

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: P401842

Luminaire Tested: **ENT-SA1F-735-U-T4FT**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401842  
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-735-U-T4FT  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 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: 7003 lumens  
Efficiency: N/A  
Efficacy: 105.9 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

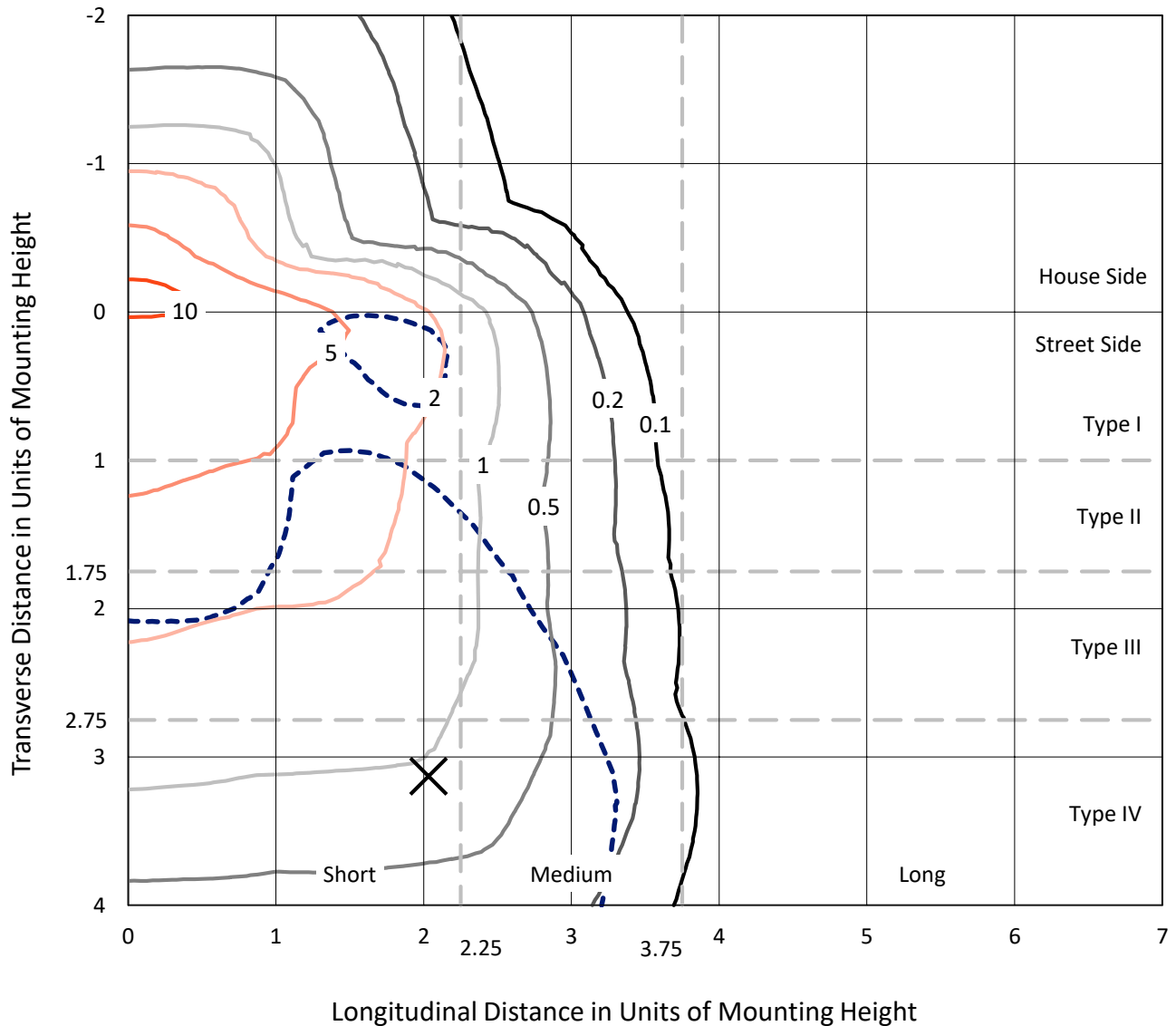


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

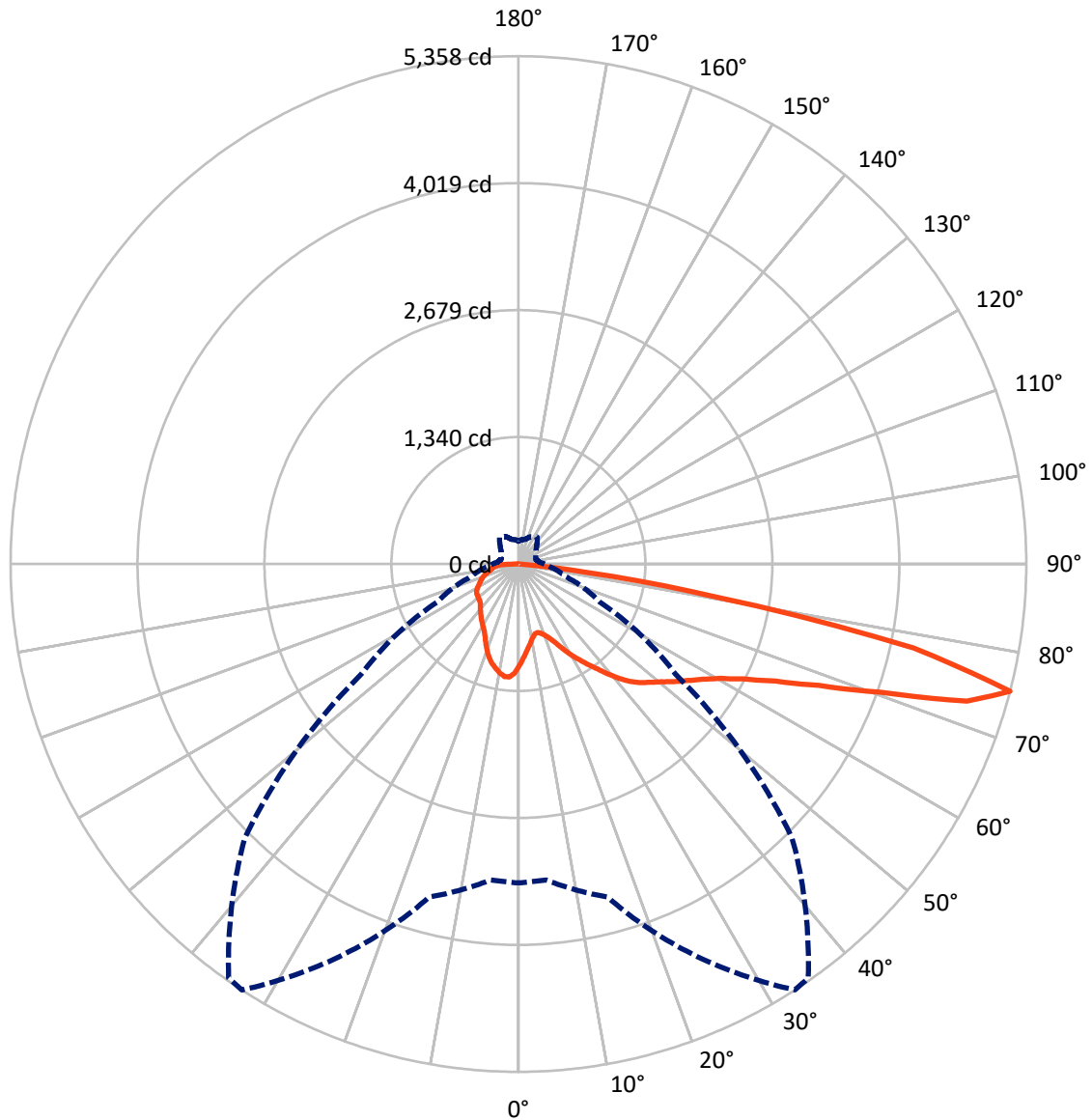


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc  
 Type IV - Short - Non-Cutoff

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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
<b>House Side</b>	Lumens	1701.2	0.0	1701.2
	% Fixture	24.3	0.0	24.3
<b>Street Side</b>	Lumens	5301.8	0.0	5301.8
	% Fixture	75.7	0.0	75.7
<b>Total</b>	Lumens	7003.0	0.0	7003.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.4
10°-20°	282.0	4.0
20°-30°	468.8	6.7
30°-40°	699.4	10.0
40°-50°	977.0	14.0
50°-60°	1304.2	18.6
60°-70°	1617.0	23.1
70°-80°	1398.1	20.0
80°-90°	156.3	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°	7003.0	100.0
0°-180°	7003.0	100.0



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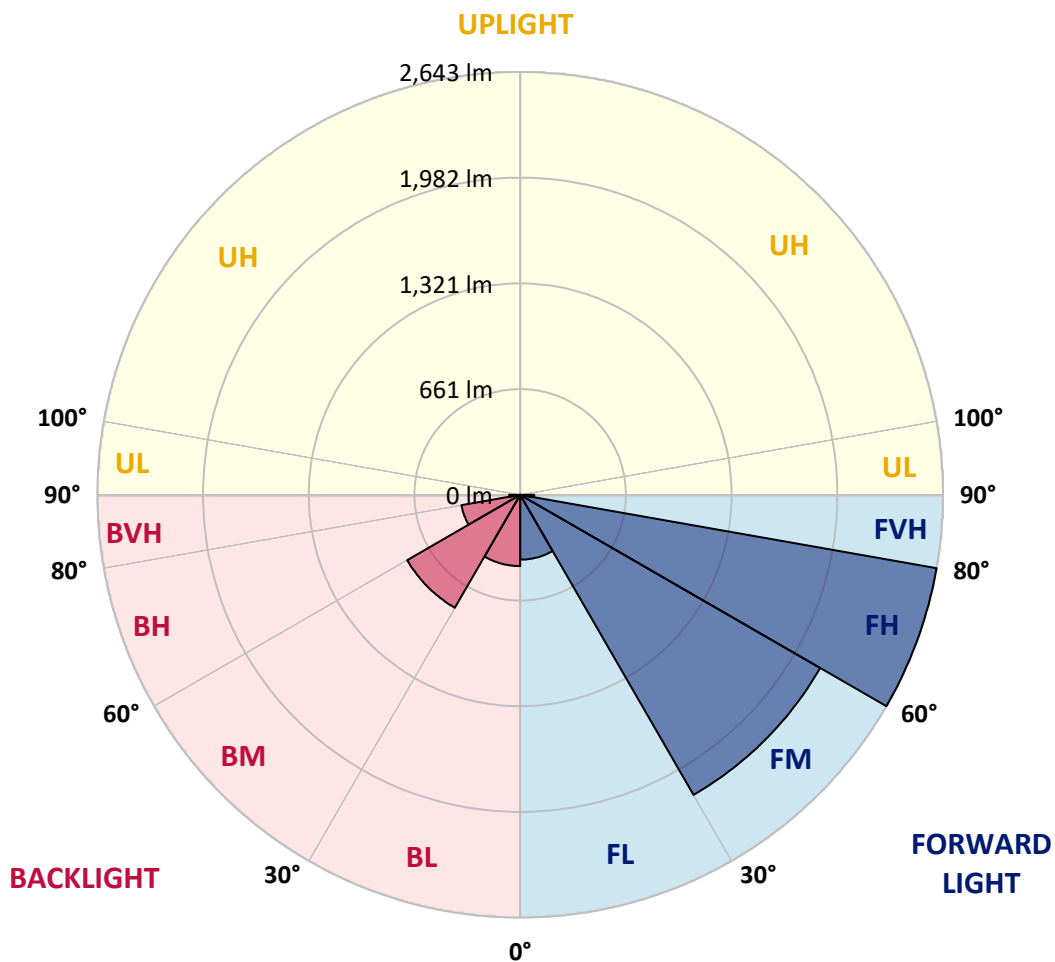
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	405.5	5.8			
FM	(30°-60°)	2165.4	30.9			
FH	(60°-80°)	2642.6	37.7			G2/5000
FVH	(80°-90°)	88.3	1.3			G1/100
BL	(0°-30°)	445.5	6.4	B1/500		
BM	(30°-60°)	815.2	11.6	B1/1000		
BH	(60°-80°)	372.5	5.3	B1/500		G1/500
BVH	(80°-90°)	68.0	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°	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1
2.5°	973.2	975.3	981.6	988.8	993.0	993.0	1004.4	1018.0	1034.6	1049.2	1064.8
5°	892.1	895.3	900.5	909.8	921.3	923.3	946.2	970.1	1000.3	1032.5	1063.7
7.5°	812.1	818.3	828.7	841.2	858.9	863.0	895.3	927.5	969.1	1018.0	1068.9
10°	750.7	754.9	760.1	777.8	799.6	806.9	849.5	890.1	947.3	1007.6	1075.1
12.5°	734.1	734.1	734.1	742.4	760.1	766.3	811.0	863.0	927.5	1000.3	1084.5
15°	758.0	757.0	745.5	739.3	749.7	754.9	793.4	844.3	917.1	1002.4	1102.2
17.5°	812.1	809.0	781.9	761.1	768.4	771.5	796.5	840.2	914.0	1010.7	1128.2
20°	882.8	875.5	833.9	802.7	801.7	803.8	822.5	852.6	919.2	1025.2	1156.3
22.5°	976.4	972.2	910.9	863.0	854.7	854.7	863.0	881.7	932.7	1041.9	1194.7
25°	1097.0	1085.5	1011.7	947.3	928.5	923.3	922.3	922.3	956.6	1066.8	1242.6
27.5°	1220.7	1207.2	1132.3	1045.0	1020.0	1010.7	994.0	981.6	987.8	1093.9	1299.7
30°	1332.0	1313.3	1249.8	1159.4	1121.9	1107.4	1077.2	1051.2	1034.6	1131.3	1375.6
32.5°	1393.3	1386.0	1342.4	1260.2	1217.6	1211.4	1161.5	1127.1	1098.0	1180.2	1477.5
35°	1475.5	1466.1	1438.0	1370.5	1319.5	1303.9	1266.5	1225.9	1179.1	1245.7	1606.5
37.5°	1551.4	1546.2	1535.8	1489.0	1434.9	1419.3	1385.0	1342.4	1278.9	1342.4	1751.0
40°	1628.3	1622.1	1617.9	1601.3	1562.8	1552.4	1535.8	1485.9	1400.6	1448.4	1893.5
42.5°	1740.6	1727.1	1683.4	1682.4	1685.5	1693.8	1694.9	1639.8	1533.7	1580.5	2018.2
45°	1887.2	1849.8	1752.1	1748.9	1785.3	1807.2	1860.2	1813.4	1672.0	1715.7	2157.6
47.5°	1962.1	1923.6	1822.8	1816.5	1864.4	1896.6	2027.6	1981.9	1815.5	1867.5	2302.1
50°	1998.5	1973.5	1885.1	1904.9	1953.8	1985.0	2186.7	2150.3	1964.2	2031.8	2484.1
52.5°	2049.4	2007.8	1945.5	1987.0	2059.8	2092.1	2329.1	2322.9	2090.0	2210.6	2683.7
55°	2031.8	2009.9	2021.4	2077.5	2169.0	2216.8	2472.6	2472.6	2217.9	2401.9	2881.3
57.5°	2046.3	2031.8	2126.4	2176.3	2291.7	2360.3	2645.2	2599.5	2326.0	2562.1	3014.4
60°	2170.1	2128.5	2202.3	2301.1	2449.8	2516.3	2842.8	2732.6	2414.4	2700.3	3038.3
62.5°	2388.4	2355.1	2362.4	2475.8	2668.1	2745.1	3038.3	2850.1	2473.7	2758.6	2948.9
65°	2750.3	2734.7	2645.2	2713.9	2979.0	3048.7	3282.6	2952.0	2457.0	2714.9	2712.8
67.5°	3236.9	3174.5	3053.9	3115.2	3420.9	3491.6	3576.9	2990.5	2348.9	2453.9	2180.5
70°	3640.3	3588.3	3533.2	3694.4	4045.8	4084.3	3883.6	2954.1	2085.8	1920.5	1462.0
72.5°	3897.2	3859.7	3910.7	4384.8	4947.3	4874.6	4186.2	2699.3	1627.3	1176.0	731.0
75°	3363.7	3346.1	3637.2	4599.0	5358.1	5331.0	4081.2	2020.3	944.1	517.8	332.7
77.5°	1691.7	1884.1	2190.8	3262.9	4263.2	4268.4	2973.8	971.2	397.2	290.1	228.8
80°	476.2	482.5	731.0	1345.5	2128.5	2267.8	1125.1	329.6	226.7	216.3	170.5
82.5°	113.3	105.0	187.2	398.2	714.3	743.5	337.9	118.5	126.9	135.2	105.0
85°	1.0	1.0	1.0	1.0	1.0	2.1	12.5	12.5	30.2	38.5	30.2
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	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°	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1	1073.1
2.5°	1072.0	1082.4	1099.1	1113.6	1126.1	1135.5	1150.0	1152.1	1156.3	1158.3	1160.4
5°	1081.4	1101.1	1132.3	1159.4	1178.1	1183.3	1195.8	1194.7	1195.8	1195.8	1194.7
7.5°	1093.9	1120.9	1164.6	1194.7	1205.1	1202.0	1198.9	1187.4	1178.1	1173.9	1168.7
10°	1109.5	1140.7	1191.6	1213.4	1208.2	1191.6	1171.8	1151.1	1134.4	1126.1	1124.0
12.5°	1125.1	1165.6	1213.4	1219.7	1198.9	1168.7	1135.5	1112.6	1090.7	1079.3	1079.3
15°	1151.1	1195.8	1231.1	1218.6	1181.2	1142.7	1097.0	1065.8	1040.8	1025.2	1024.2
17.5°	1182.2	1230.1	1249.8	1213.4	1159.4	1105.3	1050.2	1009.6	977.4	961.8	952.5
20°	1220.7	1265.4	1259.2	1196.8	1127.1	1060.6	992.0	943.1	909.8	893.2	890.1
22.5°	1264.4	1301.8	1262.3	1169.8	1083.5	998.2	923.3	874.5	852.6	840.2	841.2
25°	1317.4	1346.5	1263.4	1137.5	1021.1	916.1	850.6	827.7	824.6	819.4	821.4
27.5°	1384.0	1393.3	1259.2	1093.9	941.0	829.8	791.3	800.6	809.0	805.8	807.9
30°	1463.0	1449.5	1249.8	1030.4	842.2	750.7	752.8	773.6	785.0	781.9	783.0
32.5°	1555.5	1505.6	1232.2	953.5	748.7	702.9	719.5	740.3	751.8	751.8	752.8
35°	1659.5	1573.2	1197.8	853.7	683.1	673.8	688.3	705.0	712.3	708.1	711.2
37.5°	1768.7	1631.4	1142.7	742.4	634.3	650.9	659.2	663.4	662.3	656.1	653.0
40°	1870.6	1677.2	1044.0	632.2	593.7	627.0	631.2	619.7	606.2	594.8	587.5
42.5°	1948.6	1701.1	906.7	552.1	555.3	600.0	603.1	580.2	554.2	536.5	532.4
45°	2028.6	1709.4	770.5	487.7	513.7	572.9	581.2	550.1	514.7	493.9	490.8
47.5°	2120.1	1730.2	636.4	443.0	478.3	554.2	567.7	529.3	489.7	458.5	453.4
50°	2242.8	1769.7	535.5	408.6	453.4	544.9	563.6	512.6	462.7	428.4	424.2
52.5°	2398.8	1828.0	441.9	381.6	433.6	530.3	557.3	496.0	443.0	401.4	395.1
55°	2532.9	1849.8	381.6	358.7	412.8	512.6	552.1	489.7	421.1	374.3	367.0
57.5°	2594.3	1787.4	339.0	335.9	391.0	490.8	541.7	468.9	397.2	360.8	354.6
60°	2566.2	1632.5	306.7	315.1	366.0	462.7	514.7	448.2	380.6	350.4	344.2
62.5°	2441.4	1453.6	282.8	295.3	337.9	427.4	483.5	429.4	366.0	339.0	330.7
65°	2222.0	1257.1	265.1	277.6	313.0	393.0	458.5	407.6	349.4	322.3	315.1
67.5°	1813.4	1000.3	246.4	259.9	292.2	365.0	435.7	389.9	330.7	313.0	306.7
70°	1199.9	672.7	228.8	242.3	271.4	337.9	411.8	371.2	313.0	301.5	293.2
72.5°	551.1	361.8	210.0	223.6	247.5	307.8	381.6	343.1	289.1	281.8	269.3
75°	272.4	222.5	187.2	199.6	218.4	271.4	346.3	319.2	267.2	254.7	240.2
77.5°	198.6	166.4	161.2	173.6	189.2	240.2	308.8	294.3	245.4	227.7	219.4
80°	147.7	128.9	135.2	147.7	162.2	217.3	289.1	275.5	226.7	209.0	202.8
82.5°	90.5	86.3	104.0	118.5	136.2	199.6	275.5	251.6	203.8	187.2	179.9
85°	26.0	31.2	53.0	76.9	96.7	161.2	256.8	220.4	171.6	143.5	138.3
87.5°	0.0	3.1	16.6	35.4	57.2	107.1	197.6	172.6	131.0	106.1	101.9
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)