

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: P472184

Luminaire Tested: **CCW-VA-2-830-U-T4W**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472184
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-2-830-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: 3992.5 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

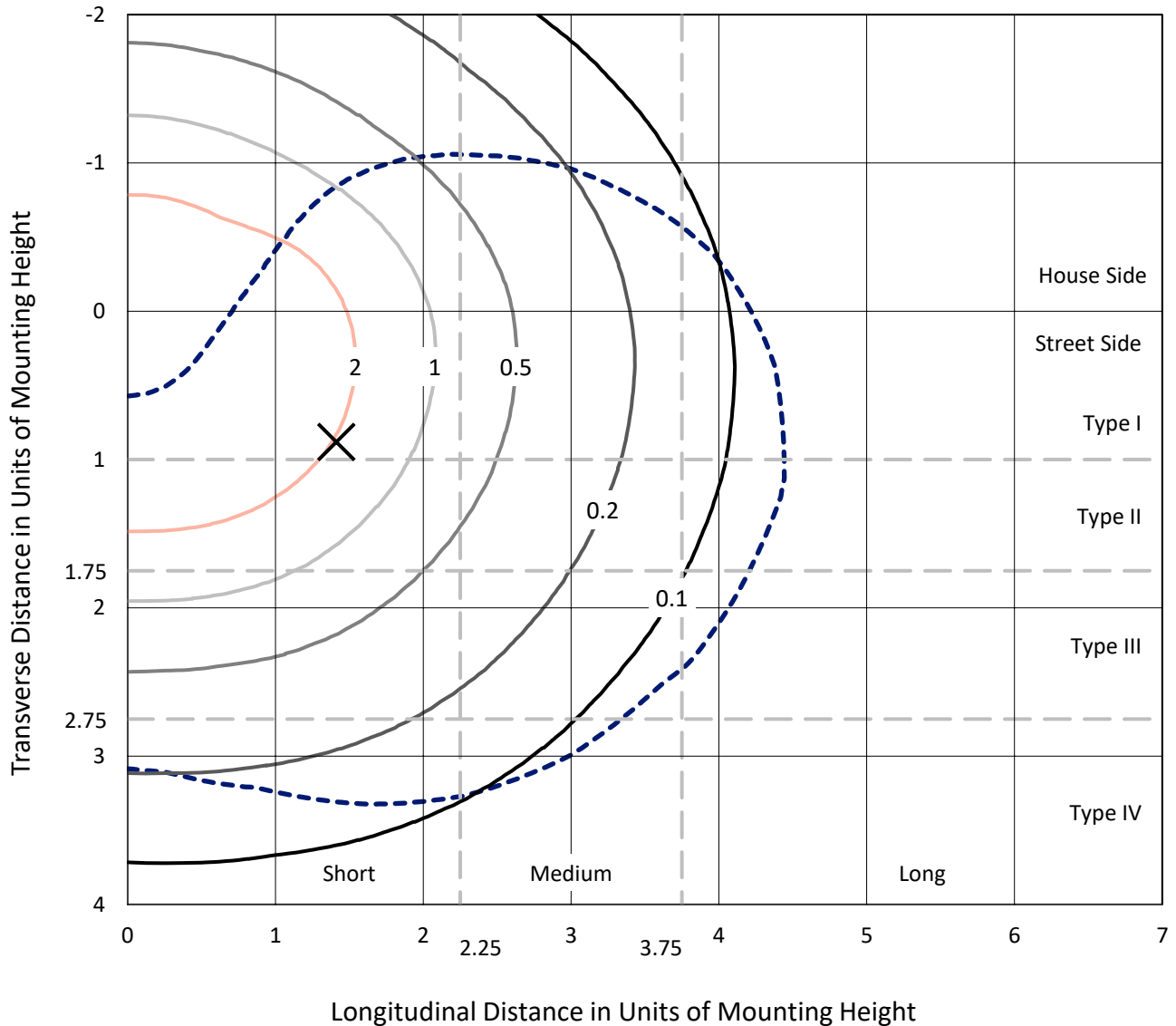
Input Watts (W): 39.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

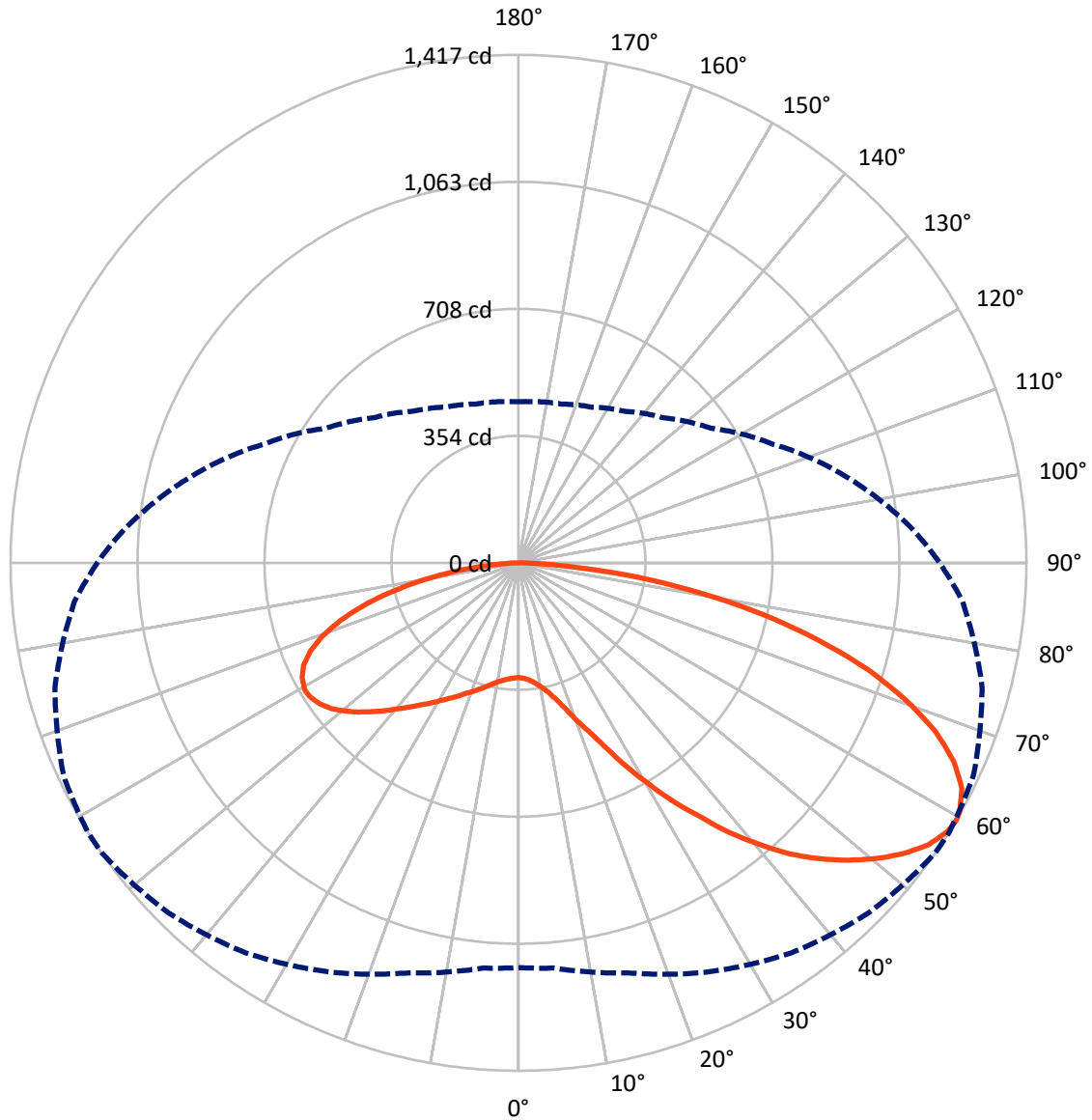
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 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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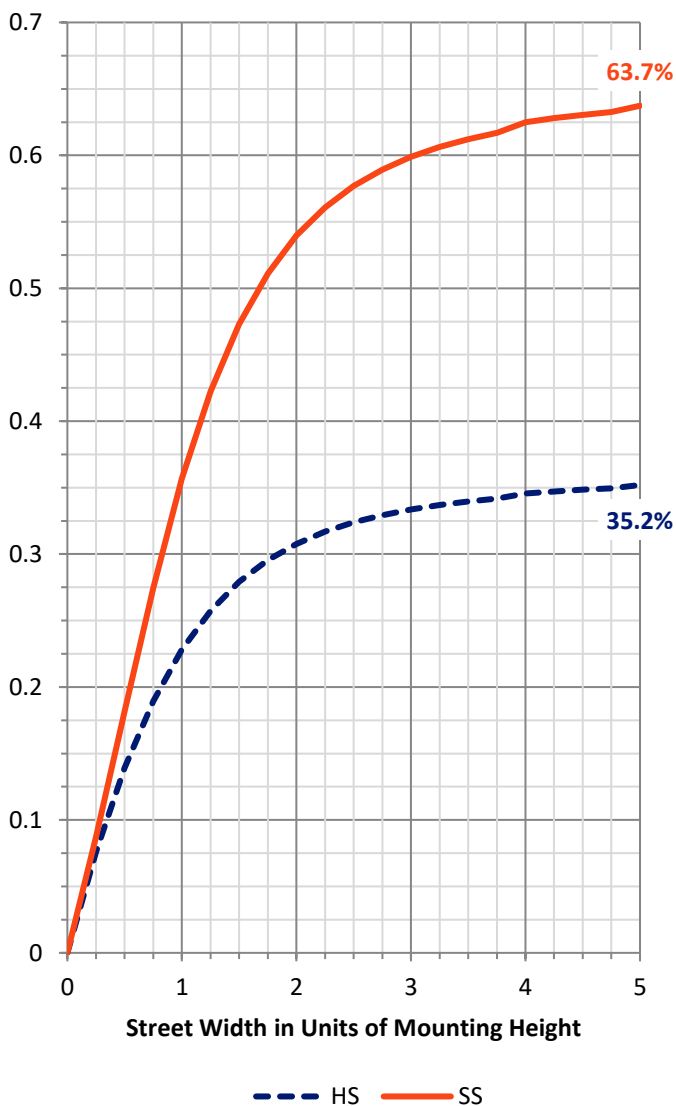
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1423.9	0.0	1423.9
	% Fixture	35.7	0.0	35.7
Street Side	Lumens	2568.6	0.0	2568.6
	% Fixture	64.3	0.0	64.3
Total	Lumens	3992.5	0.0	3992.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.8	0.8
10°-20°	108.3	2.7
20°-30°	228.6	5.7
30°-40°	420.7	10.5
40°-50°	655.7	16.4
50°-60°	861.6	21.6
60°-70°	902.8	22.6
70°-80°	625.9	15.7
80°-90°	157.2	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°	3992.5	100.0
0°-180°	3992.5	100.0

Coefficient of Utilization



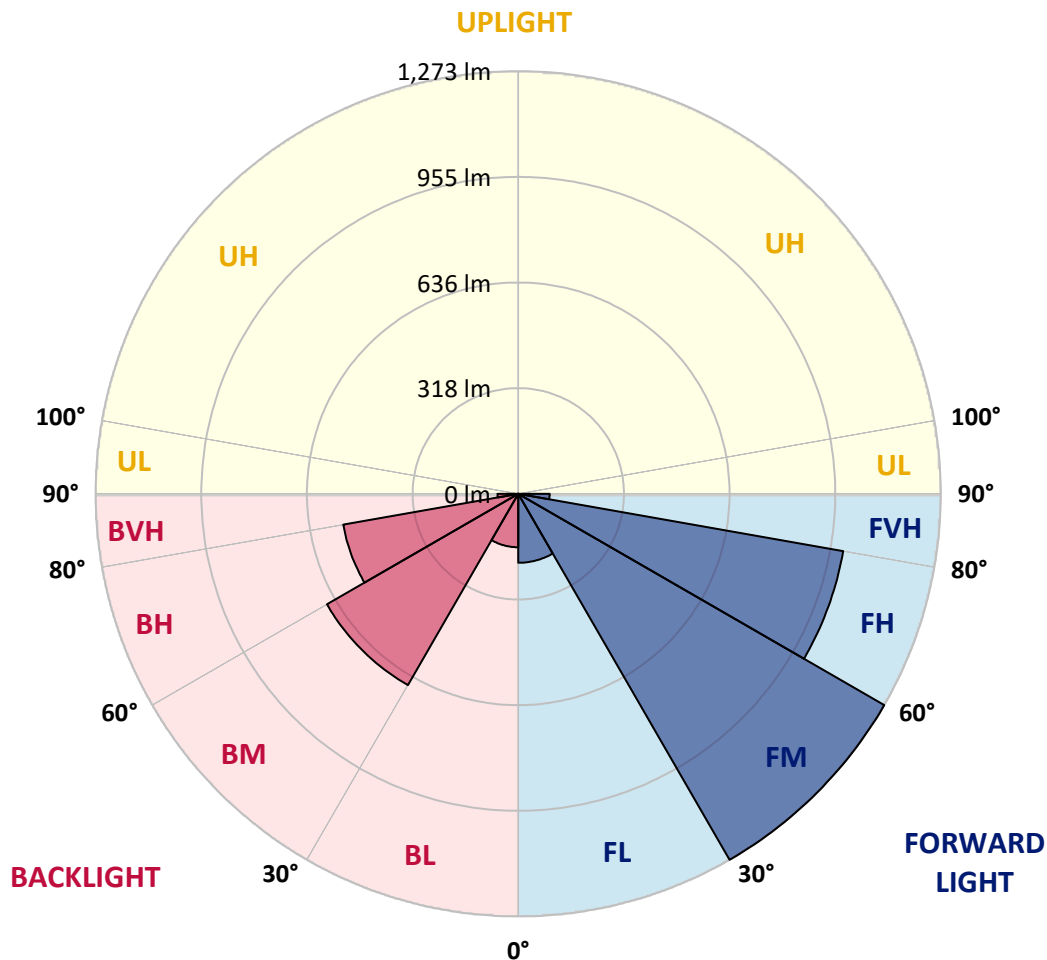
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	207.7	5.2			
FM (30°-60°)	1272.7	31.9			
FH (60°-80°)	993.7	24.9			G1/1800
FVH (80°-90°)	94.4	2.4			G1/100
BL (0°-30°)	160.9	4.0	B1/500		
BM (30°-60°)	665.2	16.7	B1/1000		
BH (60°-80°)	535.0	13.4	B2/1000		G2/1000
BVH (80°-90°)	62.7	1.6			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°	45°	55°	58°	65°	75°	85°
0°	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1
2.5°	324.6	324.6	324.6	323.7	323.7	323.7	322.8	322.8	322.8	321.9	321.0
5°	331.7	331.7	330.8	331.7	330.8	329.9	329.0	329.0	329.0	328.1	327.3
7.5°	341.6	342.5	341.6	342.5	341.6	340.7	338.9	338.9	338.0	336.2	334.4
10°	356.9	356.9	356.9	356.0	355.1	354.2	353.3	352.4	351.5	348.8	346.1
12.5°	375.8	375.8	375.8	374.0	374.0	372.2	371.3	370.4	368.6	365.0	361.4
15°	399.2	398.3	401.0	401.0	400.1	400.1	397.4	395.6	393.8	388.4	380.3
17.5°	430.6	429.7	432.4	434.2	434.2	435.1	430.6	428.8	422.5	415.4	404.6
20°	472.9	471.1	473.8	475.6	473.8	475.6	471.1	472.0	463.0	450.4	433.3
22.5°	518.7	518.7	521.4	521.4	522.3	524.1	518.7	516.0	508.9	490.9	469.3
25°	575.4	579.9	579.9	579.9	583.5	584.4	579.0	574.5	564.6	540.3	510.7
27.5°	644.6	643.7	642.8	648.2	648.2	650.0	646.4	644.6	632.9	603.3	558.3
30°	718.3	712.9	716.5	718.3	721.9	724.6	721.0	715.6	701.3	668.9	613.1
32.5°	785.8	789.4	794.8	796.6	801.9	802.8	793.9	793.9	779.5	738.1	680.6
35°	862.2	862.2	876.6	882.9	882.9	888.3	874.8	867.6	857.7	814.5	741.7
37.5°	928.7	930.5	942.2	956.6	958.4	966.5	956.6	953.9	935.9	891.8	810.9
40°	990.7	992.5	1006.9	1024.0	1033.9	1046.5	1036.6	1032.1	1013.2	962.9	880.2
42.5°	1039.3	1042.9	1060.9	1086.0	1102.2	1117.5	1113.0	1110.3	1084.2	1031.2	944.0
45°	1076.2	1082.4	1107.6	1137.3	1159.8	1182.2	1183.1	1177.7	1153.5	1094.1	1006.0
47.5°	1105.8	1113.0	1140.9	1178.6	1212.8	1240.7	1246.1	1239.8	1217.3	1155.3	1061.8
50°	1130.1	1133.7	1165.2	1213.7	1256.0	1291.0	1301.8	1296.4	1276.6	1206.5	1110.3
52.5°	1142.7	1148.1	1184.0	1239.8	1291.0	1333.3	1349.5	1346.8	1323.4	1253.3	1153.5
55°	1149.0	1154.4	1196.6	1260.5	1318.0	1367.4	1387.2	1388.1	1365.6	1295.5	1193.9
57.5°	1141.8	1149.0	1194.8	1265.8	1329.7	1382.7	1413.3	1412.4	1394.4	1327.9	1228.1
59°	1129.2	1134.6	1184.0	1258.7	1327.9	1380.9	1416.0	1416.9	1400.7	1338.7	1243.4
60°	1114.8	1121.1	1171.5	1249.7	1320.7	1374.6	1411.5	1413.3	1399.8	1341.4	1249.7
62.5°	1065.4	1073.5	1129.2	1212.8	1290.1	1341.4	1385.4	1388.1	1380.9	1334.2	1254.2
65°	996.1	1003.3	1063.6	1152.6	1233.5	1286.5	1327.9	1334.2	1333.3	1301.8	1236.2
67.5°	911.6	912.5	969.2	1066.3	1150.8	1202.9	1242.5	1253.3	1261.4	1240.7	1183.1
70°	810.0	809.1	864.0	960.2	1044.7	1099.5	1139.1	1146.3	1167.0	1150.8	1104.0
72.5°	684.2	695.0	746.2	827.1	910.7	971.9	1006.9	1020.4	1032.1	1035.7	997.0
75°	565.5	577.2	617.6	693.2	765.1	821.7	859.5	865.8	887.4	892.7	856.8
77.5°	452.2	453.1	482.8	543.0	608.7	655.4	686.0	702.2	713.8	724.6	686.9
80°	317.4	321.9	342.5	385.7	436.9	486.4	511.6	522.3	530.4	537.6	525.0
82.5°	198.7	200.5	214.0	240.0	275.1	303.0	329.0	338.0	339.8	356.0	354.2
85°	94.4	95.3	104.3	116.9	132.2	154.6	164.5	164.5	177.1	188.8	188.8
87.5°	12.6	12.6	15.3	17.1	21.6	27.9	38.7	39.6	46.8	52.1	56.6
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°	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1	320.1
2.5°	321.0	321.0	321.0	321.0	321.0	320.1	321.0	321.0	321.0	321.0	321.0
5°	327.3	326.4	325.5	324.6	324.6	323.7	323.7	323.7	323.7	323.7	323.7
7.5°	333.5	332.6	331.7	329.9	329.0	328.1	328.1	327.3	327.3	327.3	327.3
10°	344.3	343.4	339.8	337.1	335.3	334.4	333.5	332.6	331.7	331.7	331.7
12.5°	358.7	356.9	350.6	347.0	344.3	342.5	340.7	339.8	338.9	338.0	338.0
15°	376.7	372.2	364.1	358.7	355.1	352.4	349.7	347.9	347.0	346.1	346.1
17.5°	398.3	392.9	382.1	372.2	365.9	361.4	357.8	355.1	354.2	354.2	354.2
20°	425.2	416.3	401.0	387.5	377.6	371.3	365.9	363.2	362.3	361.4	360.5
22.5°	456.7	445.0	422.5	401.9	389.3	380.3	374.0	370.4	367.7	366.8	366.8
25°	492.7	475.6	445.9	420.8	403.7	391.1	383.0	378.5	374.0	372.2	372.2
27.5°	535.8	513.4	473.8	440.5	417.2	401.9	392.9	386.6	382.1	378.5	376.7
30°	582.6	557.4	504.4	462.1	432.4	415.4	404.6	397.4	391.1	384.8	383.9
32.5°	641.9	606.0	541.2	486.4	450.4	428.8	416.3	407.3	399.2	392.9	391.1
35°	702.2	659.0	579.9	511.6	467.5	441.4	426.1	416.3	408.2	401.0	400.1
37.5°	764.2	718.3	622.1	541.2	487.3	455.8	436.9	426.1	416.3	409.1	408.2
40°	828.9	775.0	665.3	571.8	508.0	470.2	448.6	435.1	424.3	418.1	417.2
42.5°	890.1	831.6	712.0	607.8	532.2	485.5	460.3	445.9	432.4	426.1	425.2
45°	948.5	885.6	758.8	641.0	556.5	501.7	472.0	454.9	440.5	434.2	433.3
47.5°	1001.5	938.6	801.9	677.0	581.7	519.6	484.6	463.9	447.7	441.4	441.4
50°	1049.2	983.6	844.2	710.2	605.1	537.6	495.4	472.0	455.8	449.5	448.6
52.5°	1094.1	1023.1	881.1	739.0	627.5	553.8	506.2	478.3	461.2	454.0	453.1
55°	1130.1	1059.1	911.6	762.4	642.8	564.6	513.4	481.9	463.0	456.7	455.8
57.5°	1161.6	1088.7	933.2	778.6	652.7	570.9	516.9	481.9	462.1	454.9	454.0
59°	1175.0	1101.3	940.4	783.1	654.5	571.8	516.0	479.2	458.5	451.3	449.5
60°	1182.2	1106.7	943.1	784.0	653.6	570.0	515.2	476.5	454.9	446.8	446.8
62.5°	1189.4	1111.2	939.5	776.8	643.7	560.1	506.2	465.7	441.4	432.4	432.4
65°	1174.1	1095.0	918.8	757.0	623.9	543.0	489.1	447.7	420.8	411.8	411.8
67.5°	1129.2	1055.5	881.1	720.1	591.6	513.4	461.2	419.0	393.8	383.9	381.2
70°	1052.8	990.7	821.7	667.1	547.5	475.6	426.1	385.7	359.6	349.7	346.1
72.5°	950.3	889.2	742.6	602.4	489.1	426.1	383.0	344.3	315.6	305.7	306.6
75°	809.1	766.0	640.1	520.5	421.7	363.2	327.3	294.9	270.6	262.5	263.4
77.5°	656.3	620.3	518.7	424.3	344.3	299.4	268.8	242.7	226.6	222.1	219.4
80°	502.6	467.5	389.3	316.5	261.6	230.2	209.5	191.5	178.9	172.6	174.4
82.5°	337.1	315.6	258.0	209.5	178.0	155.5	148.3	136.7	132.2	128.6	131.3
85°	181.6	162.7	134.9	112.4	98.0	91.7	93.5	92.6	89.0	88.1	90.8
87.5°	59.3	51.2	39.6	33.3	34.2	30.6	30.6	28.8	26.1	25.2	27.0
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)