

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: P472290

Luminaire Tested: **CCW-VA-2-830-U-T4FT**

Issue Date: 01/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P472290  
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-T4FT  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4FT DISTRIBUTION LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4099 lumens  
Efficiency: N/A  
Efficacy: 100.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

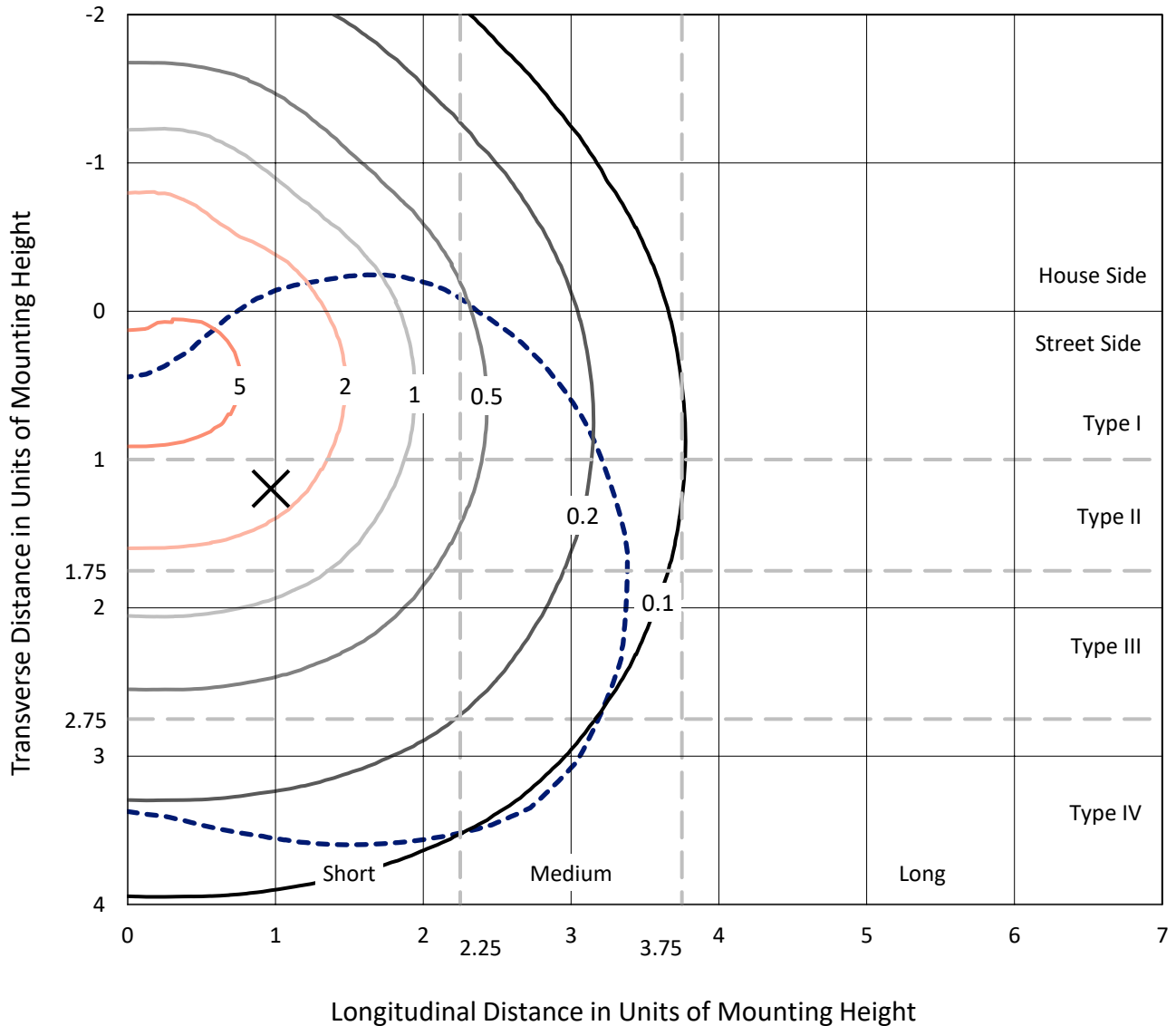
Input Watts (W): 40.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

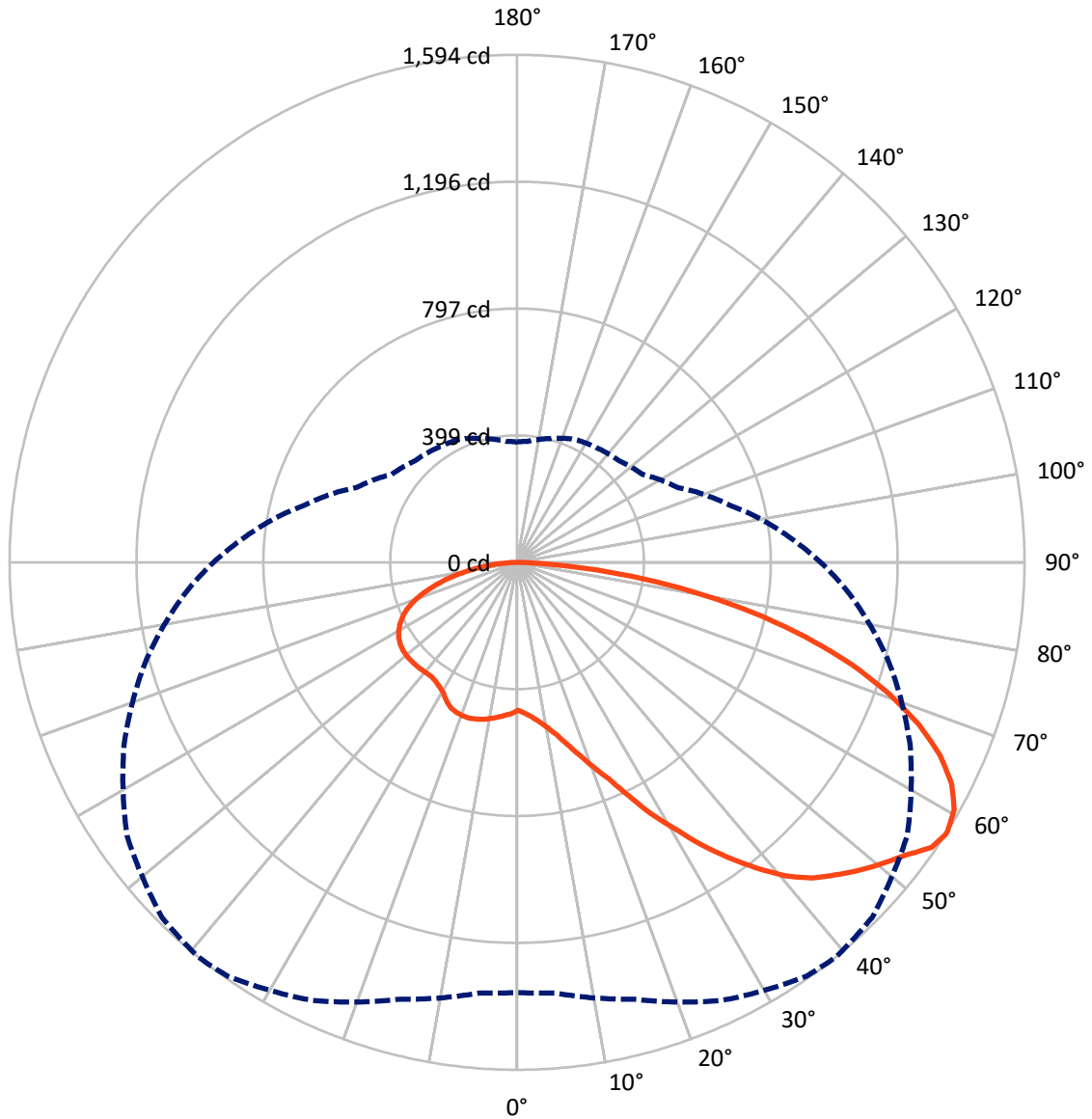
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 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	1257.7	0.0	1257.7
	% Fixture	30.7	0.0	30.7
<b>Street Side</b>	Lumens	2841.3	0.0	2841.3
	% Fixture	69.3	0.0	69.3
<b>Total</b>	Lumens	4099.0	0.0	4099.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.1	1.1
10°-20°	157.0	3.8
20°-30°	303.2	7.4
30°-40°	490.4	12.0
40°-50°	689.0	16.8
50°-60°	851.1	20.8
60°-70°	846.0	20.6
70°-80°	572.4	14.0
80°-90°	142.9	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°	4099.0	100.0
0°-180°	4099.0	100.0

**Coefficient of Utilization**



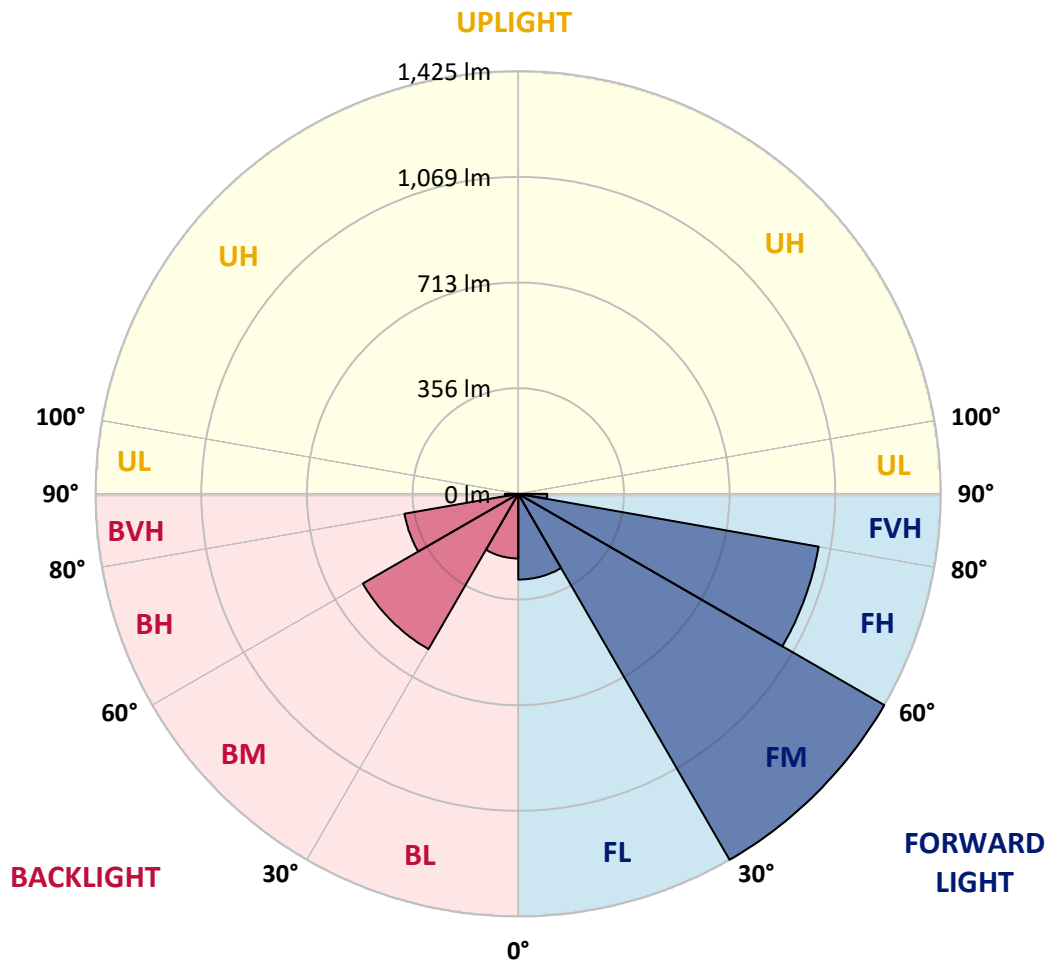
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	289.2	7.1			
FM (30°-60°)	1425.4	34.8			
FH (60°-80°)	1028.9	25.1			G1/1800
FVH (80°-90°)	97.8	2.4			G1/100
BL (0°-30°)	218.0	5.3	B1/500		
BM (30°-60°)	605.1	14.8	B1/1000		
BH (60°-80°)	389.5	9.5	B1/500		G1/500
BVH (80°-90°)	45.1	1.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8
2.5°	478.6	478.0	477.4	477.4	476.1	474.9	474.2	473.0	473.6	474.9	475.5
5°	492.4	491.2	491.2	489.9	488.0	488.0	486.2	483.7	483.0	482.4	482.4
7.5°	513.8	511.9	512.5	510.7	508.8	506.3	503.1	500.0	498.7	494.3	490.6
10°	538.3	537.7	535.8	532.6	530.8	528.2	525.1	519.5	515.1	510.0	506.9
12.5°	567.2	565.9	566.6	564.1	560.9	556.5	551.5	545.8	537.7	528.2	522.0
15°	604.9	602.4	602.4	601.7	595.5	594.2	589.2	576.6	565.3	552.7	538.3
17.5°	650.7	650.1	647.6	645.1	641.3	636.9	631.9	618.1	601.1	581.6	562.2
20°	699.7	698.5	700.4	696.6	689.0	687.2	679.0	663.3	642.6	620.0	590.4
22.5°	753.1	754.4	754.4	753.1	746.8	739.3	732.4	711.7	687.8	660.2	625.6
25°	817.8	818.4	822.2	826.0	822.2	810.3	800.9	768.8	736.8	701.6	660.8
27.5°	890.7	886.3	897.0	903.9	897.0	893.8	873.1	837.9	793.9	750.0	699.1
30°	961.0	961.0	969.8	979.9	975.5	967.9	951.0	905.7	855.5	799.6	738.0
32.5°	1026.3	1033.9	1037.7	1060.9	1058.4	1054.6	1035.1	975.5	912.7	849.2	775.7
35°	1103.6	1101.1	1116.8	1131.2	1142.5	1137.5	1123.1	1062.8	980.5	901.3	817.2
37.5°	1162.0	1167.0	1180.9	1206.6	1214.8	1217.3	1199.1	1136.9	1043.3	957.3	863.0
40°	1206.6	1210.4	1236.8	1269.4	1286.4	1295.2	1277.0	1201.6	1102.3	1001.8	898.8
42.5°	1242.4	1244.9	1272.6	1319.0	1347.3	1356.1	1339.8	1260.0	1152.6	1037.7	928.4
45°	1266.3	1270.7	1303.3	1351.1	1395.1	1401.3	1393.2	1311.5	1197.2	1071.6	949.7
47.5°	1287.0	1292.0	1328.5	1388.8	1437.8	1445.9	1438.4	1356.7	1239.9	1102.3	967.9
50°	1314.7	1320.3	1356.7	1423.9	1478.0	1487.4	1484.9	1404.5	1280.1	1136.9	986.8
52.5°	1341.0	1345.4	1388.8	1463.5	1521.9	1528.2	1526.3	1449.1	1320.9	1174.0	1010.6
55°	1361.8	1366.8	1418.3	1510.6	1573.4	1580.3	1567.2	1483.6	1353.0	1201.0	1033.3
57°	1351.1	1358.0	1420.8	1518.8	1586.6	1594.2	1577.2	1496.2	1362.4	1208.5	1041.4
57.5°	1347.9	1353.0	1418.3	1518.2	1587.3	1594.2	1577.2	1495.5	1361.8	1207.9	1041.4
60°	1302.1	1314.0	1387.5	1495.5	1569.0	1577.8	1561.5	1470.4	1346.1	1190.3	1024.5
62.5°	1240.5	1256.9	1334.1	1442.2	1525.1	1531.4	1515.0	1428.3	1310.9	1153.2	989.3
65°	1152.0	1177.1	1258.1	1362.4	1452.2	1459.7	1443.4	1358.0	1252.5	1096.7	936.5
67.5°	1065.3	1080.4	1167.0	1266.3	1349.8	1361.1	1347.3	1271.3	1172.1	1021.3	866.2
70°	966.7	977.4	1049.0	1146.3	1230.5	1239.9	1228.0	1157.0	1063.4	927.7	783.9
72.5°	848.0	859.3	920.2	1010.0	1084.8	1099.8	1091.7	1018.2	933.4	815.9	692.2
75°	714.2	726.7	781.4	853.0	925.8	934.6	925.2	871.2	794.6	688.4	580.4
77.5°	579.1	587.3	626.9	680.9	737.4	756.3	753.7	715.4	638.2	554.0	466.1
80°	433.4	434.7	455.4	500.0	545.2	559.0	562.2	527.6	476.7	413.3	349.2
82.5°	273.9	278.3	289.6	322.9	344.8	363.7	368.1	348.0	315.9	276.4	236.8
85°	127.5	123.7	132.5	143.8	175.2	175.2	180.9	170.2	160.8	147.6	122.5
87.5°	10.7	10.0	10.0	10.7	17.0	18.2	28.9	32.0	34.5	34.5	36.4
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°	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8	464.8
2.5°	474.2	473.6	471.7	471.7	473.0	474.9	475.5	476.1	476.7	477.4	477.4
5°	481.8	481.1	479.9	478.6	479.9	480.5	482.4	483.7	483.7	484.9	484.3
7.5°	488.7	489.3	488.0	487.4	487.4	488.7	491.2	493.1	494.3	495.0	496.2
10°	504.4	500.6	495.6	493.1	493.1	495.6	498.1	500.6	503.1	504.4	504.4
12.5°	518.2	513.8	504.4	500.6	500.0	502.5	505.6	509.4	511.3	513.2	513.2
15°	530.8	527.0	515.7	506.9	504.4	506.3	510.0	514.4	517.6	519.5	519.5
17.5°	554.6	543.3	528.2	513.8	508.8	509.4	513.8	518.2	522.0	523.2	522.6
20°	577.2	562.8	540.2	519.5	511.3	508.8	513.2	518.8	522.0	523.9	523.9
22.5°	603.0	587.3	552.1	525.1	510.0	506.3	510.0	515.1	518.8	520.1	521.3
25°	639.4	611.8	565.3	529.5	508.1	500.6	503.1	508.1	512.5	513.2	512.5
27.5°	672.1	640.7	582.9	533.9	503.8	489.9	487.4	491.2	498.1	502.5	503.8
30°	700.4	671.5	601.1	537.7	495.6	472.3	469.2	470.5	474.9	486.8	487.4
32.5°	742.4	697.8	619.3	540.8	486.2	462.9	458.5	457.3	458.5	464.8	464.8
35°	771.3	727.4	637.5	546.5	479.3	455.4	451.0	449.1	447.8	441.6	439.7
37.5°	809.0	760.0	655.1	551.5	476.1	452.2	446.0	447.2	440.9	423.4	418.3
40°	850.5	789.5	672.7	556.5	477.4	452.9	447.2	446.6	435.9	411.4	406.4
42.5°	870.6	814.7	690.9	563.4	482.4	454.8	449.7	447.8	434.7	407.0	400.1
45°	890.0	832.9	704.1	569.1	487.4	457.3	451.0	449.1	434.0	403.3	398.2
47.5°	907.6	844.2	710.4	572.2	491.2	459.2	451.6	448.5	430.9	401.4	396.3
50°	915.8	850.5	710.4	572.2	492.4	461.0	450.4	446.0	425.9	398.2	393.8
52.5°	928.4	854.2	704.7	568.4	490.6	461.0	447.8	440.9	419.6	393.8	390.1
55°	947.2	861.2	697.2	562.8	486.2	457.3	443.5	434.0	410.8	387.5	384.4
57°	953.5	863.7	692.2	555.9	481.1	452.2	438.4	426.5	402.6	381.3	378.1
57.5°	952.2	862.4	690.3	554.0	479.3	450.4	437.2	424.6	400.7	380.0	376.9
60°	935.3	850.5	678.4	542.1	469.2	440.3	425.9	412.0	387.5	369.3	366.8
62.5°	907.6	823.5	657.0	526.4	455.4	426.5	411.4	395.7	371.2	355.5	354.3
65°	860.5	778.2	626.2	503.8	437.8	408.3	391.9	375.0	353.6	339.8	336.0
67.5°	782.0	717.9	582.9	472.3	410.8	385.7	368.1	350.5	331.0	319.1	316.6
70°	716.7	652.0	527.6	432.8	378.1	354.3	337.9	321.0	304.0	293.3	292.7
72.5°	633.8	571.6	458.5	383.8	336.7	313.4	300.9	285.8	272.6	263.2	263.2
75°	533.3	484.3	386.9	325.4	287.1	270.1	259.4	247.5	236.2	229.9	231.1
77.5°	424.0	386.9	315.9	263.2	234.9	223.6	213.6	206.7	199.7	194.1	194.7
80°	312.8	285.2	232.4	193.5	179.6	169.6	167.7	163.3	159.5	157.7	154.5
82.5°	214.2	189.7	154.5	132.5	122.5	119.3	120.0	120.0	120.6	120.6	119.3
85°	111.2	101.8	78.5	71.0	69.7	72.9	76.6	79.1	78.5	78.5	76.6
87.5°	32.0	28.9	25.1	22.6	23.9	25.8	22.6	22.0	21.4	20.7	20.7
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)