

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: P472228

Luminaire Tested: **CCW-VA-4-740-U-T2**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472228  
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-T2  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T2 DISTRIBUTION LENS  
Light Source: 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5691 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

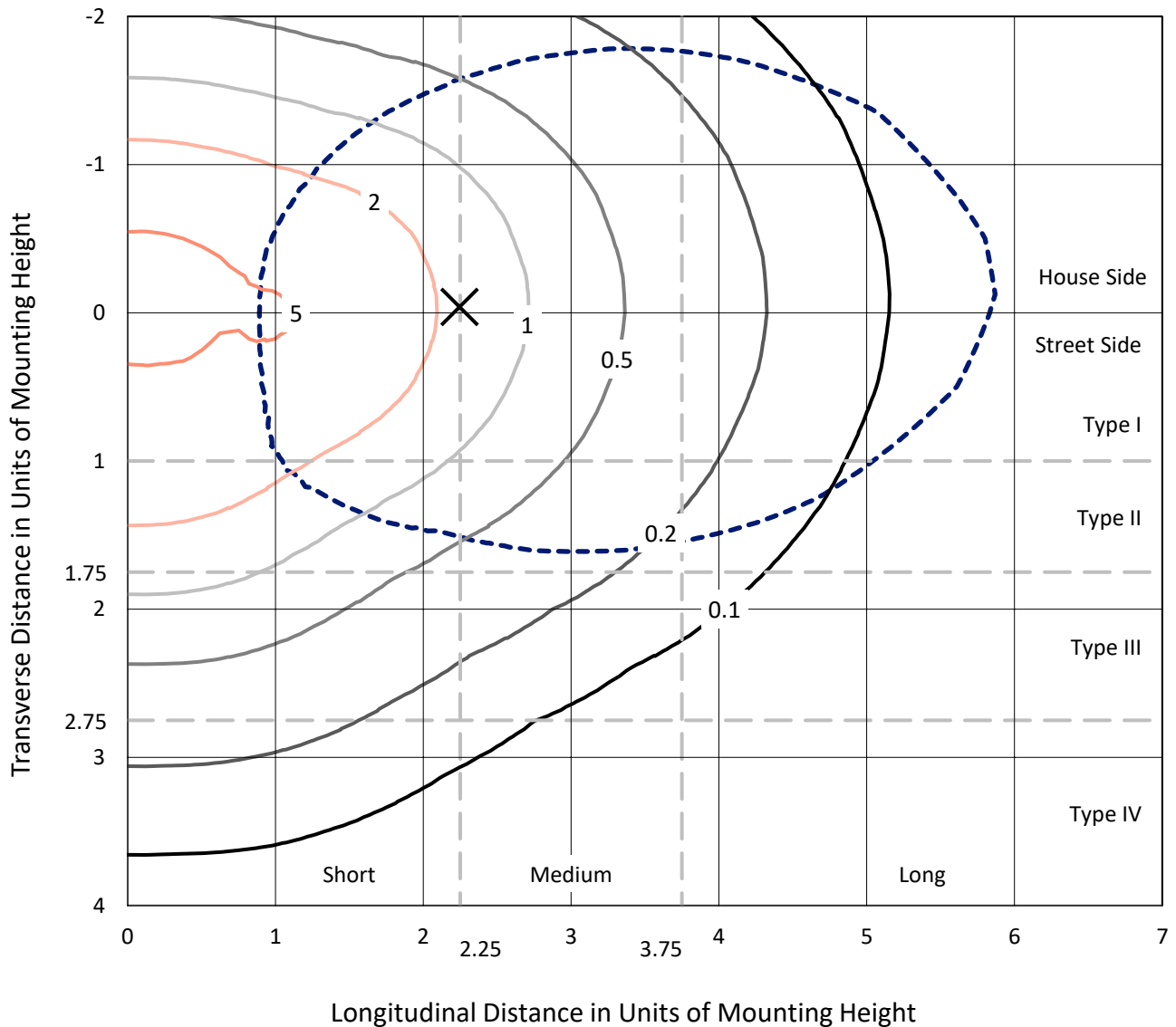
Input Watts (W): 64.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

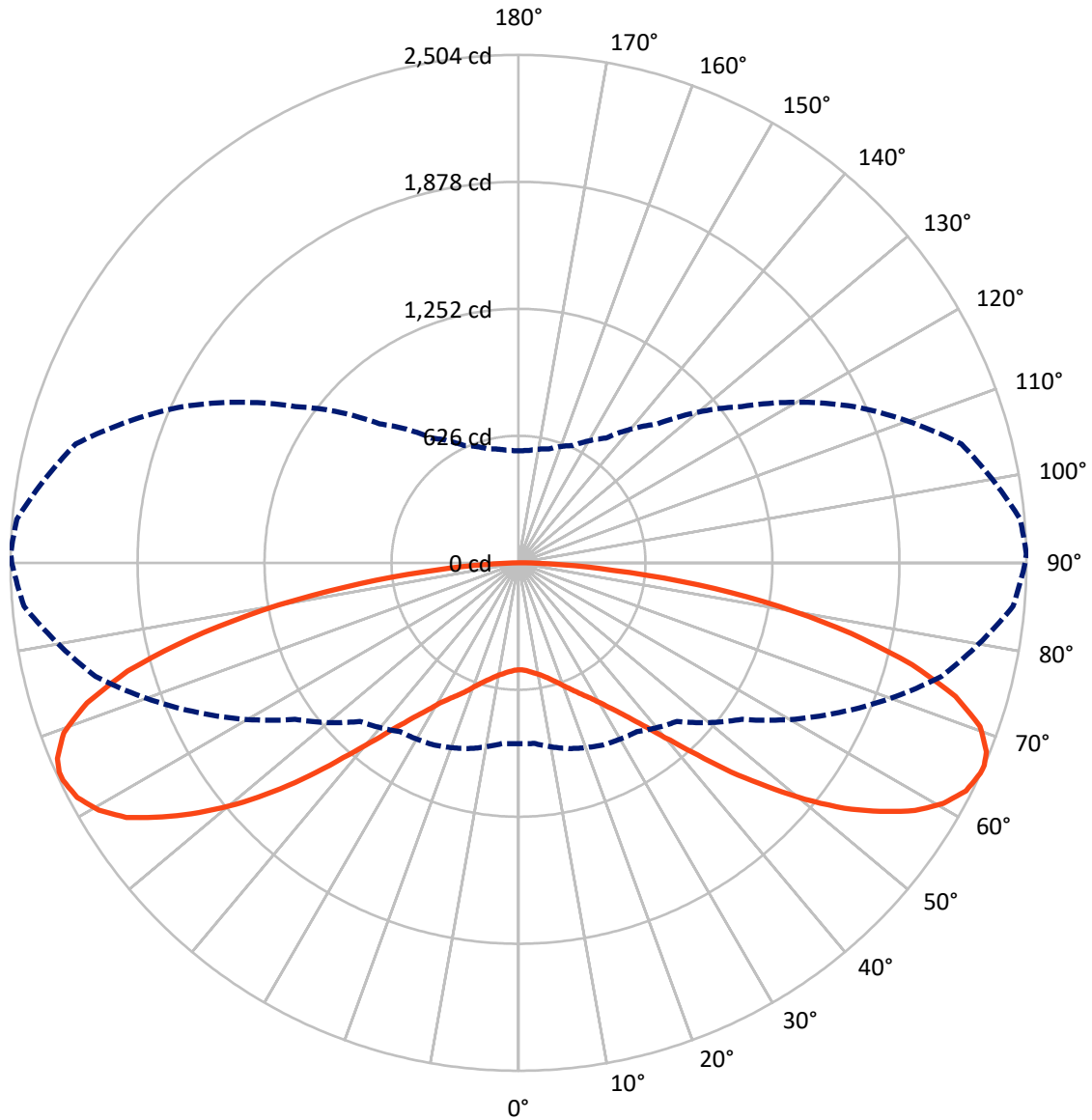
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral      - - - Horizontal Cone Through 66-Deg Vertical

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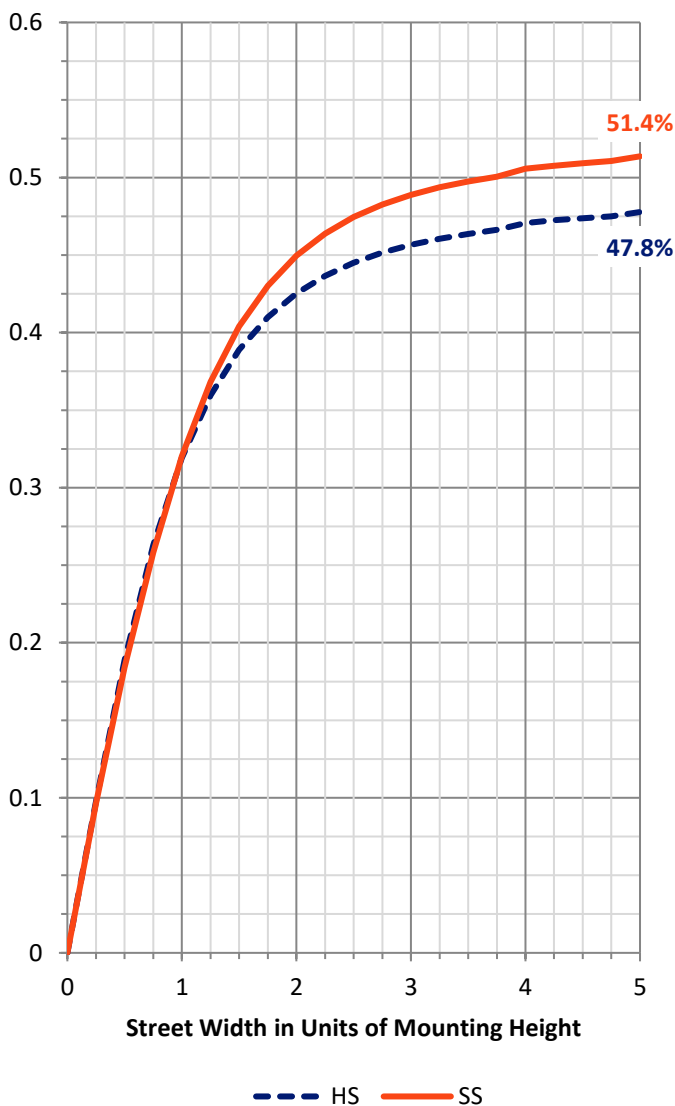
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2746.8	0.0	2746.8
	% Fixture	48.3	0.0	48.3
<b>Street Side</b>	Lumens	2944.2	0.0	2944.2
	% Fixture	51.7	0.0	51.7
<b>Total</b>	Lumens	5691.0	0.0	5691.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.9	0.9
10°-20°	169.9	3.0
20°-30°	328.6	5.8
30°-40°	539.1	9.5
40°-50°	853.9	15.0
50°-60°	1177.5	20.7
60°-70°	1322.3	23.2
70°-80°	988.2	17.4
80°-90°	259.7	4.6
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°	5691.0	100.0
0°-180°	5691.0	100.0

**Coefficient of Utilization**

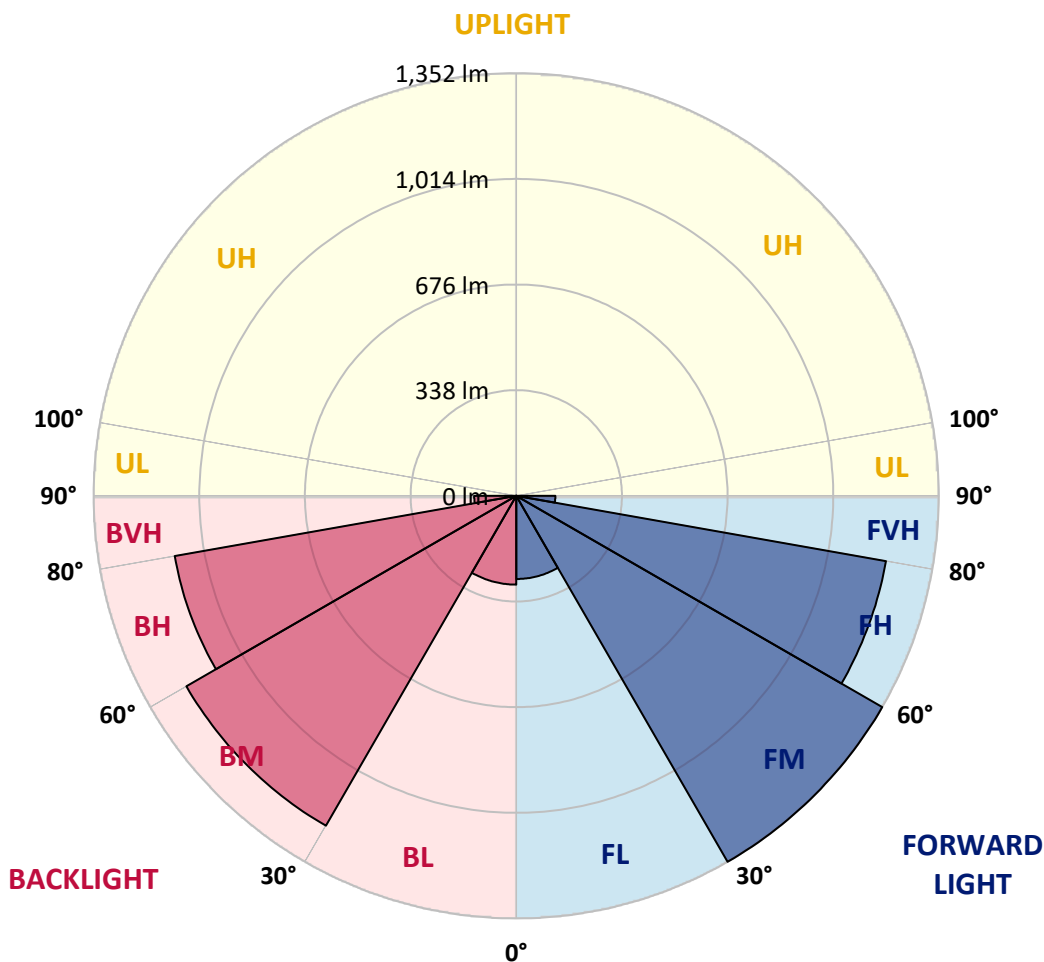


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	266.1	4.7			
FM (30°-60°)	1352.0	23.8			
FH (60°-80°)	1201.1	21.1			G1/1800
FVH (80°-90°)	125.0	2.2			G2/225
BL (0°-30°)	284.3	5.0	B1/500		
BM (30°-60°)	1218.5	21.4	B2/2500		
BH (60°-80°)	1109.4	19.5	B3/2500		G3/2500
BVH (80°-90°)	134.6	2.4			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3
2.5°	529.3	529.3	529.3	529.3	531.4	531.4	531.4	531.4	531.4	529.3	529.3
5°	533.4	533.4	533.4	533.4	535.4	535.4	535.4	535.4	537.4	537.4	537.4
7.5°	537.4	537.4	539.4	539.4	541.4	541.4	543.4	543.4	545.4	547.5	547.5
10°	545.4	545.4	547.5	547.5	551.5	553.5	555.5	555.5	559.5	559.5	559.5
12.5°	555.5	557.5	559.5	561.6	565.6	567.6	569.6	571.6	573.6	575.6	575.6
15°	571.6	569.6	573.6	577.7	579.7	583.7	585.7	587.7	591.7	595.8	595.8
17.5°	583.7	585.7	587.7	591.7	595.8	601.8	605.8	609.9	613.9	617.9	617.9
20°	599.8	597.8	605.8	611.9	615.9	623.9	630.0	638.0	642.1	646.1	648.1
22.5°	613.9	615.9	619.9	628.0	636.0	648.1	660.2	666.2	672.3	676.3	682.3
25°	632.0	634.0	640.0	648.1	660.2	674.3	688.4	696.4	702.4	710.5	716.5
27.5°	650.1	650.1	660.2	672.3	686.3	704.5	720.6	728.6	738.7	748.7	752.8
30°	670.2	670.2	680.3	696.4	716.5	736.7	750.7	766.9	780.9	791.0	799.1
32.5°	700.4	700.4	712.5	728.6	750.7	774.9	795.0	811.1	829.2	847.4	863.5
35°	734.6	736.7	752.8	772.9	799.1	829.2	847.4	869.5	889.6	919.8	935.9
37.5°	789.0	791.0	809.1	835.3	861.4	893.7	923.8	950.0	980.2	1014.4	1026.5
40°	869.5	875.5	893.7	905.7	929.9	954.0	998.3	1042.6	1094.9	1141.2	1149.3
42.5°	1014.4	1008.4	996.3	992.3	998.3	1024.5	1072.8	1141.2	1233.8	1292.2	1292.2
45°	1070.8	1070.8	1072.8	1068.8	1064.7	1082.8	1139.2	1247.9	1378.7	1459.2	1475.3
47.5°	1080.8	1082.8	1101.0	1117.1	1121.1	1141.2	1209.7	1352.6	1527.7	1646.4	1656.5
50°	1080.8	1084.9	1109.0	1137.2	1157.3	1185.5	1270.0	1445.1	1674.6	1811.5	1837.6
52.5°	1076.8	1080.8	1107.0	1141.2	1173.4	1213.7	1322.4	1541.8	1805.4	1990.6	2002.7
55°	1066.7	1070.8	1103.0	1139.2	1175.4	1229.8	1364.6	1624.3	1932.2	2139.5	2161.7
57.5°	1054.7	1060.7	1094.9	1133.2	1167.4	1233.8	1392.8	1688.7	2034.9	2272.4	2312.6
60°	1030.5	1040.6	1078.8	1117.1	1149.3	1219.7	1406.9	1739.0	2111.4	2369.0	2409.2
62.5°	982.2	992.3	1034.5	1076.8	1109.0	1185.5	1398.8	1763.2	2155.6	2429.4	2471.6
65°	921.8	925.9	972.1	1016.4	1048.6	1129.1	1364.6	1759.1	2165.7	2449.5	2497.8
66°	891.6	893.7	948.0	990.3	1016.4	1105.0	1344.5	1745.0	2159.7	2447.5	2497.8
67.5°	837.3	847.4	893.7	937.9	968.1	1050.6	1296.2	1712.8	2135.5	2427.4	2479.7
70°	742.7	750.7	789.0	833.3	865.5	944.0	1191.5	1618.2	2046.9	2344.8	2405.2
72.5°	640.0	646.1	686.3	718.5	738.7	823.2	1064.7	1463.3	1892.0	2189.9	2248.2
75°	531.4	535.4	571.6	593.8	611.9	686.3	895.7	1264.0	1648.4	1938.3	2014.7
77.5°	418.6	420.7	450.9	471.0	471.0	535.4	710.5	1024.5	1352.6	1620.2	1676.6
80°	307.9	305.9	324.0	334.1	340.2	382.4	511.2	752.8	1030.5	1239.8	1294.2
82.5°	201.3	199.3	211.3	215.4	215.4	241.5	322.0	477.0	676.3	841.3	873.5
85°	106.7	110.7	108.7	108.7	108.7	118.8	161.0	249.6	360.3	450.9	473.0
87.5°	18.1	18.1	18.1	20.1	24.2	32.2	42.3	70.4	102.6	138.9	157.0
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):**

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3	527.3
2.5°	529.3	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4
5°	537.4	537.4	537.4	539.4	539.4	539.4	539.4	539.4	539.4	539.4	539.4
7.5°	547.5	547.5	549.5	549.5	549.5	551.5	551.5	549.5	549.5	549.5	549.5
10°	559.5	559.5	561.6	563.6	563.6	565.6	565.6	563.6	563.6	561.6	561.6
12.5°	575.6	577.7	579.7	581.7	583.7	583.7	581.7	579.7	577.7	575.6	575.6
15°	595.8	597.8	599.8	603.8	603.8	603.8	601.8	599.8	595.8	593.8	595.8
17.5°	619.9	621.9	626.0	628.0	630.0	628.0	628.0	626.0	626.0	623.9	623.9
20°	650.1	652.1	658.2	660.2	660.2	662.2	668.2	672.3	678.3	680.3	680.3
22.5°	680.3	684.3	690.4	698.4	702.4	710.5	712.5	716.5	714.5	708.5	708.5
25°	716.5	720.6	732.6	742.7	750.7	754.8	750.7	744.7	734.6	726.6	724.6
27.5°	754.8	760.8	778.9	793.0	797.0	793.0	776.9	762.8	750.7	740.7	736.7
30°	803.1	813.1	833.3	841.3	839.3	823.2	799.1	780.9	762.8	750.7	748.7
32.5°	863.5	873.5	891.6	893.7	881.6	851.4	819.2	795.0	772.9	758.8	756.8
35°	935.9	946.0	956.0	950.0	915.8	877.6	837.3	803.1	780.9	764.8	764.8
37.5°	1028.5	1034.5	1034.5	1004.4	952.0	901.7	851.4	811.1	787.0	770.9	768.9
40°	1149.3	1147.3	1119.1	1060.7	992.3	923.8	861.4	819.2	789.0	772.9	770.9
42.5°	1294.2	1280.1	1219.7	1125.1	1030.5	944.0	873.5	821.2	787.0	770.9	768.9
45°	1471.3	1447.2	1338.5	1199.6	1070.8	962.1	879.6	819.2	780.9	762.8	760.8
47.5°	1646.4	1632.3	1483.4	1278.1	1111.0	982.2	883.6	813.1	768.9	742.7	742.7
50°	1831.6	1797.4	1628.3	1372.7	1153.3	996.3	883.6	803.1	748.7	720.6	716.5
52.5°	2010.7	1976.5	1775.2	1467.3	1199.6	1010.4	879.6	789.0	730.6	700.4	696.4
55°	2163.7	2135.5	1918.1	1574.0	1247.9	1020.5	873.5	772.9	712.5	684.3	680.3
57.5°	2304.6	2276.4	2042.9	1664.5	1294.2	1026.5	859.4	752.8	690.4	662.2	660.2
60°	2407.2	2385.1	2149.6	1749.1	1332.4	1026.5	839.3	728.6	666.2	638.0	636.0
62.5°	2475.7	2453.5	2226.1	1805.4	1356.6	1012.4	809.1	696.4	636.0	609.9	603.8
65°	2501.8	2481.7	2260.3	1827.6	1352.6	984.2	768.9	656.1	597.8	571.6	567.6
66°	2503.8	2481.7	2260.3	1823.5	1342.5	968.1	750.7	638.0	581.7	555.5	551.5
67.5°	2487.7	2467.6	2246.2	1803.4	1314.3	937.9	714.5	607.8	551.5	525.3	523.3
70°	2413.3	2397.2	2169.7	1726.9	1247.9	871.5	654.1	549.5	495.1	477.0	471.0
72.5°	2252.2	2234.1	2016.8	1584.0	1139.2	780.9	577.7	481.0	436.8	414.6	412.6
75°	2002.7	1994.6	1783.3	1394.8	982.2	672.3	489.1	406.6	370.3	354.2	354.2
77.5°	1676.6	1660.5	1481.4	1153.3	807.1	543.4	392.5	330.1	301.9	287.8	289.8
80°	1304.2	1292.2	1141.2	865.5	609.9	408.6	293.9	251.6	231.5	223.4	219.4
82.5°	893.7	861.4	760.8	573.6	396.5	275.7	203.3	175.1	165.0	163.0	161.0
85°	464.9	477.0	400.5	303.9	215.4	153.0	122.8	112.7	108.7	110.7	110.7
87.5°	153.0	157.0	120.8	92.6	70.4	54.3	46.3	44.3	38.2	42.3	44.3
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)