

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: P401772

Luminaire Tested: **ENT-SA1E-830-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401772
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-830-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5590 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.2
Input Voltage (V): NR
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: 25 FT

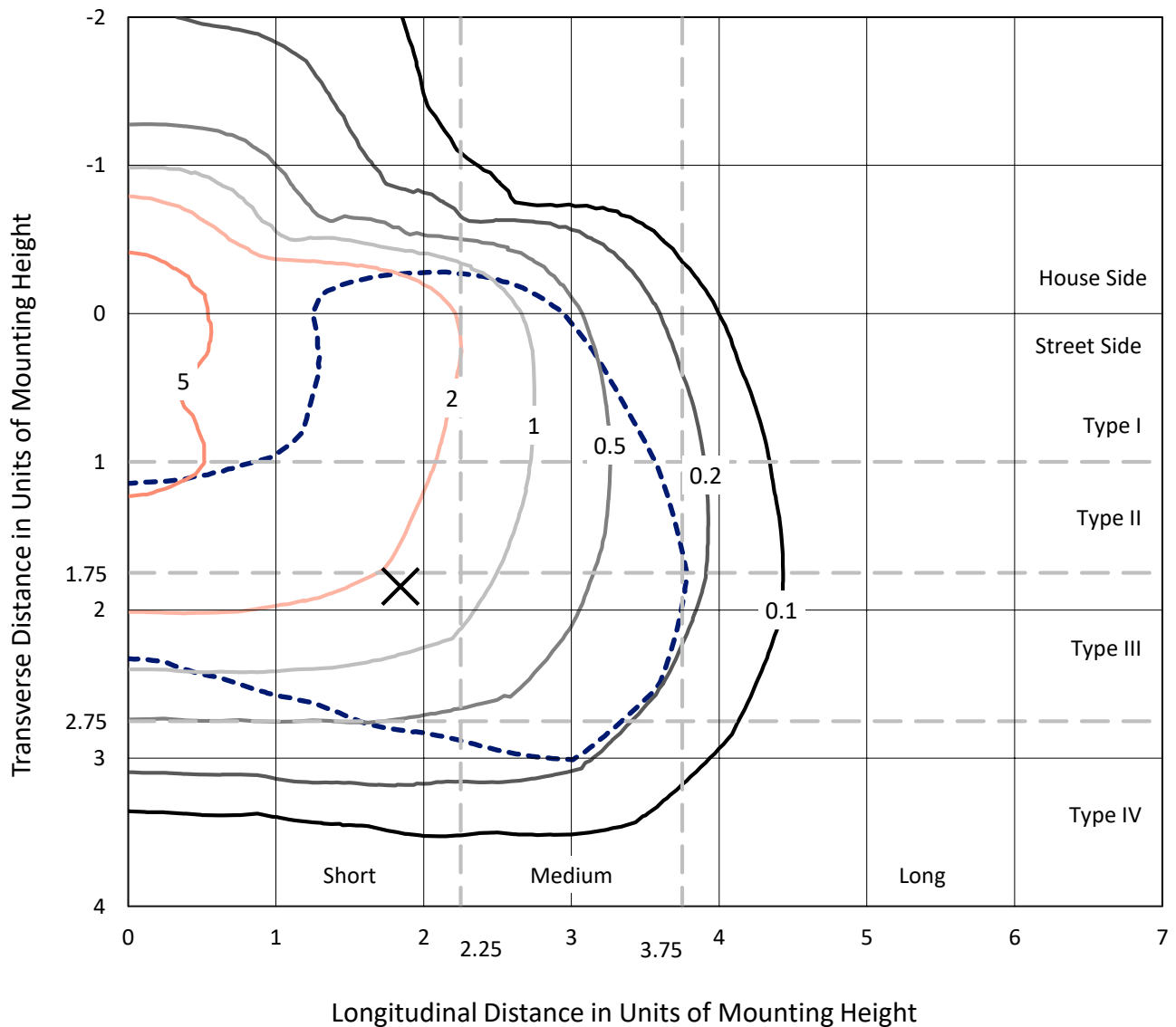


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

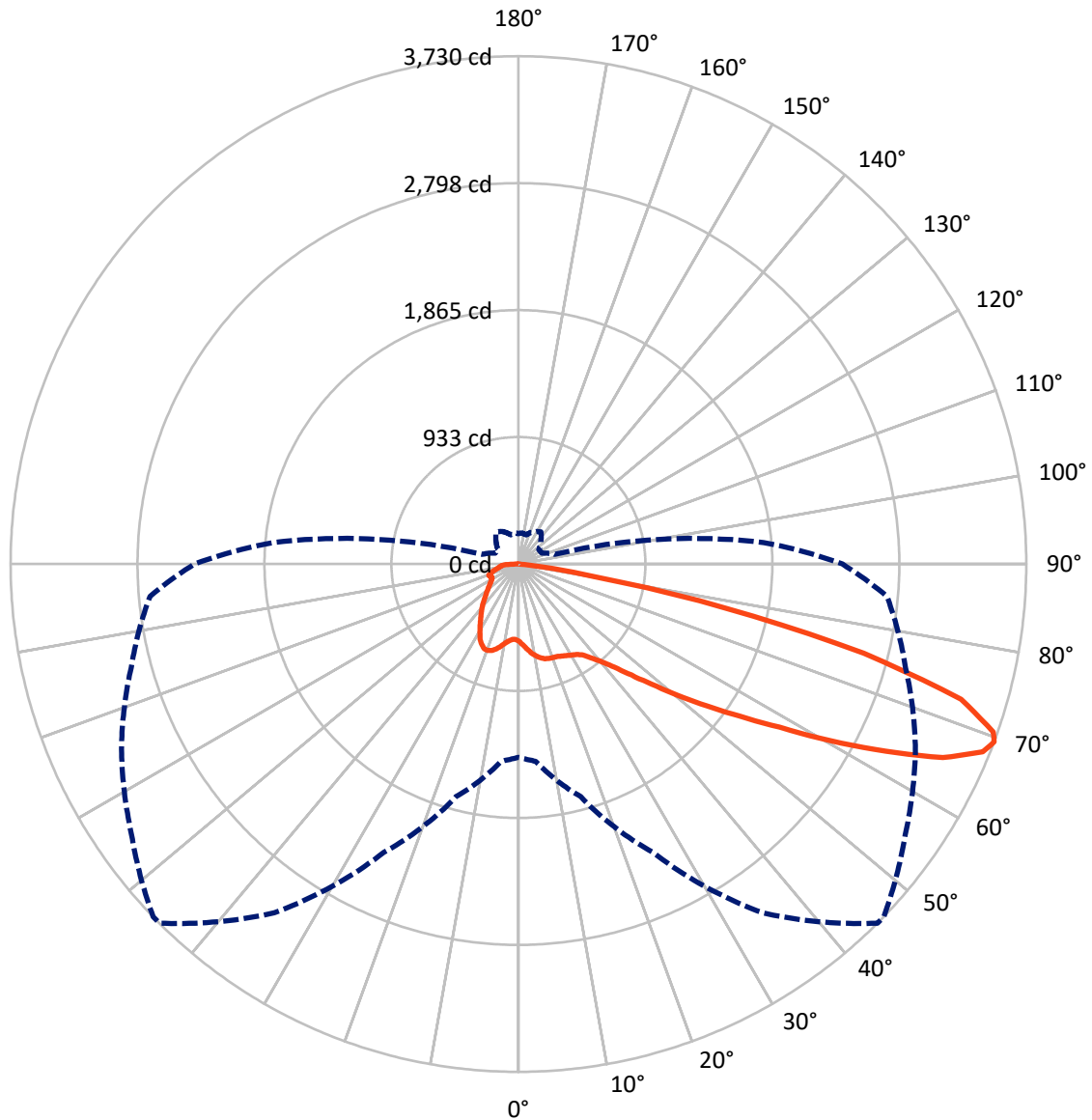


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1316.1	0.0	1316.1
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	4273.9	0.0	4273.9
	% Fixture	76.5	0.0	76.5
Total	Lumens	5590.0	0.0	5590.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.8	1.0
10°-20°	191.6	3.4
20°-30°	323.7	5.8
30°-40°	468.4	8.4
40°-50°	707.2	12.7
50°-60°	1192.5	21.3
60°-70°	1640.6	29.3
70°-80°	909.1	16.3
80°-90°	99.0	1.8
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°	5590.0	100.0
0°-180°	5590.0	100.0

Coefficient of Utilization



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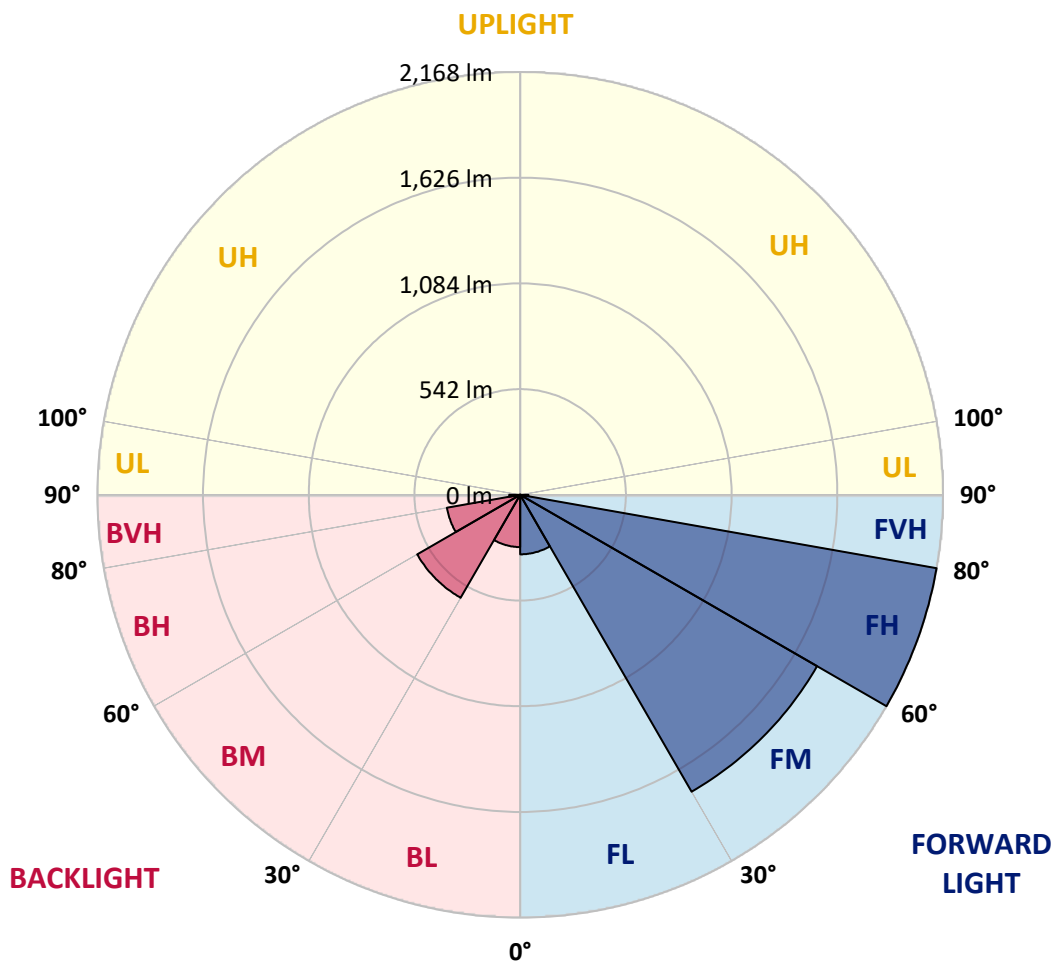
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	305.1	5.5			
FM	(30°-60°)	1758.1	31.5			
FH	(60°-80°)	2168.3	38.8			G2/5000
FVH	(80°-90°)	42.4	0.8			G1/100
BL	(0°-30°)	268.0	4.8	B1/500		
BM	(30°-60°)	610.1	10.9	B1/1000		
BH	(60°-80°)	381.4	6.8	B1/500		G1/500
BVH	(80°-90°)	56.6	1.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4
2.5°	603.2	602.4	603.2	600.0	596.8	592.0	590.4	584.9	580.9	575.3	570.6
5°	647.7	650.0	649.2	645.3	632.6	623.0	623.0	611.1	598.4	586.5	575.3
7.5°	696.1	696.1	691.4	683.4	670.7	656.4	654.8	638.9	620.6	604.0	586.5
10°	731.1	732.7	725.5	714.4	698.5	683.4	681.8	663.6	646.1	624.6	603.2
12.5°	755.7	755.7	749.4	739.0	720.0	705.7	704.1	687.4	669.1	646.9	622.2
15°	768.5	766.9	761.3	750.2	733.5	721.6	719.2	704.9	689.8	667.5	641.3
17.5°	766.1	766.1	761.3	750.2	738.3	728.7	727.1	716.8	705.7	684.2	658.0
20°	755.7	754.9	753.4	744.6	736.7	732.7	731.1	726.3	719.2	700.9	676.3
22.5°	746.2	745.4	743.0	737.5	734.3	736.7	736.7	735.9	735.1	720.8	696.9
25°	751.8	751.0	746.2	738.3	737.5	748.6	749.4	751.8	753.4	741.4	716.8
27.5°	790.7	788.3	774.8	754.1	747.0	761.3	762.9	770.0	768.5	755.7	734.3
30°	867.0	867.8	837.6	793.1	769.2	775.6	776.4	784.3	782.0	771.6	754.1
32.5°	982.2	982.2	932.9	865.4	805.0	792.3	789.9	797.1	806.6	793.1	775.6
35°	1128.4	1124.5	1064.9	960.8	866.2	820.9	819.3	816.1	832.8	820.1	794.7
37.5°	1275.5	1261.1	1203.1	1088.7	952.0	876.5	870.2	860.6	870.2	843.2	820.9
40°	1393.9	1391.5	1343.8	1227.8	1053.7	944.1	939.3	897.2	903.5	882.1	873.3
42.5°	1524.2	1525.8	1494.0	1377.2	1175.3	1035.5	1022.7	957.6	975.9	967.9	963.9
45°	1667.2	1665.6	1641.8	1519.4	1323.9	1162.6	1146.7	1066.5	1103.8	1099.0	1121.3
47.5°	1776.9	1785.6	1772.1	1685.5	1500.3	1316.8	1304.9	1207.1	1263.5	1301.7	1343.8
50°	1926.3	1925.5	1888.9	1853.2	1705.4	1513.9	1501.9	1393.1	1474.1	1529.7	1606.8
52.5°	2111.5	2105.1	2029.6	2016.9	1954.9	1729.2	1718.9	1605.2	1721.3	1769.7	1926.3
55°	2227.5	2226.7	2187.7	2210.0	2211.6	1969.2	1956.5	1855.6	1986.7	2042.3	2279.1
57.5°	2324.4	2325.2	2357.8	2435.7	2488.1	2260.9	2256.1	2132.9	2265.6	2343.5	2623.2
60°	2399.1	2415.0	2506.4	2684.4	2771.8	2632.8	2612.1	2481.8	2570.8	2601.8	2886.3
62.5°	2368.9	2389.6	2569.2	2831.4	3056.3	3026.9	3019.8	2831.4	2830.6	2814.7	3082.5
65°	2130.5	2175.0	2457.9	2825.9	3243.9	3427.4	3417.1	3161.2	3072.2	2992.7	3141.4
67.5°	1743.5	1753.1	2094.0	2609.7	3242.3	3679.3	3668.2	3401.2	3222.4	3027.7	2968.9
69°	1419.3	1454.3	1769.7	2336.3	3127.8	3730.2	3730.2	3468.0	3216.8	2944.3	2716.2
70°	1227.8	1229.4	1533.7	2118.6	2972.1	3700.0	3707.2	3468.0	3171.5	2835.4	2492.1
72.5°	575.3	611.1	803.4	1382.7	2400.7	3401.2	3418.7	3239.1	2908.5	2442.8	1869.9
75°	172.4	178.8	267.8	655.6	1375.6	2620.0	2659.0	2694.7	2368.9	1798.3	1151.5
77.5°	102.5	101.7	129.5	222.5	636.5	1553.6	1571.1	1723.7	1536.9	999.7	522.9
80°	50.1	51.7	69.1	108.1	238.4	564.2	620.6	805.8	681.0	391.0	191.5
82.5°	16.7	18.3	28.6	43.7	100.9	182.0	201.1	252.7	217.7	142.2	81.9
85°	0.0	0.0	0.8	1.6	5.6	13.5	13.5	30.2	45.3	50.1	27.0
87.5°	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6	1.6	2.4
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°	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4	567.4
2.5°	568.2	566.6	563.4	560.2	558.7	554.7	555.5	553.9	553.1	553.1	553.9
5°	569.8	567.4	562.6	559.5	556.3	554.7	558.7	560.2	561.8	561.8	562.6
7.5°	579.3	574.6	569.0	565.0	565.8	568.2	574.6	579.3	581.7	583.3	584.9
10°	595.2	589.6	581.7	580.9	582.5	588.9	597.6	604.7	611.1	615.1	615.1
12.5°	611.9	604.7	598.4	600.0	607.1	616.7	625.4	633.4	638.9	642.9	643.7
15°	630.2	623.0	616.7	620.6	632.6	643.7	651.6	654.8	657.2	661.2	662.0
17.5°	646.9	640.5	634.9	645.3	655.6	664.3	666.7	665.1	662.0	664.3	665.9
20°	664.3	658.8	655.6	666.7	673.9	674.7	668.3	661.2	653.2	653.2	654.0
22.5°	685.8	678.7	677.1	682.6	680.2	670.7	654.8	643.7	632.6	631.0	633.4
25°	706.5	699.3	698.5	694.5	673.9	649.2	627.8	615.1	606.3	607.1	611.9
27.5°	727.1	722.4	723.2	701.7	655.6	618.3	589.6	579.3	581.7	583.3	588.1
30°	747.8	747.8	751.0	701.7	630.2	574.6	547.5	546.7	553.1	557.9	563.4
32.5°	771.6	778.8	773.2	693.0	596.0	530.0	508.6	510.2	517.3	525.3	530.0
35°	794.7	811.4	795.5	673.1	549.1	489.5	472.0	469.7	475.2	482.4	484.8
37.5°	831.2	858.2	814.5	642.1	500.6	453.8	436.3	429.9	424.4	429.9	429.1
40°	894.8	927.4	828.8	590.4	453.8	420.4	402.1	390.2	376.7	364.8	364.8
42.5°	996.5	1018.0	836.8	527.7	406.9	387.0	368.7	351.2	330.6	309.1	309.1
45°	1162.6	1167.4	840.0	460.9	364.0	353.6	334.6	317.9	290.9	269.4	264.6
47.5°	1384.3	1363.7	847.9	396.5	326.6	324.2	308.3	289.3	259.9	240.0	237.6
50°	1682.3	1593.3	882.9	344.9	296.4	298.8	286.9	264.6	236.8	222.5	219.3
52.5°	2017.7	1883.4	909.9	303.6	270.2	277.3	268.6	247.1	223.3	211.4	209.0
55°	2384.0	2162.3	903.5	275.8	250.3	258.3	255.1	236.8	215.4	205.0	202.6
57.5°	2682.8	2358.6	847.9	251.1	230.5	241.6	244.8	230.5	210.6	201.1	198.7
60°	2906.9	2465.9	733.5	230.5	214.6	228.1	236.8	226.5	209.8	204.2	201.8
62.5°	3008.6	2456.3	584.9	214.6	202.6	218.5	237.6	232.8	221.7	225.7	226.5
65°	2951.4	2336.3	438.7	202.6	195.5	220.1	251.1	251.1	234.4	241.6	242.4
67.5°	2658.2	2022.4	319.5	193.9	188.3	228.1	276.5	260.7	228.9	234.4	232.0
69°	2379.3	1809.5	274.2	189.1	182.8	232.0	287.7	262.2	222.5	228.9	222.5
70°	2174.2	1617.2	246.3	185.2	180.4	232.0	290.9	260.7	219.3	224.1	216.9
72.5°	1547.2	1122.9	202.6	177.2	171.6	214.6	285.3	251.9	210.6	205.0	191.5
75°	899.6	620.6	172.4	168.5	151.8	188.3	271.0	242.4	201.8	191.5	182.0
77.5°	377.5	277.3	147.0	153.4	134.3	167.7	253.5	232.8	191.5	177.2	172.4
80°	153.4	138.3	122.4	132.7	116.8	147.8	233.6	216.9	176.4	162.1	155.0
82.5°	80.3	76.3	93.8	107.3	97.0	135.9	220.1	205.8	163.7	149.4	140.7
85°	23.8	31.8	53.2	73.1	73.9	122.4	213.8	190.7	142.2	123.2	121.6
87.5°	1.6	6.4	18.3	38.1	48.5	93.8	173.2	156.6	115.2	97.0	97.7
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)