

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: P401451

Luminaire Tested: **ENV-SA1D-730-U-SL3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401451  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-730-U-SL3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4308 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

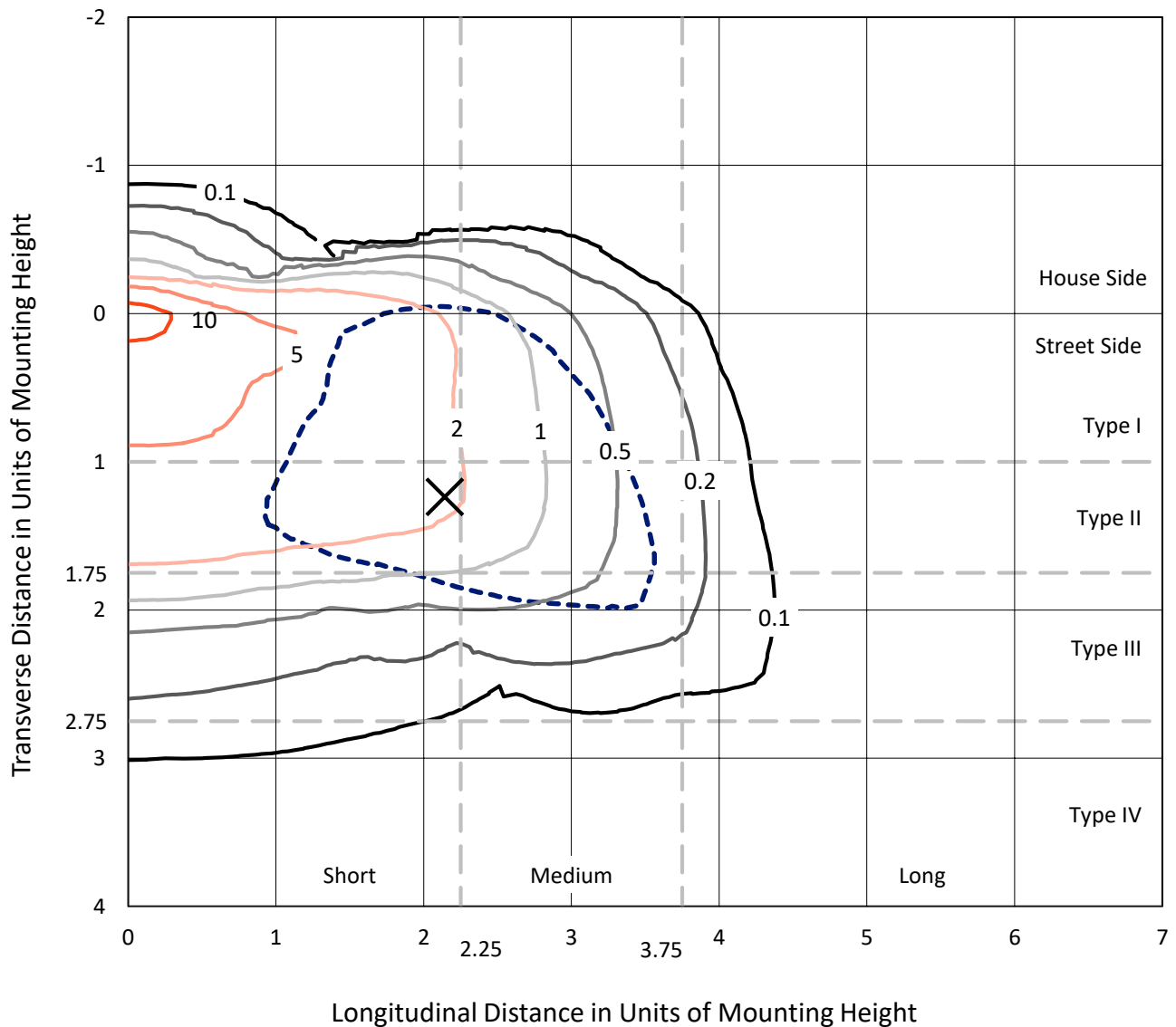
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

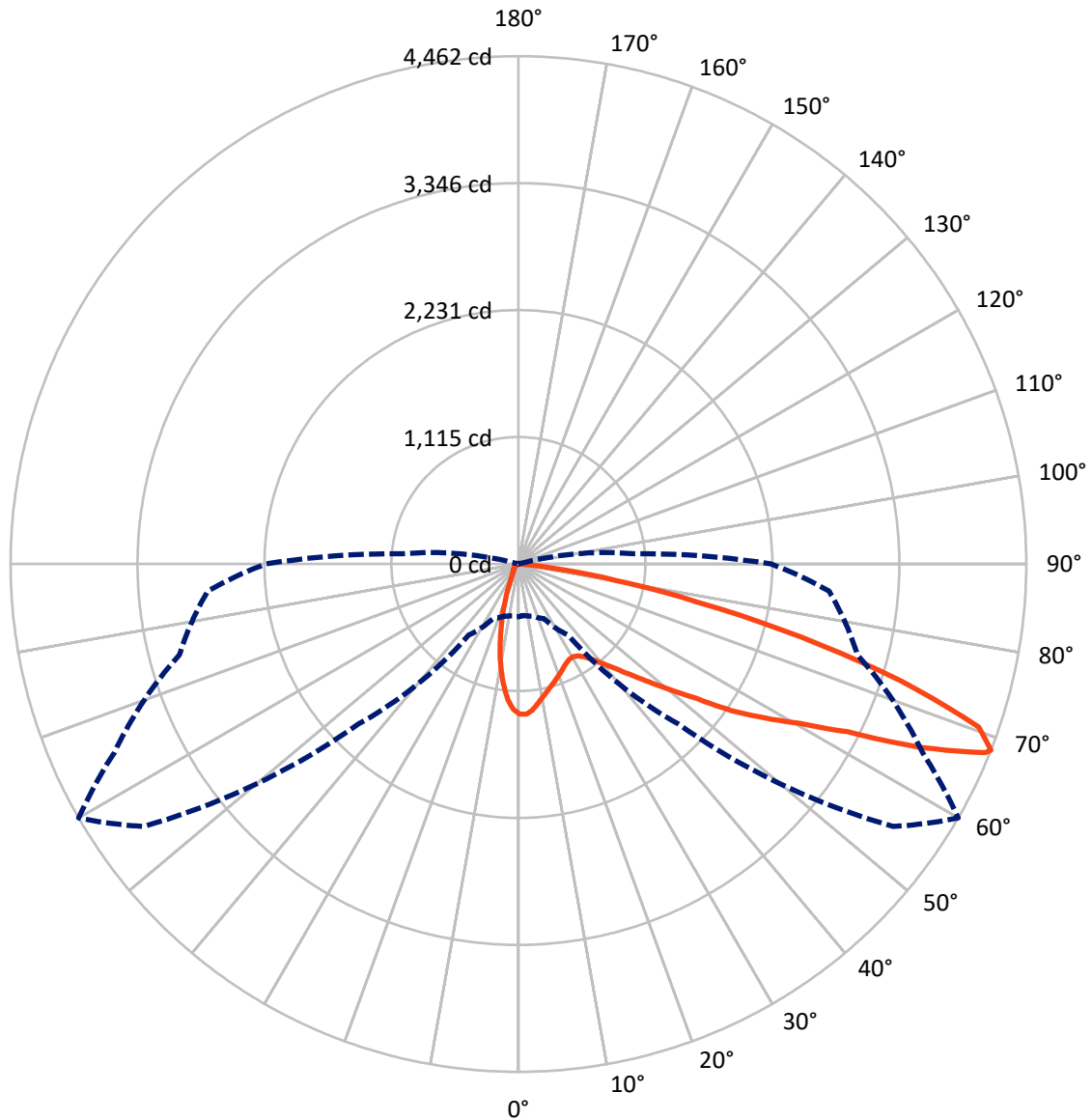


Based on 10 foot mounting height. Maximum calculated value = 13.2 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	481.7	0.0	481.7
	% Fixture	11.2	0.0	11.2
<b>Street Side</b>	Lumens	3826.3	0.0	3826.3
	% Fixture	88.8	0.0	88.8
<b>Total</b>	Lumens	4308.0	0.0	4308.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.0	2.5
10°-20°	218.3	5.1
20°-30°	287.3	6.7
30°-40°	396.5	9.2
40°-50°	601.1	14.0
50°-60°	970.0	22.5
60°-70°	1152.2	26.7
70°-80°	543.1	12.6
80°-90°	32.4	0.8
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°	4308.0	100.0
0°-180°	4308.0	100.0

**Coefficient of Utilization**



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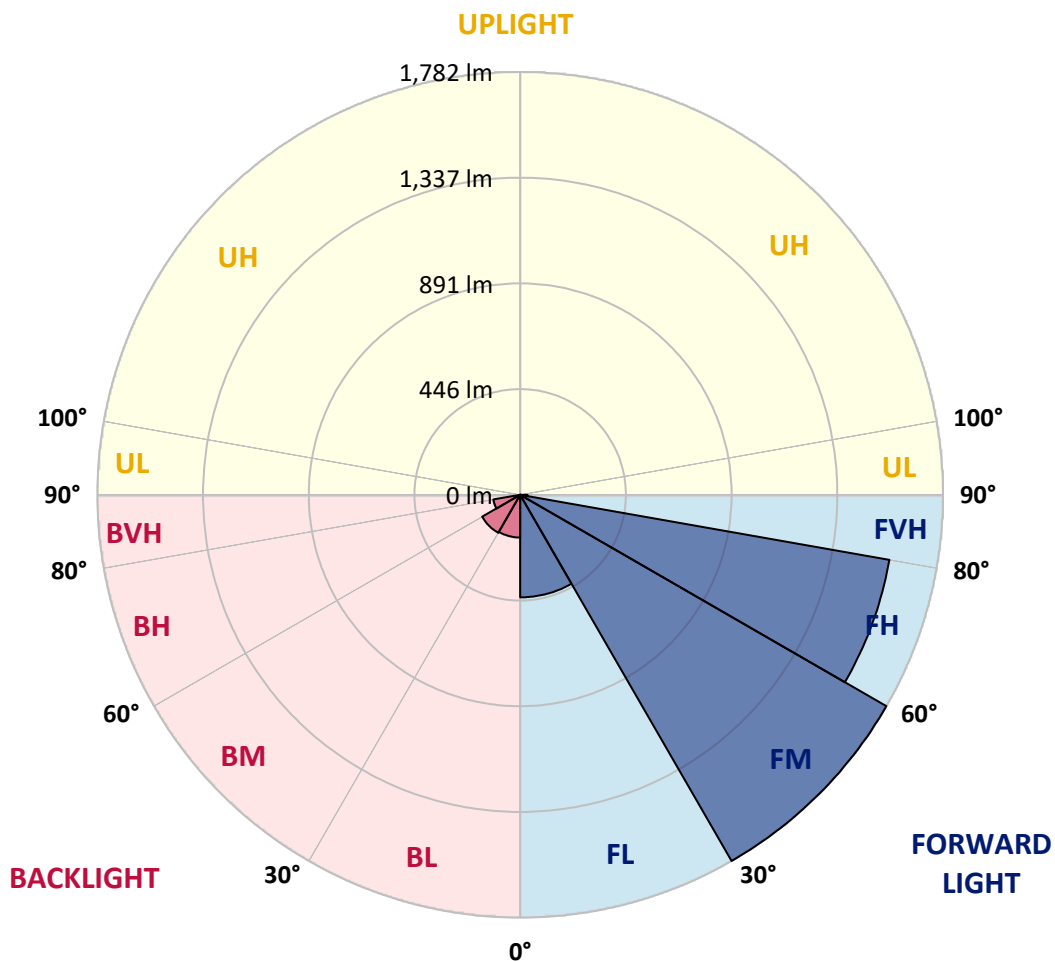
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	432.4	10.0			
FM	(30°-60°)	1782.5	41.4			
FH	(60°-80°)	1580.5	36.7			G1/1800
FVH	(80°-90°)	31.1	0.7			G1/100
BL	(0°-30°)	180.2	4.2	B1/500		
BM	(30°-60°)	185.1	4.3	B0/220		
BH	(60°-80°)	114.9	2.7	B1/500		G1/500
BVH	(80°-90°)	1.4	0.0			G0/10
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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6
2.5°	1306.9	1304.0	1312.1	1314.2	1316.4	1320.8	1320.1	1320.8	1321.6	1320.1	1311.3
5°	1217.8	1222.9	1230.2	1239.7	1249.2	1271.1	1279.9	1288.7	1294.5	1298.9	1290.9
7.5°	1130.0	1140.3	1146.1	1163.7	1178.3	1200.9	1220.0	1235.3	1249.9	1266.0	1258.0
10°	1059.9	1063.5	1068.6	1084.7	1106.7	1141.0	1165.9	1184.9	1202.4	1229.5	1222.9
12.5°	991.2	993.4	1003.6	1021.1	1043.8	1086.2	1119.1	1141.0	1160.7	1194.4	1195.1
15°	940.7	941.5	948.0	964.1	990.4	1035.8	1078.1	1102.3	1130.0	1171.0	1173.2
17.5°	907.8	907.1	908.6	918.8	943.7	986.8	1037.9	1066.5	1099.3	1152.0	1154.2
20°	897.6	896.1	893.2	891.0	906.4	943.7	1001.4	1032.8	1071.6	1138.1	1138.8
22.5°	906.4	903.5	896.9	884.4	888.8	913.0	961.2	999.2	1046.7	1130.8	1125.7
25°	927.6	927.6	918.8	899.1	888.8	893.9	932.7	969.2	1021.9	1127.1	1116.2
27.5°	962.7	961.2	949.5	929.0	910.0	896.1	915.1	949.5	1003.6	1131.5	1111.8
30°	1005.1	1000.7	988.2	973.6	950.2	920.3	918.8	944.4	994.8	1145.4	1114.7
32.5°	1045.3	1045.3	1040.1	1026.3	1003.6	964.1	941.5	961.9	1005.8	1168.1	1124.2
35°	1095.0	1094.2	1095.7	1090.6	1070.8	1029.2	992.6	1002.9	1039.4	1206.1	1146.9
37.5°	1134.4	1135.2	1147.6	1156.4	1147.6	1103.7	1065.7	1065.7	1096.4	1263.1	1185.6
40°	1173.2	1174.6	1198.0	1223.6	1225.8	1190.7	1154.2	1153.4	1171.0	1333.2	1245.5
42.5°	1208.3	1214.1	1247.7	1291.6	1317.2	1293.8	1266.7	1258.0	1266.7	1439.2	1342.8
45°	1245.5	1257.2	1304.0	1367.6	1409.3	1410.0	1399.8	1389.5	1393.9	1558.4	1472.9
47.5°	1293.8	1306.9	1365.4	1443.6	1522.6	1543.0	1552.5	1548.9	1537.2	1709.0	1641.0
50°	1372.0	1384.4	1439.2	1527.0	1635.1	1709.0	1734.5	1738.9	1723.6	1875.6	1831.8
52.5°	1505.0	1512.3	1563.5	1632.9	1754.3	1892.4	1959.7	1960.4	1926.0	2070.8	2037.9
55°	1647.6	1666.6	1726.5	1806.9	1931.9	2086.9	2255.0	2273.2	2167.3	2241.8	2188.5
57.5°	1649.8	1668.0	1767.4	1921.7	2183.3	2388.7	2538.6	2551.7	2434.1	2379.2	2330.3
60°	1475.8	1485.3	1623.4	1849.3	2273.2	2795.9	2861.7	2841.9	2621.2	2521.0	2507.9
62.5°	1041.6	1046.0	1209.7	1507.2	2074.4	2990.3	3353.6	3247.6	2887.2	2730.1	2773.9
65°	655.7	653.5	721.4	959.0	1543.0	2798.8	3961.7	3884.3	3376.2	2991.8	2981.5
67.5°	483.9	472.2	490.5	564.3	881.5	2197.2	4073.6	4423.0	3841.9	3100.7	2801.7
68°	464.2	453.9	472.9	529.9	762.4	1988.9	4019.5	4461.7	3915.7	3083.1	2740.3
70°	394.0	384.5	400.6	443.7	530.7	1290.9	3546.6	4289.9	3982.9	2934.0	2415.1
72.5°	280.0	285.1	327.5	380.8	449.5	662.2	2611.7	3523.2	3426.0	2609.5	1837.6
75°	165.9	175.4	231.0	307.0	413.0	437.1	1684.8	2561.2	2513.7	1806.9	995.6
77.5°	58.5	62.1	114.8	204.7	340.6	346.5	938.5	1610.3	1497.7	738.3	293.8
80°	21.2	21.2	42.4	114.0	220.0	264.6	498.5	859.6	591.3	191.5	81.1
82.5°	3.7	3.7	9.5	38.7	97.2	141.1	231.7	305.5	175.4	42.4	40.2
85°	0.0	0.0	0.0	0.0	1.5	1.5	68.0	68.7	32.2	5.8	17.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.7	1.5	1.5	1.5	1.5	2.2
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°	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6	1318.6
2.5°	1307.7	1306.2	1298.2	1283.5	1271.1	1250.7	1247.0	1227.3	1220.0	1214.1	1220.0
5°	1285.0	1277.0	1249.9	1217.0	1172.4	1119.8	1089.1	1046.7	1037.9	1014.6	1028.4
7.5°	1247.7	1229.5	1179.0	1108.1	1026.3	945.8	884.4	825.2	774.8	757.3	752.1
10°	1208.3	1182.7	1097.9	988.2	869.8	746.3	654.9	569.4	521.9	477.3	475.8
12.5°	1171.0	1132.2	1009.4	856.7	691.5	544.6	426.1	336.2	280.0	249.3	257.3
15°	1141.0	1089.1	920.3	725.1	516.0	350.9	241.2	183.5	163.7	154.2	155.7
17.5°	1111.8	1043.1	834.0	587.7	367.7	216.4	156.4	136.7	130.8	128.6	127.2
20°	1085.5	998.5	743.4	463.4	242.7	149.8	128.6	122.1	119.9	118.4	118.4
22.5°	1059.1	951.7	652.7	343.5	165.9	122.8	115.5	112.6	111.1	108.9	108.9
25°	1035.0	906.4	562.1	240.5	127.2	109.6	104.5	101.6	98.7	96.5	96.5
27.5°	1016.7	872.0	478.0	170.3	106.7	98.7	93.6	88.4	84.8	81.9	81.9
30°	1005.1	838.4	396.9	128.6	95.0	87.7	81.1	74.6	68.7	65.1	64.3
32.5°	998.5	810.6	321.6	105.3	84.8	76.7	68.7	61.4	54.8	50.4	50.4
35°	1001.4	788.7	246.3	89.2	76.7	67.2	58.5	49.7	43.9	40.2	39.5
37.5°	1020.4	776.3	183.5	78.9	68.7	58.5	49.7	40.9	35.1	32.2	31.4
40°	1056.2	779.2	139.6	71.6	62.9	51.2	40.9	33.6	28.5	25.6	25.6
42.5°	1128.6	800.4	110.4	65.8	56.3	43.9	34.4	27.8	23.4	21.2	20.5
45°	1224.3	840.6	90.6	60.7	49.7	37.3	29.2	23.4	19.0	16.8	16.8
47.5°	1369.1	904.9	78.2	55.6	43.1	31.4	24.1	19.0	14.6	13.2	12.4
50°	1536.5	994.8	68.7	49.7	38.0	26.3	20.5	14.6	11.7	9.5	9.5
52.5°	1707.5	1095.0	62.1	44.6	32.9	22.7	16.1	11.0	8.0	6.6	6.6
55°	1864.6	1179.0	55.6	40.2	27.8	19.0	13.2	8.8	5.8	4.4	4.4
57.5°	2016.7	1255.8	48.2	35.1	22.7	15.3	10.2	6.6	4.4	2.9	2.9
60°	2207.5	1355.2	41.7	30.0	18.3	12.4	8.0	5.1	2.9	2.2	1.5
62.5°	2437.7	1427.5	35.1	24.1	14.6	9.5	5.8	3.7	2.2	0.7	0.7
65°	2522.5	1331.8	29.2	19.7	11.7	7.3	4.4	2.9	1.5	0.7	0.7
67.5°	2285.7	1073.0	23.4	15.3	8.8	5.1	3.7	2.2	1.5	0.7	0.7
68°	2219.9	1020.4	22.7	14.6	8.0	5.1	2.9	2.2	0.7	0.7	0.0
70°	1874.2	819.4	18.3	11.0	6.6	4.4	2.9	1.5	0.7	0.7	0.0
72.5°	1389.5	565.0	13.2	7.3	4.4	2.9	2.2	1.5	0.7	0.7	0.0
75°	733.1	220.0	10.2	5.8	3.7	2.9	2.2	2.2	1.5	0.7	0.7
77.5°	210.5	69.4	8.0	4.4	3.7	3.7	3.7	2.9	2.9	2.2	1.5
80°	61.4	22.7	5.1	2.9	3.7	3.7	4.4	3.7	3.7	2.9	2.9
82.5°	32.9	8.8	2.9	2.2	2.2	2.9	3.7	2.9	2.2	1.5	0.7
85°	13.9	2.9	2.2	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7
87.5°	0.7	1.5	1.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)