

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: P401902

Luminaire Tested: **ENT-SA1F-760-U-SL3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401902  
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-SA1F-760-U-SL3  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5700K, 1200mA 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: 7638 lumens  
Efficiency: N/A  
Efficacy: 115.6 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

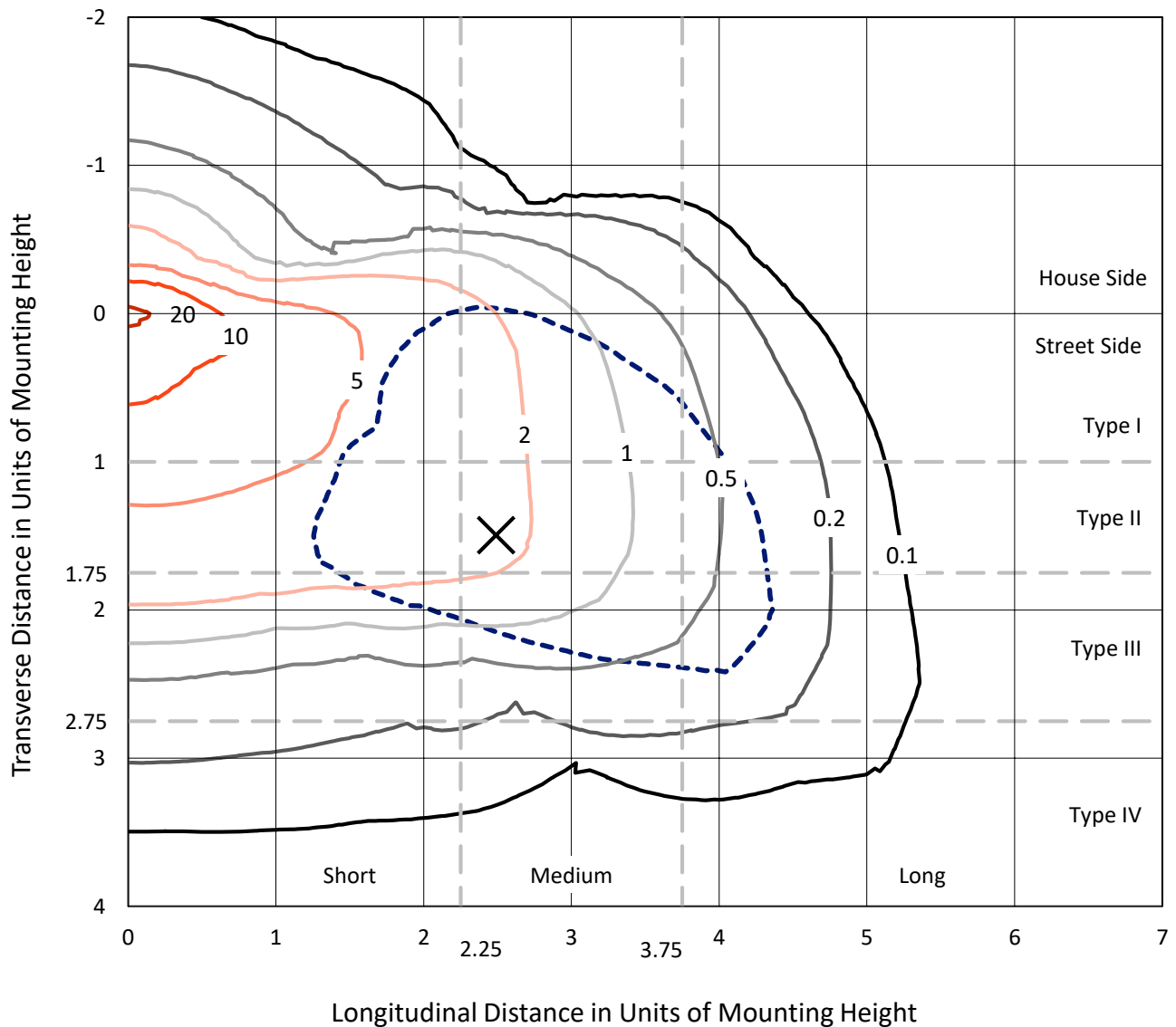
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

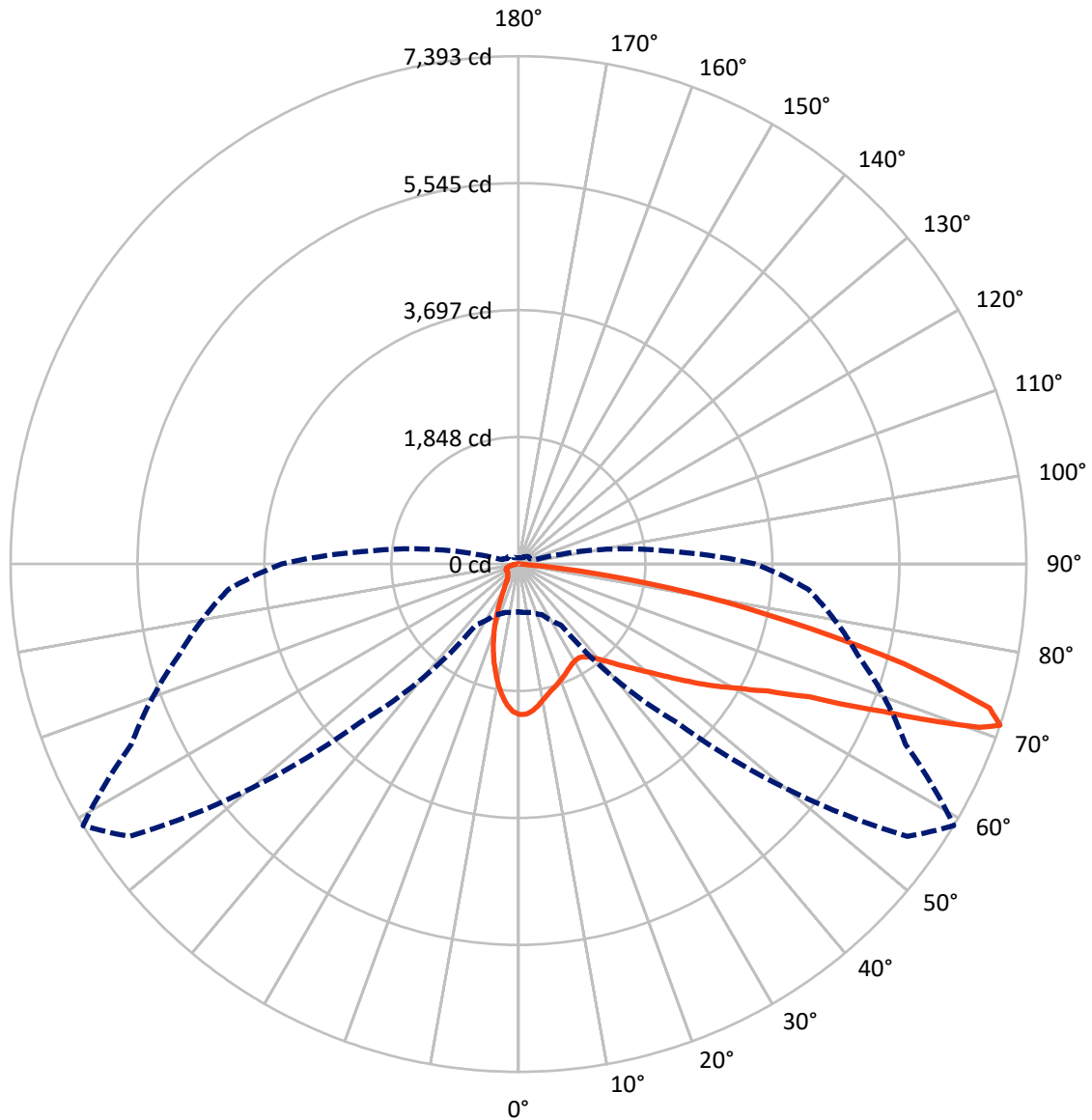
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.9 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	1296.4	0.0	1296.4
	% Fixture	17.0	0.0	17.0
<b>Street Side</b>	Lumens	6341.6	0.0	6341.6
	% Fixture	83.0	0.0	83.0
<b>Total</b>	Lumens	7638.0	0.0	7638.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.3	2.5
10°-20°	425.4	5.6
20°-30°	540.6	7.1
30°-40°	691.1	9.0
40°-50°	959.1	12.6
50°-60°	1420.0	18.6
60°-70°	1919.3	25.1
70°-80°	1361.0	17.8
80°-90°	132.2	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°	7638.0	100.0
0°-180°	7638.0	100.0



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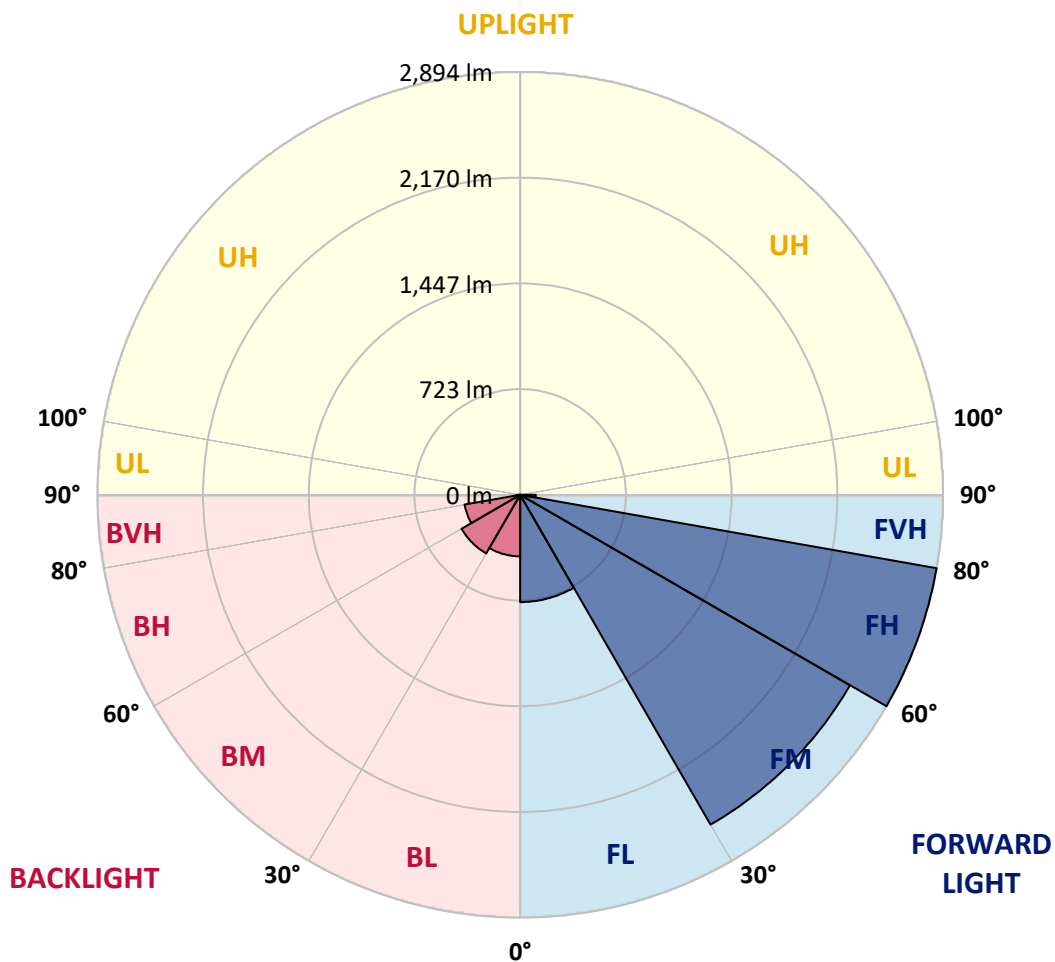
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	734.1	9.6			
FM	(30°-60°)	2606.5	34.1			
FH	(60°-80°)	2894.0	37.9			G2/5000
FVH	(80°-90°)	107.0	1.4			G2/225
BL	(0°-30°)	421.2	5.5	B1/500		
BM	(30°-60°)	463.7	6.1	B1/1000		
BH	(60°-80°)	386.3	5.1	B1/500		G1/500
BVH	(80°-90°)	25.2	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-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3
2.5°	2172.5	2180.3	2183.6	2189.1	2189.1	2191.3	2189.1	2188.0	2192.4	2188.0	2175.8
5°	2076.2	2079.5	2089.5	2100.6	2111.6	2134.9	2141.5	2145.9	2155.9	2158.1	2145.9
7.5°	1945.6	1957.8	1971.1	1985.5	2008.7	2040.8	2068.5	2079.5	2098.4	2109.4	2091.7
10°	1835.0	1841.6	1848.2	1873.7	1910.2	1954.5	1983.3	2004.3	2034.2	2048.6	2032.0
12.5°	1724.3	1729.8	1743.1	1777.4	1815.0	1868.2	1920.2	1936.8	1972.2	2001.0	1987.7
15°	1639.1	1639.1	1649.0	1686.7	1726.5	1797.3	1858.2	1883.7	1927.9	1968.9	1952.3
17.5°	1563.8	1567.1	1573.8	1598.1	1653.5	1727.6	1805.1	1837.2	1892.5	1945.6	1923.5
20°	1521.8	1519.5	1524.0	1536.1	1580.4	1659.0	1752.0	1789.6	1858.2	1931.2	1895.8
22.5°	1507.4	1505.2	1501.8	1500.7	1529.5	1595.9	1695.5	1742.0	1827.2	1923.5	1870.4
25°	1518.4	1518.4	1508.5	1489.7	1502.9	1548.3	1644.6	1694.4	1792.9	1918.0	1847.1
27.5°	1548.3	1548.3	1533.9	1509.6	1504.0	1524.0	1600.3	1653.5	1764.1	1921.3	1828.3
30°	1589.3	1588.2	1573.8	1552.7	1536.1	1529.5	1579.3	1628.0	1744.2	1935.7	1819.5
32.5°	1635.7	1633.5	1626.9	1612.5	1592.6	1563.8	1581.5	1624.7	1739.8	1961.1	1820.6
35°	1691.1	1687.8	1691.1	1683.3	1664.5	1633.5	1622.5	1656.8	1761.9	2008.7	1839.4
37.5°	1739.8	1737.6	1754.2	1758.6	1754.2	1713.2	1698.8	1721.0	1813.9	2084.0	1878.1
40°	1780.7	1782.9	1812.8	1844.9	1851.6	1816.1	1806.2	1825.0	1898.0	2175.8	1947.8
42.5°	1826.1	1832.7	1877.0	1934.6	1956.7	1933.5	1939.0	1952.3	2004.3	2300.9	2048.6
45°	1870.4	1884.8	1945.6	2019.8	2076.2	2076.2	2095.0	2108.3	2141.5	2458.0	2195.8
47.5°	1947.8	1957.8	2024.2	2113.9	2200.2	2227.8	2279.9	2275.4	2300.9	2630.7	2368.4
50°	2048.6	2065.2	2132.7	2225.6	2335.2	2413.8	2473.5	2482.4	2492.4	2807.8	2573.1
52.5°	2188.0	2207.9	2263.3	2349.6	2479.1	2607.5	2733.6	2728.1	2714.8	3000.3	2807.8
55°	2328.6	2349.6	2401.6	2471.3	2624.1	2821.1	3026.9	3019.2	2958.3	3197.3	3024.7
57.5°	2471.3	2489.0	2543.3	2604.1	2784.5	3073.4	3336.8	3342.3	3217.3	3416.5	3239.4
60°	2531.1	2557.7	2691.6	2808.9	3034.7	3353.4	3653.3	3667.7	3486.2	3637.8	3476.2
62.5°	2261.0	2293.1	2514.5	2831.0	3377.7	3893.5	4065.0	4073.9	3810.5	3882.4	3735.2
65°	1673.4	1672.3	1901.4	2375.0	3309.1	4618.4	4798.8	4659.3	4213.3	4206.7	4077.2
67.5°	958.4	987.2	1060.2	1416.6	2521.1	4752.3	6104.7	5740.6	4927.2	4711.3	4533.2
70°	772.5	765.9	788.0	883.2	1374.6	3907.9	6955.8	7121.8	5940.9	5123.1	4430.2
71°	696.1	706.1	728.2	814.6	1084.6	3260.4	6913.7	7393.0	6217.6	5112.0	4234.3
72.5°	598.7	601.0	651.9	753.7	890.9	2299.8	6392.5	7169.4	6507.6	4967.0	3946.6
75°	407.3	412.8	492.5	606.5	813.4	1092.3	4574.1	5799.3	5923.2	4641.6	3259.3
77.5°	233.5	237.9	295.5	443.8	692.8	770.3	2807.8	4007.5	4258.7	3394.3	1747.5
80°	120.6	126.2	163.8	280.0	529.0	623.1	1610.3	2520.0	2422.6	1173.1	405.1
82.5°	32.1	36.5	47.6	100.7	255.7	406.2	713.8	1042.5	744.8	243.5	147.2
85°	0.0	0.0	0.0	1.1	2.2	56.4	150.5	187.0	104.0	47.6	39.8
87.5°	0.0	0.0	0.0	0.0	1.1	2.2	2.2	2.2	2.2	3.3	4.4
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°	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3	2191.3
2.5°	2173.6	2173.6	2167.0	2157.0	2145.9	2120.5	2124.9	2105.0	2107.2	2105.0	2105.0
5°	2136.0	2129.3	2112.7	2081.8	2047.4	2002.1	1995.4	1958.9	1937.9	1931.2	1939.0
7.5°	2084.0	2065.2	2023.1	1968.9	1903.6	1844.9	1790.7	1742.0	1705.5	1690.0	1683.3
10°	2015.4	1992.1	1923.5	1828.3	1738.7	1646.8	1561.6	1506.3	1433.2	1411.1	1404.4
12.5°	1958.9	1919.1	1816.1	1683.3	1543.9	1422.1	1307.0	1190.8	1121.1	1071.3	1063.6
15°	1910.2	1853.8	1706.6	1535.0	1361.3	1193.1	1037.0	881.0	782.5	740.4	710.5
17.5°	1867.1	1794.0	1597.0	1374.6	1159.9	937.4	747.0	597.6	535.7	503.6	504.7
20°	1822.8	1729.8	1483.0	1214.1	960.6	713.8	527.9	458.2	427.2	420.6	417.2
22.5°	1780.7	1656.8	1362.4	1055.8	757.0	524.6	425.0	390.7	382.9	382.9	382.9
25°	1733.1	1582.6	1240.6	894.2	573.3	413.9	365.2	353.0	355.3	359.7	360.8
27.5°	1694.4	1518.4	1120.0	707.2	444.9	351.9	326.5	324.3	333.1	343.1	343.1
30°	1660.1	1459.8	989.4	552.3	354.2	308.8	299.9	303.2	312.1	321.0	324.3
32.5°	1636.9	1406.7	872.1	429.4	302.1	278.9	276.7	281.1	290.0	294.4	297.7
35°	1626.9	1367.9	745.9	346.4	268.9	256.8	255.7	259.0	263.4	264.5	263.4
37.5°	1638.0	1341.4	616.4	293.3	247.9	241.3	240.2	240.2	240.2	241.3	240.2
40°	1670.1	1331.4	500.2	259.0	234.6	229.1	225.8	222.5	220.2	220.2	219.1
42.5°	1737.6	1346.9	401.7	239.1	224.7	218.0	211.4	207.0	203.6	202.5	202.5
45°	1846.0	1390.1	334.2	225.8	215.8	205.9	198.1	193.7	190.4	191.5	190.4
47.5°	1995.4	1462.0	295.5	216.9	207.0	193.7	185.9	181.5	180.4	183.7	184.8
50°	2164.8	1563.8	272.3	210.3	200.3	183.7	174.9	171.5	172.6	179.3	180.4
52.5°	2364.0	1695.5	262.3	205.9	194.8	174.9	167.1	163.8	166.0	173.8	174.9
55°	2578.7	1846.0	276.7	208.1	189.3	169.3	160.5	156.0	159.4	166.0	167.1
57.5°	2796.7	2032.0	325.4	209.2	182.6	164.9	153.8	147.2	149.4	154.9	156.0
60°	3016.9	2216.8	409.5	210.3	180.4	160.5	148.3	138.3	139.4	142.8	143.9
62.5°	3275.9	2451.4	520.2	214.7	182.6	157.2	138.3	127.3	127.3	129.5	129.5
65°	3668.8	2801.1	593.2	212.5	188.1	153.8	128.4	117.3	116.2	117.3	117.3
67.5°	3951.0	2847.6	413.9	200.3	191.5	154.9	122.8	108.5	106.2	105.1	105.1
70°	3652.2	2396.1	273.4	189.3	185.9	157.2	118.4	102.9	98.5	95.2	94.1
71°	3445.2	2159.2	253.4	184.8	181.5	154.9	116.2	99.6	95.2	93.0	91.9
72.5°	3138.7	1926.8	233.5	178.2	171.5	150.5	112.9	96.3	90.8	87.4	86.3
75°	2480.2	1477.5	204.7	163.8	148.3	124.0	104.0	89.6	84.1	79.7	78.6
77.5°	1121.1	587.7	157.2	141.7	120.6	98.5	90.8	83.0	76.4	73.0	71.9
80°	313.2	223.6	115.1	111.8	90.8	76.4	73.0	70.8	68.6	64.2	64.2
82.5°	145.0	130.6	81.9	78.6	62.0	54.2	57.5	58.7	58.7	54.2	53.1
85°	39.8	43.2	37.6	42.1	39.8	36.5	42.1	45.4	47.6	43.2	39.8
87.5°	3.3	7.7	10.0	16.6	19.9	21.0	26.6	32.1	33.2	26.6	27.7
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)