

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: P401848

Luminaire Tested: **ENV-SA1F-740-U-SL2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401848  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1F-740-U-SL2  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7690 lumens  
Efficiency: N/A  
Efficacy: 116.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G2

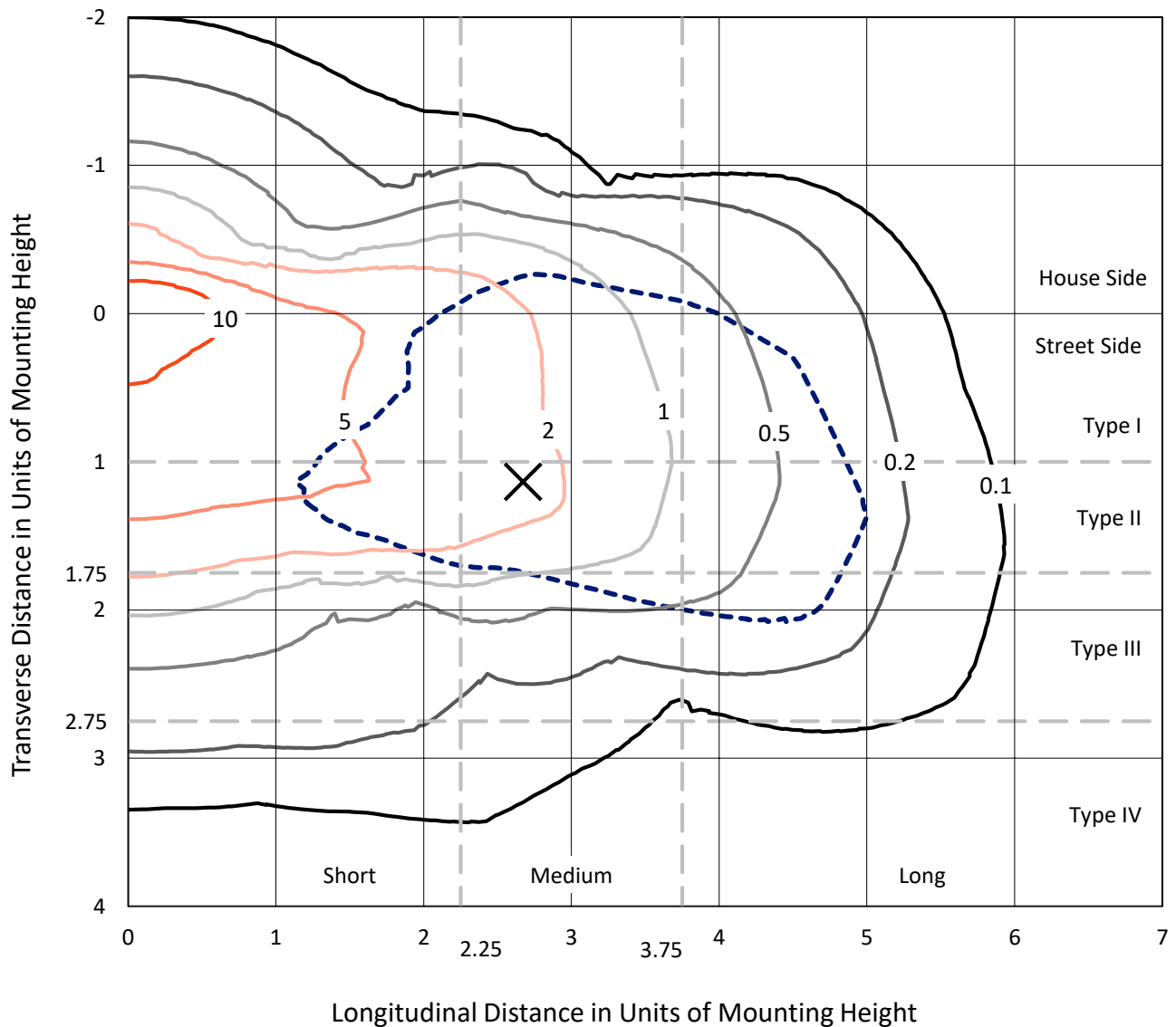
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

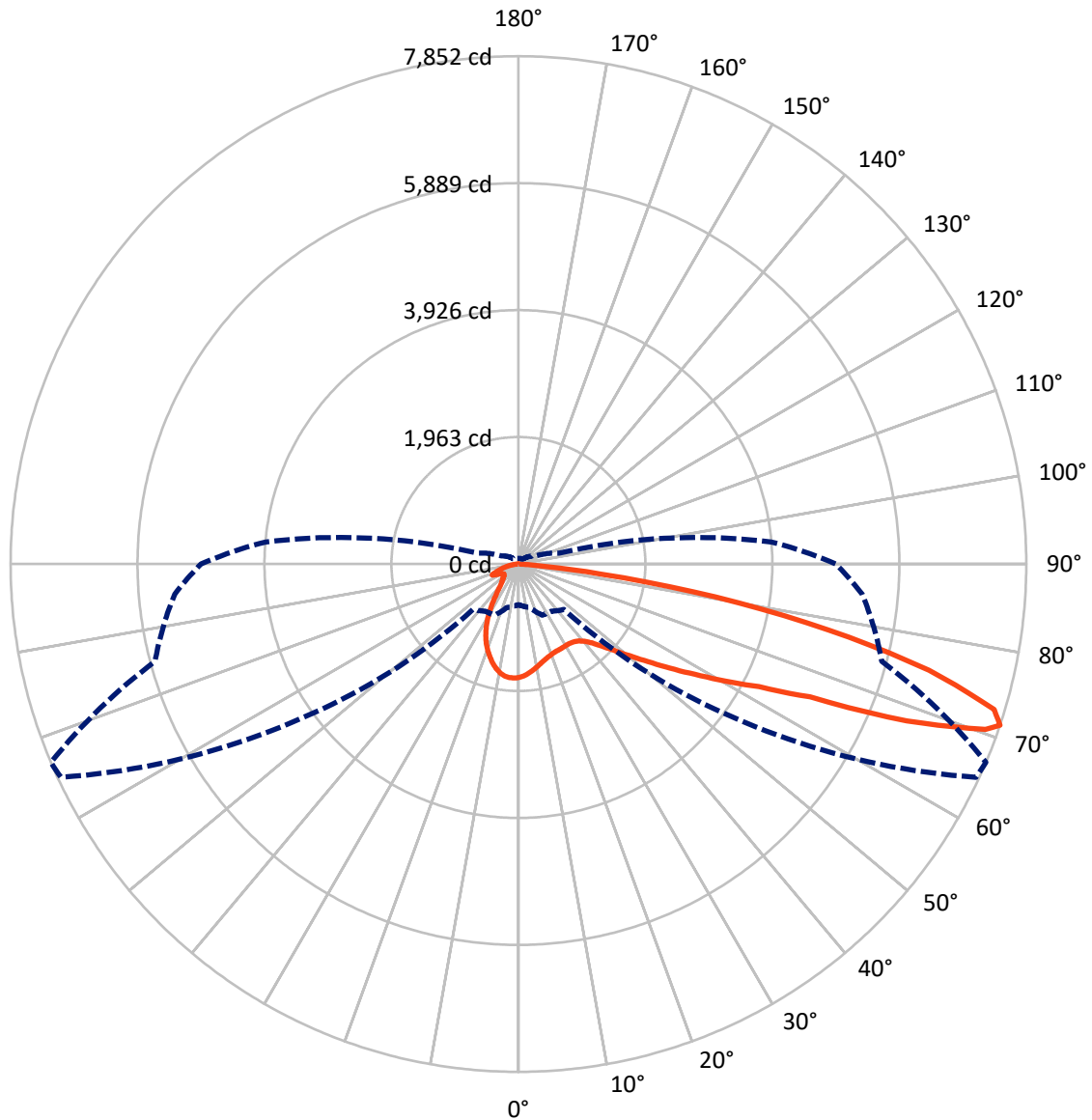
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.5 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1575.5	0.0	1575.5
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	6114.5	0.0	6114.5
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	7690.0	0.0	7690.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.4	2.0
10°-20°	381.9	5.0
20°-30°	515.6	6.7
30°-40°	679.0	8.8
40°-50°	967.2	12.6
50°-60°	1477.5	19.2
60°-70°	1844.9	24.0
70°-80°	1489.2	19.4
80°-90°	179.5	2.3
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°	7690.0	100.0
0°-180°	7690.0	100.0



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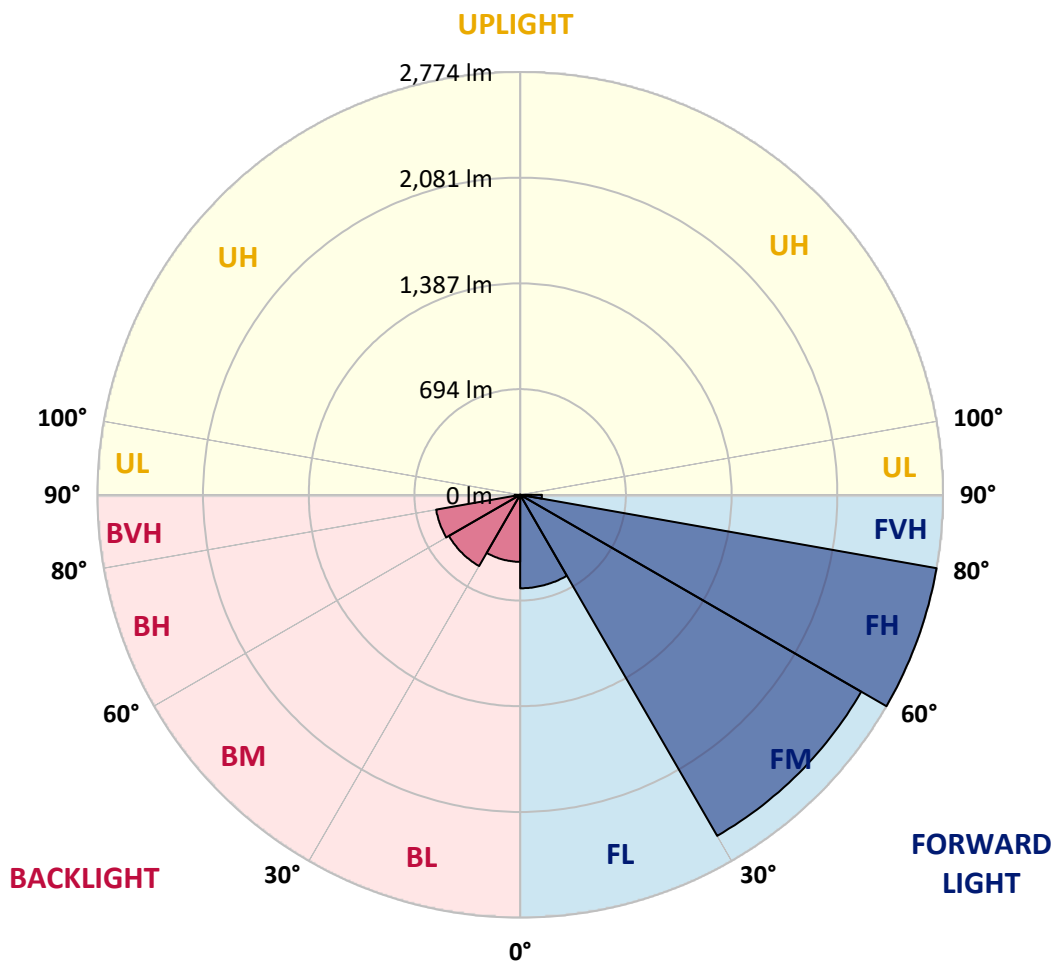
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	613.2	8.0			
FM	(30°-60°)	2584.0	33.6			
FH	(60°-80°)	2774.2	36.1			G2/5000
FVH	(80°-90°)	143.1	1.9			G2/225
BL	(0°-30°)	439.6	5.7	B1/500		
BM	(30°-60°)	539.7	7.0	B1/1000		
BH	(60°-80°)	559.8	7.3	B2/1000		G2/1000
BVH	(80°-90°)	36.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5
2.5°	1653.9	1661.6	1662.7	1678.2	1683.8	1701.5	1711.5	1728.1	1730.3	1740.2	1746.9
5°	1546.5	1547.6	1554.3	1567.5	1588.6	1620.7	1645.0	1686.0	1693.7	1722.5	1748.0
7.5°	1450.2	1455.7	1466.8	1486.7	1511.1	1548.7	1586.4	1642.8	1653.9	1700.4	1749.1
10°	1384.9	1390.4	1399.3	1421.4	1445.8	1487.8	1533.2	1598.5	1610.7	1674.9	1745.8
12.5°	1332.9	1338.4	1345.0	1369.4	1396.0	1438.0	1484.5	1557.6	1569.8	1643.9	1738.0
15°	1298.5	1299.6	1308.5	1328.4	1358.3	1399.3	1445.8	1521.0	1535.4	1619.6	1735.8
17.5°	1277.5	1279.7	1287.5	1303.0	1329.5	1369.4	1414.8	1491.2	1507.8	1599.6	1736.9
20°	1278.6	1280.8	1285.3	1290.8	1309.6	1343.9	1391.5	1469.0	1485.6	1587.5	1744.7
22.5°	1301.9	1303.0	1304.1	1296.3	1303.0	1327.3	1373.8	1453.5	1471.2	1581.9	1753.5
25°	1346.1	1346.1	1343.9	1326.2	1311.8	1321.8	1363.9	1448.0	1465.7	1577.5	1762.4
27.5°	1407.0	1411.5	1400.4	1379.4	1346.1	1329.5	1361.6	1443.6	1461.3	1577.5	1766.8
30°	1490.1	1492.3	1487.8	1460.2	1405.9	1360.5	1368.3	1440.2	1457.9	1575.3	1767.9
32.5°	1574.2	1580.8	1586.4	1562.0	1496.7	1415.9	1394.8	1444.7	1460.2	1574.2	1764.6
35°	1659.4	1663.9	1690.4	1686.0	1615.1	1498.9	1438.0	1462.4	1475.7	1579.7	1766.8
37.5°	1732.5	1742.5	1781.2	1811.1	1755.7	1611.8	1512.2	1501.1	1508.9	1607.4	1779.0
40°	1811.1	1825.5	1883.0	1939.5	1915.1	1753.5	1617.4	1570.9	1568.7	1658.3	1808.9
42.5°	1899.7	1916.3	1990.4	2072.3	2080.1	1934.0	1758.0	1669.4	1667.2	1745.8	1874.2
45°	2003.7	2019.2	2119.9	2217.4	2265.0	2135.4	1930.6	1808.9	1810.0	1867.5	1978.2
47.5°	2132.1	2156.5	2253.9	2377.9	2463.1	2362.4	2139.9	2003.7	1994.9	2051.3	2148.7
50°	2312.6	2332.5	2413.3	2534.0	2683.4	2636.9	2403.3	2238.4	2231.8	2258.3	2376.8
52.5°	2501.9	2508.5	2547.3	2672.4	2923.6	2970.1	2727.7	2529.5	2504.1	2518.5	2660.2
55°	2512.9	2527.3	2552.8	2711.1	3139.5	3369.8	3085.3	2872.7	2839.5	2829.6	2982.3
57.5°	2282.7	2305.9	2339.1	2543.9	3148.4	3831.4	3593.4	3273.5	3213.7	3163.9	3326.6
60°	1794.5	1824.4	1885.3	2136.6	2923.6	4094.9	4441.4	3722.9	3669.8	3500.4	3663.1
62.5°	1297.4	1309.6	1368.3	1481.2	2320.3	4110.4	5324.8	4309.6	4177.9	3828.1	3953.2
65°	1045.0	1065.0	1082.7	1081.6	1373.8	3645.4	5911.5	5353.6	4956.1	4194.5	4272.0
67.5°	861.3	867.9	911.1	986.4	934.3	2251.7	5970.2	6879.0	6476.1	4688.2	4650.6
70°	719.6	721.8	765.0	900.0	894.5	1162.4	5006.0	7756.9	7659.5	5498.6	5242.9
71°	629.9	648.7	696.3	871.2	890.0	993.0	4253.2	7803.4	7852.1	5816.3	5334.7
72.5°	495.9	495.9	563.5	799.3	897.8	916.6	3134.0	7549.9	7690.5	6177.2	5175.3
75°	291.1	288.9	325.5	556.8	917.7	913.3	1711.5	6274.6	6559.1	6242.5	4790.1
77.5°	163.8	167.2	187.1	310.0	728.4	876.8	983.0	4568.7	4904.1	5221.8	4050.6
80°	75.3	79.7	94.1	150.6	429.5	757.2	701.9	2966.8	3094.1	3138.4	1914.0
82.5°	19.9	22.1	28.8	57.6	166.1	515.9	519.2	1242.1	1283.0	741.7	410.7
85°	0.0	0.0	0.0	0.0	2.2	63.1	147.2	223.6	186.0	98.5	84.1
87.5°	0.0	0.0	0.0	0.0	0.0	2.2	3.3	4.4	4.4	4.4	5.5
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°	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5	1753.5
2.5°	1752.4	1756.8	1764.6	1763.5	1761.3	1748.0	1755.7	1748.0	1746.9	1743.6	1744.7
5°	1756.8	1763.5	1767.9	1758.0	1741.3	1712.6	1702.6	1677.1	1660.5	1651.7	1647.2
7.5°	1763.5	1767.9	1765.7	1738.0	1694.9	1640.6	1594.1	1557.6	1518.8	1512.2	1510.0
10°	1763.5	1767.9	1750.2	1697.1	1622.9	1537.7	1466.8	1407.0	1347.2	1325.1	1328.4
12.5°	1759.1	1761.3	1720.3	1635.1	1527.7	1411.5	1311.8	1213.3	1136.9	1090.4	1081.6
15°	1755.7	1752.4	1680.5	1557.6	1414.8	1270.9	1120.3	987.5	896.7	835.8	828.1
17.5°	1755.7	1743.6	1632.9	1469.0	1291.9	1093.7	894.5	750.6	649.8	614.4	613.3
20°	1758.0	1731.4	1581.9	1377.1	1139.1	883.4	667.5	544.7	507.0	501.5	502.6
22.5°	1760.2	1714.8	1526.6	1273.1	968.6	658.7	477.1	432.8	436.2	449.5	448.3
25°	1758.0	1692.6	1461.3	1156.8	782.7	474.9	385.2	374.2	394.1	409.6	414.0
27.5°	1752.4	1663.9	1391.5	1018.5	596.7	374.2	336.5	335.4	355.4	369.7	368.6
30°	1735.8	1629.5	1310.7	872.3	430.6	318.8	303.3	306.6	319.9	333.2	333.2
32.5°	1718.1	1590.8	1225.5	712.9	331.0	288.9	283.4	284.5	293.4	303.3	302.2
35°	1699.3	1553.2	1138.0	546.9	290.0	271.2	269.0	267.9	271.2	273.4	273.4
37.5°	1688.2	1519.9	1041.7	411.8	267.9	260.2	255.7	251.3	250.2	248.0	245.8
40°	1692.6	1497.8	948.7	318.8	254.6	248.0	241.3	234.7	230.3	228.0	226.9
42.5°	1723.6	1491.2	845.8	274.5	242.4	236.9	228.0	217.0	212.5	212.5	211.4
45°	1795.6	1511.1	749.5	252.4	231.4	224.7	210.3	202.6	199.3	200.4	200.4
47.5°	1908.5	1567.5	663.1	241.3	223.6	213.7	197.1	189.3	187.1	188.2	188.2
50°	2077.9	1673.8	574.5	231.4	214.8	201.5	187.1	178.2	174.9	174.9	174.9
52.5°	2325.9	1848.7	510.3	224.7	207.0	191.5	177.1	167.2	162.7	162.7	161.6
55°	2628.1	2076.8	486.0	220.3	197.1	182.7	167.2	157.2	150.6	148.3	149.4
57.5°	2959.1	2372.3	521.4	219.2	186.0	172.7	157.2	145.0	138.4	137.3	136.2
60°	3300.0	2665.7	623.3	213.7	177.1	160.5	146.1	135.1	128.4	126.2	125.1
62.5°	3594.5	2958.0	791.5	209.2	170.5	149.4	133.9	124.0	118.5	115.1	115.1
65°	3949.9	3293.4	1048.4	214.8	167.2	138.4	122.9	114.0	109.6	106.3	106.3
67.5°	4434.7	3790.4	1243.2	241.3	174.9	129.5	110.7	104.1	100.7	98.5	98.5
70°	4911.9	4069.4	864.6	283.4	194.8	121.8	99.6	95.2	93.0	90.8	90.8
71°	4905.2	3920.0	649.8	293.4	201.5	119.6	95.2	91.9	89.7	88.6	87.5
72.5°	4659.5	3563.5	466.1	284.5	198.2	112.9	89.7	86.3	84.1	84.1	83.0
75°	4179.0	3140.6	364.2	238.0	166.1	100.7	79.7	77.5	75.3	74.2	75.3
77.5°	3424.0	2512.9	286.7	188.2	126.2	83.0	70.8	67.5	66.4	65.3	66.4
80°	1573.1	1094.8	209.2	146.1	94.1	66.4	59.8	58.7	57.6	56.5	56.5
82.5°	378.6	306.6	111.8	97.4	64.2	50.9	47.6	47.6	47.6	46.5	46.5
85°	83.0	83.0	45.4	45.4	38.7	35.4	37.6	37.6	37.6	35.4	35.4
87.5°	4.4	13.3	14.4	21.0	22.1	21.0	25.5	26.6	25.5	24.4	23.2
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)