

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: P472256

Luminaire Tested: **CCW-VA-4-850-U-T2**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472256  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-4-850-U-T2  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T2 DISTRIBUTION LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5523.7 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

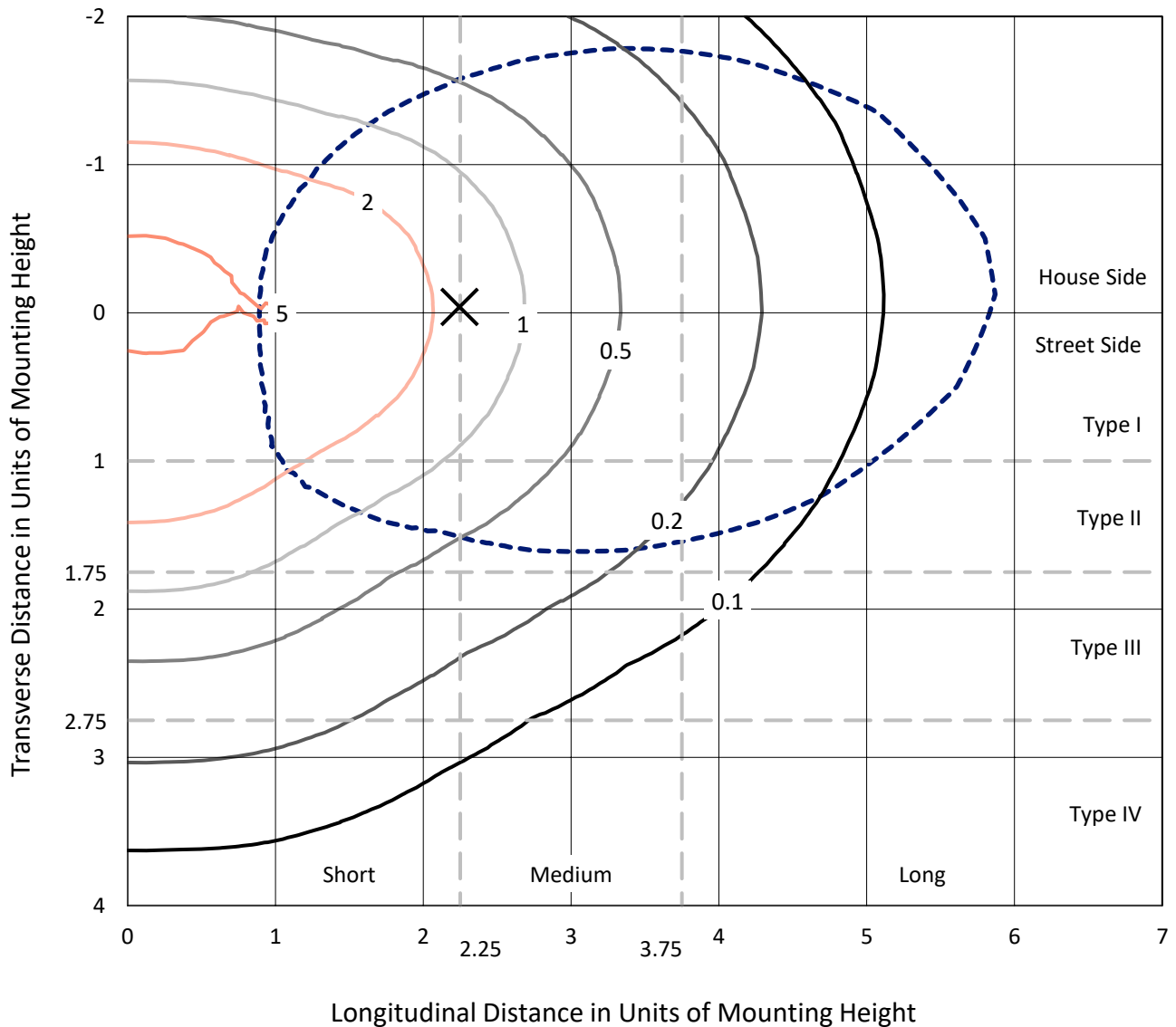
Input Watts (W): 64.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

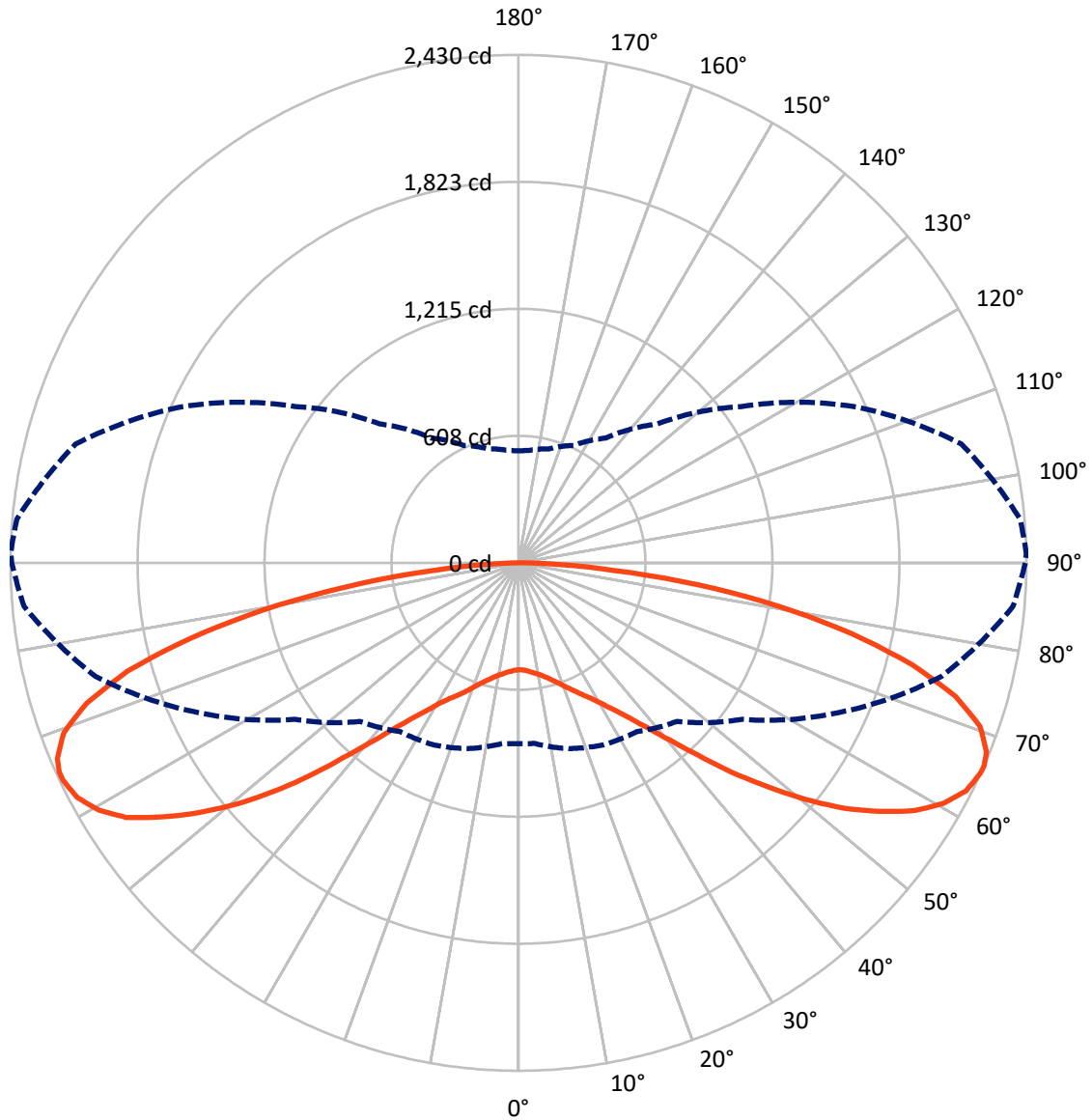
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.5 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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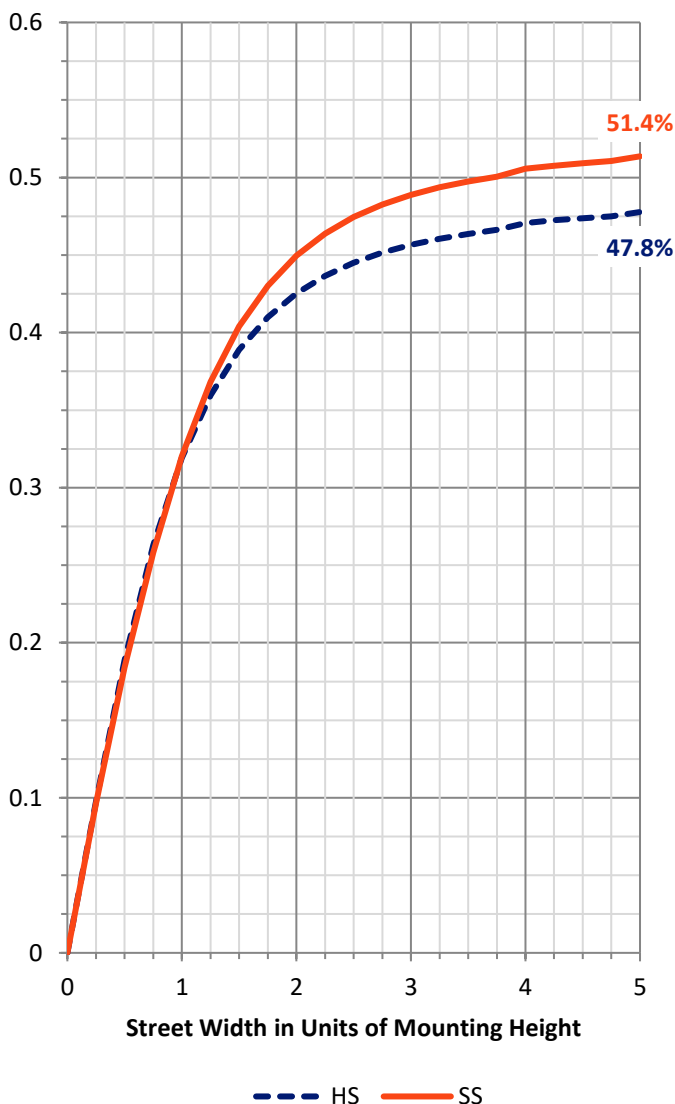
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2666.0	0.0	2666.0
	% Fixture	48.3	0.0	48.3
<b>Street Side</b>	Lumens	2857.7	0.0	2857.7
	% Fixture	51.7	0.0	51.7
<b>Total</b>	Lumens	5523.7	0.0	5523.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.4	0.9
10°-20°	164.9	3.0
20°-30°	318.9	5.8
30°-40°	523.3	9.5
40°-50°	828.8	15.0
50°-60°	1142.9	20.7
60°-70°	1283.4	23.2
70°-80°	959.2	17.4
80°-90°	252.0	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°	5523.7	100.0
0°-180°	5523.7	100.0

**Coefficient of Utilization**



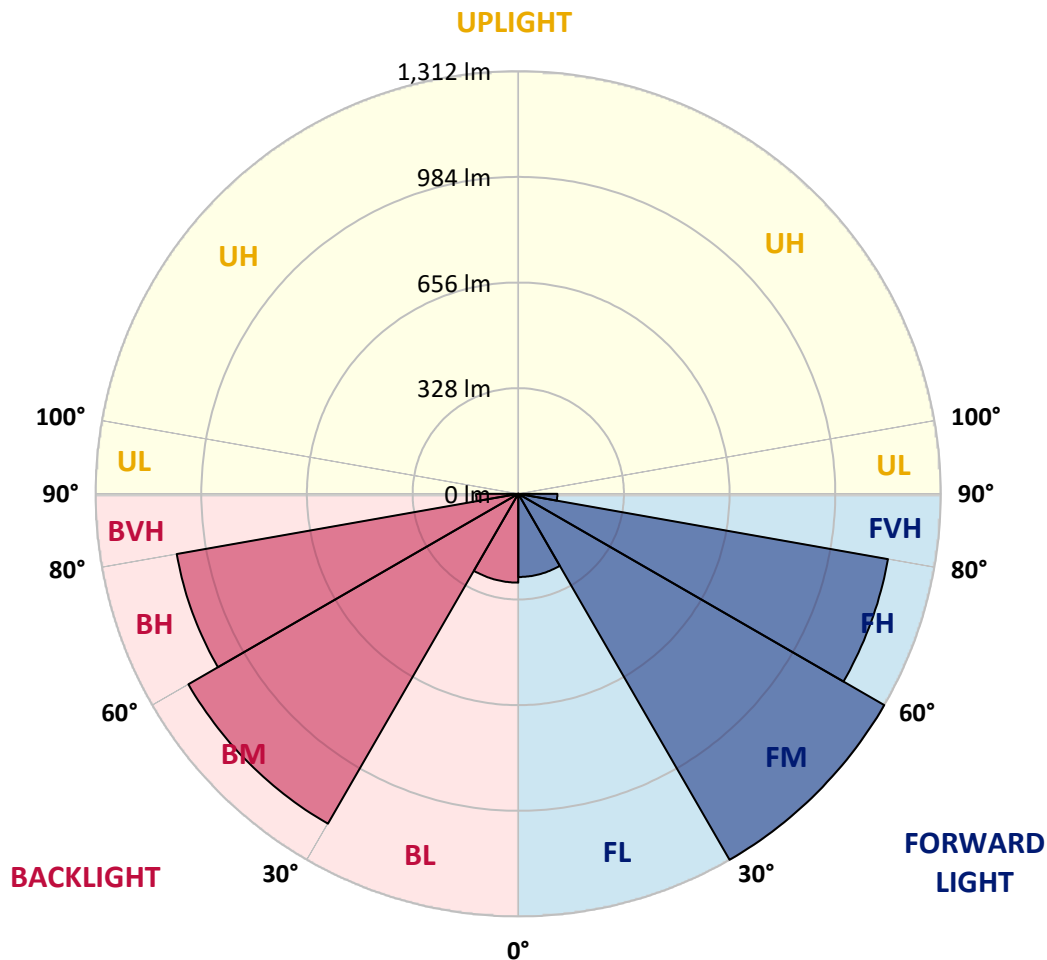
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	258.3	4.7			
FM (30°-60°)	1312.3	23.8			
FH (60°-80°)	1165.8	21.1			G1/1800
FVH (80°-90°)	121.4	2.2			G2/225
BL (0°-30°)	275.9	5.0	B1/500		
BM (30°-60°)	1182.7	21.4	B2/2500		
BH (60°-80°)	1076.8	19.5	B3/2500		G3/2500
BVH (80°-90°)	130.7	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°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8
2.5°	513.8	513.8	513.8	513.8	515.7	515.7	515.7	515.7	515.7	513.8	513.8
5°	517.7	517.7	517.7	517.7	519.6	519.6	519.6	519.6	521.6	521.6	521.6
7.5°	521.6	521.6	523.6	523.6	525.5	525.5	527.5	527.5	529.4	531.4	531.4
10°	529.4	529.4	531.4	531.4	535.3	537.2	539.2	539.2	543.1	543.1	543.1
12.5°	539.2	541.1	543.1	545.0	548.9	550.9	552.9	554.8	556.8	558.7	558.7
15°	554.8	552.9	556.8	560.7	562.6	566.5	568.5	570.4	574.3	578.3	578.3
17.5°	566.5	568.5	570.4	574.3	578.3	584.1	588.0	591.9	595.8	599.7	599.7
20°	582.2	580.2	588.0	593.9	597.8	605.6	611.5	619.3	623.2	627.1	629.0
22.5°	595.8	597.8	601.7	609.5	617.3	629.0	640.8	646.6	652.5	656.4	662.3
25°	613.4	615.4	621.2	629.0	640.8	654.4	668.1	675.9	681.8	689.6	695.5
27.5°	631.0	631.0	640.8	652.5	666.2	683.7	699.4	707.2	717.0	726.7	730.6
30°	650.5	650.5	660.3	675.9	695.5	715.0	728.7	744.3	758.0	767.7	775.6
32.5°	679.8	679.8	691.6	707.2	728.7	752.1	771.7	787.3	804.9	822.4	838.1
35°	713.0	715.0	730.6	750.2	775.6	804.9	822.4	843.9	863.5	892.8	908.4
37.5°	765.8	767.7	785.3	810.7	836.1	867.4	896.7	922.1	951.4	984.6	996.3
40°	843.9	849.8	867.4	879.1	902.5	926.0	969.0	1011.9	1062.7	1107.7	1115.5
42.5°	984.6	978.7	967.0	963.1	969.0	994.4	1041.2	1107.7	1197.5	1254.2	1254.2
45°	1039.3	1039.3	1041.2	1037.3	1033.4	1051.0	1105.7	1211.2	1338.2	1416.3	1432.0
47.5°	1049.1	1051.0	1068.6	1084.2	1088.1	1107.7	1174.1	1312.8	1482.7	1598.0	1607.8
50°	1049.1	1053.0	1076.4	1103.8	1123.3	1150.6	1232.7	1402.7	1625.4	1758.2	1783.6
52.5°	1045.2	1049.1	1074.5	1107.7	1138.9	1178.0	1283.5	1496.4	1752.3	1932.1	1943.8
55°	1035.4	1039.3	1070.5	1105.7	1140.9	1193.6	1324.5	1576.5	1875.4	2076.6	2098.1
57.5°	1023.7	1029.5	1062.7	1099.9	1133.1	1197.5	1351.9	1639.0	1975.0	2205.6	2244.6
60°	1000.2	1010.0	1047.1	1084.2	1115.5	1183.9	1365.5	1687.9	2049.3	2299.3	2338.4
62.5°	953.3	963.1	1004.1	1045.2	1076.4	1150.6	1357.7	1711.3	2092.3	2357.9	2399.0
65°	894.7	898.6	943.6	986.5	1017.8	1095.9	1324.5	1707.4	2102.0	2377.5	2424.4
66°	865.4	867.4	920.1	961.1	986.5	1072.5	1305.0	1693.7	2096.2	2375.5	2424.4
67.5°	812.7	822.4	867.4	910.4	939.7	1019.8	1258.1	1662.5	2072.7	2356.0	2406.8
70°	720.9	728.7	765.8	808.8	840.0	916.2	1156.5	1570.7	1986.8	2275.9	2334.5
72.5°	621.2	627.1	666.2	697.4	717.0	799.0	1033.4	1420.2	1836.3	2125.5	2182.1
75°	515.7	519.6	554.8	576.3	593.9	666.2	869.3	1226.8	1600.0	1881.3	1955.5
77.5°	406.3	408.3	437.6	457.1	457.1	519.6	689.6	994.4	1312.8	1572.6	1627.3
80°	298.9	296.9	314.5	324.3	330.2	371.2	496.2	730.6	1000.2	1203.4	1256.1
82.5°	195.4	193.4	205.1	209.0	209.0	234.4	312.6	463.0	656.4	816.6	847.8
85°	103.5	107.4	105.5	105.5	105.5	115.3	156.3	242.2	349.7	437.6	459.1
87.5°	17.6	17.6	17.6	19.5	23.4	31.3	41.0	68.4	99.6	134.8	152.4
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°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8
2.5°	513.8	515.7	515.7	515.7	515.7	515.7	515.7	515.7	515.7	515.7	515.7
5°	521.6	521.6	521.6	523.6	523.6	523.6	523.6	523.6	523.6	523.6	523.6
7.5°	531.4	531.4	533.3	533.3	533.3	535.3	535.3	533.3	533.3	533.3	533.3
10°	543.1	543.1	545.0	547.0	547.0	548.9	548.9	547.0	547.0	545.0	545.0
12.5°	558.7	560.7	562.6	564.6	566.5	566.5	564.6	562.6	560.7	558.7	558.7
15°	578.3	580.2	582.2	586.1	586.1	586.1	584.1	582.2	578.3	576.3	578.3
17.5°	601.7	603.6	607.6	609.5	611.5	609.5	609.5	607.6	607.6	605.6	605.6
20°	631.0	633.0	638.8	640.8	640.8	642.7	648.6	652.5	658.3	660.3	660.3
22.5°	660.3	664.2	670.1	677.9	681.8	689.6	691.6	695.5	693.5	687.7	687.7
25°	695.5	699.4	711.1	720.9	728.7	732.6	728.7	722.8	713.0	705.2	703.3
27.5°	732.6	738.4	756.0	769.7	773.6	769.7	754.1	740.4	728.7	718.9	715.0
30°	779.5	789.2	808.8	816.6	814.6	799.0	775.6	758.0	740.4	728.7	726.7
32.5°	838.1	847.8	865.4	867.4	855.7	826.4	795.1	771.7	750.2	736.5	734.5
35°	908.4	918.2	927.9	922.1	888.9	851.8	812.7	779.5	758.0	742.4	742.4
37.5°	998.3	1004.1	1004.1	974.8	924.0	875.2	826.4	787.3	763.8	748.2	746.3
40°	1115.5	1113.5	1086.2	1029.5	963.1	896.7	836.1	795.1	765.8	750.2	748.2
42.5°	1256.1	1242.5	1183.9	1092.0	1000.2	916.2	847.8	797.1	763.8	748.2	746.3
45°	1428.0	1404.6	1299.1	1164.3	1039.3	933.8	853.7	795.1	758.0	740.4	738.4
47.5°	1598.0	1584.3	1439.8	1240.5	1078.4	953.3	857.6	789.2	746.3	720.9	720.9
50°	1777.7	1744.5	1580.4	1332.3	1119.4	967.0	857.6	779.5	726.7	699.4	695.5
52.5°	1951.6	1918.4	1723.0	1424.1	1164.3	980.7	853.7	765.8	709.1	679.8	675.9
55°	2100.1	2072.7	1861.7	1527.7	1211.2	990.5	847.8	750.2	691.6	664.2	660.3
57.5°	2236.8	2209.5	1982.9	1615.6	1256.1	996.3	834.2	730.6	670.1	642.7	640.8
60°	2336.5	2315.0	2086.4	1697.6	1293.3	996.3	814.6	707.2	646.6	619.3	617.3
62.5°	2402.9	2381.4	2160.6	1752.3	1316.7	982.6	785.3	675.9	617.3	591.9	586.1
65°	2428.3	2408.7	2193.8	1773.8	1312.8	955.3	746.3	636.9	580.2	554.8	550.9
66°	2430.2	2408.7	2193.8	1769.9	1303.0	939.7	728.7	619.3	564.6	539.2	535.3
67.5°	2414.6	2395.1	2180.2	1750.4	1275.7	910.4	693.5	590.0	535.3	509.9	507.9
70°	2342.3	2326.7	2105.9	1676.2	1211.2	845.9	634.9	533.3	480.6	463.0	457.1
72.5°	2186.0	2168.4	1957.5	1537.4	1105.7	758.0	560.7	466.9	423.9	402.4	400.5
75°	1943.8	1936.0	1730.9	1353.8	953.3	652.5	474.7	394.6	359.5	343.8	343.8
77.5°	1627.3	1611.7	1437.8	1119.4	783.4	527.5	380.9	320.4	293.0	279.4	281.3
80°	1265.9	1254.2	1107.7	840.0	591.9	396.6	285.2	244.2	224.7	216.8	212.9
82.5°	867.4	836.1	738.4	556.8	384.9	267.6	197.3	170.0	160.2	158.2	156.3
85°	451.3	463.0	388.8	295.0	209.0	148.5	119.2	109.4	105.5	107.4	107.4
87.5°	148.5	152.4	117.2	89.9	68.4	52.7	44.9	43.0	37.1	41.0	43.0
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)