

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: P472336

Luminaire Tested: **CCW-VA-4-827-U-T3**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472336  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-4-827-U-T3  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T3 DISTRIBUTION LENS  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5095.8 lumens  
Efficiency: N/A  
Efficacy: 78.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

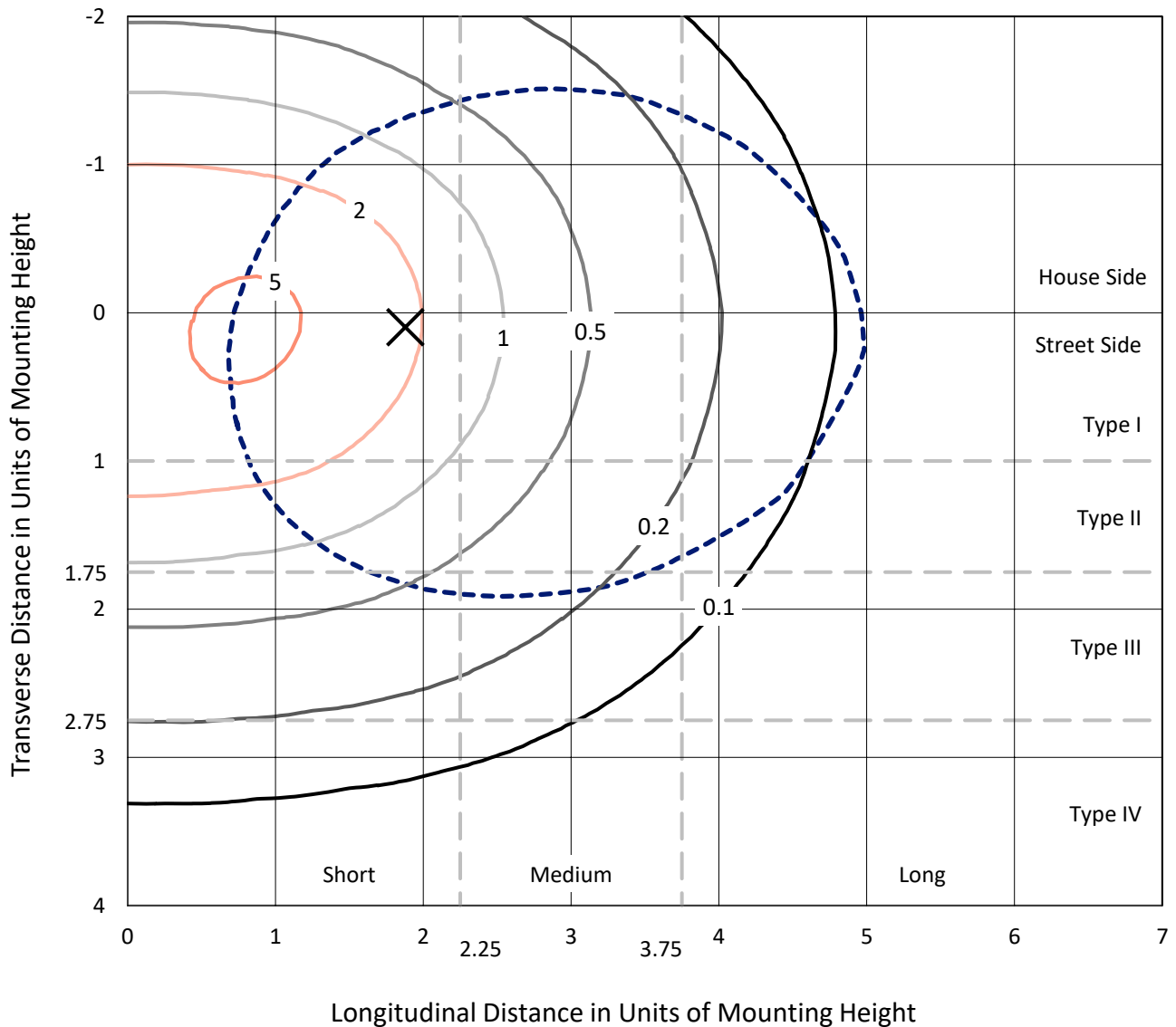
Input Watts (W): 64.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

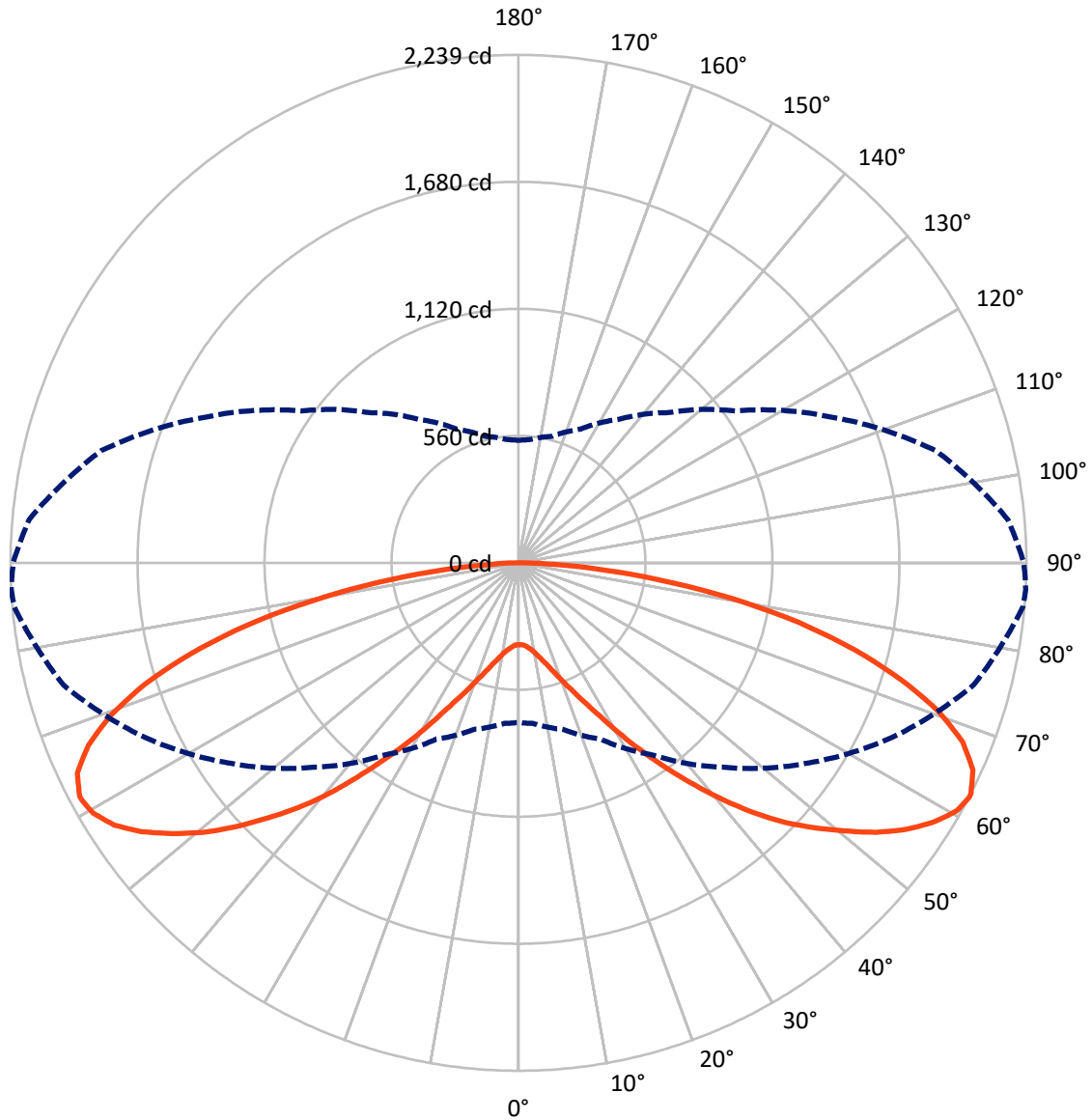
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 87-Deg Lateral      - - - Horizontal Cone Through 62-Deg Vertical

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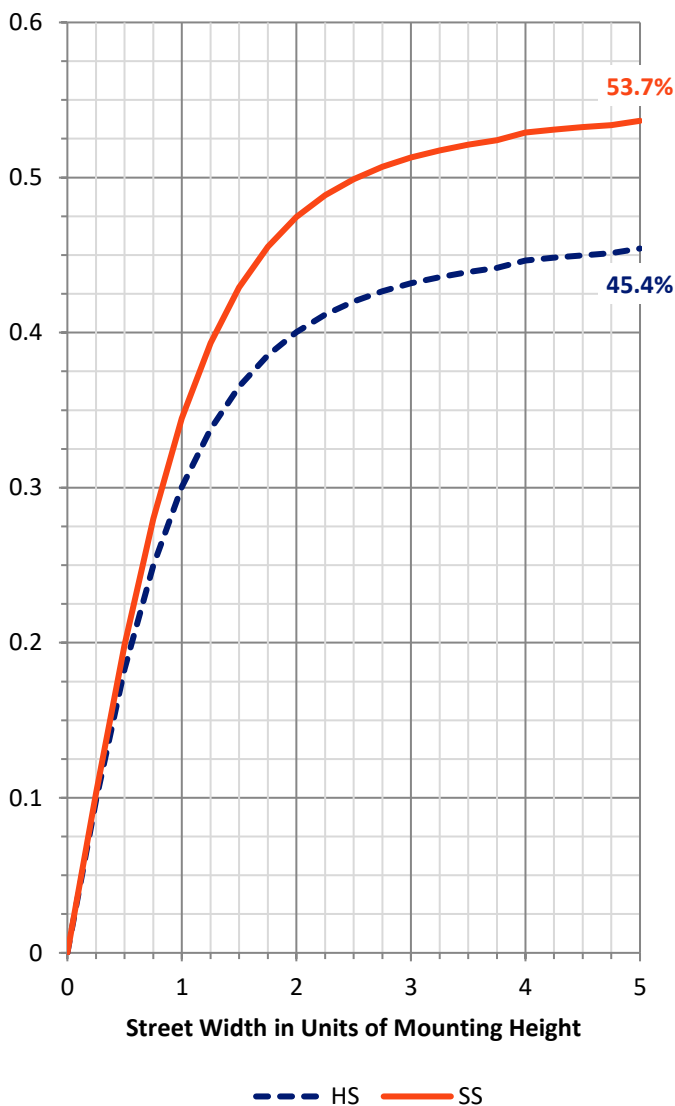
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2346.2	0.0	2346.2
	% Fixture	46.0	0.0	46.0
<b>Street Side</b>	Lumens	2749.6	0.0	2749.6
	% Fixture	54.0	0.0	54.0
<b>Total</b>	Lumens	5095.8	0.0	5095.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.3	0.7
10°-20°	128.0	2.5
20°-30°	273.8	5.4
30°-40°	504.6	9.9
40°-50°	804.7	15.8
50°-60°	1094.3	21.5
60°-70°	1185.6	23.3
70°-80°	847.1	16.6
80°-90°	221.4	4.3
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°	5095.8	100.0
0°-180°	5095.8	100.0

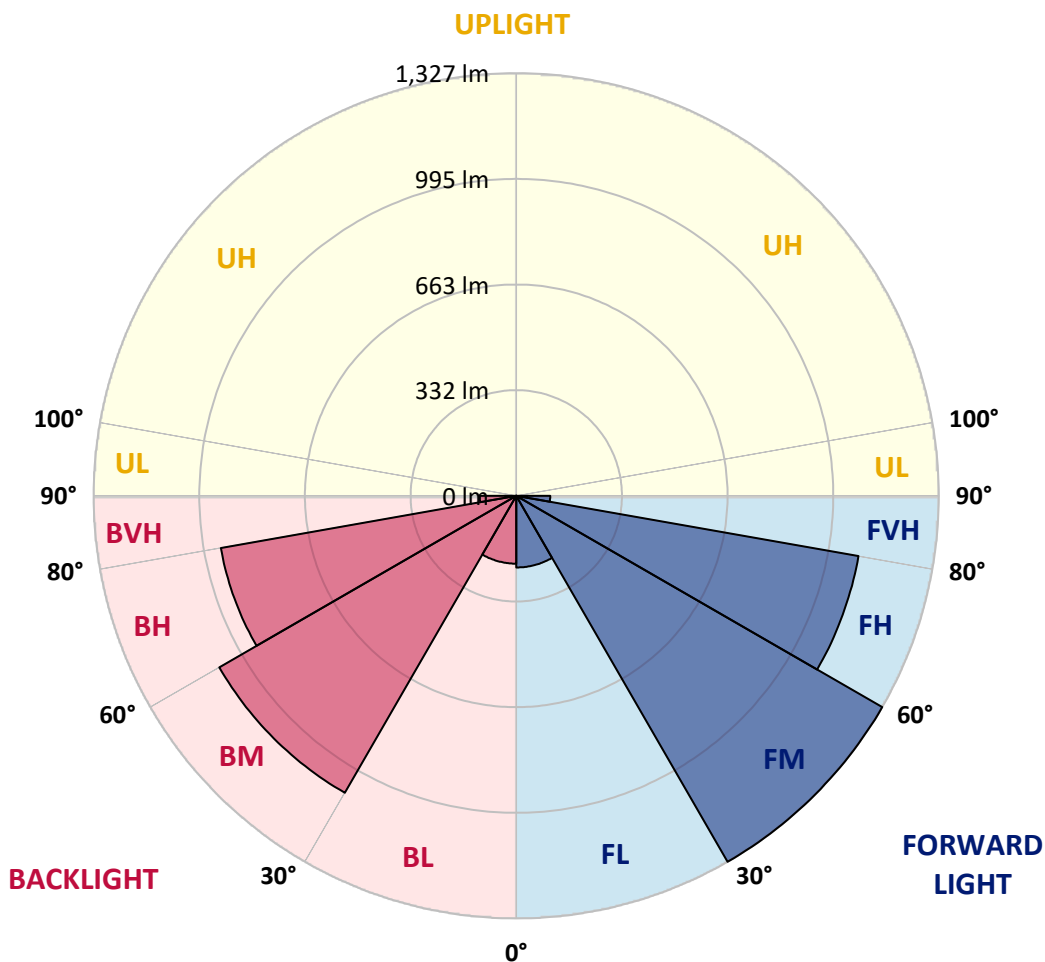


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	225.0	4.4			
FM (30°-60°)	1326.9	26.0			
FH (60°-80°)	1091.0	21.4			G1/1800
FVH (80°-90°)	106.6	2.1			G2/225
BL (0°-30°)	213.1	4.2	B1/500		
BM (30°-60°)	1076.6	21.1	B2/2500		
BH (60°-80°)	941.7	18.5	B2/1000		G2/1000
BVH (80°-90°)	114.8	2.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6
2.5°	361.5	361.5	361.5	361.5	361.5	361.5	361.5	361.5	361.5	362.3	362.3
5°	363.9	363.1	363.1	363.9	364.7	365.6	367.2	368.0	369.7	371.3	370.5
7.5°	371.3	371.3	371.3	372.1	374.6	376.2	378.7	381.2	383.6	385.3	384.5
10°	382.8	382.8	382.8	384.5	386.9	391.8	396.0	400.1	402.5	404.2	405.0
12.5°	395.1	395.1	396.8	400.1	405.0	411.6	419.0	424.7	428.8	430.5	431.3
15°	412.4	413.2	416.5	419.8	426.3	436.2	448.5	456.7	460.9	464.1	463.3
17.5°	438.7	437.8	440.3	447.7	455.1	469.1	483.9	497.8	506.0	506.0	506.0
20°	468.2	467.4	469.1	474.8	487.1	506.0	529.0	547.9	557.0	555.3	557.0
22.5°	501.1	501.1	502.7	507.7	520.0	547.1	579.1	607.1	619.4	615.3	613.6
25°	537.2	537.2	539.7	543.8	561.1	593.9	636.6	676.9	689.2	685.1	683.5
27.5°	579.1	575.9	580.8	584.9	606.3	649.8	705.7	756.6	783.7	769.7	764.8
30°	623.5	621.0	621.9	630.1	654.7	710.6	777.1	845.3	883.1	874.1	866.7
32.5°	662.1	663.8	666.2	680.2	708.1	775.5	852.7	942.2	985.0	982.5	980.8
35°	705.7	705.7	710.6	723.7	764.8	844.5	938.1	1039.2	1102.4	1104.9	1100.0
37.5°	740.2	740.2	747.5	764.8	813.3	907.7	1022.7	1141.9	1218.3	1231.4	1227.3
40°	770.5	768.9	777.1	802.6	859.3	975.1	1105.7	1243.7	1346.4	1368.6	1362.8
42.5°	788.6	790.3	801.8	833.8	903.6	1034.2	1187.0	1339.8	1459.8	1497.6	1497.6
45°	801.8	803.4	820.7	858.4	943.9	1092.6	1261.0	1438.4	1570.7	1625.7	1628.2
47.5°	807.5	810.0	831.3	877.3	977.6	1146.0	1332.4	1527.1	1670.1	1748.1	1743.2
50°	807.5	810.8	836.3	891.3	1008.0	1191.1	1399.8	1611.7	1771.1	1858.2	1857.4
52.5°	802.6	806.7	837.9	902.0	1033.4	1234.7	1459.8	1684.0	1868.0	1970.7	1974.0
55°	792.7	797.7	833.8	908.6	1053.1	1269.2	1508.2	1751.4	1951.8	2067.7	2075.1
57.5°	773.0	777.9	819.0	902.8	1060.5	1287.3	1543.6	1799.0	2020.0	2155.6	2157.2
60°	740.2	745.9	790.3	883.9	1053.1	1288.1	1552.6	1820.4	2066.0	2214.7	2220.5
62°	704.0	710.6	760.7	857.6	1034.2	1274.9	1542.7	1819.6	2078.3	2232.0	2239.4
62.5°	695.0	700.7	751.7	848.6	1026.9	1268.4	1537.0	1815.5	2076.7	2232.8	2238.5
65°	639.1	644.9	696.6	799.3	981.7	1228.1	1495.1	1779.3	2047.1	2199.9	2201.6
67.5°	577.5	583.3	635.0	731.9	916.8	1160.8	1424.4	1707.9	1968.3	2100.5	2112.8
70°	506.0	514.2	561.9	658.0	831.3	1063.8	1312.7	1594.5	1842.6	1955.1	1966.6
72.5°	435.4	441.1	478.9	563.5	720.4	936.5	1168.1	1422.8	1648.7	1755.5	1765.4
75°	353.2	358.2	395.1	465.0	596.4	780.4	998.9	1221.5	1426.9	1523.0	1530.4
77.5°	278.5	280.1	306.4	362.3	463.3	612.0	792.7	968.5	1155.0	1242.1	1261.8
80°	196.3	204.5	222.6	261.2	325.3	438.7	569.3	719.6	850.2	948.0	954.6
82.5°	127.3	129.0	140.5	154.4	200.4	276.8	362.3	455.1	571.8	635.0	630.1
85°	66.5	66.5	70.6	74.8	90.4	124.0	175.0	239.9	308.1	355.7	349.1
87.5°	11.5	10.7	11.5	10.7	14.0	19.7	37.0	60.0	90.4	106.8	117.5
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°	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6	360.6
2.5°	362.3	362.3	363.1	364.7	364.7	365.6	366.4	366.4	367.2	368.0	368.0
5°	372.1	372.1	373.0	374.6	375.4	375.4	376.2	377.1	377.1	377.1	377.9
7.5°	385.3	386.1	386.9	387.7	388.6	388.6	391.0	390.2	390.2	390.2	390.2
10°	404.2	405.8	405.8	405.8	405.8	405.0	405.8	405.0	403.3	403.3	402.5
12.5°	432.1	432.1	430.5	428.8	426.3	425.5	424.7	422.2	419.0	417.3	417.3
15°	464.1	462.5	459.2	455.9	451.8	448.5	442.8	439.5	435.4	433.7	433.7
17.5°	505.2	502.7	493.7	487.1	477.3	469.9	463.3	456.7	451.8	450.2	449.3
20°	552.0	546.3	533.1	518.4	505.2	493.7	481.4	473.2	468.2	464.1	463.3
22.5°	611.2	603.0	580.0	557.0	533.1	516.7	501.1	489.6	480.6	476.5	474.8
25°	675.3	662.9	633.4	598.9	566.0	540.5	520.8	505.2	494.5	488.0	486.3
27.5°	756.6	738.5	695.0	643.2	599.7	567.6	540.5	522.5	508.5	498.6	497.0
30°	851.9	833.0	760.7	692.5	637.5	592.3	562.7	538.9	521.6	510.1	507.7
32.5°	965.2	930.7	847.8	751.7	676.1	621.0	583.3	555.3	534.0	520.8	517.5
35°	1080.2	1044.9	935.7	814.1	717.2	650.6	605.4	571.8	547.9	531.5	529.9
37.5°	1209.2	1166.5	1038.4	884.7	761.5	681.8	626.0	587.4	558.6	541.4	539.7
40°	1348.0	1304.5	1148.4	966.1	814.1	712.2	645.7	602.1	570.1	551.2	548.7
42.5°	1484.4	1432.7	1260.2	1047.4	867.5	745.9	668.7	617.8	580.0	560.2	557.0
45°	1602.7	1557.5	1373.5	1141.0	929.1	780.4	691.7	632.5	590.6	568.5	565.2
47.5°	1736.6	1688.1	1497.6	1227.3	988.2	819.8	713.9	645.7	599.7	575.9	573.4
50°	1854.9	1811.4	1607.6	1307.0	1044.9	856.8	734.4	658.0	607.1	581.6	578.3
52.5°	1962.5	1923.9	1708.7	1381.7	1093.4	891.3	753.3	667.0	612.0	584.1	580.0
55°	2071.0	2020.8	1796.6	1447.4	1132.0	918.4	768.9	671.1	611.2	582.4	578.3
57.5°	2152.3	2104.6	1860.7	1494.3	1160.8	936.5	777.9	670.3	606.3	575.0	570.1
60°	2207.3	2154.7	1898.4	1517.3	1170.6	942.2	777.9	662.9	593.9	560.2	555.3
62°	2227.9	2167.1	1905.8	1520.6	1166.5	936.5	772.2	650.6	577.5	544.6	539.7
62.5°	2228.7	2166.2	1903.4	1518.1	1164.0	934.0	768.9	646.5	573.4	539.7	534.8
65°	2192.5	2130.1	1873.8	1492.6	1136.1	911.8	745.9	622.7	544.6	511.8	506.9
67.5°	2089.0	2041.4	1803.1	1433.5	1088.5	870.8	712.2	588.2	511.0	476.5	474.0
70°	1945.3	1901.7	1688.1	1343.9	1019.5	811.6	662.1	542.2	468.2	437.0	431.3
72.5°	1764.5	1707.9	1524.7	1224.0	920.1	730.3	596.4	484.7	419.0	391.0	387.7
75°	1540.3	1472.1	1319.3	1065.5	800.9	632.5	520.0	420.6	362.3	338.4	340.9
77.5°	1254.4	1222.4	1066.3	849.4	652.3	523.3	426.3	356.5	306.4	286.7	285.1
80°	947.2	916.8	807.5	644.9	492.9	396.0	330.2	280.9	246.4	229.2	228.4
82.5°	642.4	613.6	530.7	432.9	336.0	280.1	239.1	207.0	185.7	177.4	177.4
85°	353.2	328.6	280.9	234.1	189.8	160.2	154.4	138.0	132.3	130.6	132.3
87.5°	110.1	109.3	92.8	76.4	66.5	67.4	60.8	62.4	59.1	58.3	62.4
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)