

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: P472304

Luminaire Tested: **CCW-VA-4-850-U-T4FT**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472304  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-4-850-U-T4FT  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4FT DISTRIBUTION LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6263.1 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

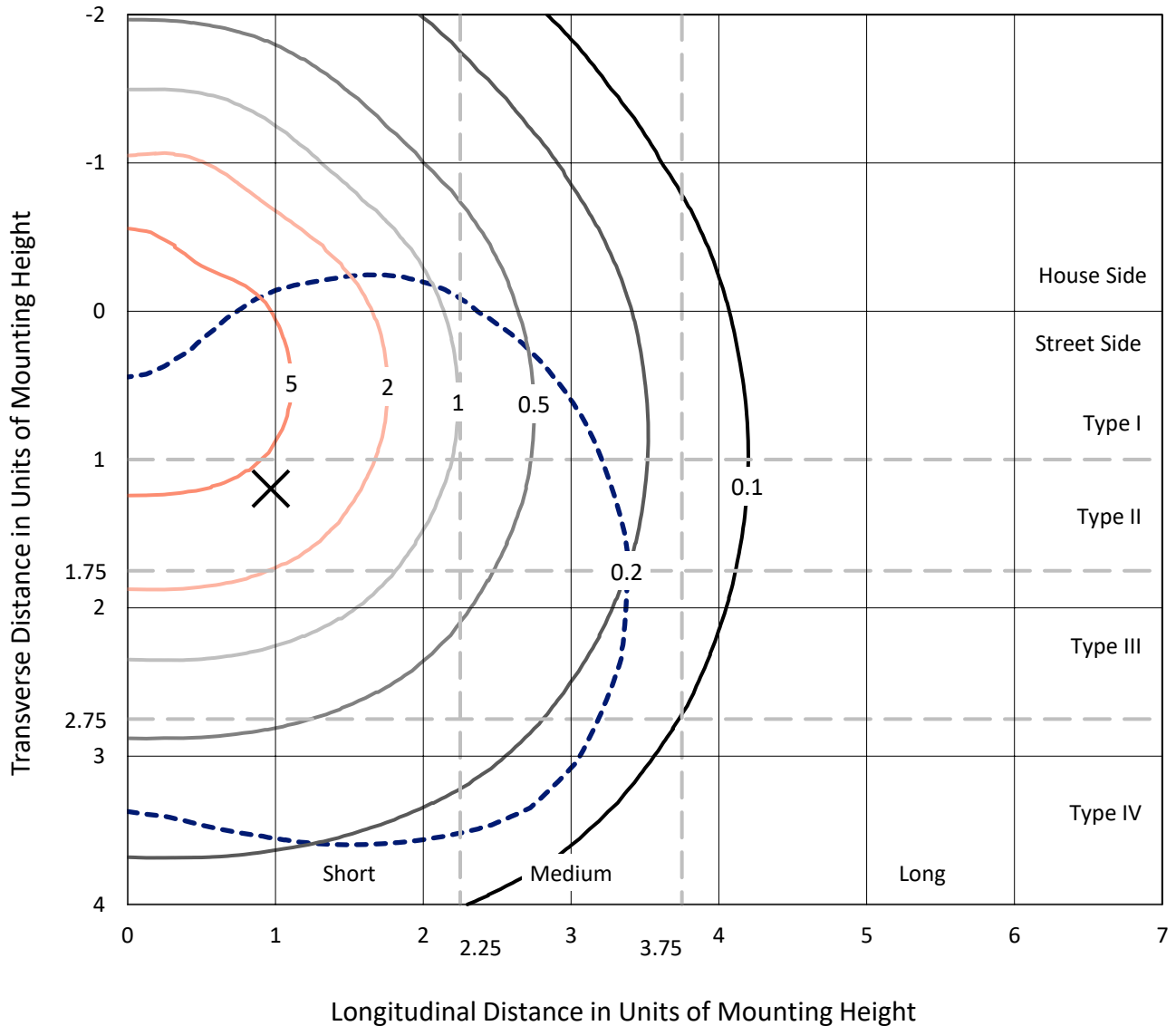
Input Watts (W): 64.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

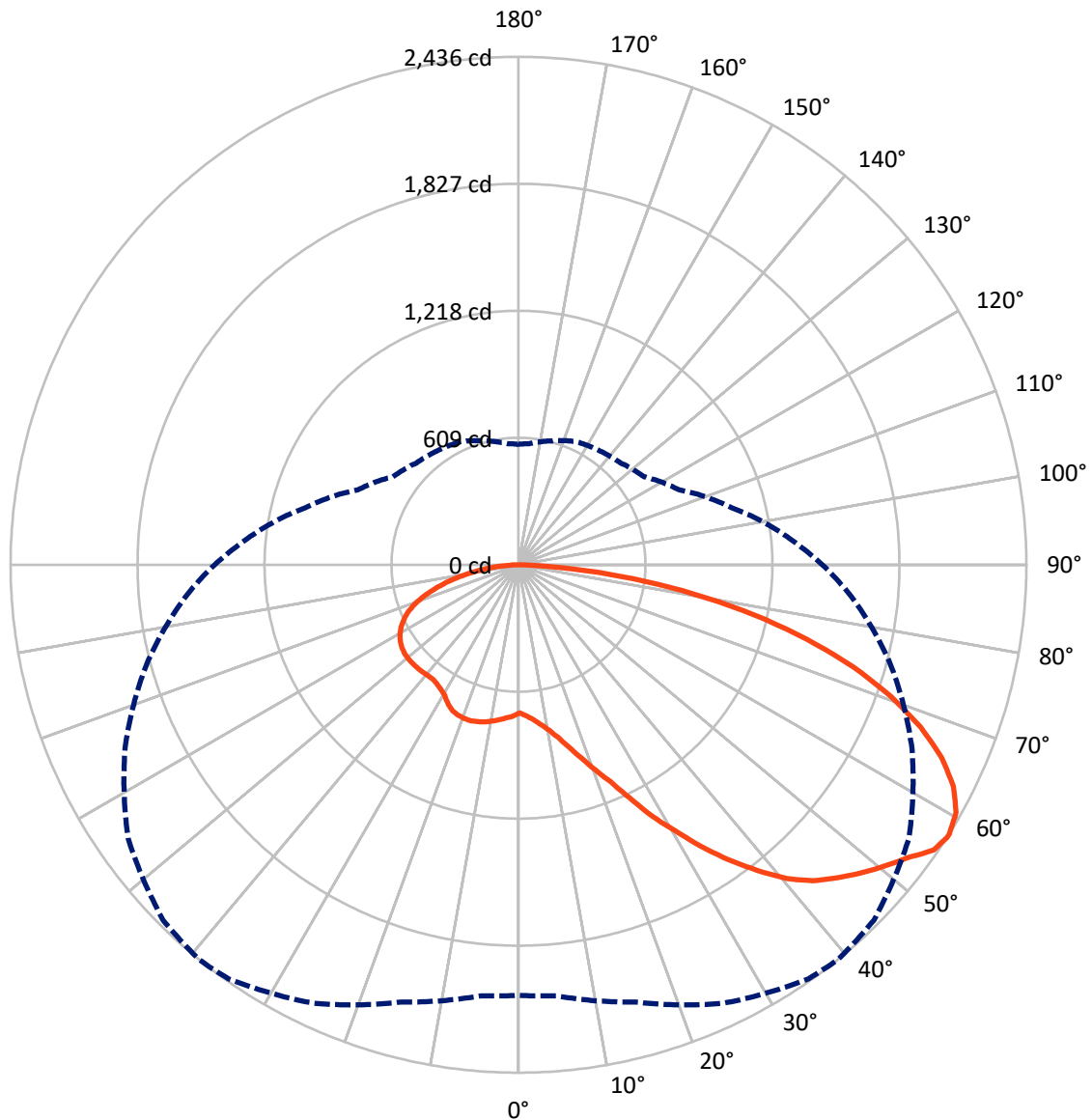
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral      - - - Horizontal Cone Through 57-Deg Vertical

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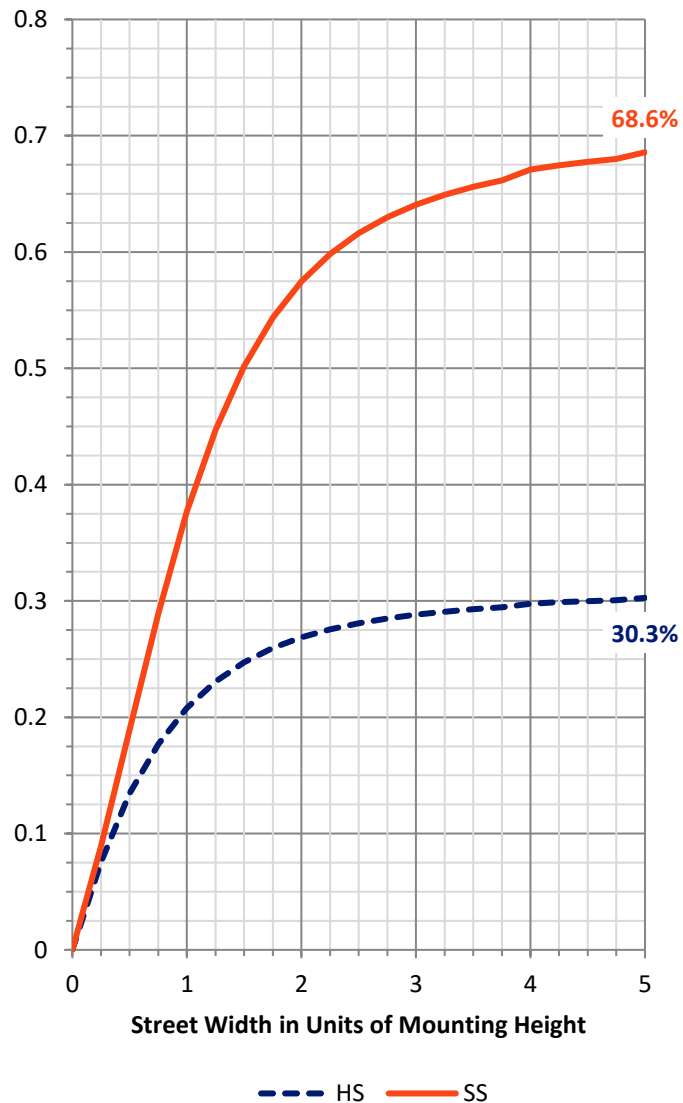
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1921.8	0.0	1921.8
	% Fixture	30.7	0.0	30.7
<b>Street Side</b>	Lumens	4341.4	0.0	4341.4
	% Fixture	69.3	0.0	69.3
<b>Total</b>	Lumens	6263.1	0.0	6263.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.9	1.1
10°-20°	239.8	3.8
20°-30°	463.3	7.4
30°-40°	749.4	12.0
40°-50°	1052.8	16.8
50°-60°	1300.5	20.8
60°-70°	1292.6	20.6
70°-80°	874.6	14.0
80°-90°	218.3	3.5
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°	6263.1	100.0
0°-180°	6263.1	100.0

**Coefficient of Utilization**



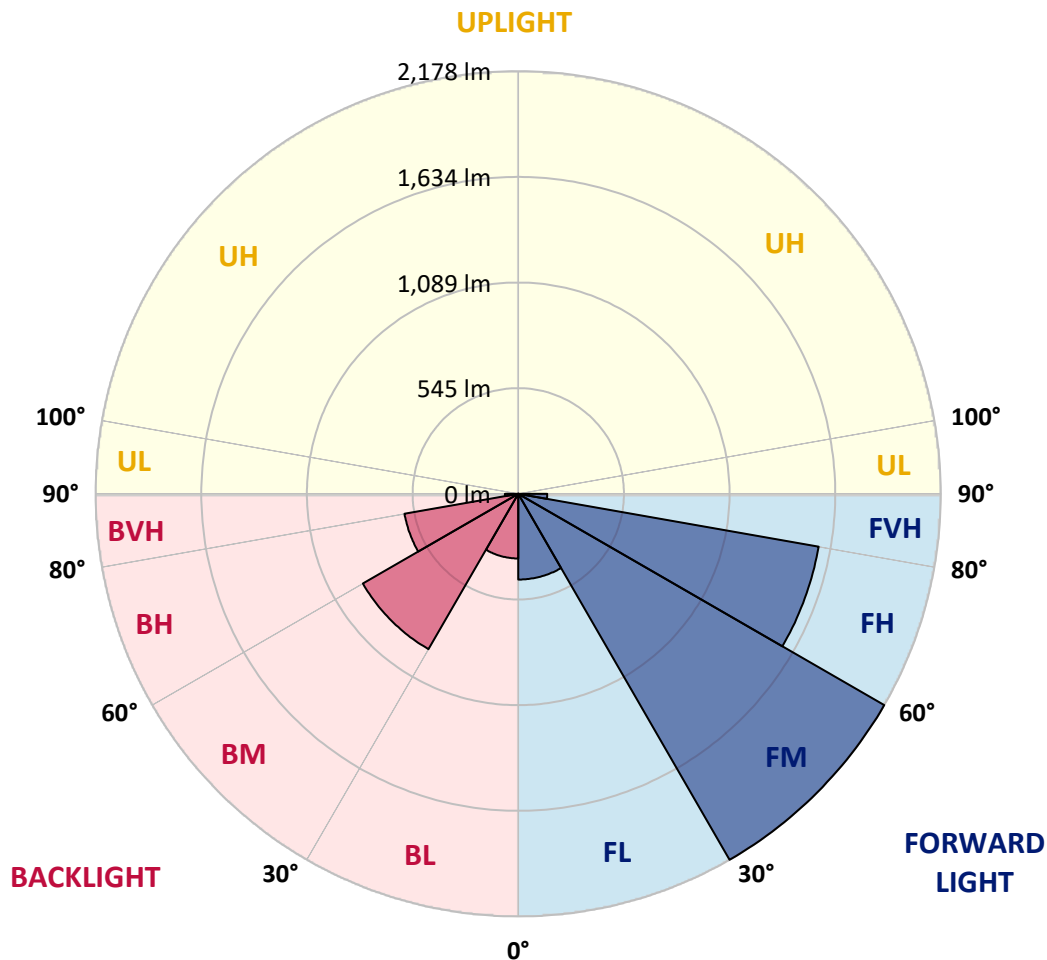
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	441.9	7.1			
FM (30°-60°)	2178.0	34.8			
FH (60°-80°)	1572.1	25.1			G1/1800
FVH (80°-90°)	149.4	2.4			G2/225
BL (0°-30°)	333.1	5.3	B1/500		
BM (30°-60°)	924.6	14.8	B1/1000		
BH (60°-80°)	595.1	9.5	B2/1000		G2/1000
BVH (80°-90°)	68.9	1.1			G1/100
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°	39°	45°	55°	65°	75°	85°
0°	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2
2.5°	731.3	730.4	729.4	729.4	727.5	725.6	724.6	722.7	723.6	725.6	726.5
5°	752.4	750.5	750.5	748.6	745.7	745.7	742.8	739.0	738.0	737.1	737.1
7.5°	785.1	782.2	783.2	780.3	777.4	773.6	768.8	764.0	762.0	755.3	749.6
10°	822.5	821.5	818.7	813.9	811.0	807.1	802.3	793.7	787.0	779.3	774.5
12.5°	866.6	864.7	865.7	861.8	857.1	850.3	842.7	834.0	821.5	807.1	797.5
15°	924.2	920.4	920.4	919.4	909.8	907.9	900.2	881.0	863.8	844.6	822.5
17.5°	994.3	993.3	989.5	985.7	979.9	973.2	965.5	944.4	918.5	888.7	859.0
20°	1069.2	1067.2	1070.1	1064.4	1052.8	1050.0	1037.5	1013.5	981.8	947.3	902.2
22.5°	1150.7	1152.7	1152.7	1150.7	1141.1	1129.6	1119.1	1087.4	1050.9	1008.7	955.9
25°	1249.6	1250.5	1256.3	1262.1	1256.3	1238.1	1223.7	1174.7	1125.8	1072.0	1009.6
27.5°	1360.9	1354.2	1370.5	1381.1	1370.5	1365.7	1334.0	1280.3	1213.1	1145.9	1068.2
30°	1468.4	1468.4	1481.8	1497.2	1490.5	1479.0	1453.1	1383.9	1307.2	1221.8	1127.7
32.5°	1568.2	1579.7	1585.5	1621.0	1617.2	1611.4	1581.7	1490.5	1394.5	1297.6	1185.3
35°	1686.3	1682.4	1706.4	1728.5	1745.8	1738.1	1716.0	1623.9	1498.2	1377.2	1248.6
37.5°	1775.5	1783.2	1804.3	1843.7	1856.1	1860.0	1832.1	1737.1	1594.1	1462.6	1318.7
40°	1843.7	1849.4	1889.7	1939.6	1965.6	1979.0	1951.2	1836.0	1684.3	1530.8	1373.4
42.5°	1898.4	1902.2	1944.4	2015.5	2058.6	2072.1	2047.1	1925.2	1761.1	1585.5	1418.5
45°	1934.8	1941.6	1991.5	2064.4	2131.6	2141.2	2128.7	2003.9	1829.3	1637.3	1451.1
47.5°	1966.5	1974.2	2029.9	2122.0	2196.9	2209.3	2197.8	2073.0	1894.5	1684.3	1479.0
50°	2008.7	2017.4	2073.0	2175.7	2258.3	2272.7	2268.8	2146.0	1956.0	1737.1	1507.8
52.5°	2049.1	2055.8	2122.0	2236.2	2325.5	2335.1	2332.2	2214.1	2018.3	1793.8	1544.2
55°	2080.7	2088.4	2167.1	2308.2	2404.2	2414.7	2394.6	2266.9	2067.3	1835.0	1578.8
57°	2064.4	2075.0	2170.9	2320.7	2424.3	2435.8	2409.9	2286.1	2081.7	1846.5	1591.3
57.5°	2059.6	2067.3	2167.1	2319.7	2425.3	2435.8	2409.9	2285.1	2080.7	1845.6	1591.3
60°	1989.5	2007.8	2120.1	2285.1	2397.4	2410.9	2385.9	2246.8	2056.7	1818.7	1565.3
62.5°	1895.5	1920.4	2038.5	2203.6	2330.3	2339.9	2314.9	2182.5	2003.0	1762.1	1511.6
65°	1760.2	1798.6	1922.4	2081.7	2218.9	2230.4	2205.5	2075.0	1913.7	1675.7	1431.0
67.5°	1627.7	1650.8	1783.2	1934.8	2062.5	2079.8	2058.6	1942.5	1790.9	1560.5	1323.5
70°	1477.0	1493.4	1602.8	1751.5	1880.1	1894.5	1876.3	1767.8	1624.8	1417.5	1197.8
72.5°	1295.7	1312.9	1406.0	1543.3	1657.5	1680.5	1668.0	1555.7	1426.2	1246.7	1057.6
75°	1091.2	1110.4	1193.9	1303.3	1414.7	1428.1	1413.7	1331.2	1214.1	1051.9	886.8
77.5°	884.9	897.4	957.8	1040.4	1126.7	1155.5	1151.7	1093.1	975.1	846.5	712.1
80°	662.2	664.1	695.8	764.0	833.1	854.2	859.0	806.2	728.4	631.5	533.6
82.5°	418.4	425.2	442.4	493.3	526.9	555.7	562.4	531.7	482.8	422.3	361.8
85°	194.8	189.1	202.5	219.8	267.8	267.8	276.4	260.1	245.7	225.5	187.1
87.5°	16.3	15.4	15.4	16.3	25.9	27.8	44.1	48.9	52.8	52.8	55.7
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°	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2
2.5°	724.6	723.6	720.8	720.8	722.7	725.6	726.5	727.5	728.4	729.4	729.4
5°	736.1	735.2	733.2	731.3	733.2	734.2	737.1	739.0	739.0	740.9	740.0
7.5°	746.7	747.6	745.7	744.8	744.8	746.7	750.5	753.4	755.3	756.3	758.2
10°	770.7	764.9	757.2	753.4	753.4	757.2	761.1	764.9	768.8	770.7	770.7
12.5°	791.8	785.1	770.7	764.9	764.0	767.8	772.6	778.4	781.2	784.1	784.1
15°	811.0	805.2	787.9	774.5	770.7	773.6	779.3	786.0	790.8	793.7	793.7
17.5°	847.5	830.2	807.1	785.1	777.4	778.4	785.1	791.8	797.5	799.5	798.5
20°	882.0	859.9	825.4	793.7	781.2	777.4	784.1	792.7	797.5	800.4	800.4
22.5°	921.4	897.4	843.6	802.3	779.3	773.6	779.3	787.0	792.7	794.7	796.6
25°	977.0	934.8	863.8	809.1	776.4	764.9	768.8	776.4	783.2	784.1	783.2
27.5°	1026.9	978.9	890.6	815.8	769.7	748.6	744.8	750.5	761.1	767.8	769.7
30°	1070.1	1026.0	918.5	821.5	757.2	721.7	716.9	718.8	725.6	743.8	744.8
32.5°	1134.4	1066.3	946.3	826.3	742.8	707.3	700.6	698.7	700.6	710.2	710.2
35°	1178.6	1111.4	974.1	835.0	732.3	695.8	689.1	686.2	684.3	674.7	671.8
37.5°	1236.1	1161.3	1001.0	842.7	727.5	691.0	681.4	683.3	673.7	646.9	639.2
40°	1299.5	1206.4	1027.9	850.3	729.4	692.0	683.3	682.4	666.1	628.6	621.0
42.5°	1330.2	1244.8	1055.7	860.9	737.1	694.9	687.2	684.3	664.1	621.9	611.4
45°	1360.0	1272.6	1075.9	869.5	744.8	698.7	689.1	686.2	663.2	616.2	608.5
47.5°	1386.8	1289.9	1085.5	874.3	750.5	701.6	690.1	685.3	658.4	613.3	605.6
50°	1399.3	1299.5	1085.5	874.3	752.4	704.5	688.1	681.4	650.7	608.5	601.8
52.5°	1418.5	1305.3	1076.8	868.6	749.6	704.5	684.3	673.7	641.1	601.8	596.0
55°	1447.3	1315.8	1065.3	859.9	742.8	698.7	677.6	663.2	627.7	592.2	587.4
57°	1456.9	1319.6	1057.6	849.4	735.2	691.0	669.9	651.7	615.2	582.6	577.8
57.5°	1455.0	1317.7	1054.8	846.5	732.3	688.1	668.0	648.8	612.3	580.6	575.8
60°	1429.1	1299.5	1036.5	828.3	716.9	672.8	650.7	629.6	592.2	564.3	560.5
62.5°	1386.8	1258.2	1003.9	804.3	695.8	651.7	628.6	604.6	567.2	543.2	541.3
65°	1314.8	1189.1	956.9	769.7	668.9	623.8	598.9	573.0	540.3	519.2	513.5
67.5°	1194.9	1097.0	890.6	721.7	627.7	589.3	562.4	535.5	505.8	487.5	483.7
70°	1095.1	996.2	806.2	661.3	577.8	541.3	516.3	490.4	464.5	448.2	447.2
72.5°	968.4	873.4	700.6	586.4	514.4	478.9	459.7	436.7	416.5	402.1	402.1
75°	814.8	740.0	591.2	497.1	438.6	412.7	396.4	378.1	360.9	351.3	353.2
77.5°	647.8	591.2	482.8	402.1	358.9	341.7	326.3	315.8	305.2	296.6	297.5
80°	478.0	435.7	355.1	295.6	274.5	259.1	256.3	249.5	243.8	240.9	236.1
82.5°	327.3	289.8	236.1	202.5	187.1	182.4	183.3	183.3	184.3	184.3	182.4
85°	169.9	155.5	120.0	108.5	106.5	111.3	117.1	120.9	120.0	120.0	117.1
87.5°	48.9	44.1	38.4	34.6	36.5	39.3	34.6	33.6	32.6	31.7	31.7
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)