.1	474.8	426.3	385.0	359.3	352.2	347.9
80°	797.0	741.4	617.4	501.9	414.9	365.0	332.2	303.7	283.7	273.8	276.6
82.5°	534.7	500.5	409.2	332.2	282.3	246.7	235.3	216.7	209.6	203.9	208.2
85°	288.0	258.1	213.9	178.2	155.4	145.4	148.3	146.9	141.2	139.7	144.0
87.5°	94.1	81.3	62.7	52.8	54.2	48.5	48.5	45.6	41.3	39.9	42.8
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)