

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: P401808

Luminaire Tested: **ENT-SA1F-727-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401808
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-SA1F-727-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6511 lumens
Efficiency: N/A
Efficacy: 98.5 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): 66.1
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

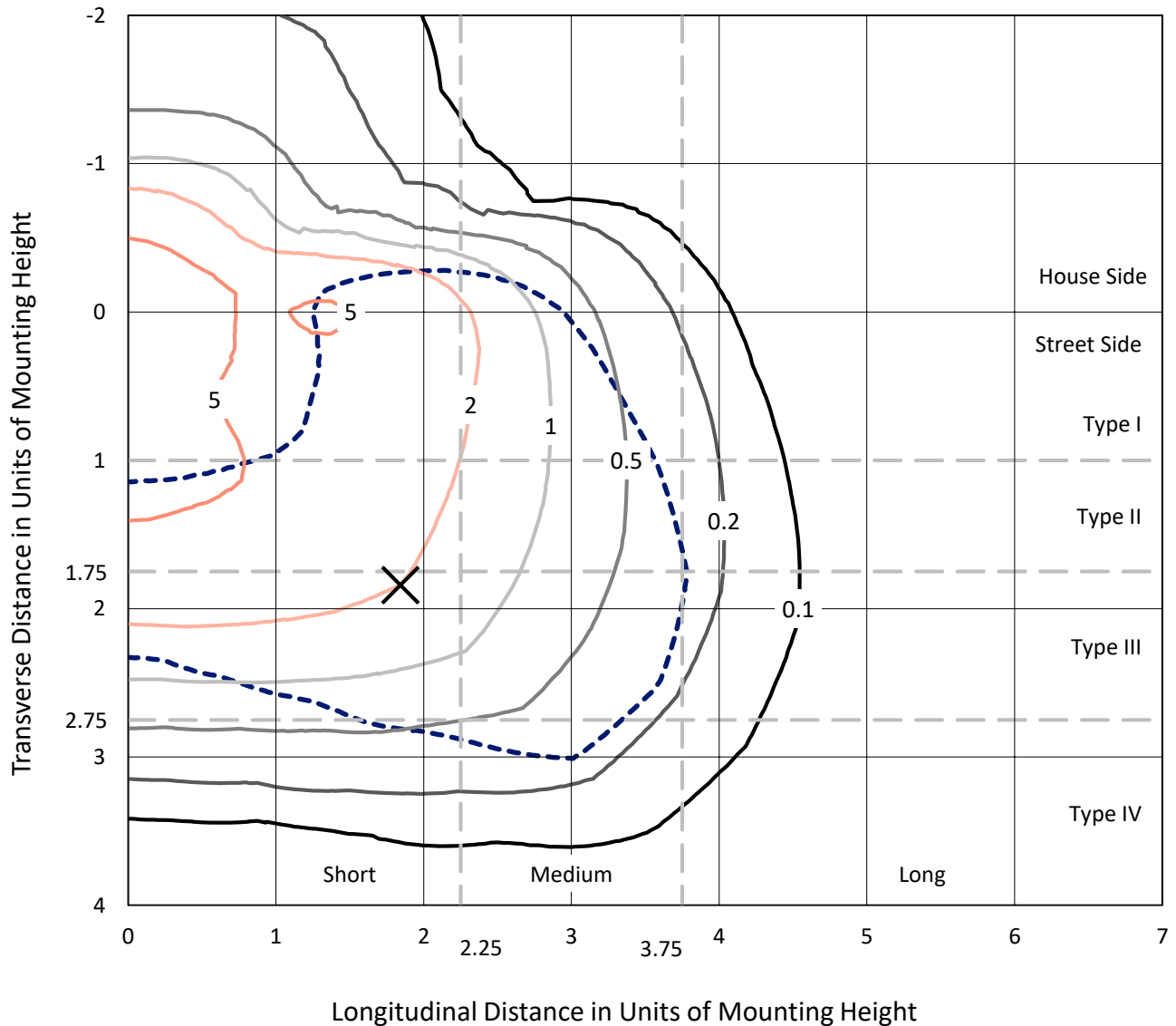


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

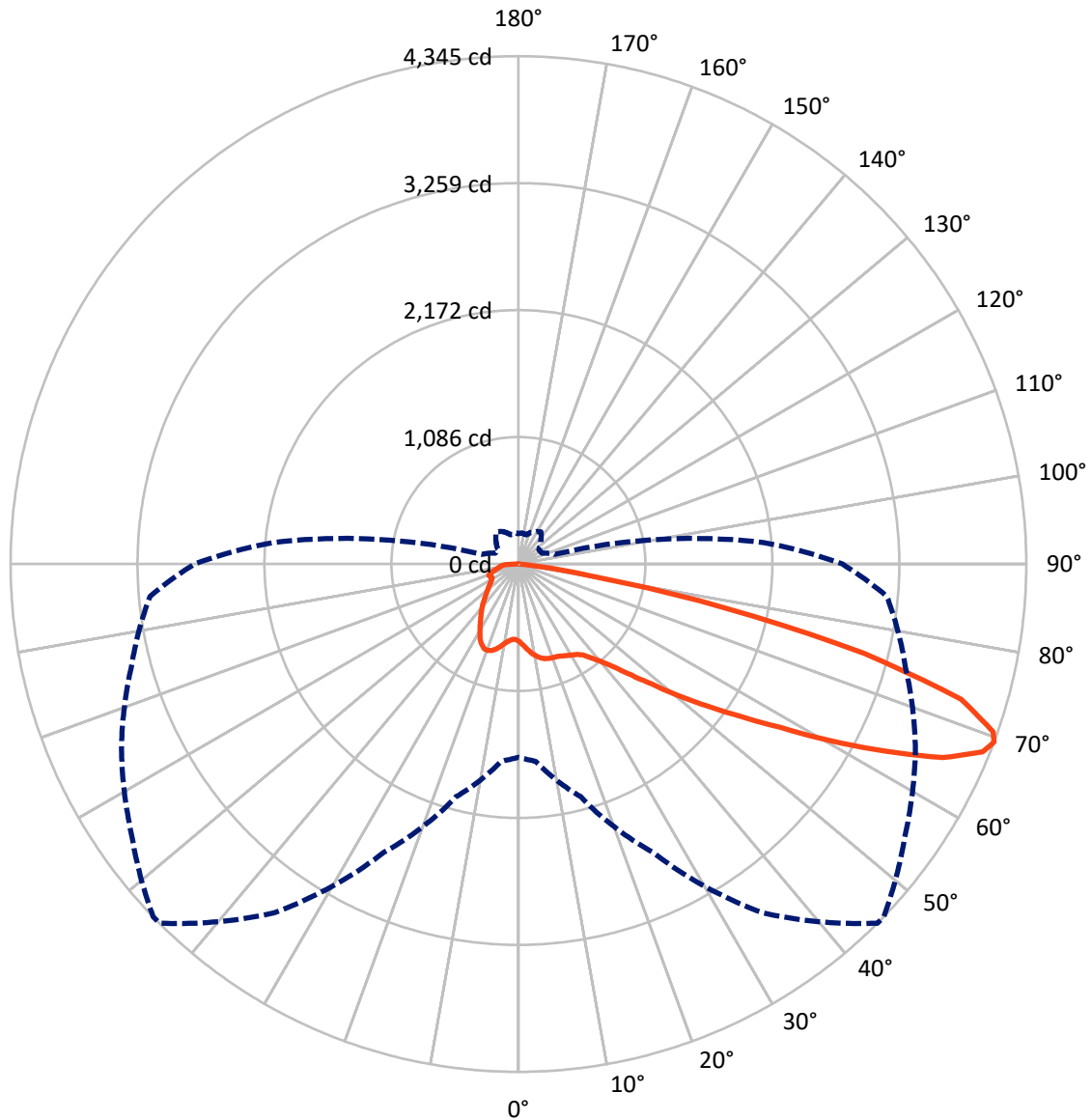


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Short - Semi-Cutoff

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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	1532.9	0.0	1532.9
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	4978.1	0.0	4978.1
	% Fixture	76.5	0.0	76.5
Total	Lumens	6511.0	0.0	6511.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	1.0
10°-20°	223.1	3.4
20°-30°	377.1	5.8
30°-40°	545.6	8.4
40°-50°	823.8	12.7
50°-60°	1389.0	21.3
60°-70°	1910.9	29.3
70°-80°	1058.9	16.3
80°-90°	115.3	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°	6511.0	100.0
0°-180°	6511.0	100.0

Coefficient of Utilization



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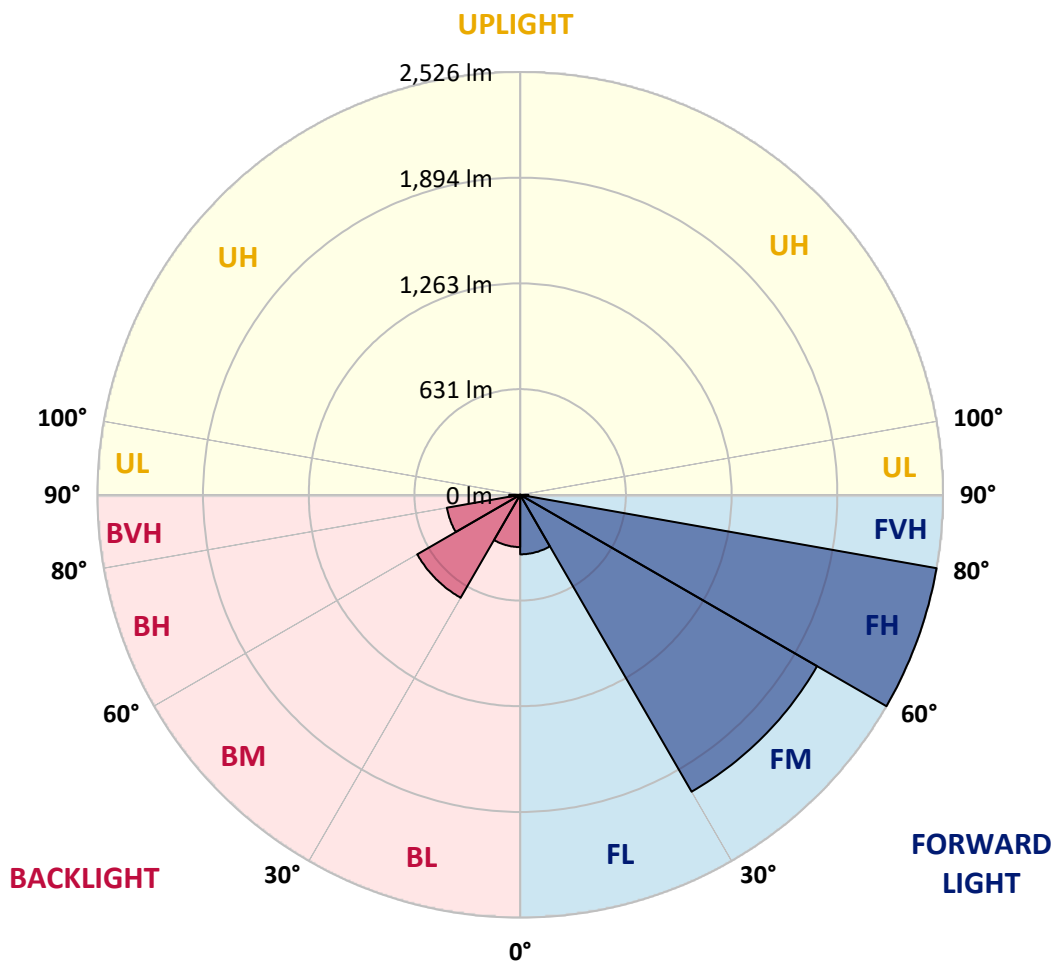
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	355.4	5.5			
FM	(30°-60°)	2047.8	31.5			
FH	(60°-80°)	2525.6	38.8			G2/5000
FVH	(80°-90°)	49.4	0.8			G1/100
BL	(0°-30°)	312.1	4.8	B1/500		
BM	(30°-60°)	710.6	10.9	B1/1000		
BH	(60°-80°)	444.3	6.8	B1/500		G1/500
BVH	(80°-90°)	65.9	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°	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9
2.5°	702.5	701.6	702.5	698.8	695.1	689.6	687.7	681.2	676.6	670.1	664.6
5°	754.4	757.1	756.2	751.6	736.8	725.7	725.7	711.8	697.0	683.1	670.1
7.5°	810.8	810.8	805.3	796.0	781.2	764.5	762.7	744.2	722.9	703.5	683.1
10°	851.6	853.4	845.1	832.1	813.6	796.0	794.2	772.9	752.5	727.5	702.5
12.5°	880.3	880.3	872.8	860.8	838.6	821.9	820.1	800.6	779.4	753.4	724.7
15°	895.1	893.2	886.7	873.8	854.3	840.4	837.7	821.0	803.4	777.5	747.0
17.5°	892.3	892.3	886.7	873.8	859.9	848.8	846.9	834.9	821.9	796.9	766.4
20°	880.3	879.3	877.5	867.3	858.0	853.4	851.6	846.0	837.7	816.4	787.7
22.5°	869.1	868.2	865.4	859.0	855.3	858.0	858.0	857.1	856.2	839.5	811.8
25°	875.6	874.7	869.1	859.9	859.0	871.9	872.8	875.6	877.5	863.6	834.9
27.5°	921.0	918.2	902.5	878.4	870.1	886.7	888.6	896.9	895.1	880.3	855.3
30°	1009.8	1010.8	975.6	923.8	896.0	903.4	904.3	913.6	910.8	898.8	878.4
32.5°	1144.0	1144.0	1086.7	1008.0	937.6	922.8	920.1	928.4	939.5	923.8	903.4
35°	1314.4	1309.7	1240.3	1119.1	1008.9	956.1	954.3	950.6	970.0	955.2	925.6
37.5°	1485.6	1468.9	1401.4	1268.1	1108.9	1020.9	1013.5	1002.4	1013.5	982.1	956.1
40°	1623.5	1620.7	1565.2	1430.1	1227.4	1099.6	1094.1	1045.0	1052.4	1027.4	1017.2
42.5°	1775.3	1777.2	1740.1	1604.1	1369.0	1206.1	1191.3	1115.4	1136.6	1127.4	1122.8
45°	1941.9	1940.1	1912.3	1769.8	1542.1	1354.2	1335.6	1242.2	1285.7	1280.1	1306.0
47.5°	2069.7	2079.8	2064.1	1963.2	1747.5	1533.7	1519.8	1406.0	1471.7	1516.1	1565.2
50°	2243.7	2242.7	2200.2	2158.5	1986.3	1763.3	1749.4	1622.6	1717.0	1781.8	1871.6
52.5°	2459.3	2451.9	2364.0	2349.2	2277.0	2014.1	2002.1	1869.7	2004.9	2061.3	2243.7
55°	2594.5	2593.5	2548.2	2574.1	2576.0	2293.6	2278.8	2161.3	2314.0	2378.8	2654.6
57.5°	2707.4	2708.3	2746.3	2837.0	2898.1	2633.3	2627.8	2484.3	2638.9	2729.6	3055.4
60°	2794.4	2812.9	2919.4	3126.7	3228.5	3066.5	3042.5	2890.7	2994.3	3030.4	3361.8
62.5°	2759.2	2783.3	2992.5	3297.9	3559.9	3525.6	3517.3	3297.9	3297.0	3278.5	3590.4
65°	2481.5	2533.4	2862.9	3291.5	3778.3	3992.1	3980.1	3682.1	3578.4	3485.8	3658.9
67.5°	2030.8	2041.9	2439.0	3039.7	3776.5	4285.5	4272.6	3961.6	3753.3	3526.6	3458.1
69°	1653.1	1693.9	2061.3	2721.3	3643.2	4344.8	4344.8	4039.3	3746.8	3429.4	3163.7
70°	1430.1	1431.9	1786.4	2467.7	3461.8	4309.6	4317.9	4039.3	3694.1	3302.6	2902.7
72.5°	670.1	711.8	935.8	1610.6	2796.3	3961.6	3982.0	3772.8	3387.7	2845.3	2177.9
75°	200.9	208.3	311.9	763.6	1602.2	3051.7	3097.1	3138.7	2759.2	2094.6	1341.2
77.5°	119.4	118.5	150.9	259.2	741.4	1809.6	1829.9	2007.6	1790.1	1164.4	609.0
80°	58.3	60.2	80.5	125.9	277.7	657.2	722.9	938.6	793.2	455.4	223.1
82.5°	19.4	21.3	33.3	50.9	117.6	212.0	234.2	294.3	253.6	165.7	95.3
85°	0.0	0.0	0.9	1.9	6.5	15.7	15.7	35.2	52.8	58.3	31.5
87.5°	0.0	0.0	0.9	0.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8
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°	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9
2.5°	661.8	660.0	656.3	652.6	650.7	646.1	647.0	645.1	644.2	644.2	645.1
5°	663.7	660.9	655.3	651.6	647.9	646.1	650.7	652.6	654.4	654.4	655.3
7.5°	674.8	669.2	662.7	658.1	659.0	661.8	669.2	674.8	677.5	679.4	681.2
10°	693.3	686.8	677.5	676.6	678.5	685.9	696.1	704.4	711.8	716.4	716.4
12.5°	712.7	704.4	697.0	698.8	707.2	718.3	728.5	737.7	744.2	748.8	749.7
15°	734.0	725.7	718.3	722.9	736.8	749.7	759.0	762.7	765.5	770.1	771.0
17.5°	753.4	746.0	739.6	751.6	763.6	773.8	776.6	774.7	771.0	773.8	775.7
20°	773.8	767.3	763.6	776.6	784.9	785.8	778.4	770.1	760.8	760.8	761.8
22.5°	798.8	790.5	788.6	795.1	792.3	781.2	762.7	749.7	736.8	734.9	737.7
25°	822.9	814.5	813.6	809.0	784.9	756.2	731.2	716.4	706.2	707.2	712.7
27.5°	846.9	841.4	842.3	817.3	763.6	720.1	686.8	674.8	677.5	679.4	684.9
30°	871.0	871.0	874.7	817.3	734.0	669.2	637.7	636.8	644.2	649.8	656.3
32.5°	898.8	907.1	900.6	807.1	694.2	617.4	592.4	594.2	602.6	611.8	617.4
35°	925.6	945.0	926.5	784.0	639.6	570.2	549.8	547.0	553.5	561.8	564.6
37.5°	968.2	999.7	948.7	747.9	583.1	528.5	508.2	500.8	494.3	500.8	499.8
40°	1042.2	1080.2	965.4	687.7	528.5	489.6	468.4	454.5	438.7	424.9	424.9
42.5°	1160.7	1185.7	974.7	614.6	473.9	450.8	429.5	409.1	385.1	360.1	360.1
45°	1354.2	1359.7	978.4	536.9	423.9	411.9	389.7	370.2	338.8	313.8	308.2
47.5°	1612.4	1588.3	987.6	461.9	380.4	377.6	359.1	336.9	302.7	279.5	276.8
50°	1959.5	1855.8	1028.3	401.7	345.3	348.0	334.1	308.2	275.8	259.2	255.5
52.5°	2350.1	2193.7	1059.8	353.6	314.7	323.0	312.9	287.9	260.1	246.2	243.4
55°	2776.8	2518.6	1052.4	321.2	291.6	300.8	297.1	275.8	250.8	238.8	236.0
57.5°	3124.8	2747.2	987.6	292.5	268.4	281.4	285.1	268.4	245.3	234.2	231.4
60°	3385.9	2872.2	854.3	268.4	249.9	265.6	275.8	263.8	244.4	237.9	235.1
62.5°	3504.3	2861.0	681.2	249.9	236.0	254.5	276.8	271.2	258.2	262.9	263.8
65°	3437.7	2721.3	510.9	236.0	227.7	256.4	292.5	292.5	273.1	281.4	282.3
67.5°	3096.1	2355.7	372.1	225.8	219.4	265.6	322.1	303.6	266.6	273.1	270.3
69°	2771.3	2107.6	319.3	220.3	212.9	270.3	335.1	305.4	259.2	266.6	259.2
70°	2532.5	1883.6	286.9	215.7	210.1	270.3	338.8	303.6	255.5	261.0	252.7
72.5°	1802.2	1307.9	236.0	206.4	199.9	249.9	332.3	293.4	245.3	238.8	223.1
75°	1047.8	722.9	200.9	196.2	176.8	219.4	315.6	282.3	235.1	223.1	212.0
77.5°	439.7	323.0	171.2	178.6	156.4	195.3	295.3	271.2	223.1	206.4	200.9
80°	178.6	161.1	142.5	154.6	136.1	172.2	272.1	252.7	205.5	188.8	180.5
82.5°	93.5	88.9	109.2	125.0	112.9	158.3	256.4	239.7	190.7	174.0	163.8
85°	27.8	37.0	62.0	85.2	86.1	142.5	249.0	222.1	165.7	143.5	141.6
87.5°	1.9	7.4	21.3	44.4	56.5	109.2	201.8	182.3	134.2	112.9	113.8
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)