

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: P472356

Luminaire Tested: **CCW-VA-4-860-U-T3**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472356
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-4-860-U-T3
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T3 DISTRIBUTION LENS
Light Source: 5700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5636.4 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

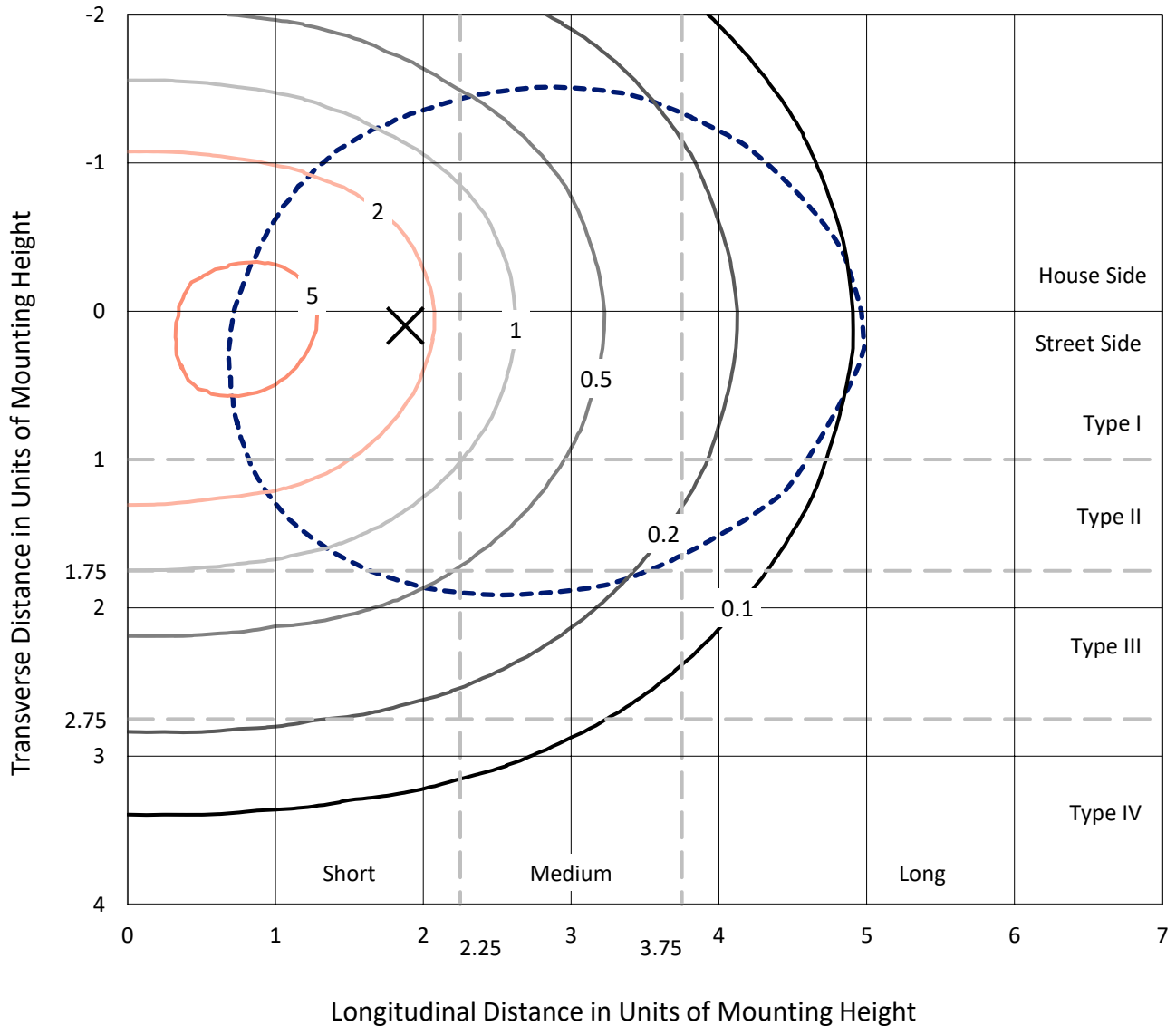
Input Watts (W): 64.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

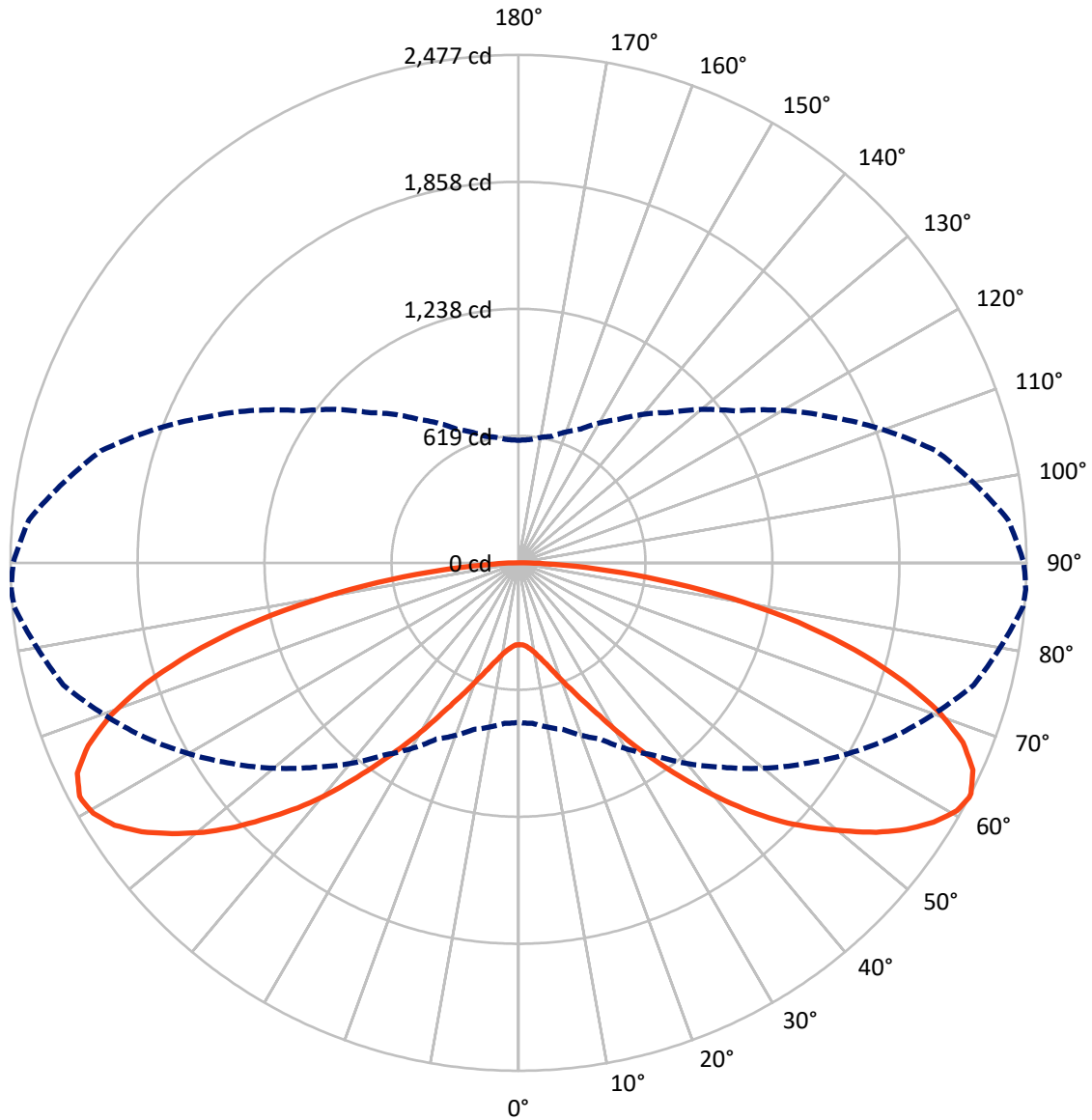
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.8 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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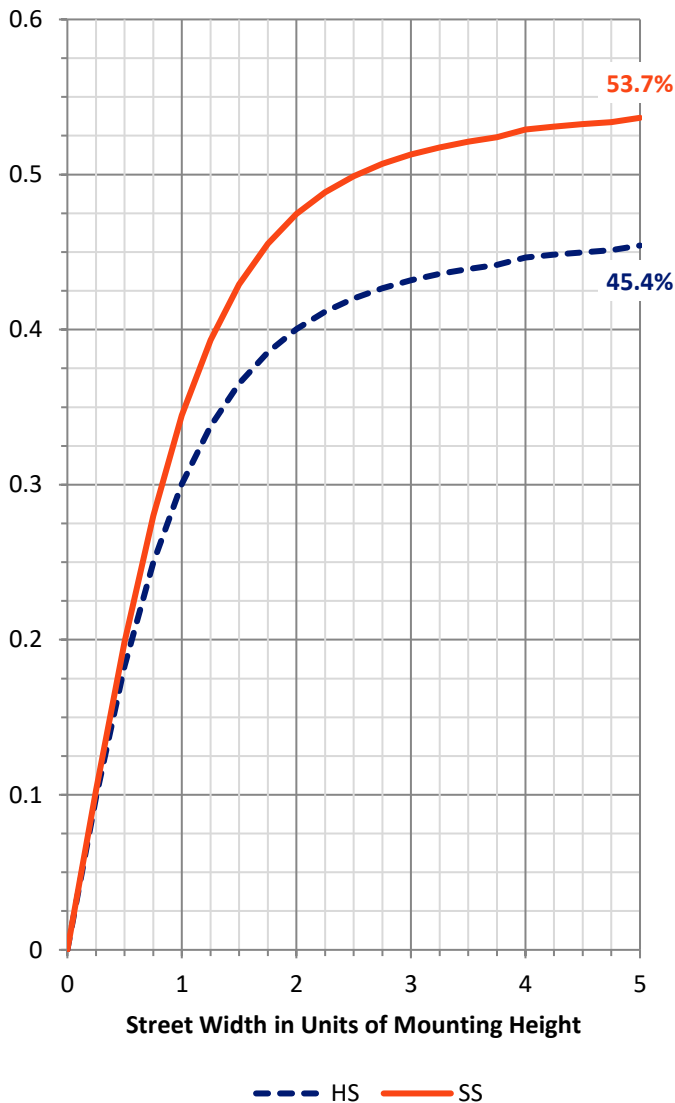
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2595.1	0.0	2595.1
	% Fixture	46.0	0.0	46.0
Street Side	Lumens	3041.3	0.0	3041.3
	% Fixture	54.0	0.0	54.0
Total	Lumens	5636.4	0.0	5636.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	0.7
10°-20°	141.6	2.5
20°-30°	302.8	5.4
30°-40°	558.1	9.9
40°-50°	890.1	15.8
50°-60°	1210.4	21.5
60°-70°	1311.3	23.3
70°-80°	937.0	16.6
80°-90°	244.9	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°	5636.4	100.0
0°-180°	5636.4	100.0

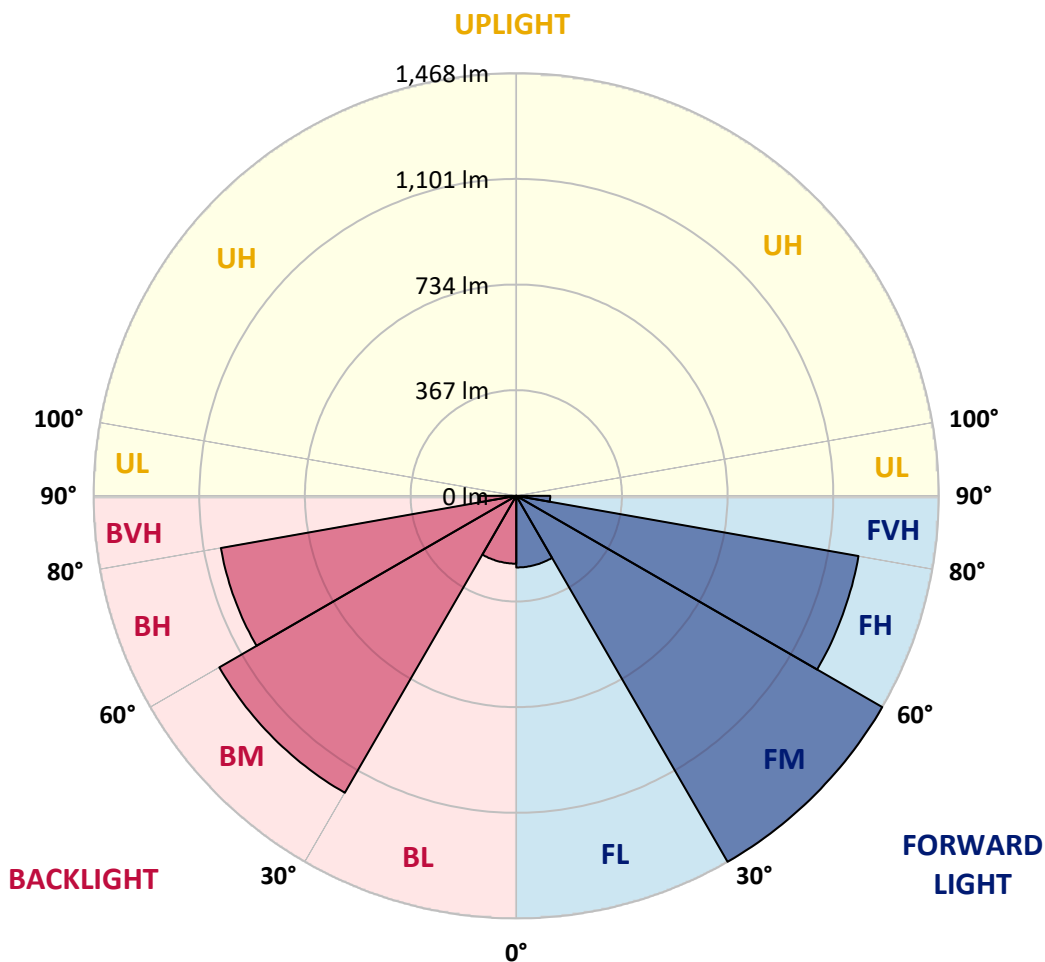


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	248.9	4.4			
FM (30°-60°)	1467.6	26.0			
FH (60°-80°)	1206.8	21.4			G1/1800
FVH (80°-90°)	118.0	2.1			G2/225
BL (0°-30°)	235.7	4.2	B1/500		
BM (30°-60°)	1190.9	21.1	B2/2500		
BH (60°-80°)	1041.6	18.5	B3/2500		G3/2500
BVH (80°-90°)	127.0	2.3			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9
2.5°	399.8	399.8	399.8	399.8	399.8	399.8	399.8	399.8	399.8	400.7	400.7
5°	402.5	401.6	401.6	402.5	403.4	404.3	406.2	407.1	408.9	410.7	409.8
7.5°	410.7	410.7	410.7	411.6	414.3	416.2	418.9	421.6	424.3	426.2	425.2
10°	423.4	423.4	423.4	425.2	428.0	433.4	438.0	442.5	445.2	447.0	448.0
12.5°	437.1	437.1	438.9	442.5	448.0	455.2	463.4	469.8	474.3	476.1	477.0
15°	456.1	457.0	460.7	464.3	471.6	482.5	496.1	505.2	509.7	513.4	512.5
17.5°	485.2	484.3	487.0	495.2	503.4	518.8	535.2	550.6	559.7	559.7	559.7
20°	517.9	517.0	518.8	525.2	538.8	559.7	585.2	606.1	616.1	614.2	616.1
22.5°	554.3	554.3	556.1	561.5	575.2	605.2	640.6	671.5	685.1	680.6	678.8
25°	594.2	594.2	597.0	601.5	620.6	656.9	704.2	748.7	762.3	757.8	756.0
27.5°	640.6	637.0	642.4	646.9	670.6	718.7	780.5	836.9	866.8	851.4	845.9
30°	689.7	686.9	687.8	696.9	724.2	786.0	859.6	935.0	976.8	966.8	958.6
32.5°	732.4	734.2	736.9	752.4	783.2	857.8	943.2	1042.2	1089.5	1086.7	1084.9
35°	780.5	780.5	786.0	800.5	845.9	934.1	1037.7	1149.4	1219.4	1222.1	1216.7
37.5°	818.7	818.7	826.9	845.9	899.6	1004.0	1131.3	1263.0	1347.5	1362.0	1357.5
40°	852.3	850.5	859.6	887.7	950.4	1078.6	1223.0	1375.7	1489.3	1513.8	1507.4
42.5°	872.3	874.1	886.8	922.3	999.5	1144.0	1313.0	1482.0	1614.6	1656.4	1656.4
45°	886.8	888.6	907.7	949.5	1044.0	1208.5	1394.8	1591.0	1737.3	1798.2	1800.9
47.5°	893.2	895.9	919.5	970.4	1081.3	1267.5	1473.8	1689.2	1847.3	1933.6	1928.1
50°	893.2	896.8	925.0	985.9	1114.9	1317.5	1548.3	1782.7	1959.0	2055.3	2054.4
52.5°	887.7	892.3	926.8	997.7	1143.1	1365.7	1614.6	1862.7	2066.2	2179.8	2183.5
55°	876.8	882.3	922.3	1005.0	1164.9	1403.8	1668.3	1937.2	2158.9	2287.0	2295.2
57.5°	855.0	860.5	905.9	998.6	1173.1	1423.8	1707.3	1989.9	2234.3	2384.3	2386.1
60°	818.7	825.0	874.1	977.7	1164.9	1424.7	1717.3	2013.5	2285.2	2449.7	2456.0
62°	778.7	786.0	841.4	948.6	1144.0	1410.2	1706.4	2012.6	2298.9	2468.8	2476.9
62.5°	768.7	775.1	831.4	938.6	1135.8	1402.9	1700.1	2008.1	2297.0	2469.7	2476.0
65°	706.9	713.3	770.5	884.1	1085.8	1358.4	1653.7	1968.1	2264.3	2433.3	2435.1
67.5°	638.8	645.1	702.4	809.6	1014.0	1283.9	1575.6	1889.1	2177.1	2323.4	2337.0
70°	559.7	568.8	621.5	727.8	919.5	1176.7	1452.0	1763.7	2038.1	2162.6	2175.3
72.5°	481.6	487.9	529.7	623.3	796.9	1035.8	1292.1	1573.8	1823.6	1941.8	1952.7
75°	390.7	396.2	437.1	514.3	659.7	863.2	1104.9	1351.1	1578.3	1684.6	1692.8
77.5°	308.0	309.8	338.9	400.7	512.5	676.9	876.8	1071.3	1277.5	1373.9	1395.7
80°	217.2	226.3	246.2	288.9	359.8	485.2	629.7	796.0	940.4	1048.6	1055.8
82.5°	140.8	142.7	155.4	170.8	221.7	306.2	400.7	503.4	632.4	702.4	696.9
85°	73.6	73.6	78.1	82.7	100.0	137.2	193.5	265.3	340.7	393.4	386.2
87.5°	12.7	11.8	12.7	11.8	15.4	21.8	40.9	66.3	100.0	118.1	129.9
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°	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9	398.9
2.5°	400.7	400.7	401.6	403.4	403.4	404.3	405.3	405.3	406.2	407.1	407.1
5°	411.6	411.6	412.5	414.3	415.2	415.2	416.2	417.1	417.1	417.1	418.0
7.5°	426.2	427.1	428.0	428.9	429.8	429.8	432.5	431.6	431.6	431.6	431.6
10°	447.0	448.9	448.9	448.9	448.9	448.0	448.9	448.0	446.1	446.1	445.2
12.5°	477.9	477.9	476.1	474.3	471.6	470.7	469.8	467.0	463.4	461.6	461.6
15°	513.4	511.6	507.9	504.3	499.8	496.1	489.8	486.1	481.6	479.8	479.8
17.5°	558.8	556.1	546.1	538.8	527.9	519.7	512.5	505.2	499.8	497.9	497.0
20°	610.6	604.2	589.7	573.3	558.8	546.1	532.5	523.4	517.9	513.4	512.5
22.5°	676.0	666.9	641.5	616.1	589.7	571.5	554.3	541.5	531.6	527.0	525.2
25°	746.9	733.3	700.6	662.4	626.1	597.9	576.1	558.8	547.0	539.7	537.9
27.5°	836.9	816.9	768.7	711.5	663.3	627.9	597.9	577.9	562.4	551.5	549.7
30°	942.3	921.4	841.4	766.0	705.1	655.1	622.4	596.1	577.0	564.3	561.5
32.5°	1067.6	1029.5	937.7	831.4	747.8	686.9	645.1	614.2	590.6	576.1	572.4
35°	1194.9	1155.8	1034.9	900.5	793.2	719.6	669.7	632.4	606.1	587.9	586.1
37.5°	1337.5	1290.3	1148.5	978.6	842.3	754.2	692.4	649.7	617.9	598.8	597.0
40°	1491.1	1442.9	1270.3	1068.6	900.5	787.8	714.2	666.0	630.6	609.7	607.0
42.5°	1641.9	1584.7	1393.8	1158.5	959.5	825.0	739.6	683.3	641.5	619.7	616.1
45°	1772.8	1722.8	1519.2	1262.1	1027.7	863.2	765.1	699.7	653.3	628.8	625.1
47.5°	1920.9	1867.2	1656.4	1357.5	1093.1	906.8	789.6	714.2	663.3	637.0	634.2
50°	2051.7	2003.5	1778.2	1445.6	1155.8	947.7	812.3	727.8	671.5	643.3	639.7
52.5°	2170.7	2128.0	1890.0	1528.3	1209.4	985.9	833.2	737.8	676.9	646.0	641.5
55°	2290.7	2235.2	1987.2	1601.0	1252.1	1015.9	850.5	742.4	676.0	644.2	639.7
57.5°	2380.6	2327.9	2058.1	1652.8	1283.9	1035.8	860.5	741.4	670.6	636.0	630.6
60°	2441.5	2383.4	2099.9	1678.3	1294.8	1042.2	860.5	733.3	656.9	619.7	614.2
62°	2464.2	2397.0	2108.0	1681.9	1290.3	1035.8	854.1	719.6	638.8	602.4	597.0
62.5°	2465.1	2396.1	2105.3	1679.2	1287.5	1033.1	850.5	715.1	634.2	597.0	591.5
65°	2425.2	2356.1	2072.6	1651.0	1256.6	1008.6	825.0	688.7	602.4	566.1	560.6
67.5°	2310.7	2258.0	1994.5	1585.6	1203.9	963.2	787.8	650.6	565.2	527.0	524.3
70°	2151.7	2103.5	1867.2	1486.5	1127.6	897.7	732.4	599.7	517.9	483.4	477.0
72.5°	1951.8	1889.1	1686.4	1353.9	1017.7	807.8	659.7	536.1	463.4	432.5	428.9
75°	1703.7	1628.3	1459.3	1178.5	885.9	699.7	575.2	465.2	400.7	374.4	377.1
77.5°	1387.5	1352.1	1179.4	939.5	721.5	578.8	471.6	394.3	338.9	317.1	315.3
80°	1047.7	1014.0	893.2	713.3	545.2	438.0	365.3	310.8	272.6	253.5	252.6
82.5°	710.6	678.8	587.0	478.9	371.6	309.8	264.4	229.0	205.4	196.3	196.3
85°	390.7	363.5	310.8	259.0	209.9	177.2	170.8	152.7	146.3	144.5	146.3
87.5°	121.8	120.8	102.7	84.5	73.6	74.5	67.2	69.1	65.4	64.5	69.1
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)