

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: P401578

Luminaire Tested: **ENT-SA1D-830-U-SL3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1D-830-U-SL3  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4401 lumens  
Efficiency: N/A  
Efficacy: 102.1 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 - G1

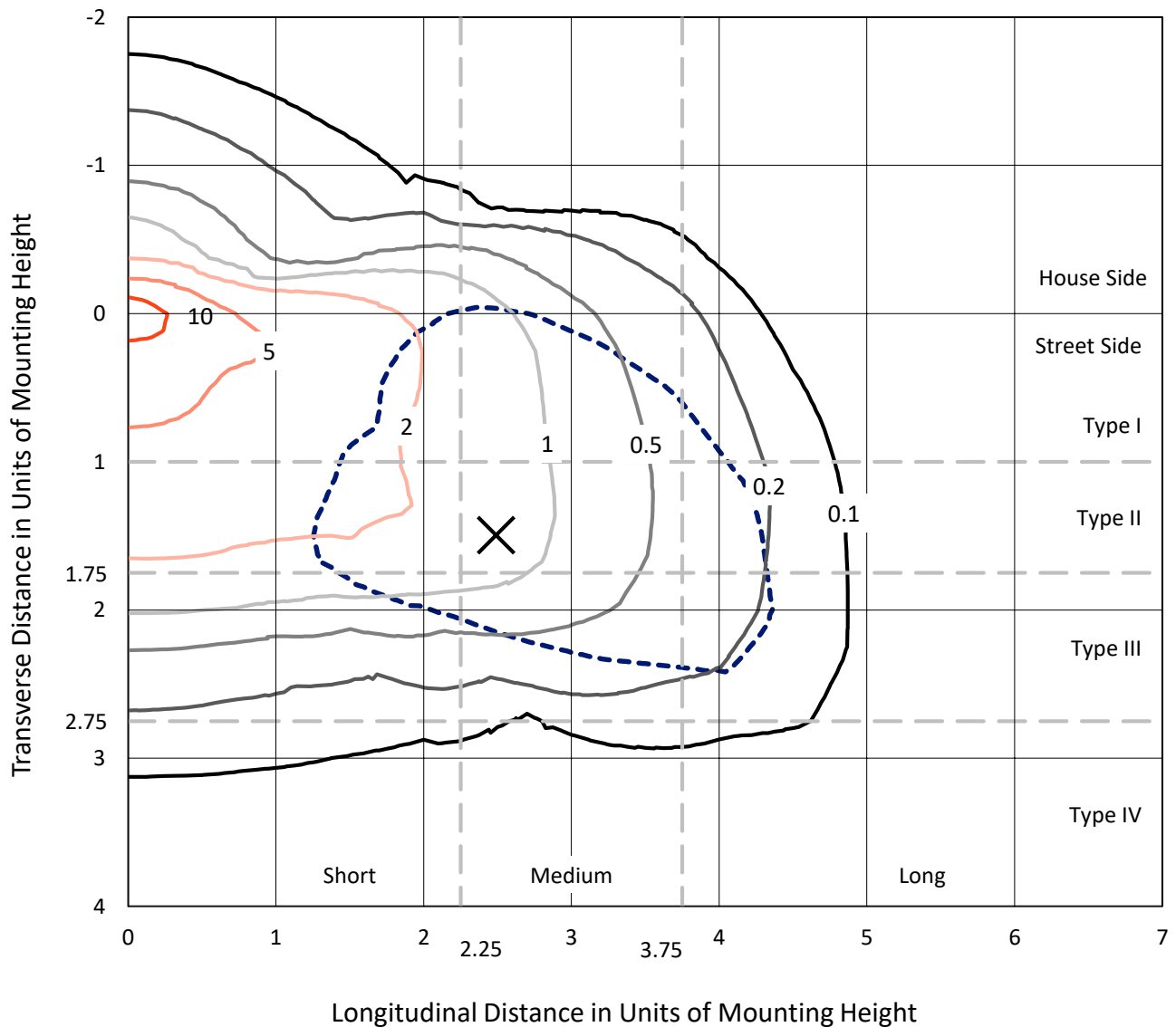
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

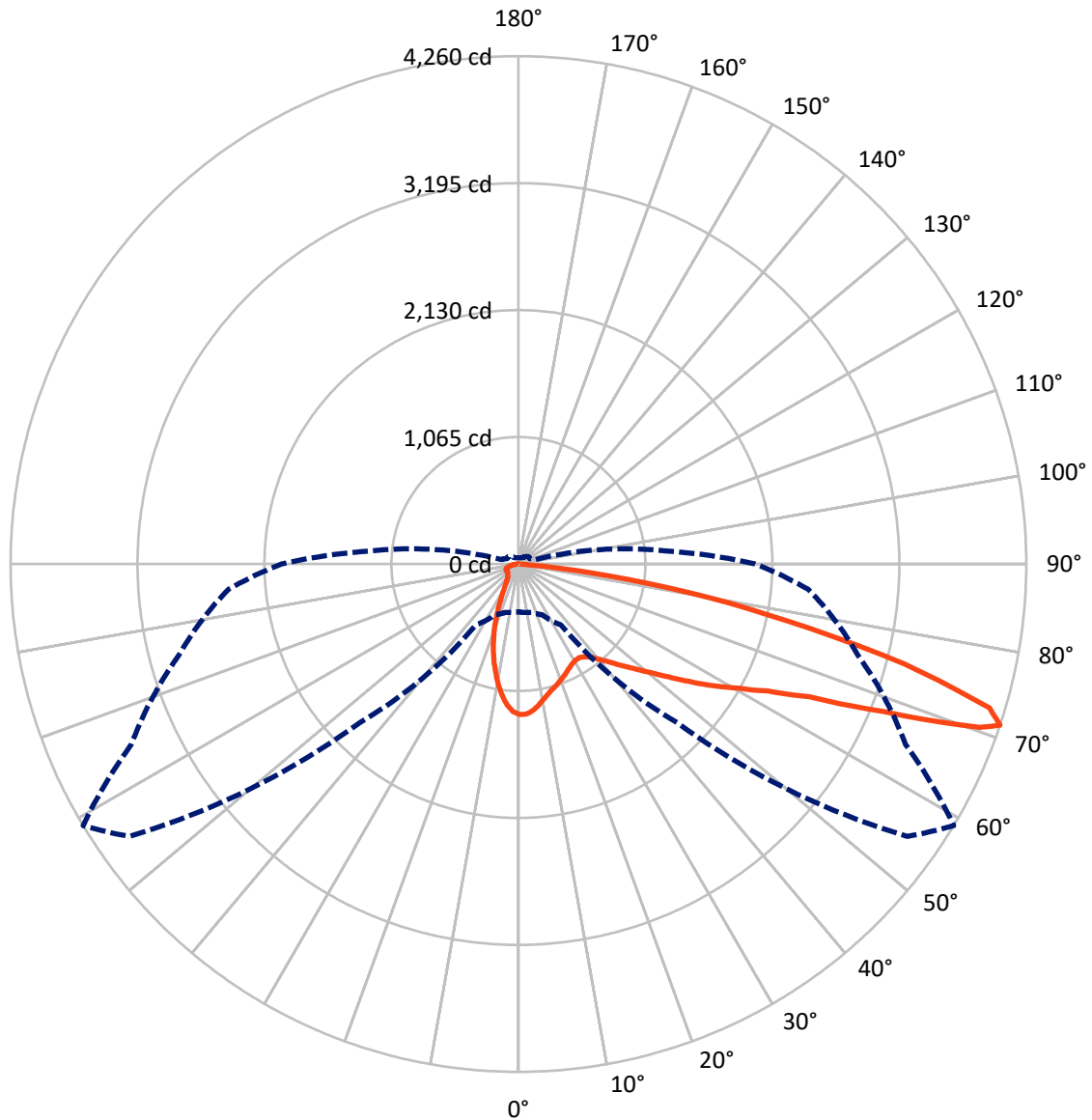


Based on 10 foot mounting height. Maximum calculated value = 12.6 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	747.0	0.0	747.0
	% Fixture	17.0	0.0	17.0
<b>Street Side</b>	Lumens	3654.0	0.0	3654.0
	% Fixture	83.0	0.0	83.0
<b>Total</b>	Lumens	4401.0	0.0	4401.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.1	2.5
10°-20°	245.1	5.6
20°-30°	311.5	7.1
30°-40°	398.2	9.0
40°-50°	552.6	12.6
50°-60°	818.2	18.6
60°-70°	1105.9	25.1
70°-80°	784.2	17.8
80°-90°	76.2	1.7
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°	4401.0	100.0
0°-180°	4401.0	100.0



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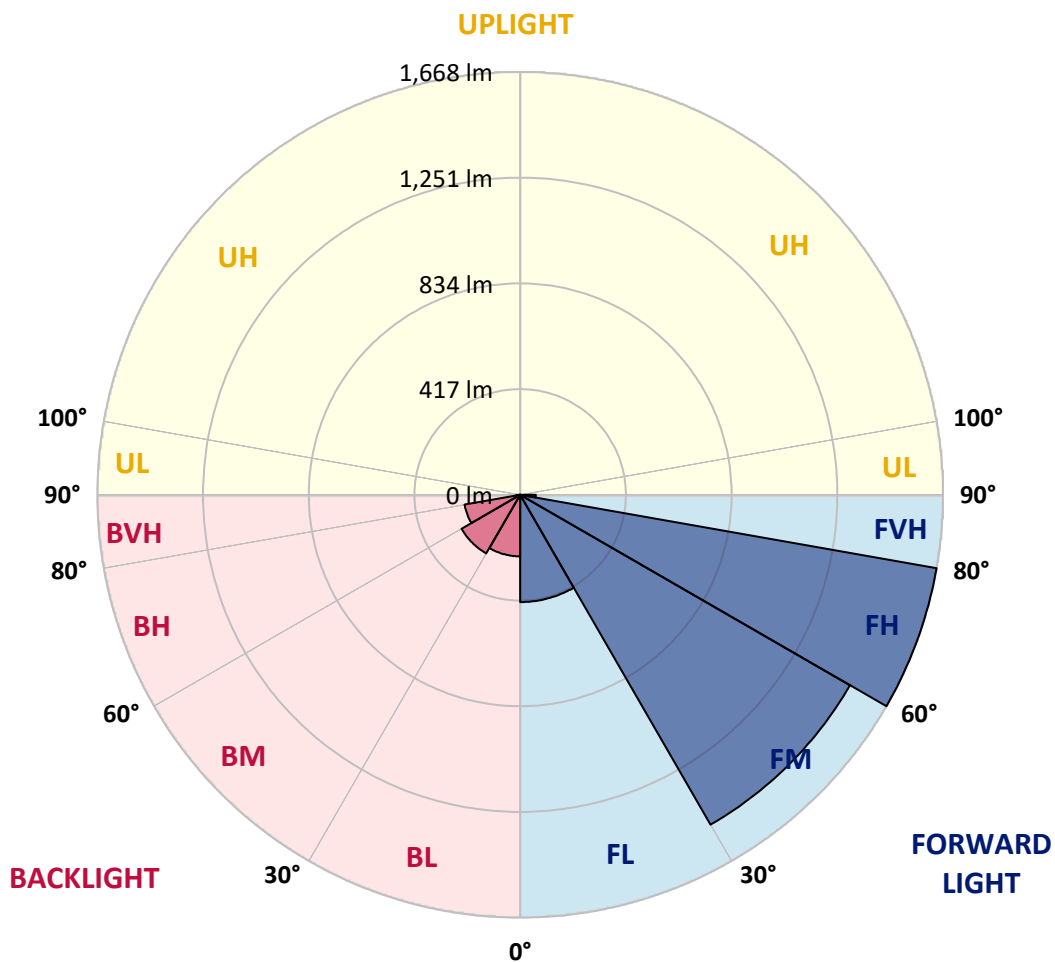
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	423.0	9.6			
FM	(30°-60°)	1501.9	34.1			
FH	(60°-80°)	1667.5	37.9			G1/1800
FVH	(80°-90°)	61.7	1.4			G1/100
BL	(0°-30°)	242.7	5.5	B1/500		
BM	(30°-60°)	267.2	6.1	B1/1000		
BH	(60°-80°)	222.6	5.1	B1/500		G1/500
BVH	(80°-90°)	14.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6
2.5°	1251.8	1256.3	1258.2	1261.4	1261.4	1262.6	1261.4	1260.7	1263.3	1260.7	1253.7
5°	1196.3	1198.2	1204.0	1210.3	1216.7	1230.1	1233.9	1236.5	1242.2	1243.5	1236.5
7.5°	1121.1	1128.1	1135.7	1144.0	1157.4	1175.9	1191.9	1198.2	1209.1	1215.4	1205.2
10°	1057.3	1061.1	1065.0	1079.6	1100.7	1126.2	1142.7	1154.9	1172.1	1180.4	1170.8
12.5°	993.5	996.7	1004.4	1024.1	1045.8	1076.4	1106.4	1116.0	1136.4	1153.0	1145.3
15°	944.4	944.4	950.2	971.8	994.8	1035.6	1070.7	1085.4	1110.9	1134.5	1124.9
17.5°	901.1	903.0	906.8	920.8	952.7	995.4	1040.1	1058.6	1090.5	1121.1	1108.3
20°	876.8	875.6	878.1	885.1	910.6	955.9	1009.5	1031.2	1070.7	1112.8	1092.4
22.5°	868.5	867.3	865.4	864.7	881.3	919.6	976.9	1003.7	1052.8	1108.3	1077.7
25°	874.9	874.9	869.2	858.3	866.0	892.1	947.6	976.3	1033.1	1105.1	1064.3
27.5°	892.1	892.1	883.8	869.8	866.6	878.1	922.1	952.7	1016.5	1107.0	1053.5
30°	915.7	915.1	906.8	894.7	885.1	881.3	910.0	938.0	1005.0	1115.3	1048.4
32.5°	942.5	941.2	937.4	929.1	917.6	901.1	911.3	936.1	1002.5	1130.0	1049.0
35°	974.4	972.5	974.4	969.9	959.1	941.2	934.9	954.6	1015.2	1157.4	1059.8
37.5°	1002.5	1001.2	1010.7	1013.3	1010.7	987.2	978.9	991.6	1045.2	1200.8	1082.2
40°	1026.1	1027.3	1044.5	1063.0	1066.9	1046.5	1040.7	1051.6	1093.6	1253.7	1122.3
42.5°	1052.2	1056.0	1081.5	1114.7	1127.4	1114.1	1117.2	1124.9	1154.9	1325.8	1180.4
45°	1077.7	1086.0	1121.1	1163.8	1196.3	1196.3	1207.2	1214.8	1233.9	1416.3	1265.2
47.5°	1122.3	1128.1	1166.3	1218.0	1267.7	1283.7	1313.7	1311.1	1325.8	1515.8	1364.7
50°	1180.4	1189.9	1228.8	1282.4	1345.5	1390.8	1425.2	1430.4	1436.1	1617.8	1482.6
52.5°	1260.7	1272.2	1304.1	1353.8	1428.4	1502.4	1575.1	1571.9	1564.3	1728.8	1617.8
55°	1341.7	1353.8	1383.8	1424.0	1512.0	1625.5	1744.1	1739.6	1704.6	1842.3	1742.8
57.5°	1424.0	1434.2	1465.4	1500.5	1604.4	1770.9	1922.7	1925.8	1853.8	1968.6	1866.5
60°	1458.4	1473.7	1550.9	1618.5	1748.6	1932.2	2105.0	2113.3	2008.7	2096.1	2003.0
62.5°	1302.8	1321.3	1448.8	1631.2	1946.2	2243.4	2342.3	2347.4	2195.6	2237.0	2152.2
65°	964.2	963.6	1095.6	1368.5	1906.7	2661.1	2765.0	2684.7	2427.7	2423.9	2349.3
67.5°	552.2	568.8	610.9	816.2	1452.7	2738.3	3517.5	3307.7	2839.0	2714.7	2612.0
70°	445.1	441.3	454.0	508.9	792.0	2251.7	4007.9	4103.6	3423.1	2951.9	2552.7
71°	401.1	406.8	419.6	469.3	624.9	1878.7	3983.7	4259.8	3582.6	2945.5	2439.8
72.5°	345.0	346.3	375.6	434.3	513.3	1325.1	3683.3	4131.0	3749.6	2862.0	2274.0
75°	234.7	237.9	283.8	349.5	468.7	629.4	2635.6	3341.5	3412.9	2674.5	1878.0
77.5°	134.6	137.1	170.3	255.7	399.2	443.8	1617.8	2309.1	2453.9	1955.8	1006.9
80°	69.5	72.7	94.4	161.3	304.8	359.0	927.8	1452.0	1395.9	676.0	233.4
82.5°	18.5	21.0	27.4	58.0	147.3	234.0	411.3	600.7	429.2	140.3	84.8
85°	0.0	0.0	0.0	0.6	1.3	32.5	86.7	107.8	59.9	27.4	23.0
87.5°	0.0	0.0	0.0	0.0	0.6	1.3	1.3	1.3	1.3	1.9	2.6
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°	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6	1262.6
2.5°	1252.4	1252.4	1248.6	1242.9	1236.5	1221.8	1224.4	1212.9	1214.2	1212.9	1212.9
5°	1230.8	1226.9	1217.4	1199.5	1179.7	1153.6	1149.8	1128.7	1116.6	1112.8	1117.2
7.5°	1200.8	1189.9	1165.7	1134.5	1096.8	1063.0	1031.8	1003.7	982.7	973.8	969.9
10°	1161.2	1147.9	1108.3	1053.5	1001.8	948.9	899.8	867.9	825.8	813.1	809.2
12.5°	1128.7	1105.8	1046.5	969.9	889.6	819.4	753.1	686.2	646.0	617.3	612.8
15°	1100.7	1068.1	983.3	884.5	784.4	687.4	597.5	507.6	450.9	426.6	409.4
17.5°	1075.8	1033.7	920.2	792.0	668.3	540.1	430.4	344.4	308.6	290.2	290.8
20°	1050.3	996.7	854.5	699.6	553.5	411.3	304.2	264.0	246.2	242.3	240.4
22.5°	1026.1	954.6	785.0	608.4	436.2	302.3	244.9	225.1	220.6	220.6	220.6
25°	998.6	911.9	714.9	515.3	330.3	238.5	210.4	203.4	204.7	207.3	207.9
27.5°	976.3	874.9	645.3	407.5	256.4	202.8	188.1	186.8	191.9	197.7	197.7
30°	956.5	841.1	570.1	318.2	204.1	177.9	172.8	174.7	179.8	184.9	186.8
32.5°	943.2	810.5	502.5	247.4	174.1	160.7	159.4	162.0	167.1	169.6	171.5
35°	937.4	788.2	429.8	199.6	155.0	147.9	147.3	149.2	151.8	152.4	151.8
37.5°	943.8	772.9	355.2	169.0	142.8	139.0	138.4	138.4	138.4	139.0	138.4
40°	962.3	767.1	288.2	149.2	135.2	132.0	130.1	128.2	126.9	126.9	126.3
42.5°	1001.2	776.1	231.5	137.7	129.5	125.6	121.8	119.2	117.3	116.7	116.7
45°	1063.7	800.9	192.6	130.1	124.4	118.6	114.1	111.6	109.7	110.3	109.7
47.5°	1149.8	842.4	170.3	125.0	119.2	111.6	107.1	104.6	103.9	105.9	106.5
50°	1247.3	901.1	156.9	121.2	115.4	105.9	100.8	98.8	99.5	103.3	103.9
52.5°	1362.1	976.9	151.1	118.6	112.2	100.8	96.3	94.4	95.7	100.1	100.8
55°	1485.8	1063.7	159.4	119.9	109.0	97.6	92.5	89.9	91.8	95.7	96.3
57.5°	1611.5	1170.8	187.5	120.5	105.2	95.0	88.6	84.8	86.1	89.3	89.9
60°	1738.4	1277.3	235.9	121.2	103.9	92.5	85.5	79.7	80.3	82.3	82.9
62.5°	1887.6	1412.5	299.7	123.7	105.2	90.6	79.7	73.3	73.3	74.6	74.6
65°	2114.0	1614.0	341.8	122.4	108.4	88.6	74.0	67.6	67.0	67.6	67.6
67.5°	2276.6	1640.8	238.5	115.4	110.3	89.3	70.8	62.5	61.2	60.6	60.6
70°	2104.4	1380.6	157.5	109.0	107.1	90.6	68.2	59.3	56.8	54.8	54.2
71°	1985.1	1244.1	146.0	106.5	104.6	89.3	67.0	57.4	54.8	53.6	52.9
72.5°	1808.5	1110.2	134.6	102.7	98.8	86.7	65.0	55.5	52.3	50.4	49.7
75°	1429.1	851.3	118.0	94.4	85.5	71.4	59.9	51.7	48.5	45.9	45.3
77.5°	646.0	338.6	90.6	81.6	69.5	56.8	52.3	47.8	44.0	42.1	41.5
80°	180.5	128.8	66.3	64.4	52.3	44.0	42.1	40.8	39.5	37.0	37.0
82.5°	83.5	75.2	47.2	45.3	35.7	31.2	33.2	33.8	33.8	31.2	30.6
85°	23.0	24.9	21.7	24.2	23.0	21.0	24.2	26.1	27.4	24.9	23.0
87.5°	1.9	4.5	5.7	9.6	11.5	12.1	15.3	18.5	19.1	15.3	15.9
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)