

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: P472244

Luminaire Tested: **CCW-VA-4-830-U-T2**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472244  
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-T2  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T2 DISTRIBUTION LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5178.3 lumens  
Efficiency: N/A  
Efficacy: 80.2 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

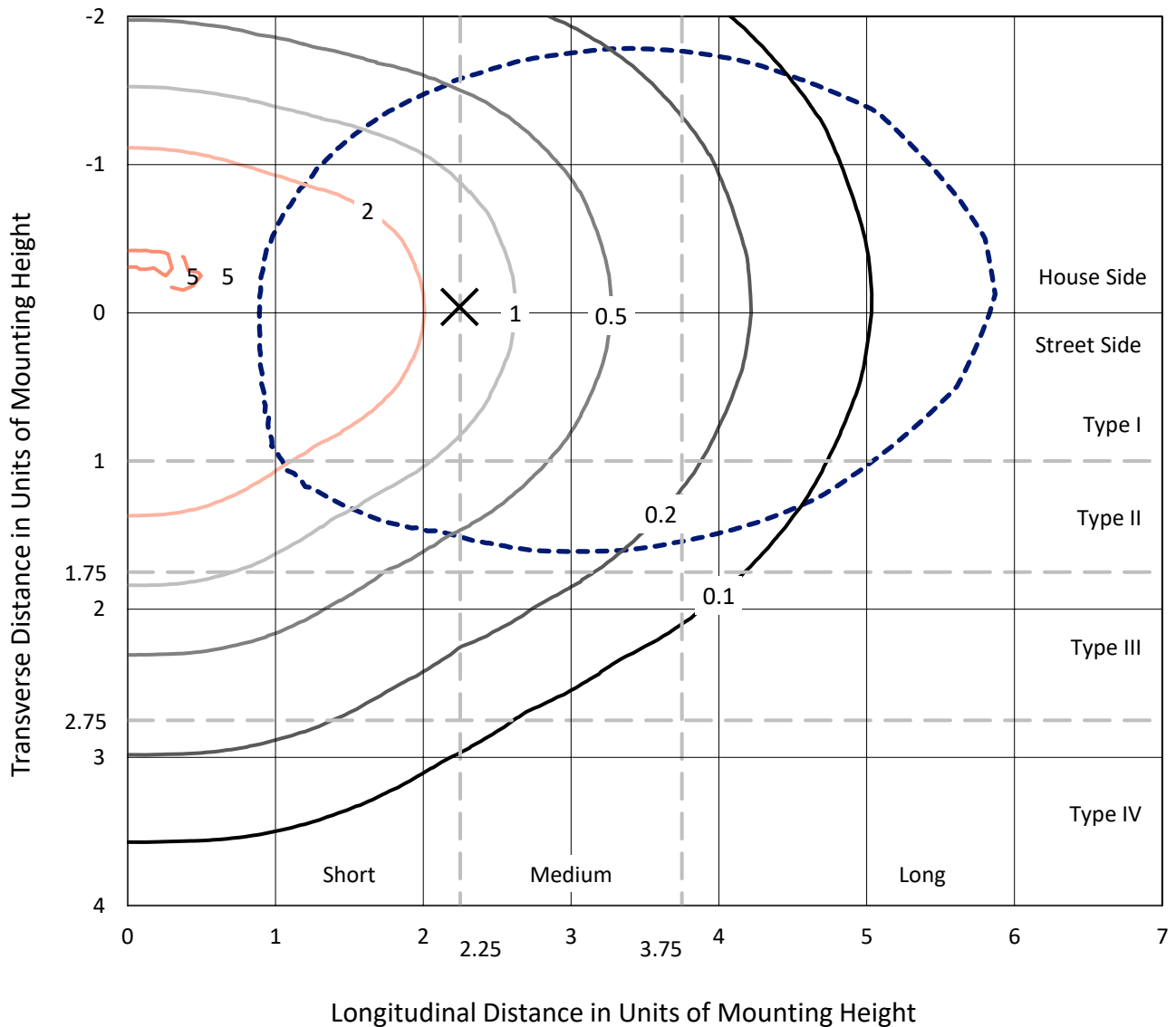




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### Iso-Footcandle Lines of Horizontal Illumination

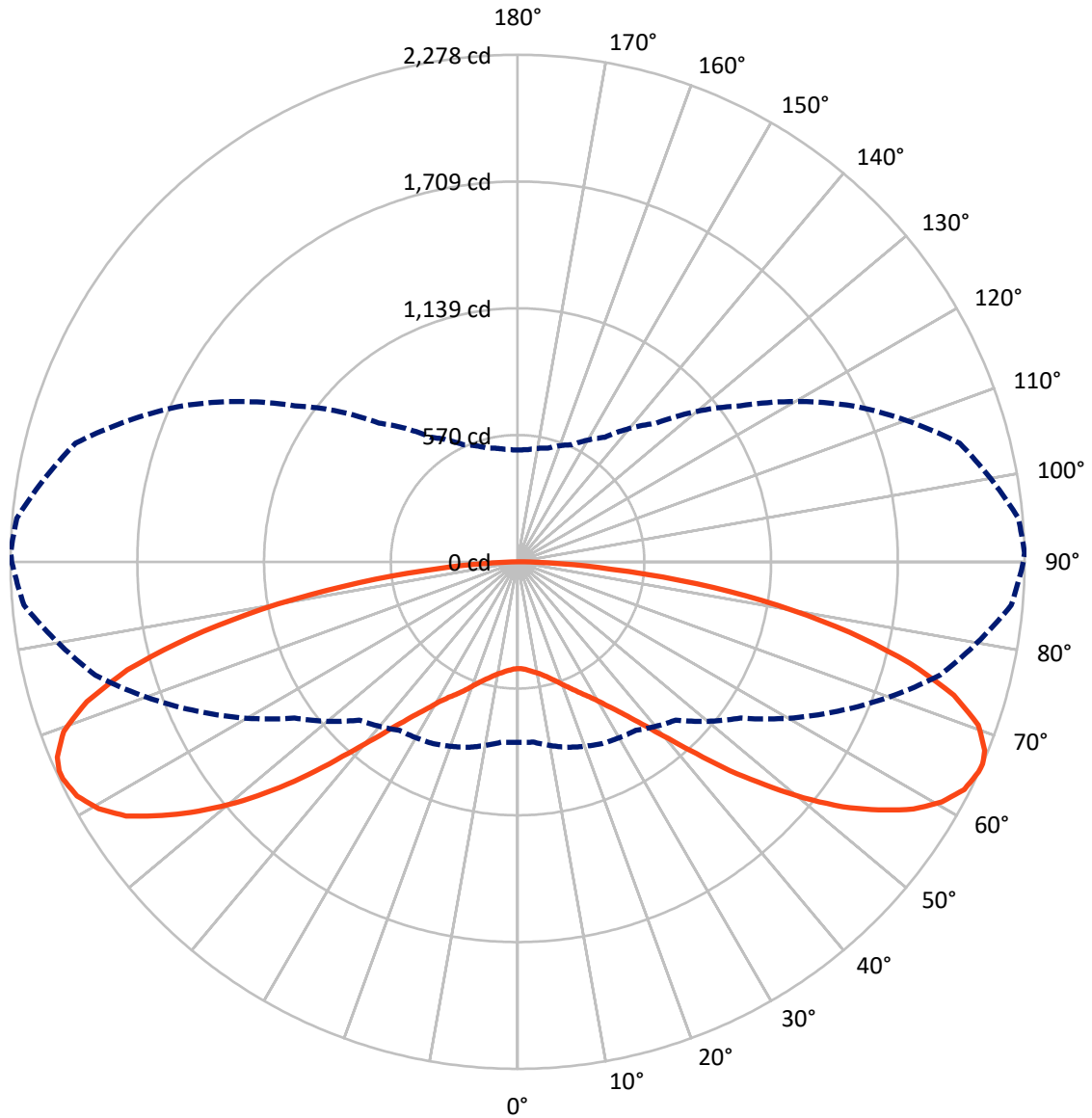
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 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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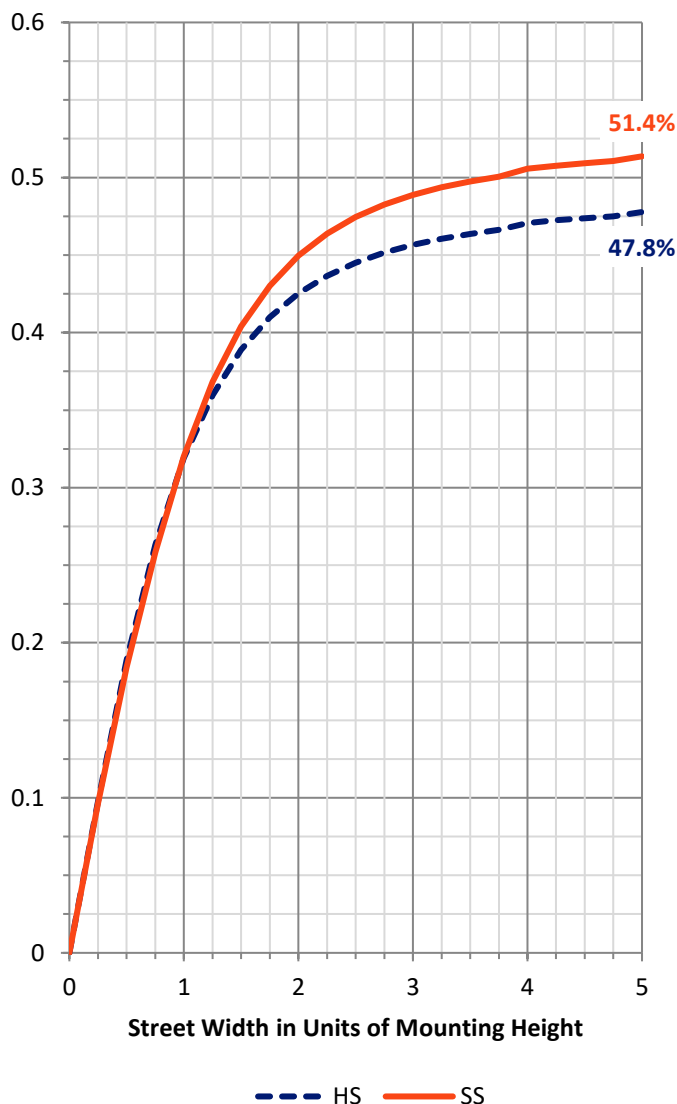
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2499.3	0.0	2499.3
	% Fixture	48.3	0.0	48.3
<b>Street Side</b>	Lumens	2679.0	0.0	2679.0
	% Fixture	51.7	0.0	51.7
<b>Total</b>	Lumens	5178.3	0.0	5178.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	0.9
10°-20°	154.6	3.0
20°-30°	299.0	5.8
30°-40°	490.5	9.5
40°-50°	777.0	15.0
50°-60°	1071.4	20.7
60°-70°	1203.1	23.2
70°-80°	899.2	17.4
80°-90°	236.3	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°	5178.3	100.0
0°-180°	5178.3	100.0

**Coefficient of Utilization**



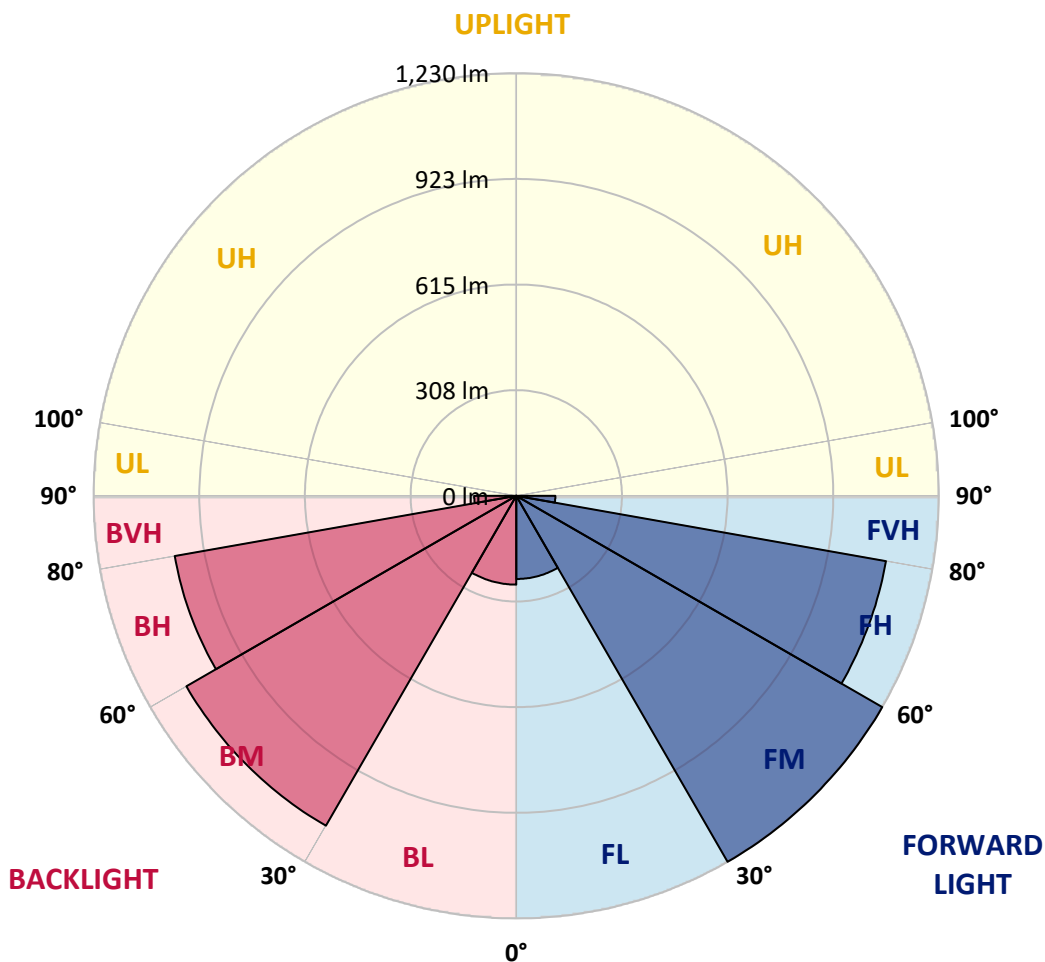
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	242.1	4.7			
FM (30°-60°)	1230.2	23.8			
FH (60°-80°)	1092.9	21.1			G1/1800
FVH (80°-90°)	113.8	2.2			G2/225
BL (0°-30°)	258.7	5.0	B1/500		
BM (30°-60°)	1108.7	21.4	B2/2500		
BH (60°-80°)	1009.4	19.5	B3/2500		G3/2500
BVH (80°-90°)	122.5	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°	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8
2.5°	481.7	481.7	481.7	481.7	483.5	483.5	483.5	483.5	483.5	481.7	481.7
5°	485.3	485.3	485.3	485.3	487.1	487.1	487.1	487.1	489.0	489.0	489.0
7.5°	489.0	489.0	490.8	490.8	492.6	492.6	494.5	494.5	496.3	498.1	498.1
10°	496.3	496.3	498.1	498.1	501.8	503.6	505.5	505.5	509.1	509.1	509.1
12.5°	505.5	507.3	509.1	511.0	514.6	516.4	518.3	520.1	521.9	523.8	523.8
15°	520.1	518.3	521.9	525.6	527.4	531.1	532.9	534.8	538.4	542.1	542.1
17.5°	531.1	532.9	534.8	538.4	542.1	547.6	551.2	554.9	558.6	562.2	562.2
20°	545.8	543.9	551.2	556.7	560.4	567.7	573.2	580.5	584.2	587.9	589.7
22.5°	558.6	560.4	564.1	571.4	578.7	589.7	600.7	606.2	611.7	615.3	620.8
25°	575.1	576.9	582.4	589.7	600.7	613.5	626.3	633.7	639.2	646.5	652.0
27.5°	591.5	591.5	600.7	611.7	624.5	641.0	655.6	663.0	672.1	681.3	684.9
30°	609.9	609.9	619.0	633.7	652.0	670.3	683.1	697.8	710.6	719.7	727.1
32.5°	637.3	637.3	648.3	663.0	683.1	705.1	723.4	738.0	754.5	771.0	785.7
35°	668.5	670.3	684.9	703.3	727.1	754.5	771.0	791.2	809.5	836.9	851.6
37.5°	717.9	719.7	736.2	760.0	783.8	813.1	840.6	864.4	891.9	923.0	934.0
40°	791.2	796.7	813.1	824.1	846.1	868.1	908.4	948.7	996.3	1038.4	1045.7
42.5°	923.0	917.5	906.5	902.9	908.4	932.2	976.1	1038.4	1122.6	1175.7	1175.7
45°	974.3	974.3	976.1	972.5	968.8	985.3	1036.6	1135.5	1254.5	1327.8	1342.4
47.5°	983.5	985.3	1001.8	1016.4	1020.1	1038.4	1100.7	1230.7	1390.0	1498.1	1507.2
50°	983.5	987.1	1009.1	1034.7	1053.0	1078.7	1155.6	1314.9	1523.7	1648.2	1672.1
52.5°	979.8	983.5	1007.3	1038.4	1067.7	1104.3	1203.2	1402.8	1642.8	1811.2	1822.2
55°	970.6	974.3	1003.6	1036.6	1069.5	1119.0	1241.7	1477.9	1758.1	1946.8	1966.9
57.5°	959.6	965.1	996.3	1031.1	1062.2	1122.6	1267.3	1536.5	1851.5	2067.6	2104.3
60°	937.7	946.8	981.6	1016.4	1045.7	1109.8	1280.1	1582.3	1921.1	2155.5	2192.2
62.5°	893.7	902.9	941.3	979.8	1009.1	1078.7	1272.8	1604.3	1961.4	2210.5	2248.9
65°	838.8	842.4	884.6	924.8	954.2	1027.4	1241.7	1600.6	1970.6	2228.8	2272.7
66°	811.3	813.1	862.6	901.0	924.8	1005.4	1223.4	1587.8	1965.1	2227.0	2272.7
67.5°	761.9	771.0	813.1	853.4	880.9	956.0	1179.4	1558.5	1943.1	2208.6	2256.3
70°	675.8	683.1	717.9	758.2	787.5	858.9	1084.2	1472.4	1862.5	2133.6	2188.5
72.5°	582.4	587.9	624.5	653.8	672.1	749.0	968.8	1331.4	1721.5	1992.5	2045.7
75°	483.5	487.1	520.1	540.3	556.7	624.5	815.0	1150.1	1499.9	1763.6	1833.2
77.5°	380.9	382.8	410.2	428.5	428.5	487.1	646.5	932.2	1230.7	1474.3	1525.5
80°	280.2	278.4	294.9	304.0	309.5	348.0	465.2	684.9	937.7	1128.1	1177.6
82.5°	183.1	181.3	192.3	196.0	196.0	219.8	293.0	434.0	615.3	765.5	794.8
85°	97.1	100.7	98.9	98.9	98.9	108.1	146.5	227.1	327.8	410.2	430.4
87.5°	16.5	16.5	16.5	18.3	22.0	29.3	38.5	64.1	93.4	126.4	142.8
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):**

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8
2.5°	481.7	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5
5°	489.0	489.0	489.0	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8
7.5°	498.1	498.1	500.0	500.0	500.0	501.8	501.8	500.0	500.0	500.0	500.0
10°	509.1	509.1	511.0	512.8	512.8	514.6	514.6	512.8	512.8	511.0	511.0
12.5°	523.8	525.6	527.4	529.3	531.1	531.1	529.3	527.4	525.6	523.8	523.8
15°	542.1	543.9	545.8	549.4	549.4	549.4	547.6	545.8	542.1	540.3	542.1
17.5°	564.1	565.9	569.6	571.4	573.2	571.4	571.4	569.6	569.6	567.7	567.7
20°	591.5	593.4	598.9	600.7	600.7	602.5	608.0	611.7	617.2	619.0	619.0
22.5°	619.0	622.7	628.2	635.5	639.2	646.5	648.3	652.0	650.1	644.6	644.6
25°	652.0	655.6	666.6	675.8	683.1	686.8	683.1	677.6	668.5	661.1	659.3
27.5°	686.8	692.3	708.7	721.6	725.2	721.6	706.9	694.1	683.1	673.9	670.3
30°	730.7	739.9	758.2	765.5	763.7	749.0	727.1	710.6	694.1	683.1	681.3
32.5°	785.7	794.8	811.3	813.1	802.1	774.7	745.4	723.4	703.3	690.4	688.6
35°	851.6	860.7	869.9	864.4	833.3	798.5	761.9	730.7	710.6	695.9	695.9
37.5°	935.8	941.3	941.3	913.9	866.2	820.5	774.7	738.0	716.1	701.4	699.6
40°	1045.7	1043.9	1018.2	965.1	902.9	840.6	783.8	745.4	717.9	703.3	701.4
42.5°	1177.6	1164.8	1109.8	1023.7	937.7	858.9	794.8	747.2	716.1	701.4	699.6
45°	1338.7	1316.8	1217.9	1091.5	974.3	875.4	800.3	745.4	710.6	694.1	692.3
47.5°	1498.1	1485.3	1349.7	1162.9	1010.9	893.7	804.0	739.9	699.6	675.8	675.8
50°	1666.6	1635.4	1481.6	1249.0	1049.4	906.5	804.0	730.7	681.3	655.6	652.0
52.5°	1829.6	1798.4	1615.3	1335.1	1091.5	919.4	800.3	717.9	664.8	637.3	633.7
55°	1968.7	1943.1	1745.3	1432.1	1135.5	928.5	794.8	703.3	648.3	622.7	619.0
57.5°	2096.9	2071.3	1858.9	1514.6	1177.6	934.0	782.0	684.9	628.2	602.5	600.7
60°	2190.3	2170.2	1955.9	1591.5	1212.4	934.0	763.7	663.0	606.2	580.5	578.7
62.5°	2252.6	2232.5	2025.5	1642.8	1234.4	921.2	736.2	633.7	578.7	554.9	549.4
65°	2276.4	2258.1	2056.6	1662.9	1230.7	895.5	699.6	597.0	543.9	520.1	516.4
66°	2278.2	2258.1	2056.6	1659.2	1221.5	880.9	683.1	580.5	529.3	505.5	501.8
67.5°	2263.6	2245.3	2043.8	1640.9	1195.9	853.4	650.1	553.1	501.8	478.0	476.2
70°	2195.8	2181.2	1974.2	1571.3	1135.5	793.0	595.2	500.0	450.5	434.0	428.5
72.5°	2049.3	2032.8	1835.0	1441.3	1036.6	710.6	525.6	437.7	397.4	377.3	375.4
75°	1822.2	1814.9	1622.6	1269.1	893.7	611.7	445.0	369.9	337.0	322.3	322.3
77.5°	1525.5	1510.9	1347.9	1049.4	734.4	494.5	357.1	300.3	274.7	261.9	263.7
80°	1186.7	1175.7	1038.4	787.5	554.9	371.8	267.4	228.9	210.6	203.3	199.6
82.5°	813.1	783.8	692.3	521.9	360.8	250.9	185.0	159.3	150.2	148.3	146.5
85°	423.0	434.0	364.4	276.5	196.0	139.2	111.7	102.6	98.9	100.7	100.7
87.5°	139.2	142.8	109.9	84.2	64.1	49.4	42.1	40.3	34.8	38.5	40.3
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)