

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: P401806

Luminaire Tested: **ENT-SA1F-727-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-727-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6234 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

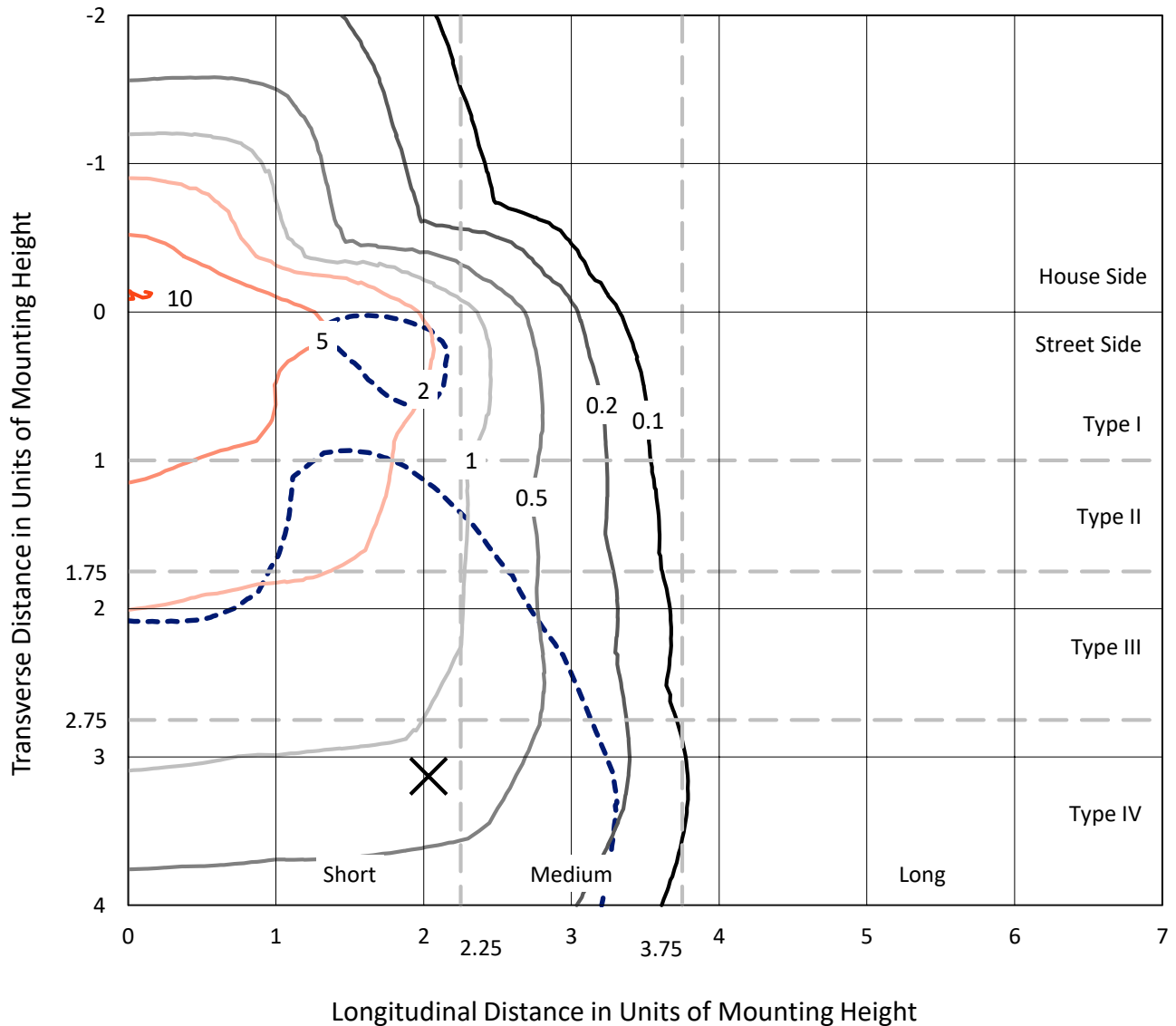
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

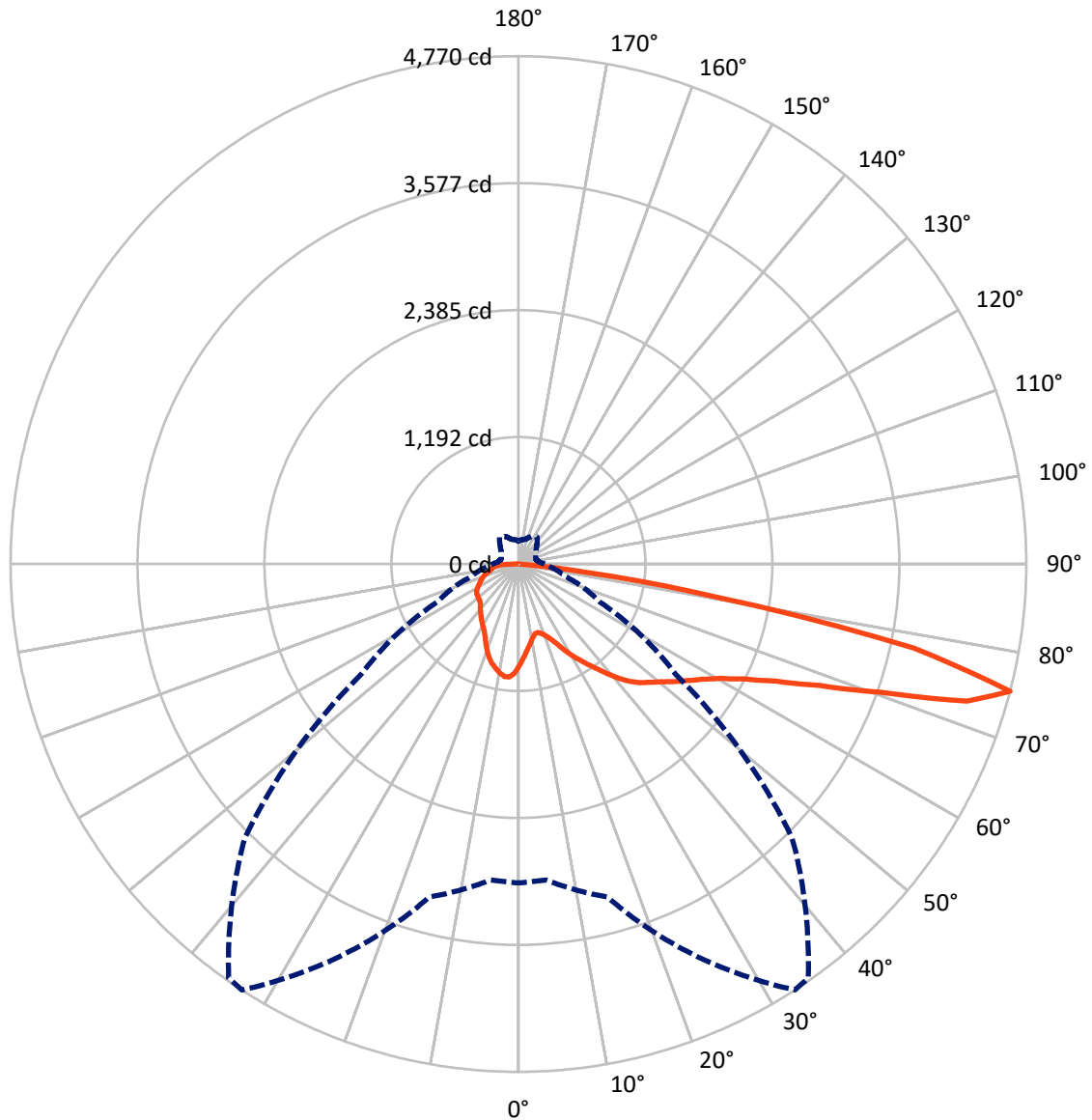
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1514.4	0.0	1514.4
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	4719.6	0.0	4719.6
	% Fixture	75.7	0.0	75.7
Total	Lumens	6234.0	0.0	6234.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	1.4
10°-20°	251.0	4.0
20°-30°	417.3	6.7
30°-40°	622.6	10.0
40°-50°	869.7	14.0
50°-60°	1161.0	18.6
60°-70°	1439.5	23.1
70°-80°	1244.6	20.0
80°-90°	139.1	2.2
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°	6234.0	100.0
0°-180°	6234.0	100.0



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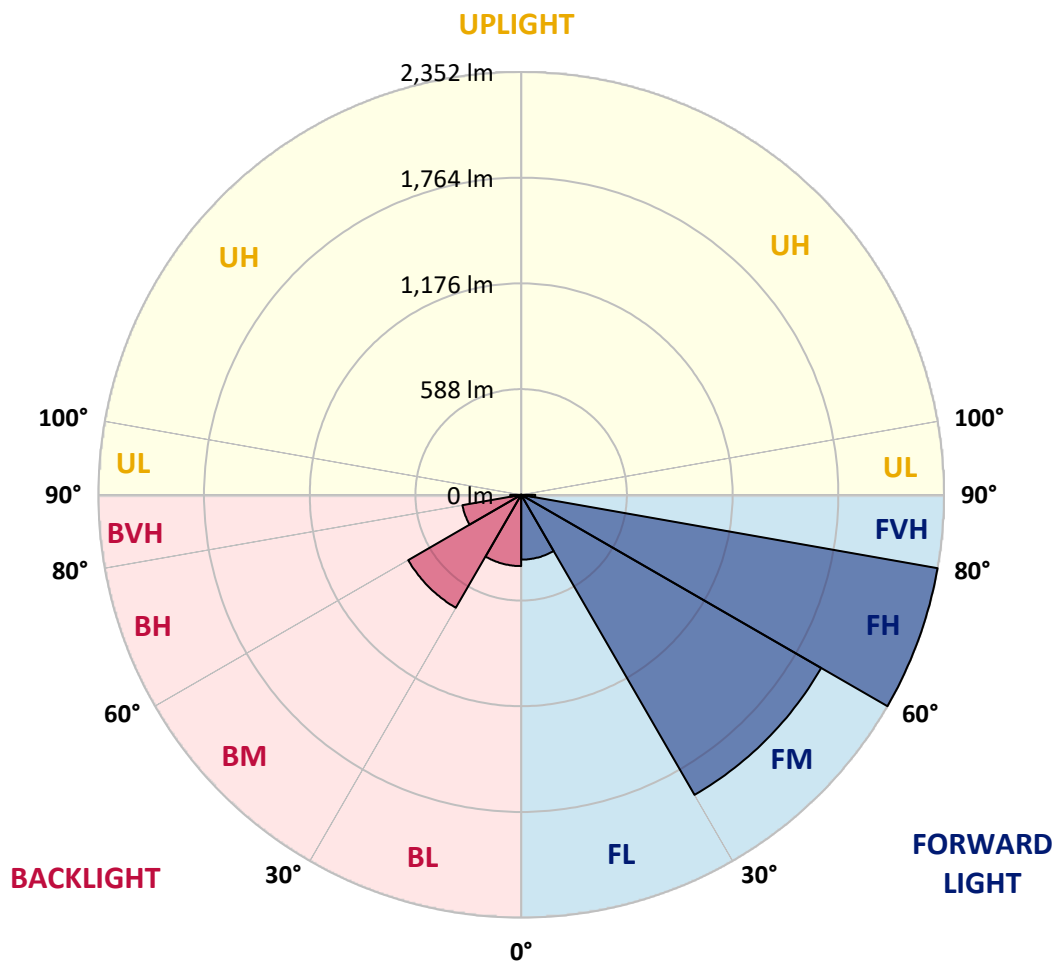
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	360.9	5.8			
FM	(30°-60°)	1927.6	30.9			
FH	(60°-80°)	2352.4	37.7			G2/5000
FVH	(80°-90°)	78.6	1.3			G1/100
BL	(0°-30°)	396.6	6.4	B1/500		
BM	(30°-60°)	725.7	11.6	B1/1000		
BH	(60°-80°)	331.6	5.3	B1/500		G1/500
BVH	(80°-90°)	60.5	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°	33°	35°	45°	55°	65°	75°	85°
0°	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2
2.5°	866.4	868.2	873.8	880.3	884.0	884.0	894.1	906.2	921.0	933.9	947.8
5°	794.2	797.0	801.6	809.9	820.1	821.9	842.3	863.6	890.4	919.1	946.9
7.5°	722.9	728.5	737.7	748.8	764.6	768.3	797.0	825.6	862.7	906.2	951.5
10°	668.3	672.0	676.6	692.4	711.8	718.3	756.2	792.3	843.2	896.9	957.1
12.5°	653.5	653.5	653.5	660.9	676.6	682.2	722.0	768.3	825.6	890.4	965.4
15°	674.8	673.8	663.7	658.1	667.4	672.0	706.2	751.6	816.4	892.3	981.2
17.5°	722.9	720.1	696.1	677.6	684.0	686.8	709.0	747.9	813.6	899.7	1004.3
20°	785.8	779.4	742.3	714.6	713.6	715.5	732.2	759.0	818.2	912.7	1029.3
22.5°	869.2	865.5	810.8	768.3	760.9	760.9	768.3	784.9	830.3	927.5	1063.5
25°	976.5	966.3	900.6	843.2	826.6	821.9	821.0	821.0	851.6	949.7	1106.1
27.5°	1086.7	1074.6	1008.0	930.2	908.0	899.7	884.9	873.8	879.3	973.7	1157.0
30°	1185.7	1169.1	1112.6	1032.1	998.7	985.8	958.9	935.8	921.0	1007.1	1224.6
32.5°	1240.3	1233.8	1195.0	1121.8	1083.9	1078.3	1033.9	1003.4	977.5	1050.6	1315.3
35°	1313.4	1305.1	1280.1	1220.0	1174.6	1160.7	1127.4	1091.3	1049.6	1108.9	1430.1
37.5°	1381.0	1376.4	1367.1	1325.5	1277.3	1263.5	1232.9	1195.0	1138.5	1195.0	1558.7
40°	1449.5	1444.0	1440.3	1425.4	1391.2	1381.9	1367.1	1322.7	1246.8	1289.4	1685.5
42.5°	1549.5	1537.4	1498.6	1497.6	1500.4	1507.8	1508.8	1459.7	1365.3	1406.9	1796.6
45°	1680.0	1646.7	1559.7	1556.9	1589.3	1608.7	1655.9	1614.3	1488.4	1527.3	1920.7
47.5°	1746.6	1712.4	1622.6	1617.1	1659.6	1688.3	1805.0	1764.2	1616.1	1662.4	2049.3
50°	1779.0	1756.8	1678.1	1695.7	1739.2	1767.0	1946.6	1914.2	1748.5	1808.7	2211.3
52.5°	1824.4	1787.4	1731.8	1768.9	1833.6	1862.3	2073.4	2067.8	1860.5	1967.9	2389.0
55°	1808.7	1789.2	1799.4	1849.4	1930.8	1973.4	2201.1	2201.1	1974.3	2138.2	2564.9
57.5°	1821.6	1808.7	1892.9	1937.3	2040.1	2101.1	2354.8	2314.0	2070.6	2280.7	2683.4
60°	1931.8	1894.7	1960.5	2048.4	2180.8	2240.0	2530.6	2432.5	2149.3	2403.8	2704.6
62.5°	2126.1	2096.5	2103.0	2203.9	2375.1	2443.6	2704.6	2537.1	2202.0	2455.7	2625.0
65°	2448.3	2434.4	2354.8	2415.9	2651.9	2713.9	2922.2	2627.8	2187.2	2416.8	2414.9
67.5°	2881.4	2825.9	2718.5	2773.1	3045.3	3108.2	3184.1	2662.1	2091.0	2184.5	1941.0
70°	3240.6	3194.3	3145.2	3288.7	3601.6	3635.8	3457.2	2629.7	1856.8	1709.6	1301.4
72.5°	3469.2	3435.9	3481.2	3903.3	4404.1	4339.3	3726.5	2402.9	1448.6	1046.9	650.7
75°	2994.4	2978.6	3237.8	4094.0	4769.7	4745.6	3633.0	1798.5	840.5	461.0	296.2
77.5°	1506.0	1677.2	1950.3	2904.6	3795.0	3799.7	2647.3	864.5	353.6	258.2	203.6
80°	423.9	429.5	650.7	1197.7	1894.7	2018.8	1001.5	293.4	201.8	192.5	151.8
82.5°	100.9	93.5	166.6	354.5	635.9	661.8	300.8	105.5	112.9	120.3	93.5
85°	0.9	0.9	0.9	0.9	0.9	1.9	11.1	11.1	26.8	34.2	26.8
87.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
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°	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2	955.2
2.5°	954.3	963.6	978.4	991.3	1002.4	1010.8	1023.7	1025.6	1029.3	1031.1	1033.0
5°	962.6	980.2	1008.0	1032.1	1048.7	1053.4	1064.5	1063.5	1064.5	1064.5	1063.5
7.5°	973.7	997.8	1036.7	1063.5	1072.8	1070.0	1067.2	1057.1	1048.7	1045.0	1040.4
10°	987.6	1015.4	1060.8	1080.2	1075.6	1060.8	1043.2	1024.7	1009.8	1002.4	1000.6
12.5°	1001.5	1037.6	1080.2	1085.7	1067.2	1040.4	1010.8	990.4	971.0	960.8	960.8
15°	1024.7	1064.5	1095.9	1084.8	1051.5	1017.3	976.5	948.8	926.5	912.7	911.7
17.5°	1052.4	1095.0	1112.6	1080.2	1032.1	983.9	934.9	898.8	870.1	856.2	847.9
20°	1086.7	1126.5	1120.9	1065.4	1003.4	944.1	883.0	839.5	809.9	795.1	792.3
22.5°	1125.5	1158.9	1123.7	1041.3	964.5	888.6	821.9	778.4	759.0	747.9	748.8
25°	1172.8	1198.7	1124.6	1012.6	909.0	815.5	757.2	736.8	734.0	729.4	731.2
27.5°	1232.0	1240.3	1120.9	973.7	837.7	738.6	704.4	712.7	720.1	717.4	719.2
30°	1302.3	1290.3	1112.6	917.3	749.7	668.3	670.1	688.7	698.8	696.1	697.0
32.5°	1384.7	1340.3	1096.9	848.8	666.4	625.7	640.5	659.0	669.2	669.2	670.1
35°	1477.3	1400.5	1066.3	759.9	608.1	599.8	612.8	627.6	634.0	630.3	633.1
37.5°	1574.5	1452.3	1017.3	660.9	564.6	579.4	586.8	590.5	589.6	584.1	581.3
40°	1665.2	1493.0	929.3	562.8	528.5	558.1	561.8	551.7	539.6	529.5	523.0
42.5°	1734.6	1514.3	807.1	491.5	494.3	534.1	536.9	516.5	493.4	477.6	473.9
45°	1805.9	1521.7	685.9	434.1	457.3	510.0	517.4	489.7	458.2	439.7	436.9
47.5°	1887.3	1540.2	566.5	394.3	425.8	493.4	505.4	471.1	436.0	408.2	403.6
50°	1996.6	1575.4	476.7	363.8	403.6	485.0	501.7	456.3	411.9	381.4	377.7
52.5°	2135.4	1627.2	393.4	339.7	386.0	472.1	496.1	441.5	394.3	357.3	351.7
55°	2254.8	1646.7	339.7	319.3	367.5	456.3	491.5	436.0	374.9	333.2	326.7
57.5°	2309.4	1591.1	301.8	299.0	348.0	436.9	482.2	417.5	353.6	321.2	315.6
60°	2284.4	1453.2	273.1	280.5	325.8	411.9	458.2	398.9	338.8	311.9	306.4
62.5°	2173.3	1294.0	251.8	262.9	300.8	380.4	430.4	382.3	325.8	301.8	294.3
65°	1978.0	1119.1	236.0	247.1	278.6	349.9	408.2	362.8	311.0	286.9	280.5
67.5°	1614.3	890.4	219.4	231.4	260.1	324.9	387.8	347.1	294.3	278.6	273.1
70°	1068.2	598.9	203.6	215.7	241.6	300.8	366.5	330.4	278.6	268.4	261.0
72.5°	490.6	322.1	187.0	199.0	220.3	274.0	339.7	305.5	257.3	250.8	239.7
75°	242.5	198.1	166.6	177.7	194.4	241.6	308.2	284.2	237.9	226.8	213.8
77.5°	176.8	148.1	143.5	154.6	168.5	213.8	274.9	261.9	218.4	202.7	195.3
80°	131.4	114.8	120.3	131.4	144.4	193.5	257.3	245.3	201.8	186.0	180.5
82.5°	80.5	76.8	92.6	105.5	121.3	177.7	245.3	224.0	181.4	166.6	160.1
85°	23.1	27.8	47.2	68.5	86.1	143.5	228.6	196.2	152.7	127.7	123.1
87.5°	0.0	2.8	14.8	31.5	50.9	95.3	175.9	153.7	116.6	94.4	90.7
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)