

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: P472350

Luminaire Tested: **CCW-VA-2-850-U-T3**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472350  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-2-850-U-T3  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T3 DISTRIBUTION LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3704.9 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

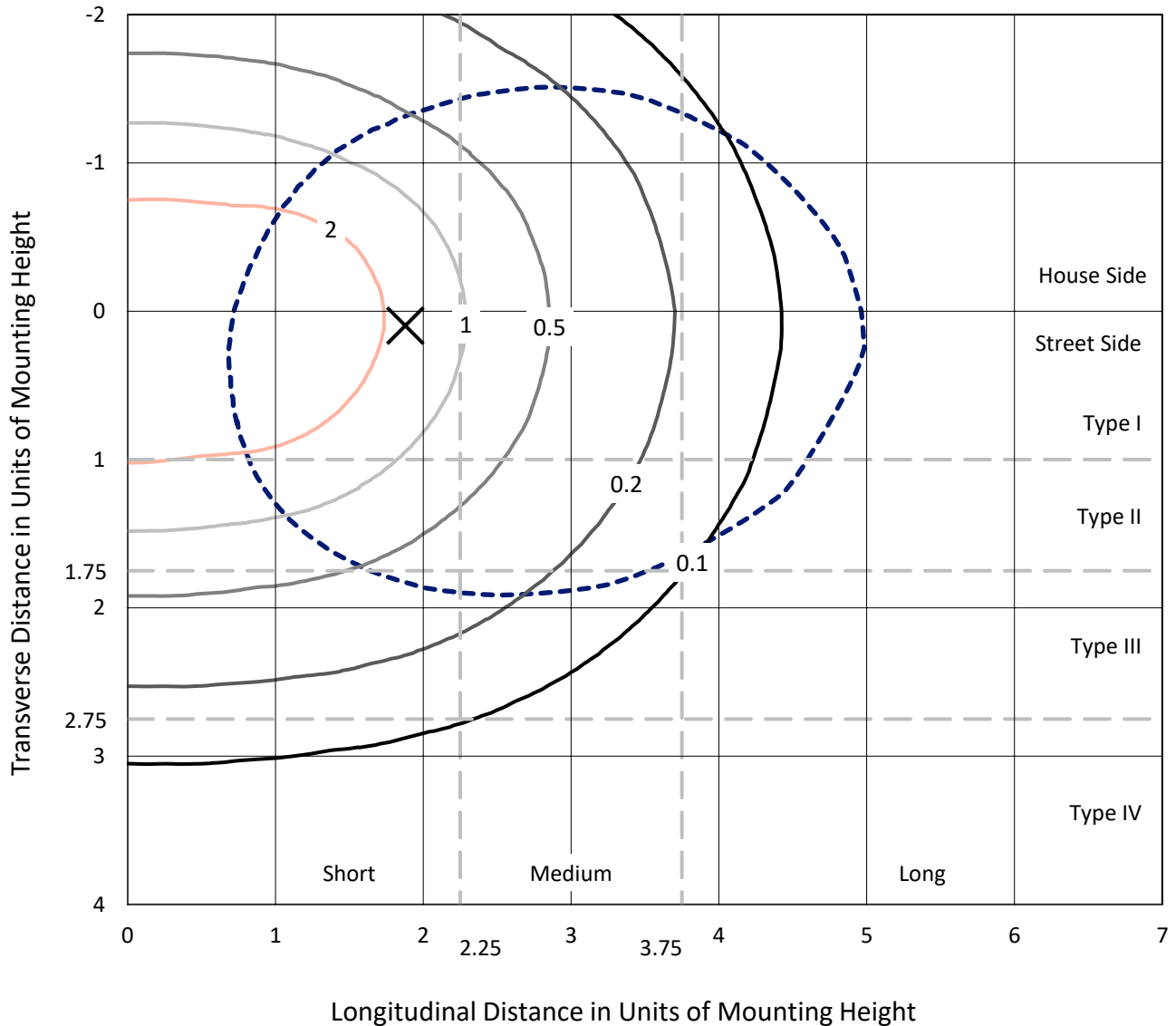
Input Watts (W): 41  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

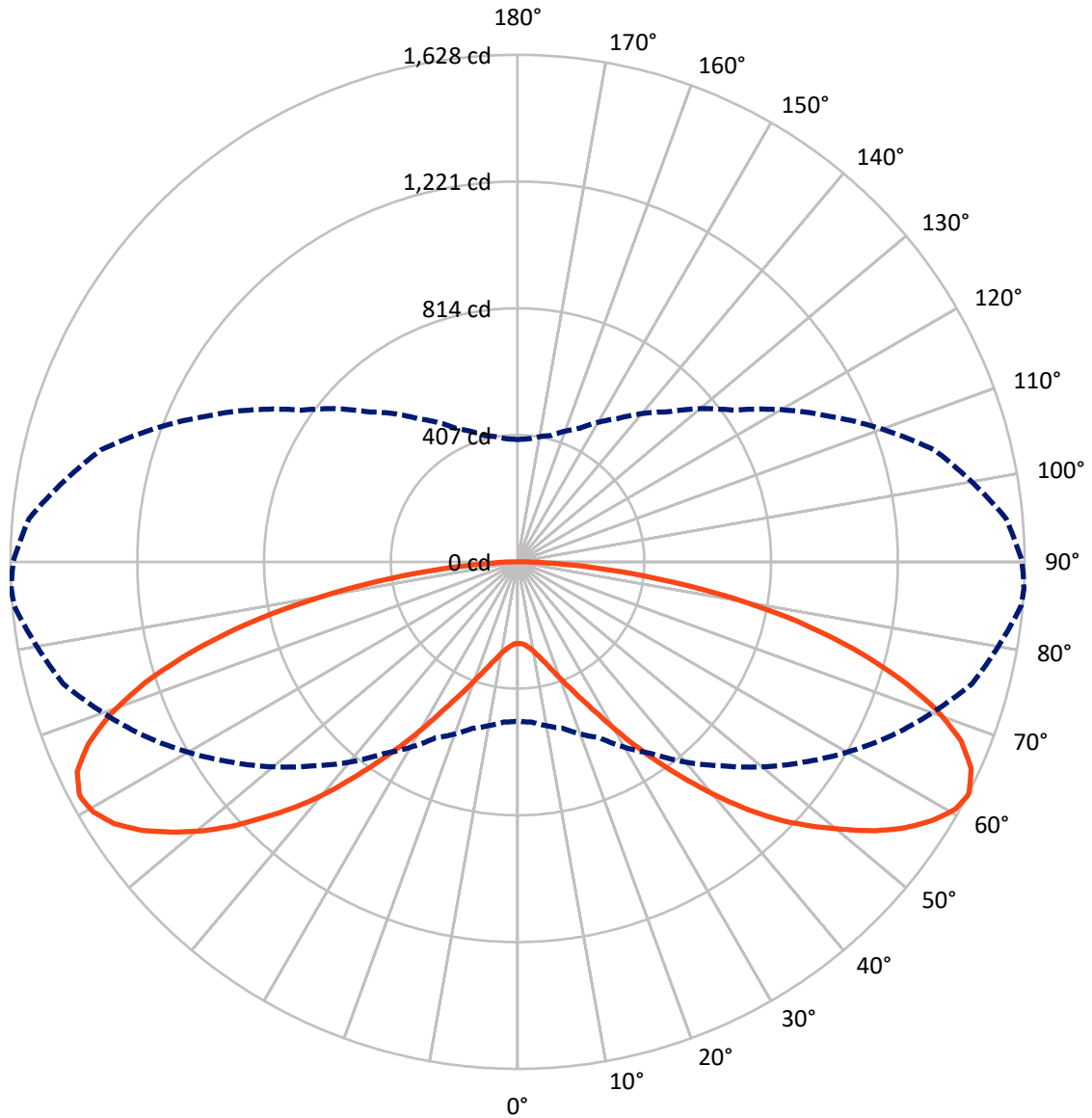
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.4 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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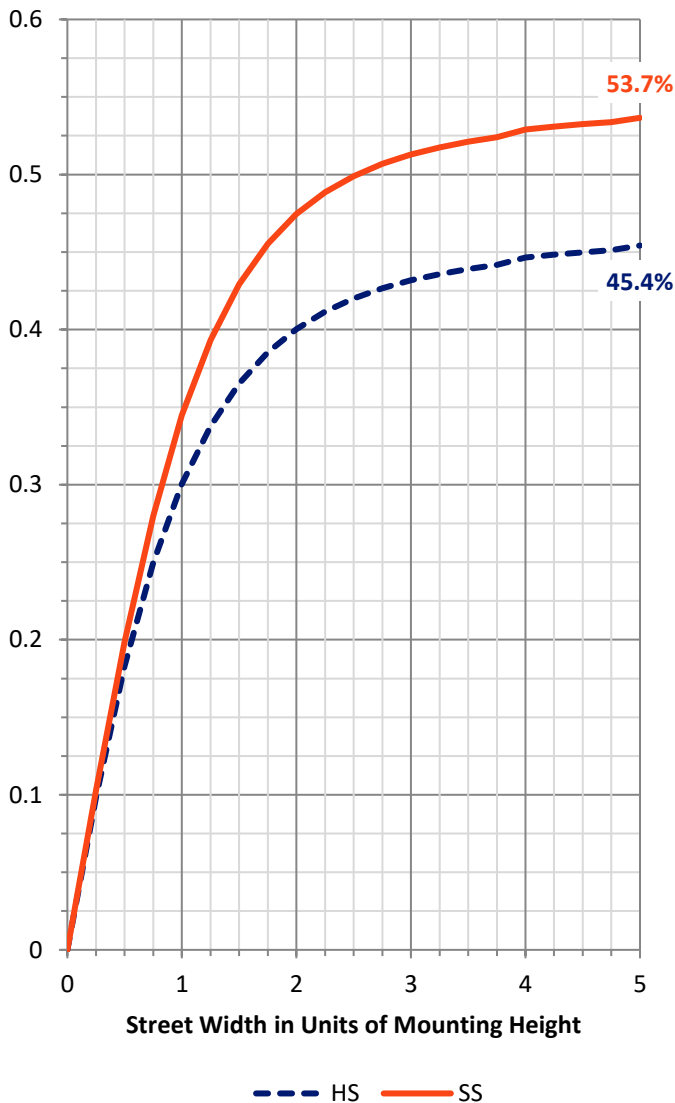
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1705.8	0.0	1705.8
	% Fixture	46.0	0.0	46.0
<b>Street Side</b>	Lumens	1999.1	0.0	1999.1
	% Fixture	54.0	0.0	54.0
<b>Total</b>	Lumens	3704.9	0.0	3704.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	0.7
10°-20°	93.1	2.5
20°-30°	199.0	5.4
30°-40°	366.8	9.9
40°-50°	585.0	15.8
50°-60°	795.6	21.5
60°-70°	862.0	23.3
70°-80°	615.9	16.6
80°-90°	161.0	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°	3704.9	100.0
0°-180°	3704.9	100.0



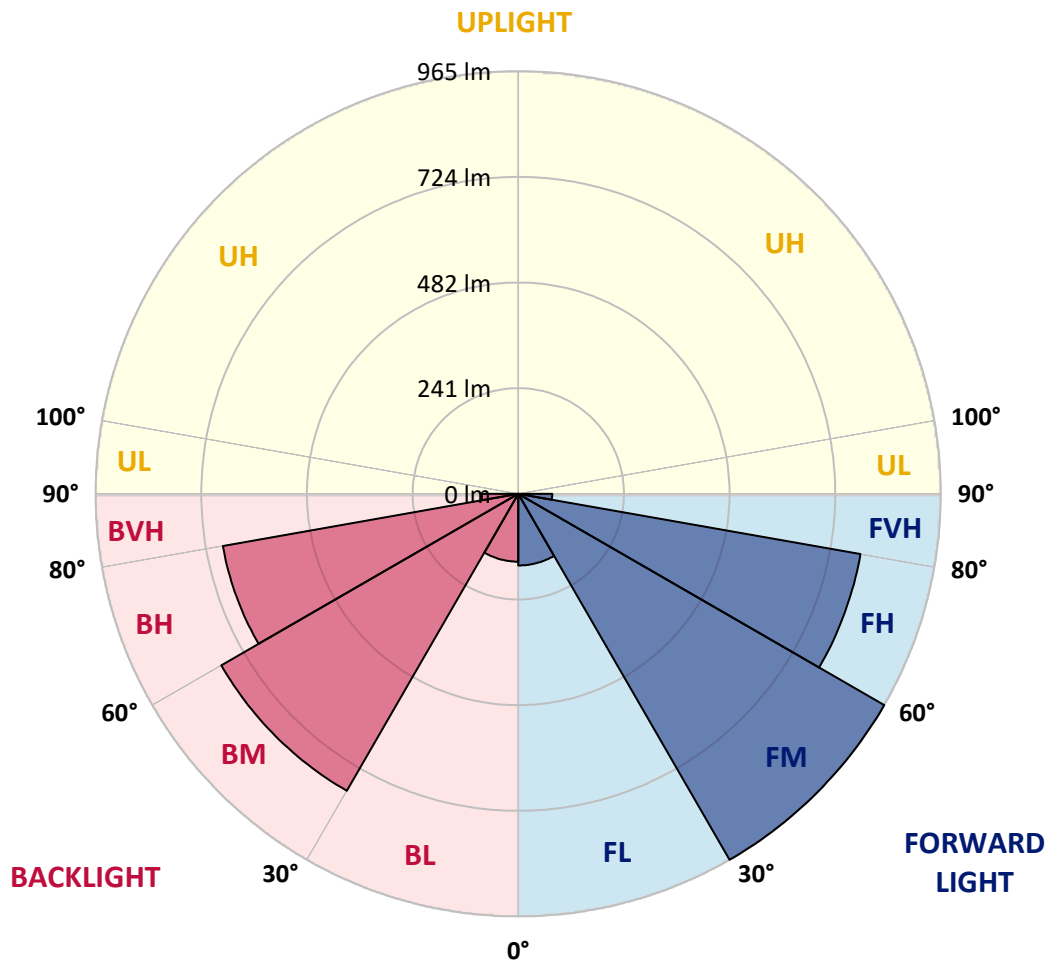
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	163.6	4.4			
FM (30°-60°)	964.7	26.0			
FH (60°-80°)	793.2	21.4			G1/1800
FVH (80°-90°)	77.5	2.1			G1/100
BL (0°-30°)	154.9	4.2	B1/500		
BM (30°-60°)	782.8	21.1	B1/1000		
BH (60°-80°)	684.7	18.5	B2/1000		G2/1000
BVH (80°-90°)	83.4	2.3			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2
2.5°	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	262.8	263.4	263.4
5°	264.6	264.0	264.0	264.6	265.2	265.8	267.0	267.6	268.8	270.0	269.4
7.5°	270.0	270.0	270.0	270.6	272.3	273.5	275.3	277.1	278.9	280.1	279.5
10°	278.3	278.3	278.3	279.5	281.3	284.9	287.9	290.9	292.7	293.9	294.4
12.5°	287.3	287.3	288.5	290.9	294.4	299.2	304.6	308.8	311.8	313.0	313.6
15°	299.8	300.4	302.8	305.2	310.0	317.1	326.1	332.1	335.1	337.4	336.9
17.5°	318.9	318.3	320.1	325.5	330.9	341.0	351.8	361.9	367.9	367.9	367.9
20°	340.4	339.8	341.0	345.2	354.2	367.9	384.6	398.4	404.9	403.7	404.9
22.5°	364.3	364.3	365.5	369.1	378.1	397.8	421.1	441.4	450.3	447.3	446.2
25°	390.6	390.6	392.4	395.4	407.9	431.8	462.9	492.1	501.1	498.1	496.9
27.5°	421.1	418.7	422.3	425.2	440.8	472.4	513.0	550.1	569.8	559.6	556.0
30°	453.3	451.5	452.1	458.1	476.0	516.6	565.0	614.6	642.1	635.5	630.1
32.5°	481.4	482.6	484.4	494.5	514.8	563.8	620.0	685.1	716.1	714.3	713.1
35°	513.0	513.0	516.6	526.2	556.0	614.0	682.1	755.5	801.5	803.3	799.7
37.5°	538.1	538.1	543.5	556.0	591.3	660.0	743.6	830.2	885.7	895.3	892.3
40°	560.2	559.0	565.0	583.5	624.7	708.9	803.9	904.2	978.9	995.0	990.8
42.5°	573.4	574.6	582.9	606.2	657.0	751.9	863.0	974.1	1061.3	1088.8	1088.8
45°	582.9	584.1	596.7	624.1	686.2	794.4	916.8	1045.8	1142.0	1182.0	1183.8
47.5°	587.1	588.9	604.4	637.9	710.7	833.2	968.7	1110.3	1214.2	1271.0	1267.4
50°	587.1	589.5	608.0	648.0	732.8	866.0	1017.7	1171.8	1287.7	1351.0	1350.4
52.5°	583.5	586.5	609.2	655.8	751.3	897.7	1061.3	1224.4	1358.2	1432.8	1435.2
55°	576.4	579.9	606.2	660.6	765.7	922.8	1096.6	1273.4	1419.1	1503.3	1508.7
57.5°	562.0	565.6	595.5	656.4	771.1	935.9	1122.2	1308.0	1468.7	1567.2	1568.4
60°	538.1	542.3	574.6	642.6	765.7	936.5	1128.8	1323.5	1502.1	1610.2	1614.4
62°	511.8	516.6	553.1	623.5	751.9	926.9	1121.6	1322.9	1511.1	1622.7	1628.1
62.5°	505.3	509.5	546.5	617.0	746.6	922.2	1117.5	1319.9	1509.9	1623.3	1627.5
65°	464.7	468.8	506.5	581.1	713.7	892.9	1087.0	1293.7	1488.4	1599.5	1600.6
67.5°	419.9	424.1	461.7	532.2	666.5	843.9	1035.6	1241.7	1431.0	1527.2	1536.1
70°	367.9	373.9	408.5	478.4	604.4	773.4	954.4	1159.3	1339.6	1421.5	1429.8
72.5°	316.5	320.7	348.2	409.7	523.8	680.9	849.3	1034.4	1198.7	1276.3	1283.5
75°	256.8	260.4	287.3	338.0	433.6	567.4	726.3	888.1	1037.4	1107.3	1112.7
77.5°	202.5	203.7	222.8	263.4	336.9	445.0	576.4	704.2	839.7	903.1	917.4
80°	142.7	148.7	161.9	189.9	236.5	318.9	413.9	523.2	618.2	689.2	694.0
82.5°	92.6	93.8	102.1	112.3	145.7	201.3	263.4	330.9	415.7	461.7	458.1
85°	48.4	48.4	51.4	54.4	65.7	90.2	127.2	174.4	224.0	258.6	253.8
87.5°	8.4	7.8	8.4	7.8	10.2	14.3	26.9	43.6	65.7	77.6	85.4
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°	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2
2.5°	263.4	263.4	264.0	265.2	265.2	265.8	266.4	266.4	267.0	267.6	267.6
5°	270.6	270.6	271.2	272.3	272.9	272.9	273.5	274.1	274.1	274.1	274.7
7.5°	280.1	280.7	281.3	281.9	282.5	282.5	284.3	283.7	283.7	283.7	283.7
10°	293.9	295.0	295.0	295.0	295.0	294.4	295.0	294.4	293.3	293.3	292.7
12.5°	314.2	314.2	313.0	311.8	310.0	309.4	308.8	307.0	304.6	303.4	303.4
15°	337.4	336.3	333.9	331.5	328.5	326.1	321.9	319.5	316.5	315.4	315.4
17.5°	367.3	365.5	359.0	354.2	347.0	341.6	336.9	332.1	328.5	327.3	326.7
20°	401.4	397.2	387.6	376.9	367.3	359.0	350.0	344.0	340.4	337.4	336.9
22.5°	444.4	438.4	421.7	404.9	387.6	375.7	364.3	356.0	349.4	346.4	345.2
25°	490.9	482.0	460.5	435.4	411.5	393.0	378.7	367.3	359.5	354.8	353.6
27.5°	550.1	536.9	505.3	467.7	436.0	412.7	393.0	379.9	369.7	362.5	361.3
30°	619.4	605.6	553.1	503.5	463.5	430.6	409.1	391.8	379.3	370.9	369.1
32.5°	701.8	676.7	616.4	546.5	491.5	451.5	424.1	403.7	388.2	378.7	376.3
35°	785.4	759.7	680.3	591.9	521.4	473.0	440.2	415.7	398.4	386.4	385.2
37.5°	879.2	848.1	754.9	643.2	553.7	495.7	455.1	427.0	406.1	393.6	392.4
40°	980.1	948.4	835.0	702.4	591.9	517.8	469.4	437.8	414.5	400.8	399.0
42.5°	1079.2	1041.6	916.2	761.5	630.7	542.3	486.2	449.1	421.7	407.3	404.9
45°	1165.2	1132.4	998.6	829.6	675.5	567.4	502.9	459.9	429.4	413.3	410.9
47.5°	1262.6	1227.4	1088.8	892.3	718.5	596.1	519.0	469.4	436.0	418.7	416.9
50°	1348.6	1316.9	1168.8	950.2	759.7	622.9	533.9	478.4	441.4	422.9	420.5
52.5°	1426.8	1398.8	1242.3	1004.6	794.9	648.0	547.7	485.0	445.0	424.6	421.7
55°	1505.7	1469.3	1306.2	1052.4	823.0	667.7	559.0	488.0	444.4	423.5	420.5
57.5°	1564.8	1530.2	1352.8	1086.4	843.9	680.9	565.6	487.4	440.8	418.1	414.5
60°	1604.8	1566.6	1380.3	1103.1	851.1	685.1	565.6	482.0	431.8	407.3	403.7
62°	1619.8	1575.6	1385.6	1105.5	848.1	680.9	561.4	473.0	419.9	396.0	392.4
62.5°	1620.4	1575.0	1383.8	1103.7	846.3	679.1	559.0	470.0	416.9	392.4	388.8
65°	1594.1	1548.7	1362.3	1085.2	826.0	663.0	542.3	452.7	396.0	372.1	368.5
67.5°	1518.8	1484.2	1311.0	1042.2	791.4	633.1	517.8	427.6	371.5	346.4	344.6
70°	1414.3	1382.6	1227.4	977.1	741.2	590.1	481.4	394.2	340.4	317.7	313.6
72.5°	1282.9	1241.7	1108.5	889.9	668.9	531.0	433.6	352.4	304.6	284.3	281.9
75°	1119.9	1070.3	959.2	774.6	582.3	459.9	378.1	305.8	263.4	246.1	247.9
77.5°	912.0	888.7	775.2	617.6	474.2	380.5	310.0	259.2	222.8	208.4	207.2
80°	688.6	666.5	587.1	468.8	358.4	287.9	240.1	204.3	179.2	166.6	166.0
82.5°	467.1	446.2	385.8	314.8	244.3	203.7	173.8	150.5	135.0	129.0	129.0
85°	256.8	238.9	204.3	170.2	138.0	116.5	112.3	100.3	96.2	95.0	96.2
87.5°	80.0	79.4	67.5	55.5	48.4	49.0	44.2	45.4	43.0	42.4	45.4
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)