

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: P472193

Luminaire Tested: **CCW-VA-5-835-U-T4W**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472193  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-5-835-U-T4W  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4W DISTRIBUTION LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7372.4 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

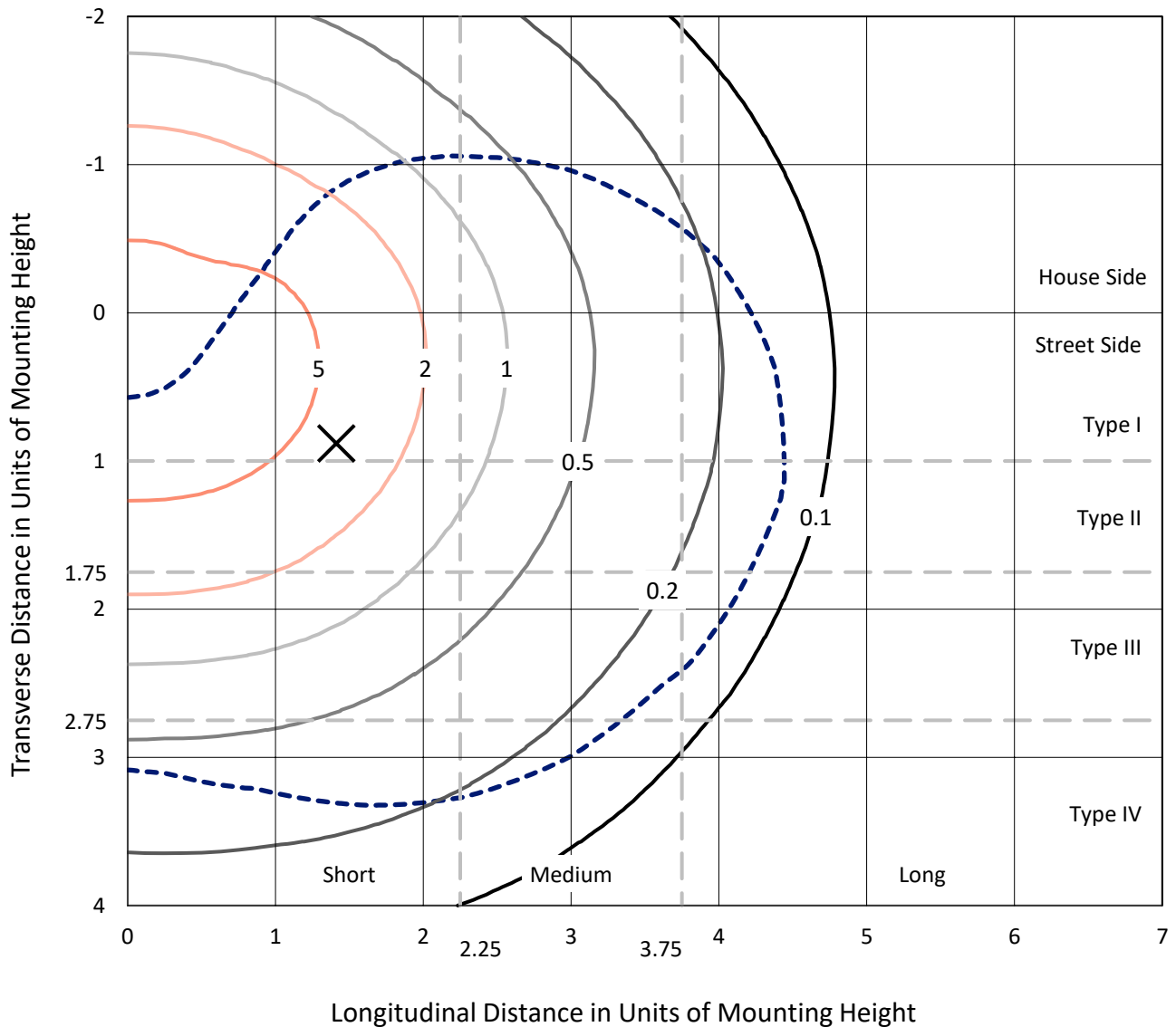
Input Watts (W): 74.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

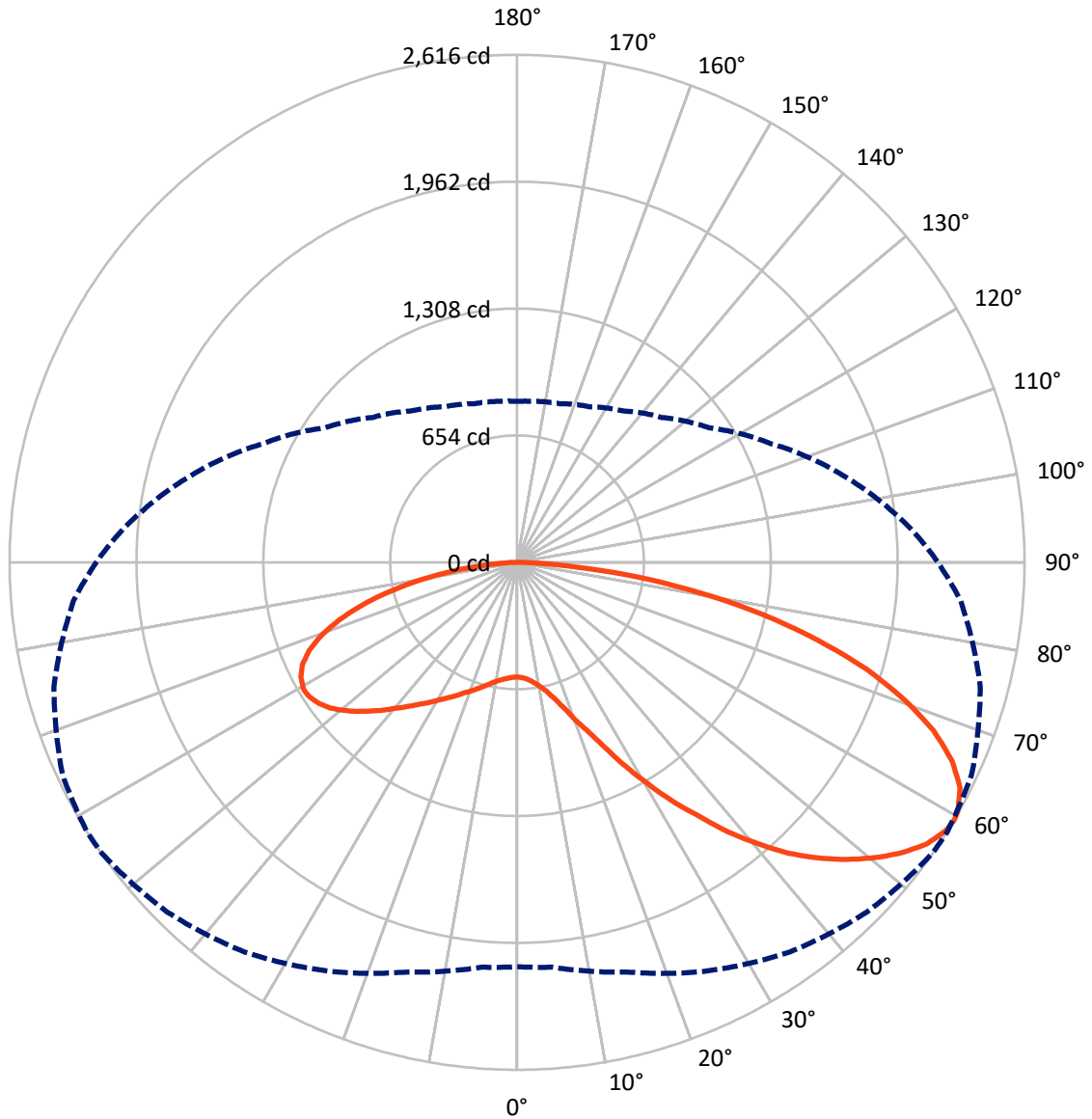
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9 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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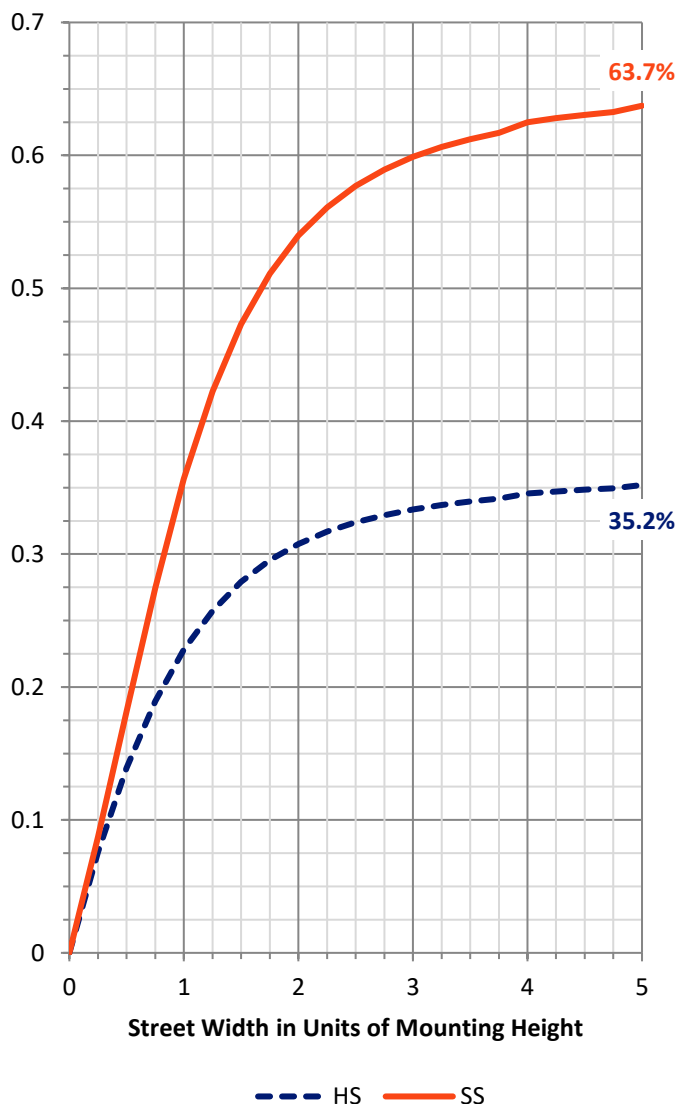
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2629.3	0.0	2629.3
	% Fixture	35.7	0.0	35.7
<b>Street Side</b>	Lumens	4743.1	0.0	4743.1
	% Fixture	64.3	0.0	64.3
<b>Total</b>	Lumens	7372.4	0.0	7372.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.6	0.8
10°-20°	200.0	2.7
20°-30°	422.1	5.7
30°-40°	776.8	10.5
40°-50°	1210.8	16.4
50°-60°	1591.0	21.6
60°-70°	1667.1	22.6
70°-80°	1155.8	15.7
80°-90°	290.2	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°	7372.4	100.0
0°-180°	7372.4	100.0

**Coefficient of Utilization**



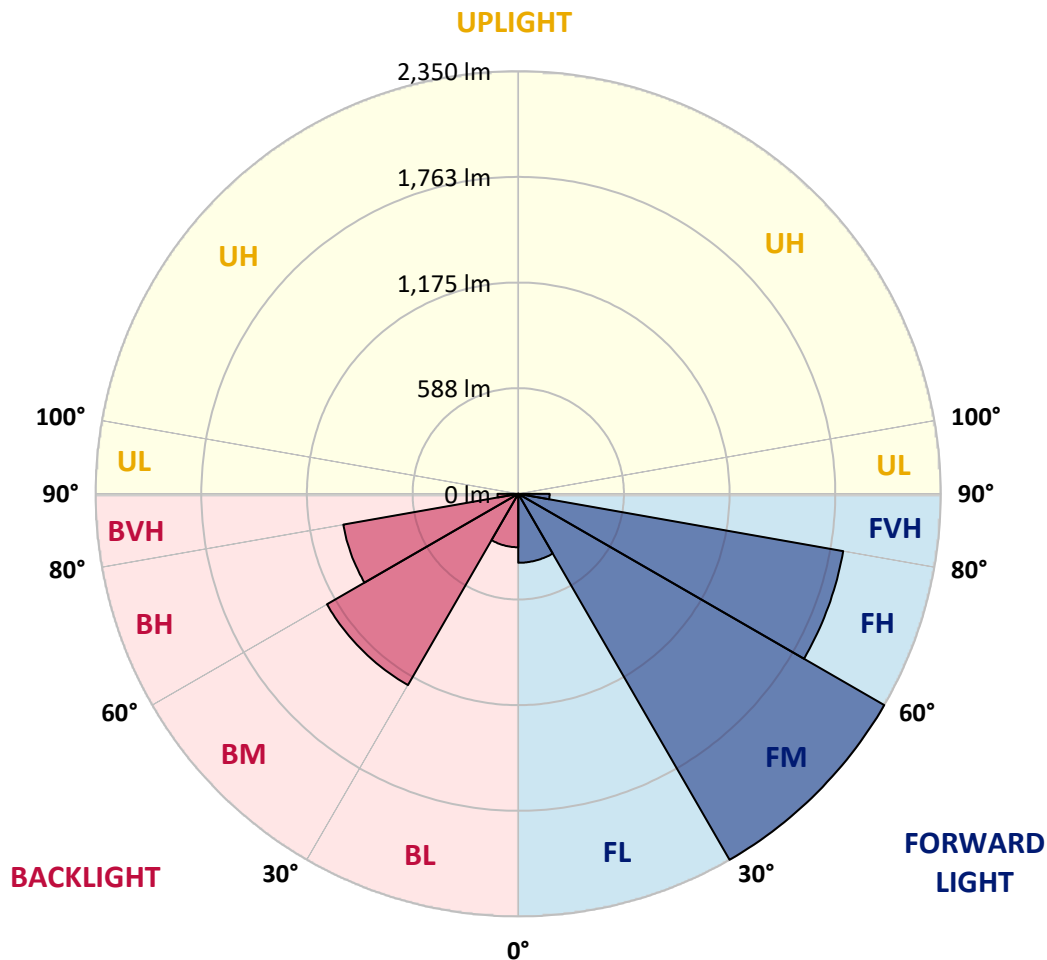
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	383.5	5.2			
FM (30°-60°)	2350.2	31.9			
FH (60°-80°)	1835.0	24.9			G2/5000
FVH (80°-90°)	174.4	2.4			G2/225
BL (0°-30°)	297.2	4.0	B1/500		
BM (30°-60°)	1228.4	16.7	B2/2500		
BH (60°-80°)	987.9	13.4	B2/1000		G2/1000
BVH (80°-90°)	115.8	1.6			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
2.5°	599.3	599.3	599.3	597.7	597.7	597.7	596.0	596.0	596.0	594.3	592.7
5°	612.6	612.6	610.9	612.6	610.9	609.3	607.6	607.6	607.6	606.0	604.3
7.5°	630.9	632.5	630.9	632.5	630.9	629.2	625.9	625.9	624.2	620.9	617.6
10°	659.1	659.1	659.1	657.4	655.8	654.1	652.4	650.8	649.1	644.1	639.2
12.5°	693.9	693.9	693.9	690.6	690.6	687.3	685.6	684.0	680.7	674.0	667.4
15°	737.1	735.4	740.4	740.4	738.8	738.8	733.8	730.5	727.1	717.2	702.2
17.5°	795.2	793.5	798.5	801.8	801.8	803.5	795.2	791.9	780.3	767.0	747.1
20°	873.2	869.9	874.9	878.2	874.9	878.2	869.9	871.6	855.0	831.7	800.2
22.5°	957.9	957.9	962.9	962.9	964.5	967.9	957.9	952.9	939.6	906.4	866.6
25°	1062.5	1070.8	1070.8	1070.8	1077.4	1079.1	1069.1	1060.8	1042.6	997.7	943.0
27.5°	1190.3	1188.7	1187.0	1197.0	1197.0	1200.3	1193.6	1190.3	1168.7	1114.0	1030.9
30°	1326.5	1316.5	1323.1	1326.5	1333.1	1338.1	1331.4	1321.5	1294.9	1235.1	1132.2
32.5°	1451.0	1457.6	1467.6	1470.9	1480.8	1482.5	1465.9	1465.9	1439.3	1363.0	1256.7
35°	1592.1	1592.1	1618.6	1630.3	1630.3	1640.2	1615.3	1602.0	1583.8	1504.1	1369.6
37.5°	1714.9	1718.2	1739.8	1766.4	1769.7	1784.7	1766.4	1761.4	1728.2	1646.9	1497.4
40°	1829.5	1832.8	1859.4	1890.9	1909.2	1932.4	1914.1	1905.8	1871.0	1778.0	1625.3
42.5°	1919.1	1925.8	1959.0	2005.4	2035.3	2063.6	2055.3	2050.3	2002.1	1904.2	1743.1
45°	1987.2	1998.8	2045.3	2100.1	2141.6	2183.1	2184.7	2174.8	2130.0	2020.4	1857.7
47.5°	2042.0	2055.3	2106.7	2176.4	2239.5	2291.0	2301.0	2289.3	2247.8	2133.3	1960.6
50°	2086.8	2093.4	2151.5	2241.2	2319.2	2384.0	2403.9	2393.9	2357.4	2227.9	2050.3
52.5°	2110.0	2120.0	2186.4	2289.3	2384.0	2462.0	2491.9	2486.9	2443.7	2314.2	2130.0
55°	2121.7	2131.6	2209.6	2327.5	2433.8	2525.1	2561.6	2563.3	2521.8	2392.3	2204.7
57.5°	2108.4	2121.7	2206.3	2337.5	2455.3	2553.3	2609.7	2608.1	2574.9	2452.0	2267.8
59°	2085.1	2095.1	2186.4	2324.2	2452.0	2550.0	2614.7	2616.4	2586.5	2471.9	2296.0
60°	2058.6	2070.2	2163.2	2307.6	2438.7	2538.4	2606.4	2609.7	2584.8	2476.9	2307.6
62.5°	1967.3	1982.2	2085.1	2239.5	2382.3	2476.9	2558.3	2563.3	2550.0	2463.6	2315.9
65°	1839.4	1852.7	1963.9	2128.3	2277.7	2375.7	2452.0	2463.6	2462.0	2403.9	2282.7
67.5°	1683.4	1685.0	1789.6	1968.9	2125.0	2221.3	2294.3	2314.2	2329.2	2291.0	2184.7
70°	1495.8	1494.1	1595.4	1773.0	1929.1	2030.4	2103.4	2116.7	2154.9	2125.0	2038.7
72.5°	1263.4	1283.3	1377.9	1527.3	1681.7	1794.6	1859.4	1884.3	1905.8	1912.5	1841.1
75°	1044.2	1065.8	1140.5	1280.0	1412.8	1517.4	1587.1	1598.7	1638.6	1648.5	1582.1
77.5°	835.1	836.7	891.5	1002.7	1123.9	1210.2	1266.7	1296.6	1318.2	1338.1	1268.3
80°	586.0	594.3	632.5	712.2	806.8	898.1	944.6	964.5	979.5	992.8	969.5
82.5°	366.9	370.2	395.1	443.3	508.0	559.5	607.6	624.2	627.5	657.4	654.1
85°	174.3	176.0	192.6	215.8	244.0	285.5	303.8	303.8	327.0	348.6	348.6
87.5°	23.2	23.2	28.2	31.5	39.8	51.5	71.4	73.0	86.3	96.3	104.6
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°	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
2.5°	592.7	592.7	592.7	592.7	592.7	591.0	592.7	592.7	592.7	592.7	592.7
5°	604.3	602.6	601.0	599.3	599.3	597.7	597.7	597.7	597.7	597.7	597.7
7.5°	615.9	614.3	612.6	609.3	607.6	606.0	606.0	604.3	604.3	604.3	604.3
10°	635.8	634.2	627.5	622.6	619.2	617.6	615.9	614.3	612.6	612.6	612.6
12.5°	662.4	659.1	647.5	640.8	635.8	632.5	629.2	627.5	625.9	624.2	624.2
15°	695.6	687.3	672.4	662.4	655.8	650.8	645.8	642.5	640.8	639.2	639.2
17.5°	735.4	725.5	705.6	687.3	675.7	667.4	660.7	655.8	654.1	654.1	654.1
20°	785.2	768.6	740.4	715.5	697.3	685.6	675.7	670.7	669.0	667.4	665.7
22.5°	843.4	821.8	780.3	742.1	718.8	702.2	690.6	684.0	679.0	677.3	677.3
25°	909.8	878.2	823.4	776.9	745.4	722.2	707.2	698.9	690.6	687.3	687.3
27.5°	989.4	947.9	874.9	813.5	770.3	742.1	725.5	713.9	705.6	698.9	695.6
30°	1075.8	1029.3	931.3	853.3	798.5	767.0	747.1	733.8	722.2	710.5	708.9
32.5°	1185.3	1118.9	999.4	898.1	831.7	791.9	768.6	752.0	737.1	725.5	722.2
35°	1296.6	1216.9	1070.8	944.6	863.3	815.1	786.9	768.6	753.7	740.4	738.8
37.5°	1411.1	1326.5	1148.8	999.4	899.8	841.7	806.8	786.9	768.6	755.4	753.7
40°	1530.6	1431.0	1228.5	1055.8	938.0	868.3	828.4	803.5	783.6	772.0	770.3
42.5°	1643.5	1535.6	1314.8	1122.3	982.8	896.5	850.0	823.4	798.5	786.9	785.2
45°	1751.4	1635.2	1401.2	1183.7	1027.6	926.4	871.6	840.0	813.5	801.8	800.2
47.5°	1849.4	1733.2	1480.8	1250.1	1074.1	959.6	894.8	856.6	826.7	815.1	815.1
50°	1937.4	1816.2	1558.9	1311.5	1117.3	992.8	914.7	871.6	841.7	830.1	828.4
52.5°	2020.4	1889.2	1626.9	1364.6	1158.8	1022.6	934.7	883.2	851.7	838.4	836.7
55°	2086.8	1955.6	1683.4	1407.8	1187.0	1042.6	947.9	889.8	855.0	843.4	841.7
57.5°	2144.9	2010.4	1723.2	1437.7	1205.3	1054.2	954.6	889.8	853.3	840.0	838.4
59°	2169.8	2033.7	1736.5	1446.0	1208.6	1055.8	952.9	884.9	846.7	833.4	830.1
60°	2183.1	2043.6	1741.5	1447.6	1206.9	1052.5	951.3	879.9	840.0	825.1	825.1
62.5°	2196.4	2051.9	1734.8	1434.4	1188.7	1034.3	934.7	860.0	815.1	798.5	798.5
65°	2168.1	2022.1	1696.7	1397.8	1152.1	1002.7	903.1	826.7	776.9	760.3	760.3
67.5°	2085.1	1949.0	1626.9	1329.8	1092.4	947.9	851.7	773.6	727.1	708.9	703.9
70°	1944.0	1829.5	1517.4	1231.8	1011.0	878.2	786.9	712.2	664.1	645.8	639.2
72.5°	1754.8	1641.9	1371.3	1112.3	903.1	786.9	707.2	635.8	582.7	564.4	566.1
75°	1494.1	1414.4	1182.0	961.2	778.6	670.7	604.3	544.5	499.7	484.8	486.4
77.5°	1211.9	1145.5	957.9	783.6	635.8	552.8	496.4	448.2	418.4	410.1	405.1
80°	928.0	863.3	718.8	584.4	483.1	425.0	386.8	353.6	330.4	318.7	322.1
82.5°	622.6	582.7	476.5	386.8	328.7	287.2	273.9	252.3	244.0	237.4	242.4
85°	335.3	300.5	249.0	207.5	181.0	169.3	172.7	171.0	164.4	162.7	167.7
87.5°	109.6	94.6	73.0	61.4	63.1	56.4	56.4	53.1	48.1	46.5	49.8
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)