

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: P401830

Luminaire Tested: **ENT-SA1F-735-U-SL3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401830  
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-735-U-SL3  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 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: 7175 lumens  
Efficiency: N/A  
Efficacy: 108.5 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

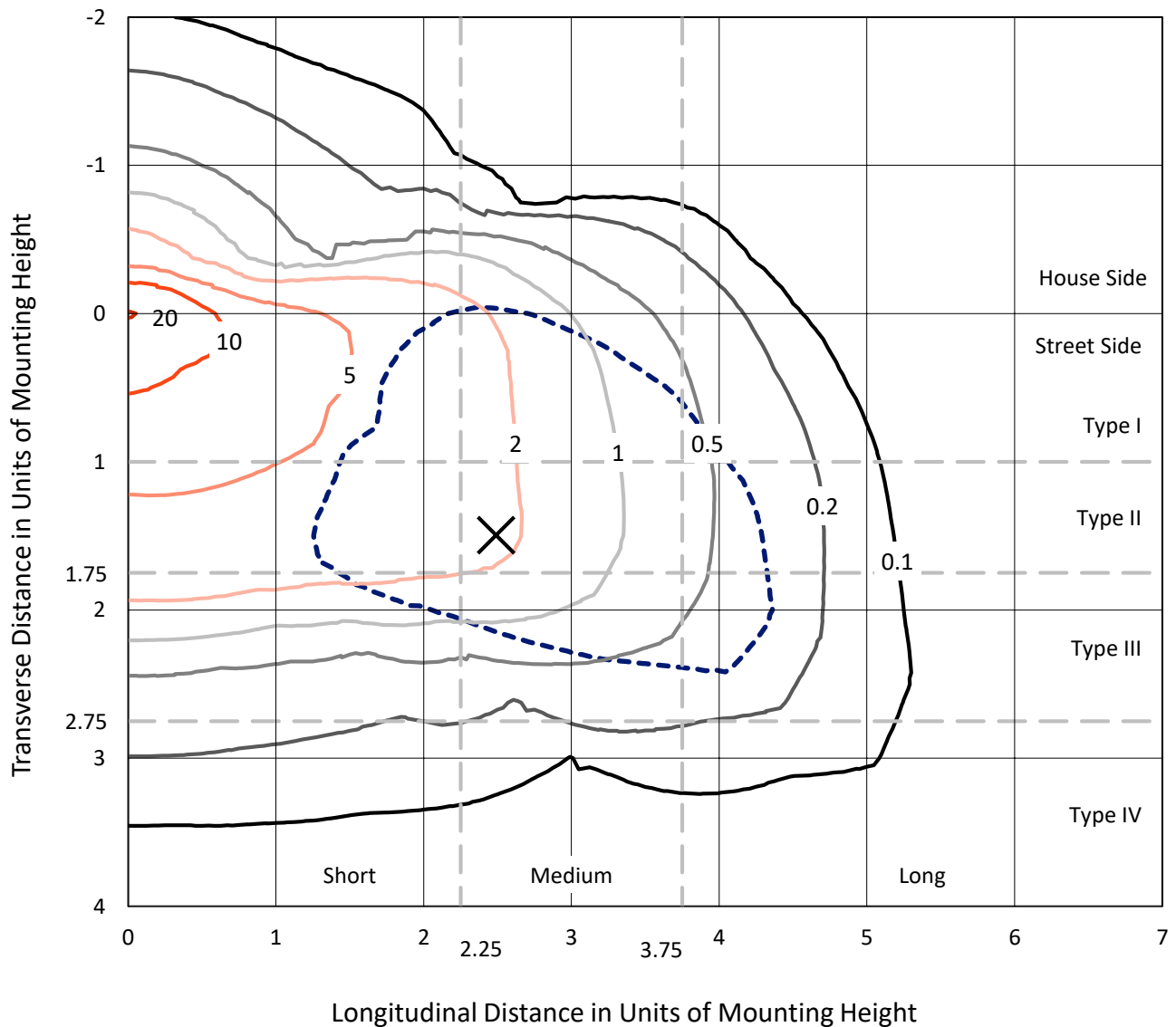
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P401830  
 CATALOG NUMBER: ENT-SA1F-735-U-SL3

### Iso-Footcandle Lines of Horizontal Illumination

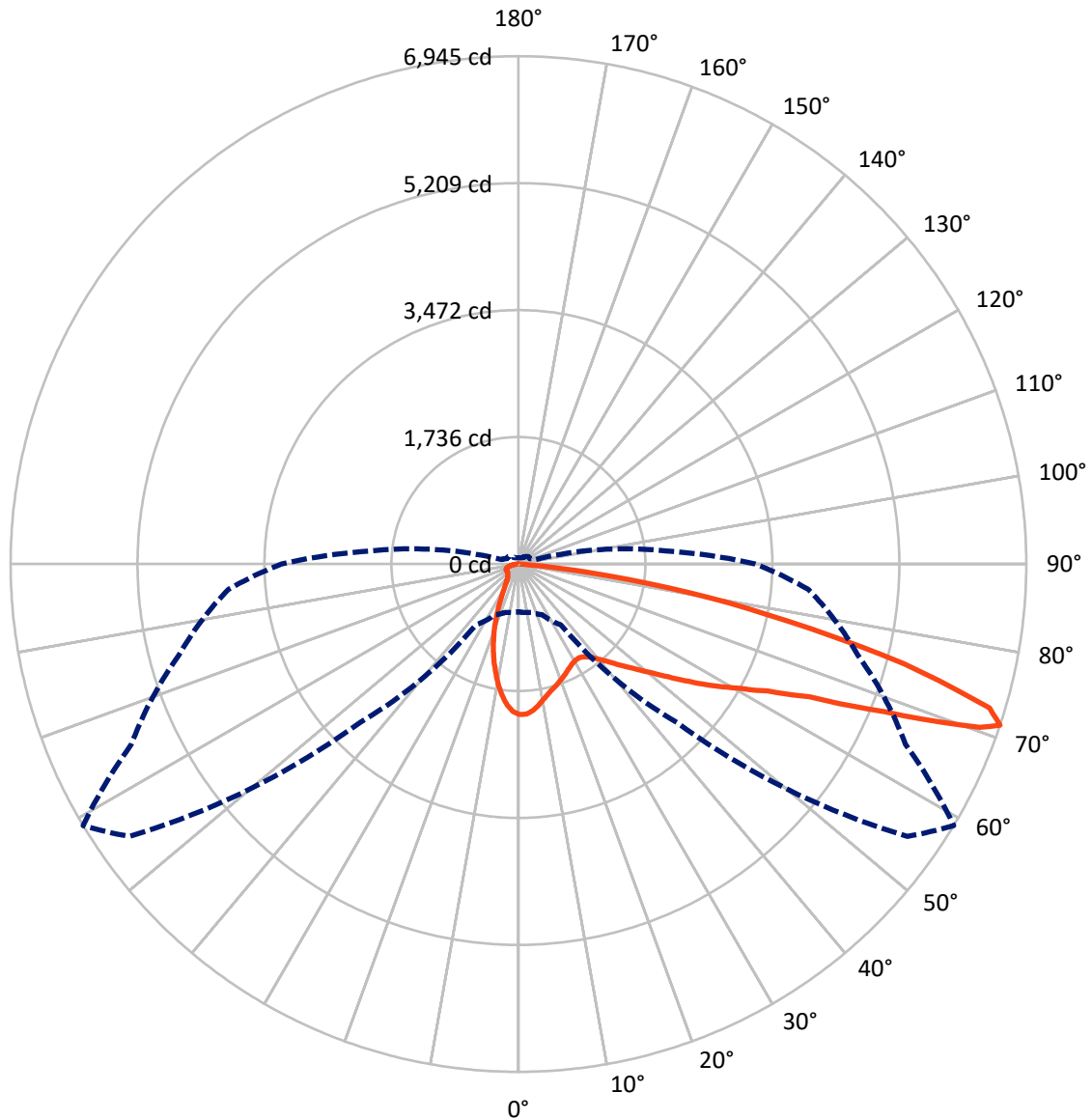
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.6 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401830  
CATALOG NUMBER: ENT-SA1F-735-U-SL3

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P401830

CATALOG NUMBER: ENT-SA1F-735-U-SL3

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1217.8	0.0	1217.8
	% Fixture	17.0	0.0	17.0
<b>Street Side</b>	Lumens	5957.2	0.0	5957.2
	% Fixture	83.0	0.0	83.0
<b>Total</b>	Lumens	7175.0	0.0	7175.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.8	2.5
10°-20°	399.6	5.6
20°-30°	507.8	7.1
30°-40°	649.2	9.0
40°-50°	901.0	12.6
50°-60°	1333.9	18.6
60°-70°	1803.0	25.1
70°-80°	1278.5	17.8
80°-90°	124.2	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°	7175.0	100.0
0°-180°	7175.0	100.0



REPORT NUMBER: P401830

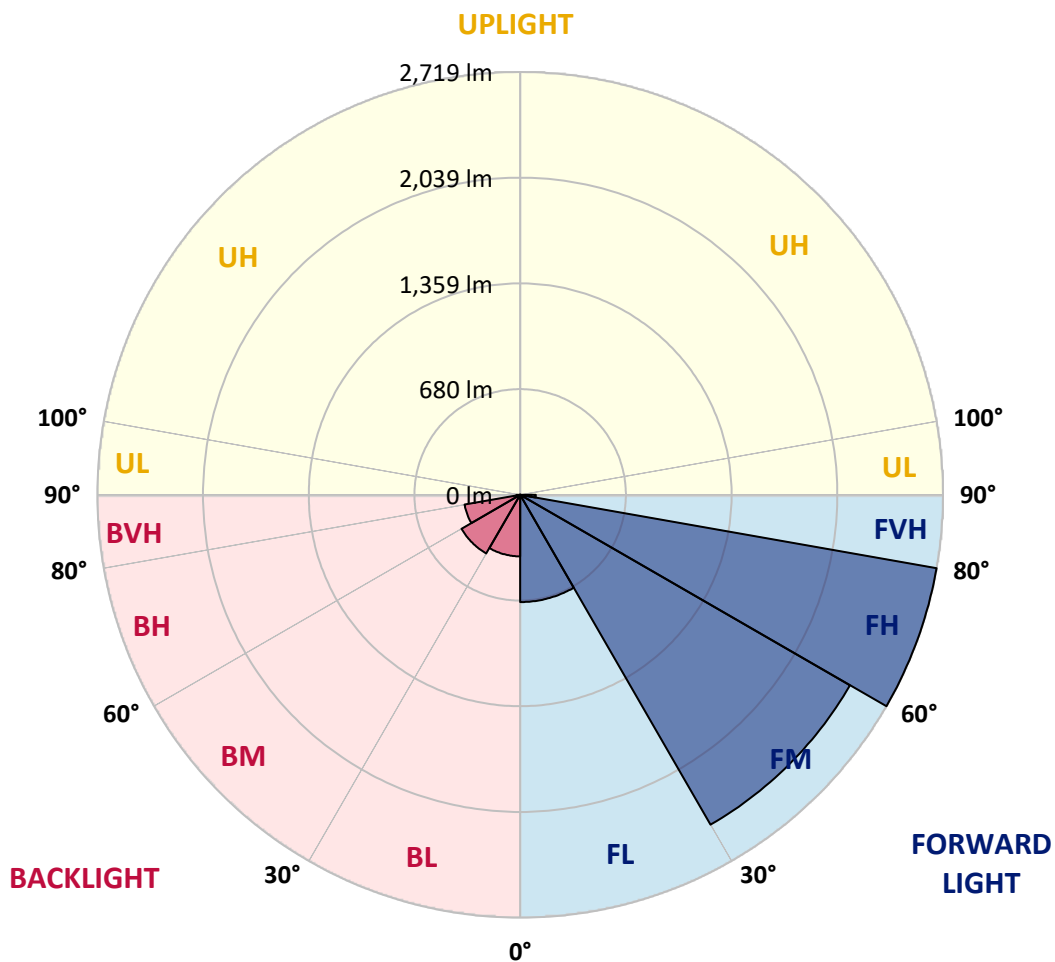
CATALOG NUMBER: ENT-SA1F-735-U-SL3

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	689.6	9.6			
FM (30°-60°)	2448.5	34.1			
FH (60°-80°)	2718.6	37.9			G2/5000
FVH (80°-90°)	100.5	1.4			G2/225
BL (0°-30°)	395.6	5.5	B1/500		
BM (30°-60°)	435.6	6.1	B1/1000		
BH (60°-80°)	362.9	5.1	B1/500		G1/500
BVH (80°-90°)	23.7	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





REPORT NUMBER: P401830  
 CATALOG NUMBER: ENT-SA1F-735-U-SL3

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5
2.5°	2040.8	2048.1	2051.2	2056.4	2056.4	2058.5	2056.4	2055.4	2059.5	2055.4	2043.9
5°	1950.4	1953.5	1962.8	1973.2	1983.6	2005.5	2011.7	2015.9	2025.2	2027.3	2015.9
7.5°	1827.7	1839.1	1851.6	1865.1	1886.9	1917.1	1943.1	1953.5	1971.2	1981.6	1964.9
10°	1723.7	1730.0	1736.2	1760.1	1794.4	1836.0	1863.0	1882.8	1910.9	1924.4	1908.8
12.5°	1619.8	1625.0	1637.4	1669.7	1705.0	1754.9	1803.8	1819.4	1852.6	1879.7	1867.2
15°	1539.7	1539.7	1549.1	1584.4	1621.8	1688.4	1745.6	1769.5	1811.1	1849.5	1833.9
17.5°	1469.0	1472.1	1478.4	1501.2	1553.2	1622.9	1695.7	1725.8	1777.8	1827.7	1806.9
20°	1429.5	1427.4	1431.6	1443.0	1484.6	1558.4	1645.8	1681.1	1745.6	1814.2	1780.9
22.5°	1416.0	1413.9	1410.8	1409.8	1436.8	1499.2	1592.7	1636.4	1716.4	1806.9	1757.0
25°	1426.4	1426.4	1417.0	1399.4	1411.8	1454.5	1544.9	1591.7	1684.2	1801.7	1735.2
27.5°	1454.5	1454.5	1440.9	1418.1	1412.9	1431.6	1503.3	1553.2	1657.2	1804.8	1717.5
30°	1492.9	1491.9	1478.4	1458.6	1443.0	1436.8	1483.6	1529.3	1638.5	1818.3	1709.2
32.5°	1536.6	1534.5	1528.3	1514.8	1496.0	1469.0	1485.6	1526.2	1634.3	1842.2	1710.2
35°	1588.6	1585.5	1588.6	1581.3	1563.6	1534.5	1524.1	1556.3	1655.1	1886.9	1727.9
37.5°	1634.3	1632.2	1647.8	1652.0	1647.8	1609.4	1595.9	1616.6	1704.0	1957.6	1764.3
40°	1672.8	1674.9	1702.9	1733.1	1739.3	1706.1	1696.7	1714.4	1783.0	2043.9	1829.8
42.5°	1715.4	1721.6	1763.2	1817.3	1838.1	1816.3	1821.5	1833.9	1882.8	2161.4	1924.4
45°	1757.0	1770.5	1827.7	1897.3	1950.4	1950.4	1968.0	1980.5	2011.7	2309.0	2062.6
47.5°	1829.8	1839.1	1901.5	1985.7	2066.8	2092.8	2141.7	2137.5	2161.4	2471.2	2224.8
50°	1924.4	1940.0	2003.4	2090.7	2193.6	2267.5	2323.6	2331.9	2341.3	2637.6	2417.2
52.5°	2055.4	2074.1	2126.1	2207.2	2328.8	2449.4	2567.9	2562.7	2550.2	2818.5	2637.6
55°	2187.4	2207.2	2256.0	2321.5	2465.0	2650.0	2843.4	2836.1	2779.0	3003.5	2841.3
57.5°	2321.5	2338.2	2389.1	2446.3	2615.7	2887.1	3134.5	3139.7	3022.2	3209.4	3043.0
60°	2377.7	2402.6	2528.4	2638.6	2850.7	3150.1	3431.9	3445.4	3274.9	3417.3	3265.5
62.5°	2124.0	2154.1	2362.1	2659.4	3173.0	3657.5	3818.6	3826.9	3579.5	3647.1	3508.8
65°	1571.9	1570.9	1786.1	2231.1	3108.5	4338.4	4507.9	4376.9	3957.9	3951.7	3830.0
67.5°	900.3	927.4	996.0	1330.7	2368.3	4464.2	5734.7	5392.6	4628.5	4425.8	4258.4
70°	725.7	719.4	740.2	829.6	1291.2	3671.0	6534.1	6690.1	5580.8	4812.5	4161.7
71°	653.9	663.3	684.1	765.2	1018.8	3062.8	6494.6	6944.8	5840.7	4802.1	3977.7
72.5°	562.4	564.5	612.3	708.0	836.9	2160.4	6005.0	6734.8	6113.1	4665.9	3707.4
75°	382.6	387.8	462.6	569.7	764.1	1026.1	4296.8	5447.7	5564.2	4360.3	3061.7
77.5°	219.4	223.5	277.6	416.9	650.8	723.6	2637.6	3764.5	4000.5	3188.6	1641.6
80°	113.3	118.5	153.9	263.0	496.9	585.3	1512.7	2367.3	2275.8	1102.0	380.5
82.5°	30.1	34.3	44.7	94.6	240.2	381.5	670.6	979.3	699.7	228.7	138.3
85°	0.0	0.0	0.0	1.0	2.1	53.0	141.4	175.7	97.7	44.7	37.4
87.5°	0.0	0.0	0.0	0.0	1.0	2.1	2.1	2.1	2.1	3.1	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401830  
 CATALOG NUMBER: ENT-SA1F-735-U-SL3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5	2058.5
2.5°	2041.9	2041.9	2035.6	2026.3	2015.9	1992.0	1996.1	1977.4	1979.5	1977.4	1977.4
5°	2006.5	2000.3	1984.7	1955.6	1923.3	1880.7	1874.5	1840.2	1820.4	1814.2	1821.5
7.5°	1957.6	1940.0	1900.5	1849.5	1788.2	1733.1	1682.1	1636.4	1602.1	1587.5	1581.3
10°	1893.2	1871.4	1806.9	1717.5	1633.3	1547.0	1466.9	1415.0	1346.3	1325.5	1319.3
12.5°	1840.2	1802.7	1706.1	1581.3	1450.3	1335.9	1227.8	1118.7	1053.2	1006.4	999.1
15°	1794.4	1741.4	1603.1	1442.0	1278.8	1120.7	974.1	827.6	735.0	695.5	667.5
17.5°	1753.9	1685.3	1500.2	1291.2	1089.5	880.6	701.8	561.4	503.2	473.0	474.1
20°	1712.3	1625.0	1393.1	1140.5	902.4	670.6	495.9	430.4	401.3	395.1	391.9
22.5°	1672.8	1556.3	1279.8	991.8	711.1	492.8	399.2	367.0	359.7	359.7	359.7
25°	1628.1	1486.7	1165.4	840.0	538.5	388.8	343.1	331.6	333.7	337.9	338.9
27.5°	1591.7	1426.4	1052.1	664.3	417.9	330.6	306.7	304.6	312.9	322.3	322.3
30°	1559.5	1371.3	929.4	518.8	332.7	290.1	281.7	284.9	293.2	301.5	304.6
32.5°	1537.6	1321.4	819.2	403.4	283.8	262.0	259.9	264.1	272.4	276.5	279.7
35°	1528.3	1285.0	700.7	325.4	252.6	241.2	240.2	243.3	247.4	248.5	247.4
37.5°	1538.7	1260.0	579.1	275.5	232.9	226.6	225.6	225.6	225.6	226.6	225.6
40°	1568.8	1250.7	469.9	243.3	220.4	215.2	212.1	209.0	206.9	206.9	205.8
42.5°	1632.2	1265.2	377.4	224.6	211.0	204.8	198.6	194.4	191.3	190.3	190.3
45°	1734.1	1305.8	314.0	212.1	202.7	193.4	186.1	181.9	178.8	179.9	178.8
47.5°	1874.5	1373.4	277.6	203.8	194.4	181.9	174.7	170.5	169.5	172.6	173.6
50°	2033.5	1469.0	255.8	197.5	188.2	172.6	164.3	161.1	162.2	168.4	169.5
52.5°	2220.7	1592.7	246.4	193.4	183.0	164.3	157.0	153.9	155.9	163.2	164.3
55°	2422.4	1734.1	259.9	195.5	177.8	159.1	150.7	146.6	149.7	155.9	157.0
57.5°	2627.2	1908.8	305.7	196.5	171.5	154.9	144.5	138.3	140.4	145.5	146.6
60°	2834.1	2082.4	384.7	197.5	169.5	150.7	139.3	130.0	131.0	134.1	135.2
62.5°	3077.3	2302.8	488.6	201.7	171.5	147.6	130.0	119.6	119.6	121.6	121.6
65°	3446.4	2631.3	557.2	199.6	176.7	144.5	120.6	110.2	109.2	110.2	110.2
67.5°	3711.5	2675.0	388.8	188.2	179.9	145.5	115.4	101.9	99.8	98.8	98.8
70°	3430.8	2250.8	256.8	177.8	174.7	147.6	111.2	96.7	92.5	89.4	88.4
71°	3236.4	2028.3	238.1	173.6	170.5	145.5	109.2	93.6	89.4	87.3	86.3
72.5°	2948.4	1810.0	219.4	167.4	161.1	141.4	106.0	90.4	85.3	82.1	81.1
75°	2329.8	1387.9	192.3	153.9	139.3	116.4	97.7	84.2	79.0	74.9	73.8
77.5°	1053.2	552.0	147.6	133.1	113.3	92.5	85.3	78.0	71.7	68.6	67.6
80°	294.2	210.0	108.1	105.0	85.3	71.7	68.6	66.5	64.5	60.3	60.3
82.5°	136.2	122.7	76.9	73.8	58.2	50.9	54.1	55.1	55.1	50.9	49.9
85°	37.4	40.5	35.3	39.5	37.4	34.3	39.5	42.6	44.7	40.5	37.4
87.5°	3.1	7.3	9.4	15.6	18.7	19.8	25.0	30.1	31.2	25.0	26.0
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)