

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: P472187

Luminaire Tested: **CCW-VA-5-830-U-T4W**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472187
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-5-830-U-T4W
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4W DISTRIBUTION LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7243.4 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

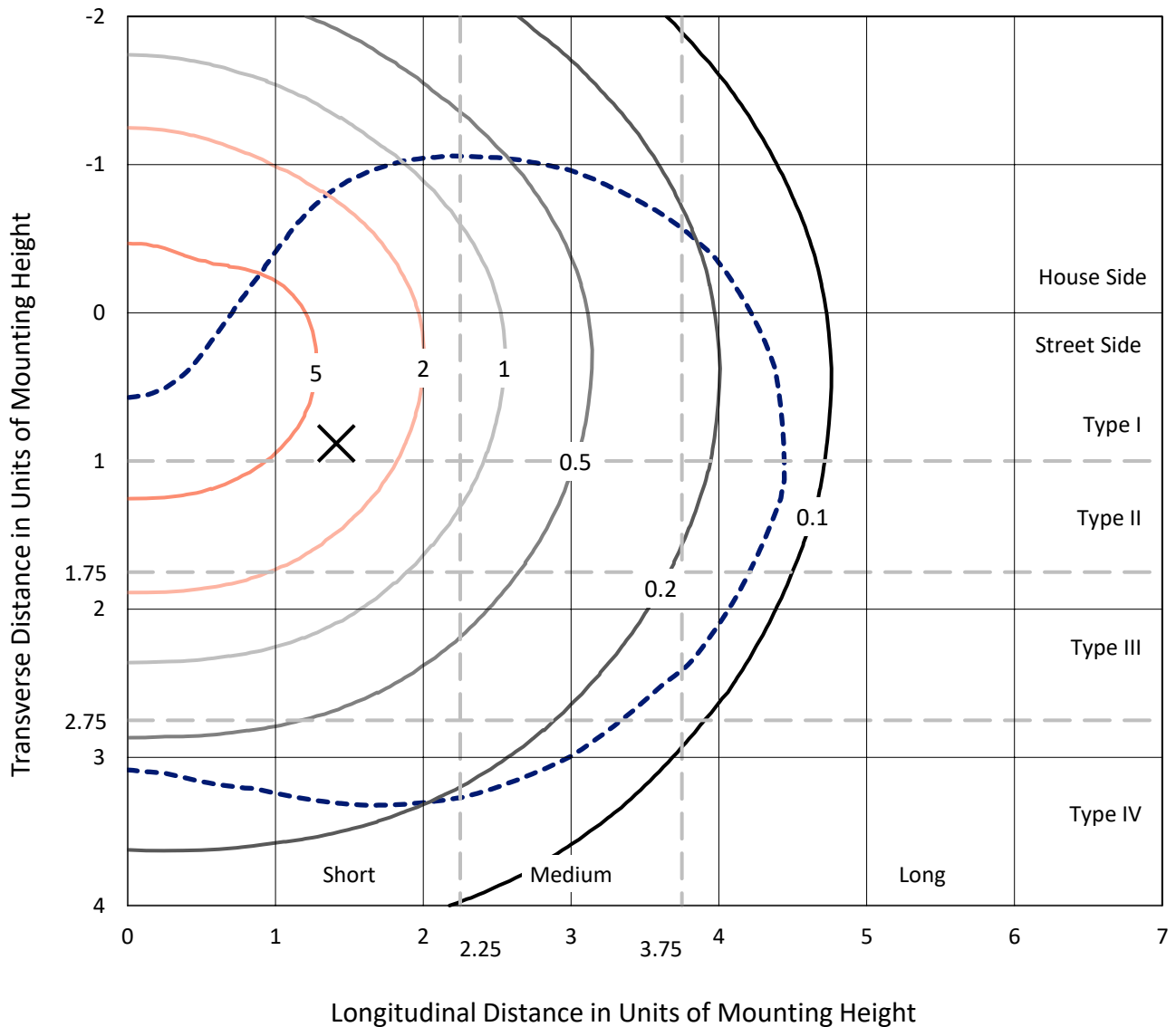
Input Watts (W): 74.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

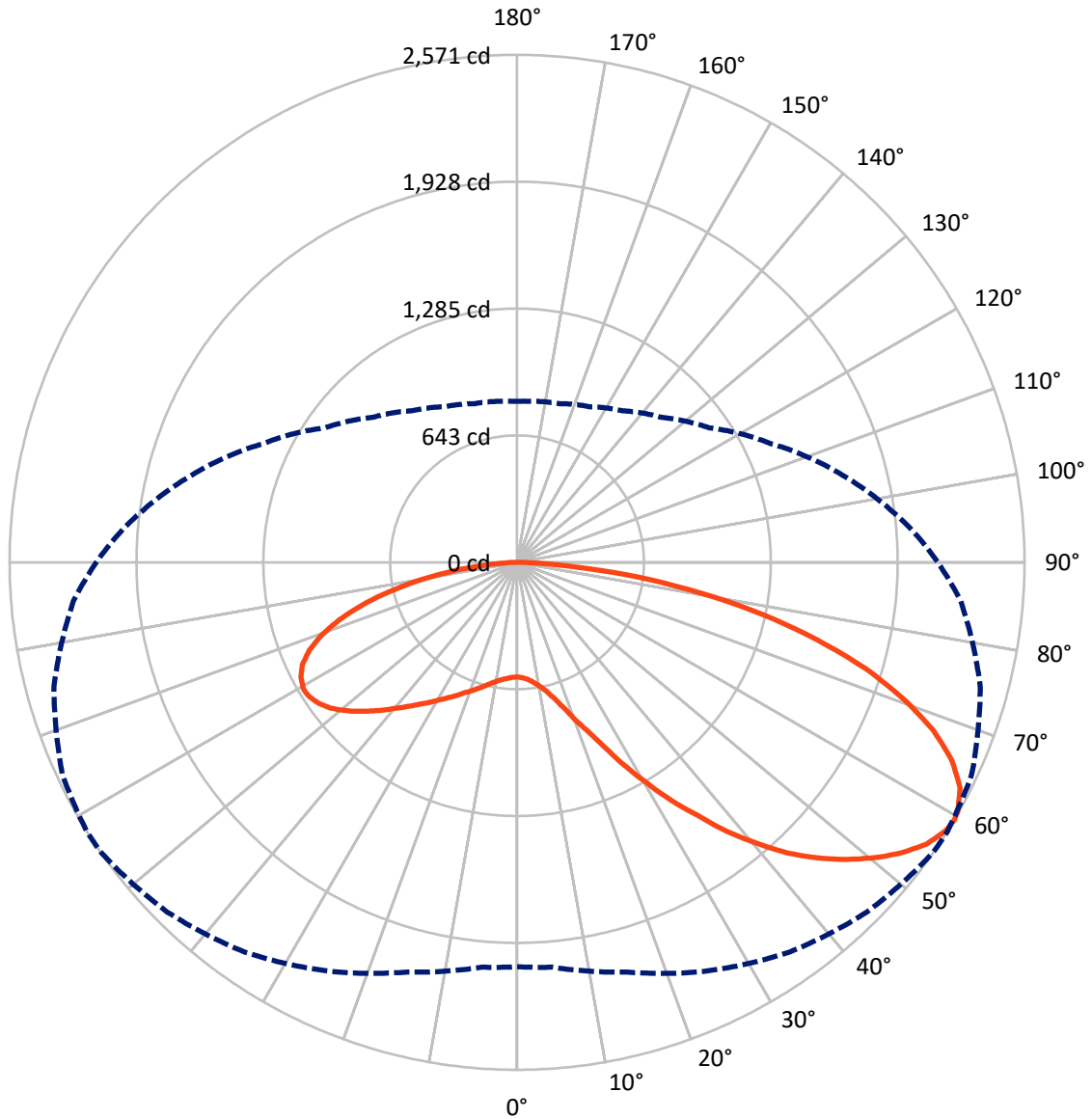
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 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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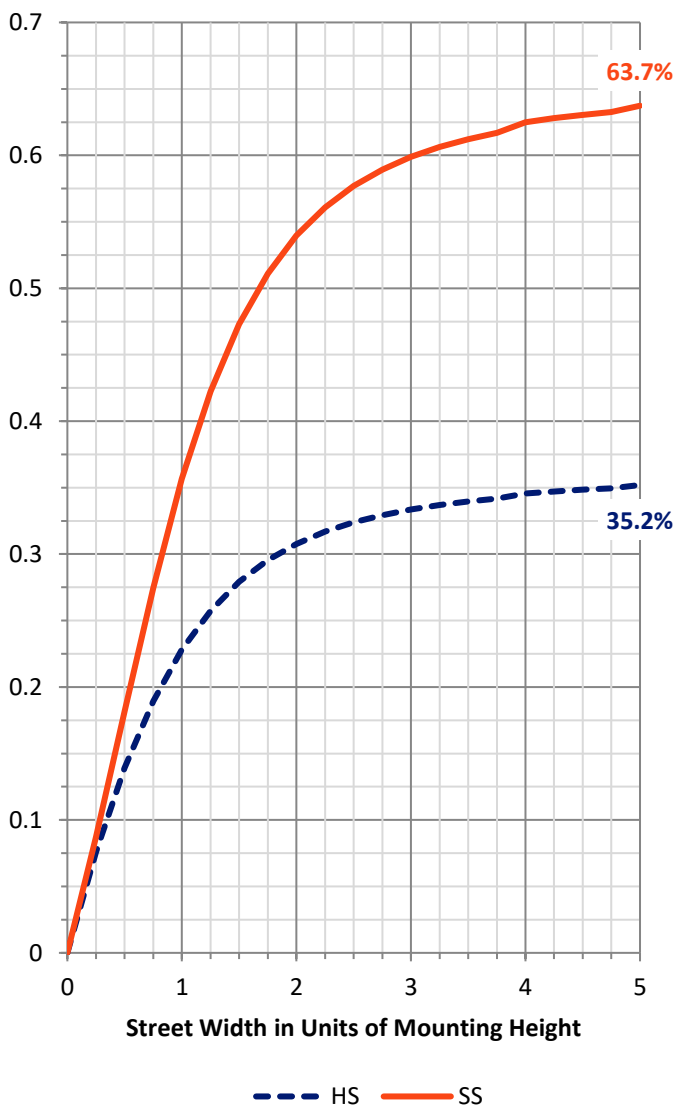
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2583.3	0.0	2583.3
	% Fixture	35.7	0.0	35.7
Street Side	Lumens	4660.1	0.0	4660.1
	% Fixture	64.3	0.0	64.3
Total	Lumens	7243.4	0.0	7243.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.6	0.8
10°-20°	196.5	2.7
20°-30°	414.7	5.7
30°-40°	763.2	10.5
40°-50°	1189.6	16.4
50°-60°	1563.1	21.6
60°-70°	1637.9	22.6
70°-80°	1135.6	15.7
80°-90°	285.2	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°	7243.4	100.0
0°-180°	7243.4	100.0

Coefficient of Utilization



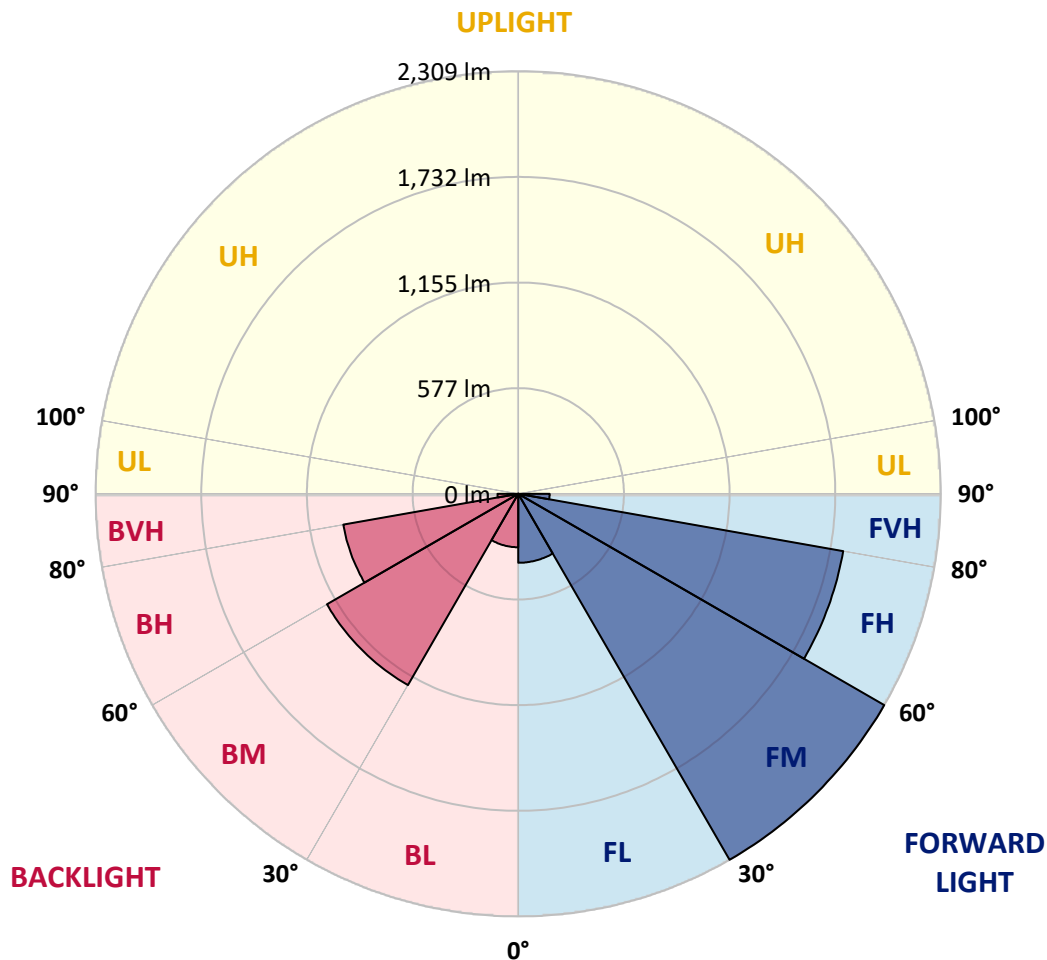
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	376.8	5.2			
FM (30°-60°)	2309.1	31.9			
FH (60°-80°)	1802.9	24.9			G2/5000
FVH (80°-90°)	171.4	2.4			G2/225
BL (0°-30°)	292.0	4.0	B1/500		
BM (30°-60°)	1206.9	16.7	B2/2500		
BH (60°-80°)	970.6	13.4	B2/1000		G2/1000
BVH (80°-90°)	113.8	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°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7
2.5°	588.8	588.8	588.8	587.2	587.2	587.2	585.6	585.6	585.6	583.9	582.3
5°	601.9	601.9	600.2	601.9	600.2	598.6	597.0	597.0	597.0	595.4	593.7
7.5°	619.8	621.4	619.8	621.4	619.8	618.2	614.9	614.9	613.3	610.0	606.8
10°	647.5	647.5	647.5	645.9	644.3	642.7	641.0	639.4	637.8	632.9	628.0
12.5°	681.8	681.8	681.8	678.5	678.5	675.3	673.6	672.0	668.8	662.2	655.7
15°	724.2	722.6	727.5	727.5	725.8	725.8	720.9	717.7	714.4	704.6	690.0
17.5°	781.3	779.7	784.6	787.8	787.8	789.5	781.3	778.0	766.6	753.6	734.0
20°	858.0	854.7	859.6	862.9	859.6	862.9	854.7	856.3	840.0	817.2	786.2
22.5°	941.1	941.1	946.0	946.0	947.7	950.9	941.1	936.3	923.2	890.6	851.4
25°	1043.9	1052.1	1052.1	1052.1	1058.6	1060.2	1050.4	1042.3	1024.3	980.3	926.5
27.5°	1169.5	1167.9	1166.2	1176.0	1176.0	1179.3	1172.8	1169.5	1148.3	1094.5	1012.9
30°	1303.2	1293.5	1300.0	1303.2	1309.8	1314.7	1308.1	1298.4	1272.3	1213.5	1112.4
32.5°	1425.6	1432.1	1441.9	1445.2	1454.9	1456.6	1440.3	1440.3	1414.2	1339.1	1234.7
35°	1564.2	1564.2	1590.3	1601.7	1601.7	1611.5	1587.1	1574.0	1556.1	1477.8	1345.7
37.5°	1684.9	1688.2	1709.4	1735.5	1738.8	1753.4	1735.5	1730.6	1698.0	1618.1	1471.3
40°	1797.5	1800.7	1826.8	1857.8	1875.8	1898.6	1880.7	1872.5	1838.2	1746.9	1596.8
42.5°	1885.6	1892.1	1924.7	1970.4	1999.7	2027.5	2019.3	2014.4	1967.1	1870.9	1712.7
45°	1952.4	1963.8	2009.5	2063.3	2104.1	2144.9	2146.5	2136.7	2092.7	1985.0	1825.2
47.5°	2006.3	2019.3	2069.9	2138.4	2200.4	2250.9	2260.7	2249.3	2208.5	2096.0	1926.3
50°	2050.3	2056.8	2113.9	2202.0	2278.6	2342.3	2361.8	2352.0	2316.2	2188.9	2014.4
52.5°	2073.1	2082.9	2148.2	2249.3	2342.3	2418.9	2448.3	2443.4	2401.0	2273.8	2092.7
55°	2084.5	2094.3	2171.0	2286.8	2391.2	2480.9	2516.8	2518.4	2477.6	2350.4	2166.1
57.5°	2071.5	2084.5	2167.7	2296.6	2412.4	2508.6	2564.1	2562.5	2529.8	2409.1	2228.1
59°	2048.7	2058.4	2148.2	2283.5	2409.1	2505.4	2569.0	2570.6	2541.3	2428.7	2255.8
60°	2022.6	2034.0	2125.3	2267.2	2396.1	2494.0	2560.8	2564.1	2539.6	2433.6	2267.2
62.5°	1932.9	1947.5	2048.7	2200.4	2340.6	2433.6	2513.5	2518.4	2505.4	2420.6	2275.4
65°	1807.3	1820.3	1929.6	2091.1	2237.9	2334.1	2409.1	2420.6	2418.9	2361.8	2242.8
67.5°	1653.9	1655.6	1758.3	1934.5	2087.8	2182.4	2254.2	2273.8	2288.4	2250.9	2146.5
70°	1469.6	1468.0	1567.5	1742.0	1895.3	1994.8	2066.6	2079.7	2117.2	2087.8	2003.0
72.5°	1241.3	1260.8	1353.8	1500.6	1652.3	1763.2	1826.8	1851.3	1872.5	1879.0	1808.9
75°	1026.0	1047.2	1120.6	1257.6	1388.1	1490.8	1559.3	1570.7	1609.9	1619.7	1554.4
77.5°	820.4	822.1	875.9	985.2	1104.3	1189.1	1244.5	1273.9	1295.1	1314.7	1246.2
80°	575.8	583.9	621.4	699.7	792.7	882.4	928.1	947.7	962.3	975.4	952.6
82.5°	360.5	363.7	388.2	435.5	499.1	549.7	597.0	613.3	616.6	645.9	642.7
85°	171.3	172.9	189.2	212.0	239.8	280.5	298.5	298.5	321.3	342.5	342.5
87.5°	22.8	22.8	27.7	31.0	39.1	50.6	70.1	71.8	84.8	94.6	102.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7
2.5°	582.3	582.3	582.3	582.3	582.3	580.7	582.3	582.3	582.3	582.3	582.3
5°	593.7	592.1	590.5	588.8	588.8	587.2	587.2	587.2	587.2	587.2	587.2
7.5°	605.1	603.5	601.9	598.6	597.0	595.4	595.4	593.7	593.7	593.7	593.7
10°	624.7	623.1	616.6	611.7	608.4	606.8	605.1	603.5	601.9	601.9	601.9
12.5°	650.8	647.5	636.1	629.6	624.7	621.4	618.2	616.6	614.9	613.3	613.3
15°	683.4	675.3	660.6	650.8	644.3	639.4	634.5	631.2	629.6	628.0	628.0
17.5°	722.6	712.8	693.2	675.3	663.9	655.7	649.2	644.3	642.7	642.7	642.7
20°	771.5	755.2	727.5	703.0	685.1	673.6	663.9	659.0	657.3	655.7	654.1
22.5°	828.6	807.4	766.6	729.1	706.3	690.0	678.5	672.0	667.1	665.5	665.5
25°	893.8	862.9	809.0	763.4	732.4	709.5	694.8	686.7	678.5	675.3	675.3
27.5°	972.1	931.4	859.6	799.2	756.8	729.1	712.8	701.4	693.2	686.7	683.4
30°	1057.0	1011.3	915.0	838.4	784.6	753.6	734.0	720.9	709.5	698.1	696.5
32.5°	1164.6	1099.4	981.9	882.4	817.2	778.0	755.2	738.9	724.2	712.8	709.5
35°	1273.9	1195.6	1052.1	928.1	848.2	800.9	773.1	755.2	740.5	727.5	725.8
37.5°	1386.4	1303.2	1128.7	981.9	884.1	827.0	792.7	773.1	755.2	742.2	740.5
40°	1503.9	1406.0	1207.0	1037.4	921.6	853.1	813.9	789.5	769.9	758.5	756.8
42.5°	1614.8	1508.8	1291.8	1102.6	965.6	880.8	835.1	809.0	784.6	773.1	771.5
45°	1720.8	1606.6	1376.6	1163.0	1009.7	910.2	856.3	825.3	799.2	787.8	786.2
47.5°	1817.0	1702.9	1454.9	1228.2	1055.3	942.8	879.2	841.6	812.3	800.9	800.9
50°	1903.5	1784.4	1531.6	1288.6	1097.7	975.4	898.7	856.3	827.0	815.5	813.9
52.5°	1985.0	1856.2	1598.5	1340.8	1138.5	1004.8	918.3	867.7	836.8	823.7	822.1
55°	2050.3	1921.4	1653.9	1383.2	1166.2	1024.3	931.4	874.3	840.0	828.6	827.0
57.5°	2107.4	1975.3	1693.1	1412.5	1184.2	1035.7	937.9	874.3	838.4	825.3	823.7
59°	2131.8	1998.1	1706.1	1420.7	1187.4	1037.4	936.3	869.4	831.9	818.8	815.5
60°	2144.9	2007.9	1711.0	1422.3	1185.8	1034.1	934.6	864.5	825.3	810.7	810.7
62.5°	2157.9	2016.0	1704.5	1409.3	1167.9	1016.2	918.3	844.9	800.9	784.6	784.6
65°	2130.2	1986.7	1667.0	1373.4	1132.0	985.2	887.3	812.3	763.4	747.0	747.0
67.5°	2048.7	1914.9	1598.5	1306.5	1073.3	931.4	836.8	760.1	714.4	696.5	691.6
70°	1910.0	1797.5	1490.8	1210.3	993.3	862.9	773.1	699.7	652.4	634.5	628.0
72.5°	1724.1	1613.2	1347.3	1092.8	887.3	773.1	694.8	624.7	572.5	554.6	556.2
75°	1468.0	1389.7	1161.3	944.4	765.0	659.0	593.7	535.0	491.0	476.3	477.9
77.5°	1190.7	1125.5	941.1	769.9	624.7	543.2	487.7	440.4	411.0	402.9	398.0
80°	911.8	848.2	706.3	574.1	474.7	417.6	380.0	347.4	324.6	313.2	316.4
82.5°	611.7	572.5	468.1	380.0	323.0	282.2	269.1	247.9	239.8	233.2	238.1
85°	329.5	295.2	244.7	203.9	177.8	166.4	169.6	168.0	161.5	159.8	164.7
87.5°	107.7	93.0	71.8	60.4	62.0	55.5	55.5	52.2	47.3	45.7	48.9
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)