

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: P401928

Luminaire Tested: **ENT-SA1F-827-U-T2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401928  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1F-827-U-T2  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5696 lumens  
Efficiency: N/A  
Efficacy: 86.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

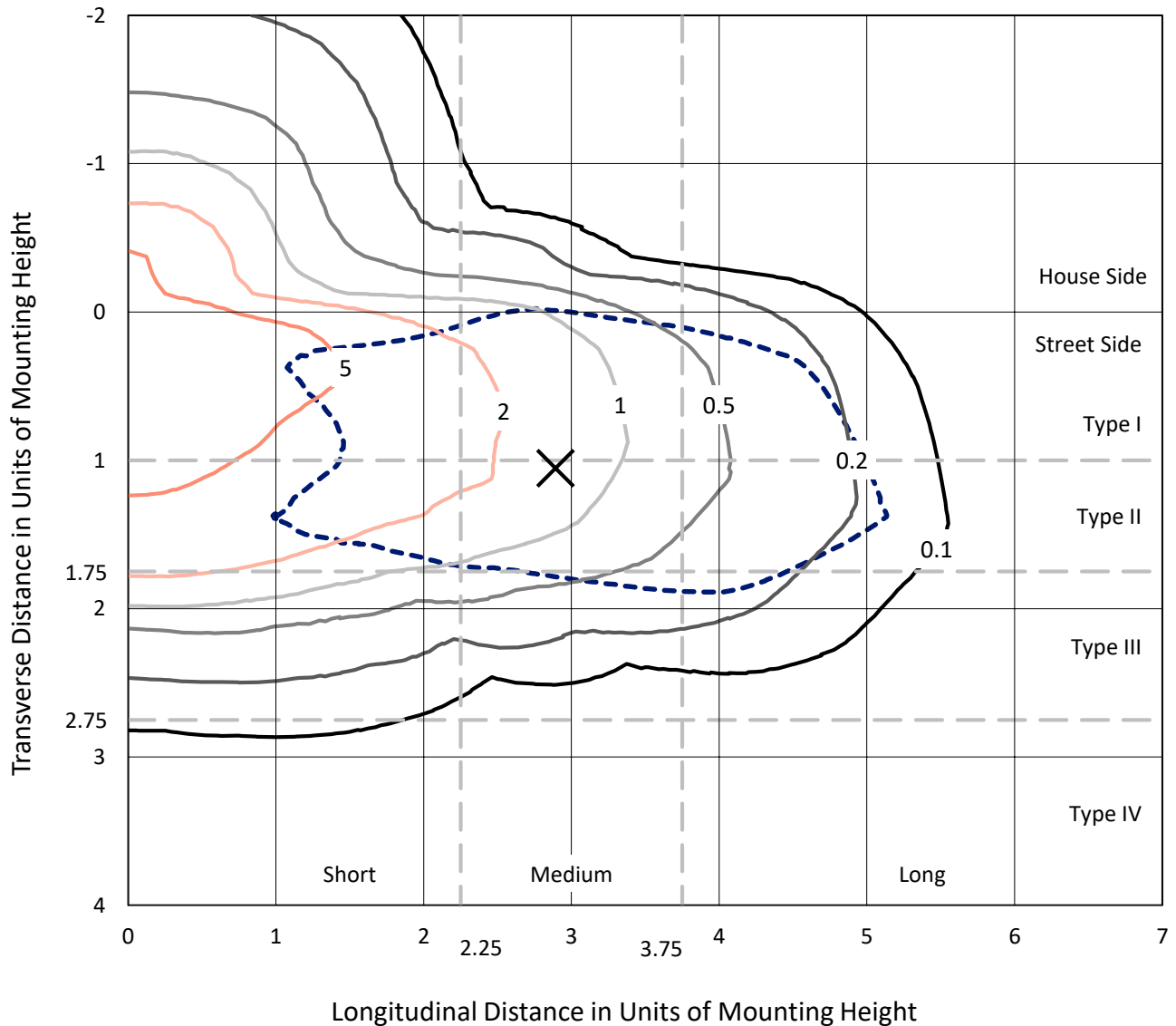
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

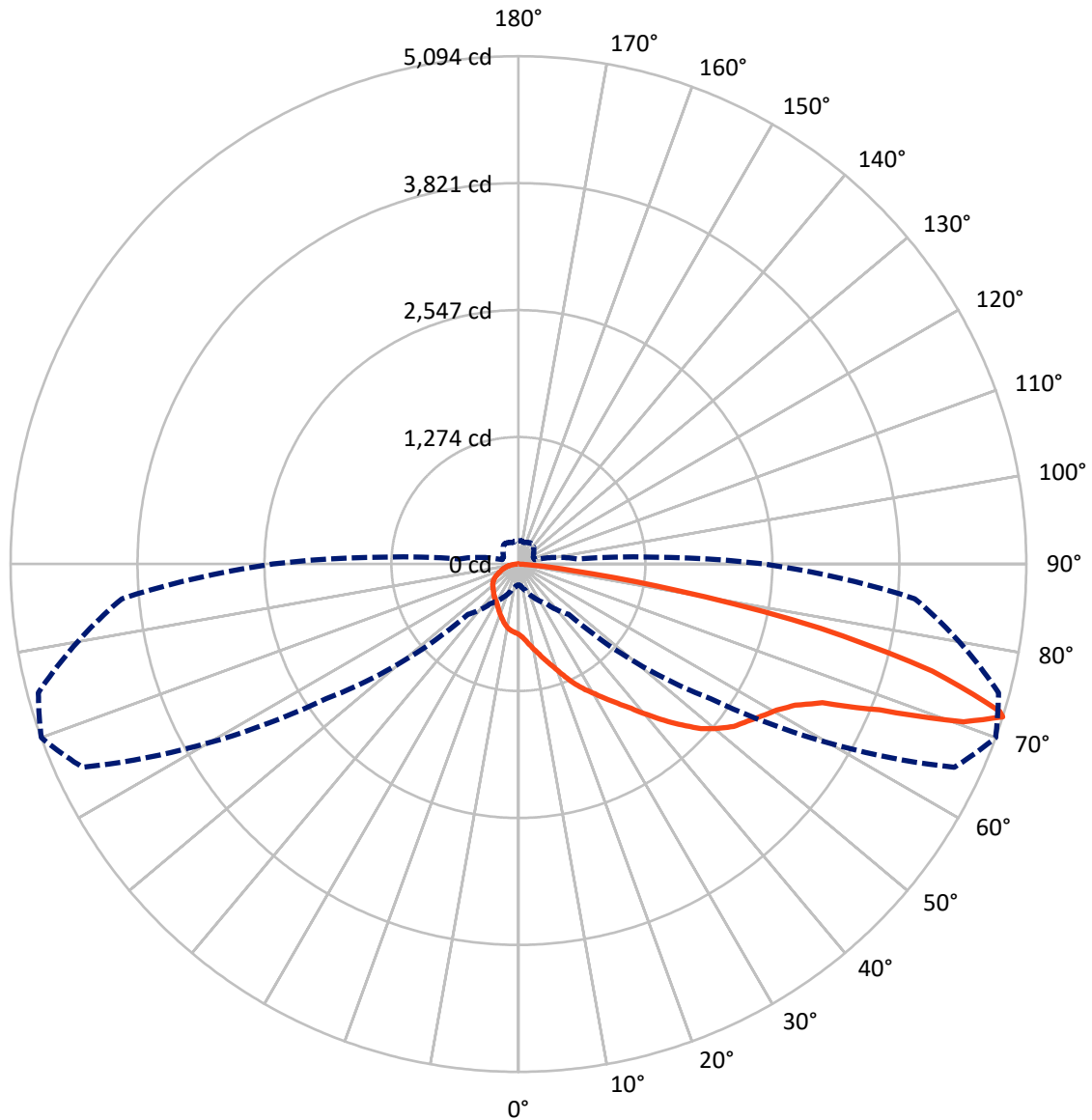
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1058.4	0.0	1058.4
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	4637.6	0.0	4637.6
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	5696.0	0.0	5696.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.9	1.2
10°-20°	227.5	4.0
20°-30°	402.8	7.1
30°-40°	598.9	10.5
40°-50°	868.8	15.3
50°-60°	1187.0	20.8
60°-70°	1299.6	22.8
70°-80°	924.4	16.2
80°-90°	116.1	2.0
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°	5696.0	100.0
0°-180°	5696.0	100.0



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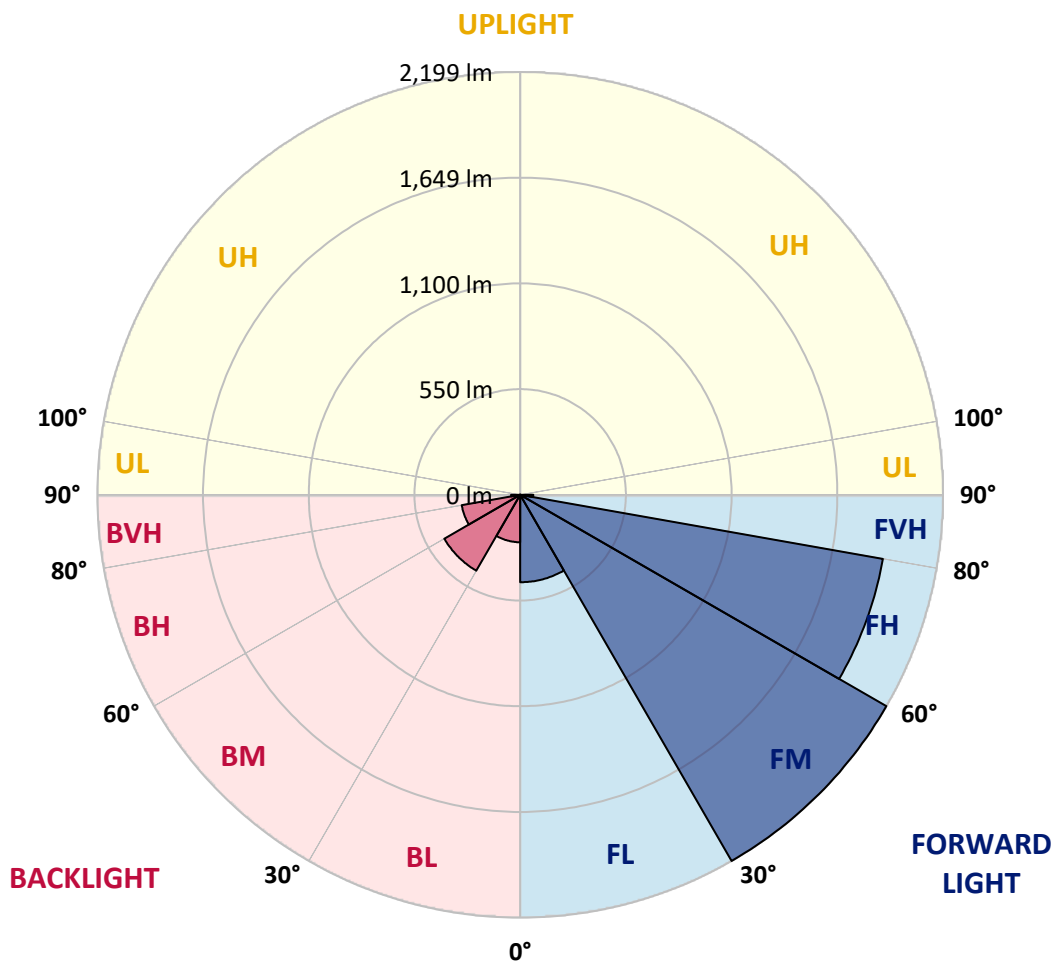
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	454.6	8.0			
FM	(30°-60°)	2199.0	38.6			
FH	(60°-80°)	1915.4	33.6			G2/5000
FVH	(80°-90°)	68.5	1.2			G1/100
BL	(0°-30°)	246.6	4.3	B1/500		
BM	(30°-60°)	455.7	8.0	B1/1000		
BH	(60°-80°)	308.6	5.4	B1/500		G1/500
BVH	(80°-90°)	47.5	0.8			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4
2.5°	784.3	780.3	781.1	773.8	769.7	759.9	749.3	738.0	732.3	728.2	714.4
5°	860.8	860.8	864.1	858.4	842.9	826.6	807.9	782.7	772.1	757.5	729.8
7.5°	924.3	925.9	925.9	924.3	910.4	892.5	868.1	837.2	820.1	799.0	755.9
10°	956.8	960.9	964.1	966.6	965.0	954.4	926.7	895.0	871.4	843.7	786.0
12.5°	973.1	974.7	980.4	992.6	1002.4	1010.5	990.2	952.7	929.2	895.8	818.5
15°	991.0	991.0	996.7	1012.1	1030.9	1052.8	1050.4	1021.1	995.9	954.4	860.0
17.5°	1002.4	1005.6	1016.2	1032.5	1058.5	1095.1	1113.8	1097.6	1065.0	1021.1	904.7
20°	995.9	998.3	1019.5	1051.2	1084.6	1131.7	1178.9	1178.9	1148.0	1097.6	954.4
22.5°	1008.1	1012.1	1026.8	1056.9	1102.5	1163.5	1240.8	1267.6	1240.8	1185.4	1012.1
25°	1055.3	1053.6	1065.8	1078.0	1117.1	1192.8	1293.7	1362.8	1338.4	1277.4	1068.3
27.5°	1123.6	1123.6	1130.1	1129.3	1143.1	1217.2	1340.0	1446.6	1426.3	1353.1	1114.7
30°	1202.5	1204.2	1202.5	1201.7	1199.3	1250.5	1381.5	1521.5	1510.9	1438.5	1157.0
32.5°	1298.5	1302.6	1296.1	1279.8	1270.1	1298.5	1416.5	1605.3	1608.5	1523.1	1198.5
35°	1419.0	1425.5	1401.1	1377.5	1353.1	1366.1	1457.2	1684.2	1716.7	1619.1	1248.9
37.5°	1539.4	1549.9	1545.9	1482.4	1448.2	1447.4	1517.4	1782.6	1837.2	1744.4	1320.5
40°	1641.1	1650.0	1654.9	1597.1	1549.9	1548.3	1606.1	1885.2	1985.2	1888.4	1405.1
42.5°	1708.6	1716.7	1731.4	1697.2	1653.3	1673.6	1703.7	1986.9	2144.7	2064.2	1509.3
45°	1781.8	1788.3	1797.3	1777.8	1755.0	1813.6	1827.4	2100.0	2304.2	2252.9	1631.3
47.5°	1859.9	1866.4	1871.3	1856.7	1848.5	1930.7	1948.6	2215.5	2465.3	2448.2	1750.1
50°	1946.2	1948.6	1953.5	1946.2	1948.6	2037.3	2048.7	2317.2	2593.0	2651.6	1873.8
52.5°	2094.3	2097.5	2099.1	2064.2	2052.0	2104.8	2129.2	2425.4	2705.3	2820.8	1982.8
55°	2211.4	2222.8	2274.1	2251.3	2222.0	2152.8	2196.0	2512.5	2785.0	2978.7	2096.7
57.5°	2115.4	2141.4	2269.2	2376.6	2458.8	2293.6	2274.9	2602.0	2877.0	3114.5	2229.3
60°	1836.3	1874.6	2060.1	2283.8	2549.9	2616.6	2436.8	2713.4	2977.0	3256.1	2371.7
62.5°	1273.3	1312.4	1568.7	1925.8	2396.1	2801.3	2880.2	2911.1	3116.2	3400.9	2557.2
65°	610.2	650.1	861.6	1238.3	1892.5	2682.5	3396.9	3321.2	3350.5	3584.8	2830.6
67.5°	388.1	409.3	492.2	674.5	1100.8	2089.4	3582.4	4138.1	3905.4	4008.7	3374.9
70°	284.0	288.8	360.4	467.0	653.3	1220.4	3163.4	4920.0	4737.7	4726.3	4031.5
72°	209.9	218.1	273.4	372.6	483.3	713.5	2353.8	4824.8	5094.1	4985.9	3992.4
72.5°	197.7	204.2	252.2	352.3	456.4	626.5	2108.9	4714.1	5050.1	4993.2	3917.6
75°	144.0	148.9	172.5	250.6	353.1	362.9	1126.1	3618.2	4288.6	4767.0	3551.5
77.5°	99.3	102.5	114.7	153.8	241.6	245.7	477.6	2470.2	3095.0	3811.8	2731.3
80°	60.2	61.8	69.2	83.8	153.8	145.6	196.9	1291.2	1615.0	2072.3	1266.8
82.5°	25.2	26.0	30.1	33.4	65.1	69.2	79.7	421.5	534.5	647.6	365.3
85°	0.0	0.0	0.8	0.8	1.6	7.3	11.4	52.1	78.9	94.4	65.9
87.5°	0.0	0.0	0.8	0.8	0.8	1.6	1.6	2.4	3.3	3.3	4.9
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°	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4	705.4
2.5°	707.8	704.6	694.8	686.7	680.2	669.6	668.8	660.7	660.7	658.2	656.6
5°	719.2	708.7	689.1	671.2	658.2	642.8	635.4	626.5	620.8	617.5	618.4
7.5°	733.9	716.0	682.6	652.5	628.1	608.6	597.2	589.9	585.8	584.2	584.2
10°	754.2	726.6	672.1	626.5	595.6	580.9	575.2	574.4	575.2	576.0	576.9
12.5°	777.0	733.9	652.5	595.6	571.2	565.5	568.7	576.0	582.6	585.0	585.0
15°	800.6	738.8	625.7	567.1	552.4	558.1	569.5	583.4	593.9	600.5	602.1
17.5°	825.0	739.6	597.2	541.1	536.2	550.8	571.2	593.1	610.2	620.8	622.4
20°	851.0	738.0	563.8	517.5	519.9	544.3	572.8	602.9	625.7	639.5	641.1
22.5°	879.5	731.4	531.3	494.7	506.1	537.8	571.2	606.1	630.6	646.8	650.1
25°	907.2	718.4	498.7	474.3	496.3	531.3	563.0	593.1	616.7	632.2	636.3
27.5°	921.8	690.8	467.8	458.9	489.0	521.5	544.3	564.7	577.7	587.4	591.5
30°	924.3	651.7	442.6	448.3	480.8	507.7	520.7	524.0	521.5	524.8	520.7
32.5°	919.4	609.4	422.3	440.2	467.8	488.2	491.4	481.7	467.0	446.7	447.5
35°	916.1	563.0	406.0	428.8	450.7	463.8	458.1	442.6	414.9	390.5	388.9
37.5°	921.8	520.7	392.2	414.1	428.8	434.5	426.3	406.0	381.6	360.4	358.0
40°	938.1	489.8	379.1	397.9	405.2	409.3	399.5	381.6	371.8	356.4	353.9
42.5°	969.8	468.6	366.9	380.0	383.2	387.3	377.5	365.3	374.3	371.0	371.0
45°	1013.8	458.9	356.4	362.9	366.1	372.6	366.9	356.4	366.1	347.4	344.2
47.5°	1070.7	462.1	349.0	345.8	355.6	366.9	360.4	347.4	344.2	310.8	305.1
50°	1130.9	479.2	341.7	332.0	344.2	359.6	351.5	331.1	311.6	294.5	291.3
52.5°	1201.7	507.7	335.2	316.5	331.1	351.5	345.8	323.8	303.5	291.3	288.8
55°	1279.8	535.4	327.1	298.6	314.1	349.0	347.4	318.9	292.1	286.4	284.8
57.5°	1367.7	558.1	317.3	278.3	297.0	341.7	340.1	307.5	288.8	284.0	283.1
60°	1477.5	585.0	300.2	254.7	279.9	327.9	326.3	301.9	281.5	277.4	275.8
62.5°	1627.2	634.6	270.9	232.7	262.0	303.5	313.2	290.5	270.9	270.1	270.1
65°	1873.8	730.6	240.8	214.0	241.6	279.9	296.2	277.4	261.2	265.2	265.2
67.5°	2340.0	860.0	209.9	196.1	222.1	257.1	281.5	264.4	250.6	258.7	258.7
70°	2699.6	812.0	185.5	179.0	202.6	236.8	262.8	250.6	237.6	251.4	249.8
72°	2462.8	594.8	169.2	165.2	186.3	219.7	246.5	237.6	223.7	235.1	231.9
72.5°	2364.4	540.2	164.4	161.1	181.4	216.4	243.3	234.3	219.7	231.1	226.2
75°	2062.5	455.6	143.2	141.6	161.1	194.5	222.1	217.2	202.6	209.1	204.2
77.5°	1707.0	384.0	120.4	123.7	137.5	173.3	200.2	195.3	181.4	180.6	179.8
80°	800.6	214.0	99.3	101.7	115.5	148.1	172.5	169.2	156.2	154.6	152.1
82.5°	231.9	102.5	76.5	78.1	92.8	121.2	148.1	146.5	136.7	134.2	128.6
85°	43.1	33.4	41.5	48.8	67.5	100.9	135.1	131.8	117.2	106.6	98.4
87.5°	2.4	6.5	13.8	23.6	43.1	75.7	109.0	106.6	93.6	80.5	81.4
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)