

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: P401793

Luminaire Tested: **ENV-SA1F-727-U-SL3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401793  
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-SA1F-727-U-SL3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 1200mA 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: 5456 lumens  
Efficiency: N/A  
Efficacy: 82.5 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 - G2

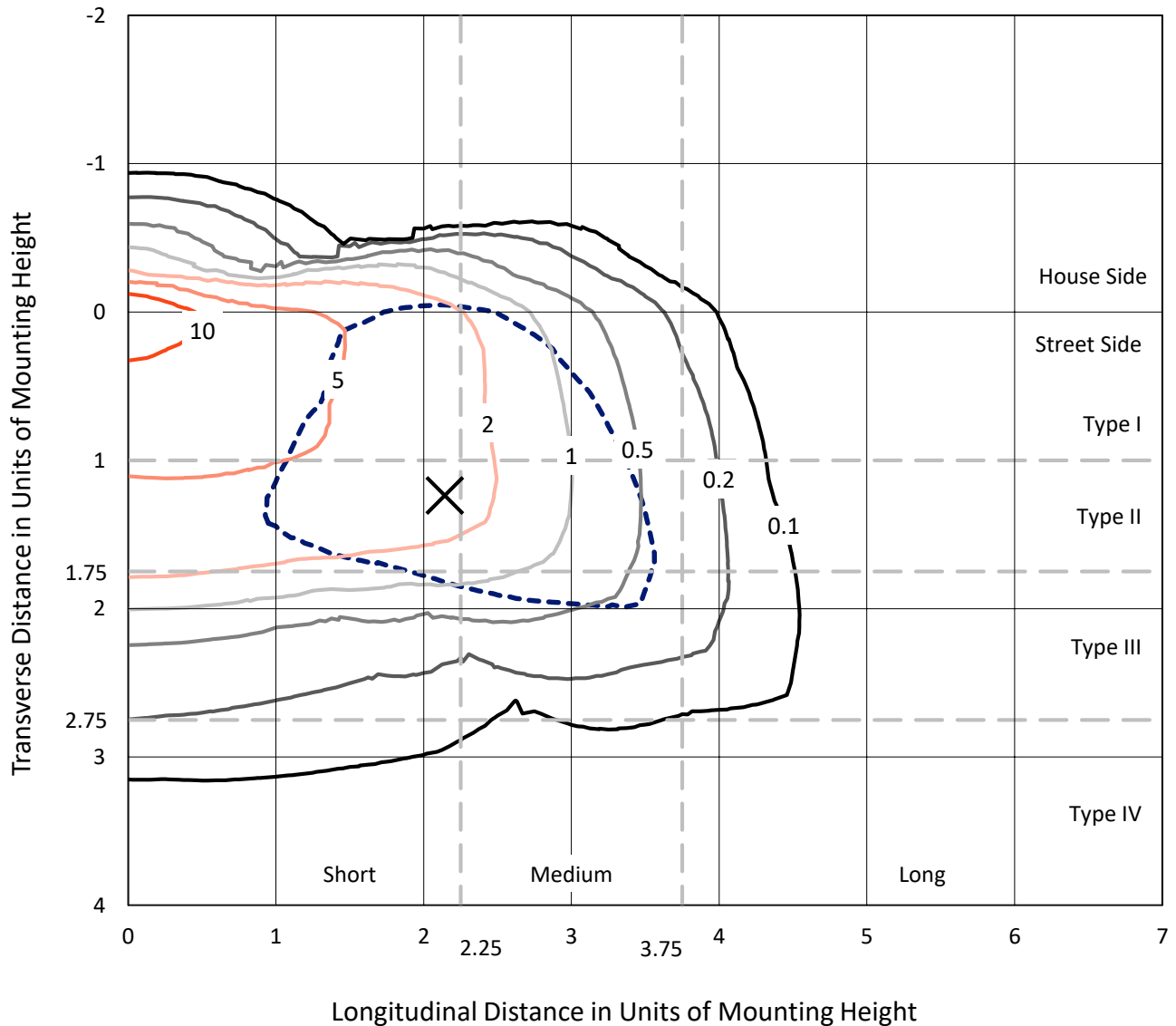
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

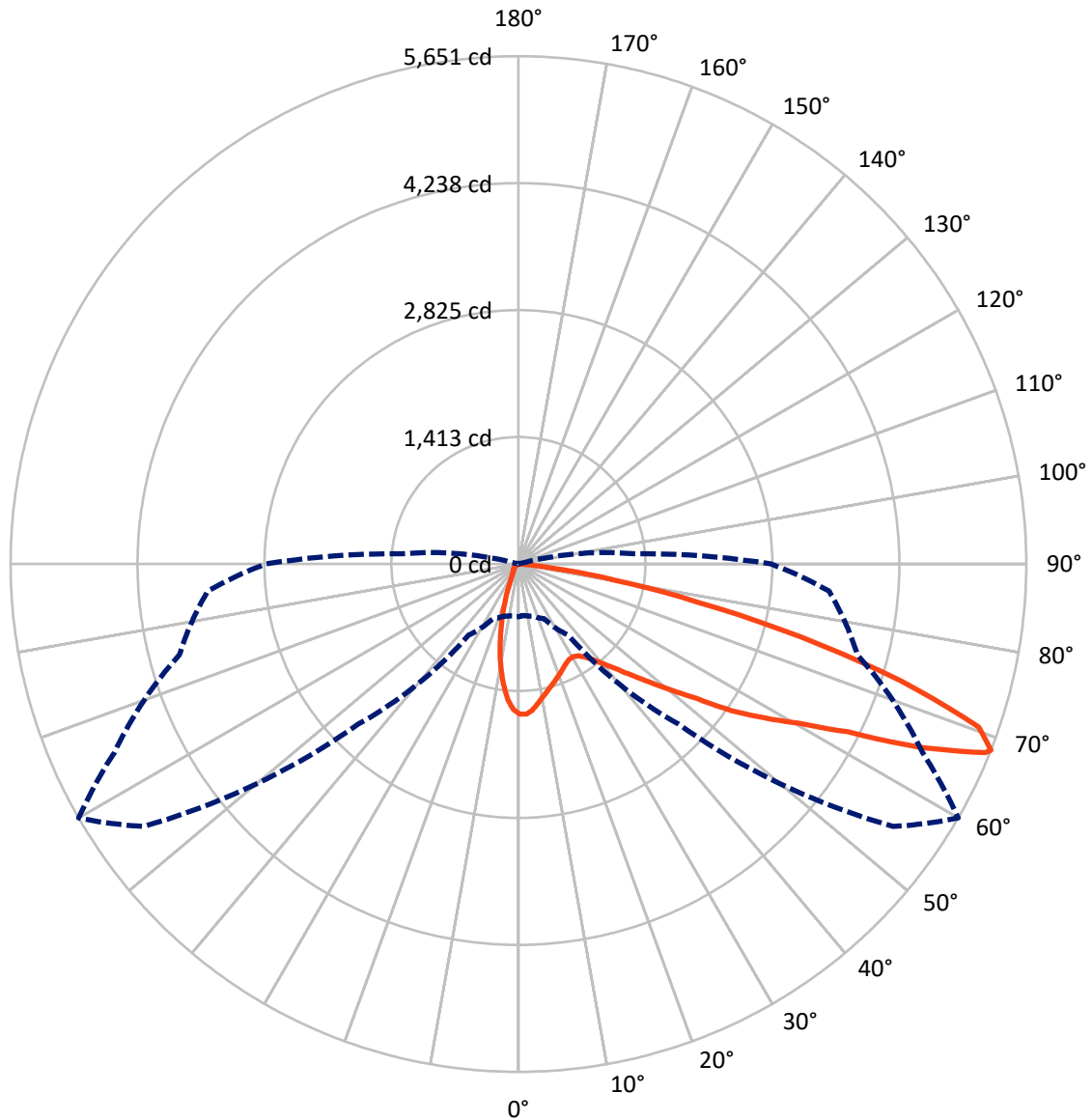


Based on 10 foot mounting height. Maximum calculated value = 16.7 fc  
 Type III - Short - Semi-Cutoff

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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	610.0	0.0	610.0
	% Fixture	11.2	0.0	11.2
<b>Street Side</b>	Lumens	4846.0	0.0	4846.0
	% Fixture	88.8	0.0	88.8
<b>Total</b>	Lumens	5456.0	0.0	5456.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.5	2.5
10°-20°	276.4	5.1
20°-30°	363.9	6.7
30°-40°	502.2	9.2
40°-50°	761.3	14.0
50°-60°	1228.4	22.5
60°-70°	1459.3	26.7
70°-80°	687.9	12.6
80°-90°	41.1	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°	5456.0	100.0
0°-180°	5456.0	100.0



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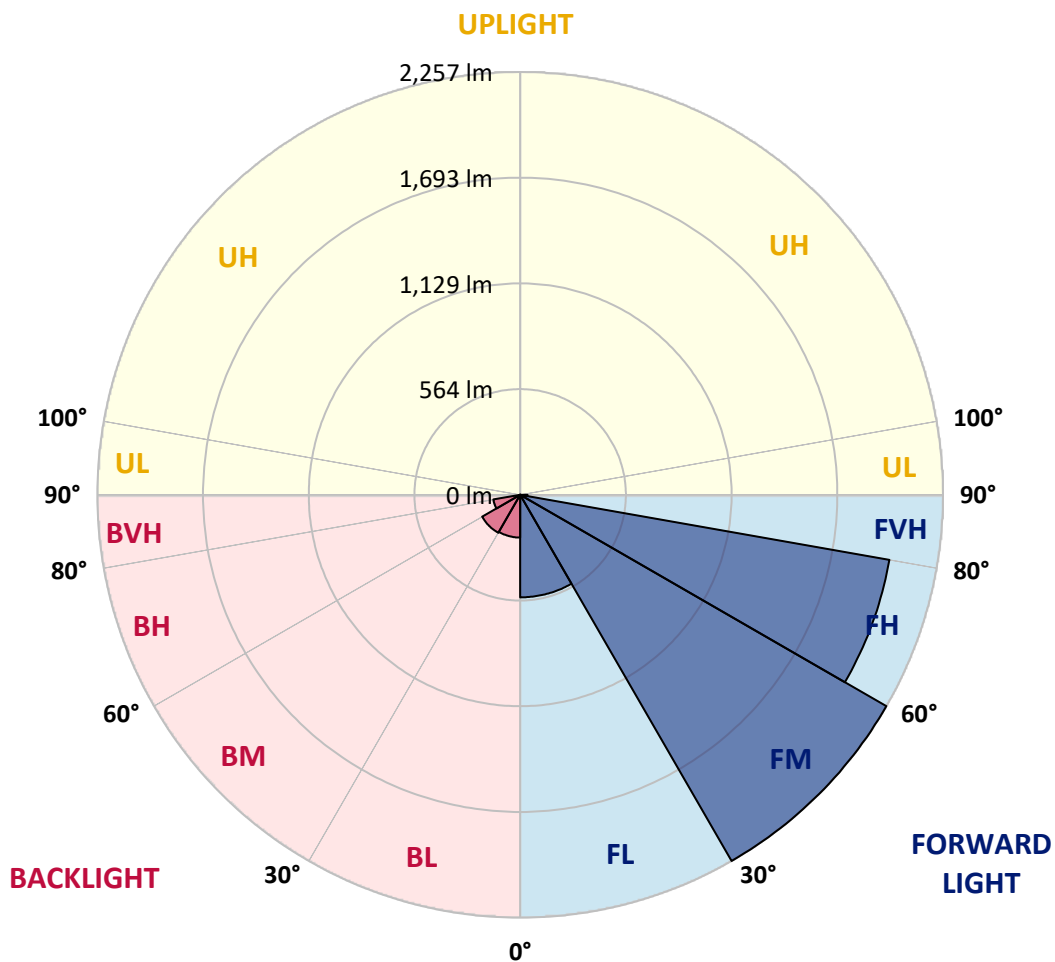
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	547.6	10.0			
FM (30°-60°)	2257.4	41.4			
FH (60°-80°)	2001.6	36.7			G2/5000
FVH (80°-90°)	39.3	0.7			G1/100
BL (0°-30°)	228.3	4.2	B1/500		
BM (30°-60°)	234.5	4.3	B1/1000		
BH (60°-80°)	145.5	2.7	B1/500		G1/500
BVH (80°-90°)	1.8	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-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0
2.5°	1655.2	1651.5	1661.7	1664.5	1667.2	1672.8	1671.9	1672.8	1673.7	1671.9	1660.8
5°	1542.3	1548.7	1558.0	1570.0	1582.1	1609.8	1621.0	1632.1	1639.5	1645.0	1634.8
7.5°	1431.2	1444.1	1451.5	1473.8	1492.3	1521.0	1545.0	1564.5	1583.0	1603.4	1593.2
10°	1342.3	1346.9	1353.4	1373.8	1401.6	1445.1	1476.5	1500.6	1522.8	1557.1	1548.7
12.5°	1255.3	1258.1	1271.0	1293.2	1321.9	1375.6	1417.3	1445.1	1470.1	1512.6	1513.6
15°	1191.4	1192.3	1200.7	1221.0	1254.4	1311.8	1365.5	1396.0	1431.2	1483.0	1485.8
17.5°	1149.8	1148.8	1150.7	1163.6	1195.1	1249.7	1314.5	1350.6	1392.3	1459.0	1461.7
20°	1136.8	1134.9	1131.2	1128.5	1147.9	1195.1	1268.3	1308.1	1357.1	1441.4	1442.3
22.5°	1147.9	1144.2	1135.9	1120.1	1125.7	1156.2	1217.3	1265.5	1325.6	1432.1	1425.6
25°	1174.8	1174.8	1163.6	1138.7	1125.7	1132.2	1181.2	1227.5	1294.2	1427.5	1413.6
27.5°	1219.2	1217.3	1202.5	1176.6	1152.5	1134.9	1159.0	1202.5	1271.0	1433.0	1408.0
30°	1272.9	1267.3	1251.6	1233.1	1203.5	1165.5	1163.6	1196.0	1259.9	1450.6	1411.7
32.5°	1323.8	1323.8	1317.3	1299.7	1271.0	1221.0	1192.3	1218.3	1273.8	1479.3	1423.8
35°	1386.7	1385.8	1387.7	1381.2	1356.2	1303.4	1257.1	1270.1	1316.4	1527.5	1452.5
37.5°	1436.7	1437.7	1453.4	1464.5	1453.4	1397.9	1349.7	1349.7	1388.6	1599.7	1501.5
40°	1485.8	1487.7	1517.3	1549.7	1552.5	1508.0	1461.7	1460.8	1483.0	1688.5	1577.4
42.5°	1530.2	1537.6	1580.2	1635.8	1668.2	1638.5	1604.3	1593.2	1604.3	1822.8	1700.6
45°	1577.4	1592.3	1651.5	1732.0	1784.8	1785.7	1772.8	1759.8	1765.4	1973.7	1865.4
47.5°	1638.5	1655.2	1729.3	1828.3	1928.3	1954.2	1966.3	1961.6	1946.8	2164.4	2078.3
50°	1737.6	1753.3	1822.8	1933.9	2070.9	2164.4	2196.8	2202.3	2182.9	2375.4	2319.9
52.5°	1906.1	1915.3	1980.1	2068.1	2221.8	2396.7	2481.9	2482.8	2439.3	2622.6	2580.9
55°	2086.6	2110.7	2186.6	2288.4	2446.7	2643.0	2855.9	2879.0	2744.8	2839.2	2771.6
57.5°	2089.4	2112.5	2238.4	2433.7	2765.2	3025.3	3215.1	3231.7	3082.7	3013.3	2951.2
60°	1869.1	1881.1	2056.1	2342.1	2879.0	3540.9	3624.2	3599.2	3319.7	3192.8	3176.2
62.5°	1319.2	1324.7	1532.1	1908.9	2627.2	3787.2	4247.3	4113.0	3656.6	3457.6	3513.2
65°	830.4	827.6	913.7	1214.6	1954.2	3544.6	5017.5	4919.3	4276.0	3789.0	3776.1
67.5°	612.8	598.0	621.2	714.7	1116.4	2782.8	5159.1	5601.6	4865.6	3927.0	3548.3
68°	587.8	574.9	598.9	671.2	965.5	2518.9	5090.6	5650.7	4959.1	3904.7	3470.6
70°	499.0	486.9	507.3	561.9	672.1	1634.8	4491.7	5433.1	5044.3	3715.9	3058.6
72.5°	354.6	361.0	414.7	482.3	569.3	838.7	3307.6	4462.0	4338.9	3304.9	2327.3
75°	210.1	222.2	292.5	388.8	523.0	553.6	2133.8	3243.8	3183.6	2288.4	1260.8
77.5°	74.1	78.7	145.3	259.2	431.4	438.8	1188.6	2039.4	1896.8	935.0	372.1
80°	26.8	26.8	53.7	144.4	278.6	335.1	631.3	1088.7	748.9	242.5	102.8
82.5°	4.6	4.6	12.0	49.1	123.1	178.7	293.5	387.0	222.2	53.7	50.9
85°	0.0	0.0	0.0	0.0	1.9	1.9	86.1	87.0	40.7	7.4	22.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.9	1.9	1.9	1.9	1.9	2.8
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°	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0	1670.0
2.5°	1656.1	1654.3	1644.1	1625.6	1609.8	1583.9	1579.3	1554.3	1545.0	1537.6	1545.0
5°	1627.4	1617.3	1583.0	1541.3	1484.9	1418.2	1379.3	1325.6	1314.5	1284.9	1302.5
7.5°	1580.2	1557.1	1493.2	1403.4	1299.7	1197.9	1120.1	1045.2	981.3	959.1	952.6
10°	1530.2	1497.8	1390.4	1251.6	1101.6	945.2	829.5	721.1	661.0	604.5	602.7
12.5°	1483.0	1434.0	1278.4	1085.0	875.7	689.7	539.7	425.8	354.6	315.7	325.9
15°	1445.1	1379.3	1165.5	918.3	653.6	444.4	305.5	232.4	207.4	195.3	197.2
17.5°	1408.0	1321.0	1056.3	744.3	465.6	274.0	198.1	173.1	165.7	162.9	161.1
20°	1374.7	1264.5	941.5	586.9	307.3	189.8	162.9	154.6	151.8	150.0	150.0
22.5°	1341.4	1205.3	826.7	435.1	210.1	155.5	146.3	142.6	140.7	137.9	137.9
25°	1310.8	1147.9	711.9	304.6	161.1	138.9	132.4	128.7	125.0	122.2	122.2
27.5°	1287.7	1104.4	605.4	215.7	135.2	125.0	118.5	112.0	107.4	103.7	103.7
30°	1272.9	1061.8	502.7	162.9	120.3	111.1	102.8	94.4	87.0	82.4	81.5
32.5°	1264.5	1026.6	407.3	133.3	107.4	97.2	87.0	77.8	69.4	63.9	63.9
35°	1268.3	998.9	312.0	112.9	97.2	85.2	74.1	62.9	55.5	50.9	50.0
37.5°	1292.3	983.1	232.4	100.0	87.0	74.1	62.9	51.8	44.4	40.7	39.8
40°	1337.7	986.8	176.8	90.7	79.6	64.8	51.8	42.6	36.1	32.4	32.4
42.5°	1429.3	1013.7	139.8	83.3	71.3	55.5	43.5	35.2	29.6	26.8	25.9
45°	1550.6	1064.6	114.8	76.8	62.9	47.2	37.0	29.6	24.1	21.3	21.3
47.5°	1733.9	1146.1	99.1	70.4	54.6	39.8	30.5	24.1	18.5	16.7	15.7
50°	1945.9	1259.9	87.0	62.9	48.1	33.3	25.9	18.5	14.8	12.0	12.0
52.5°	2162.5	1386.7	78.7	56.5	41.7	28.7	20.4	13.9	10.2	8.3	8.3
55°	2361.5	1493.2	70.4	50.9	35.2	24.1	16.7	11.1	7.4	5.6	5.6
57.5°	2554.1	1590.4	61.1	44.4	28.7	19.4	13.0	8.3	5.6	3.7	3.7
60°	2795.7	1716.3	52.8	38.0	23.1	15.7	10.2	6.5	3.7	2.8	1.9
62.5°	3087.3	1808.0	44.4	30.5	18.5	12.0	7.4	4.6	2.8	0.9	0.9
65°	3194.7	1686.7	37.0	25.0	14.8	9.3	5.6	3.7	1.9	0.9	0.9
67.5°	2894.8	1359.0	29.6	19.4	11.1	6.5	4.6	2.8	1.9	0.9	0.9
68°	2811.4	1292.3	28.7	18.5	10.2	6.5	3.7	2.8	0.9	0.9	0.0
70°	2373.6	1037.7	23.1	13.9	8.3	5.6	3.7	1.9	0.9	0.9	0.0
72.5°	1759.8	715.6	16.7	9.3	5.6	3.7	2.8	1.9	0.9	0.9	0.0
75°	928.5	278.6	13.0	7.4	4.6	3.7	2.8	2.8	1.9	0.9	0.9
77.5°	266.6	87.9	10.2	5.6	4.6	4.6	4.6	3.7	3.7	2.8	1.9
80°	77.8	28.7	6.5	3.7	4.6	4.6	5.6	4.6	4.6	3.7	3.7
82.5°	41.7	11.1	3.7	2.8	2.8	3.7	4.6	3.7	2.8	1.9	0.9
85°	17.6	3.7	2.8	1.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9
87.5°	0.9	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)