

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: P401832

Luminaire Tested: **ENT-SA1F-735-U-SL4**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401832  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1F-735-U-SL4  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6935 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

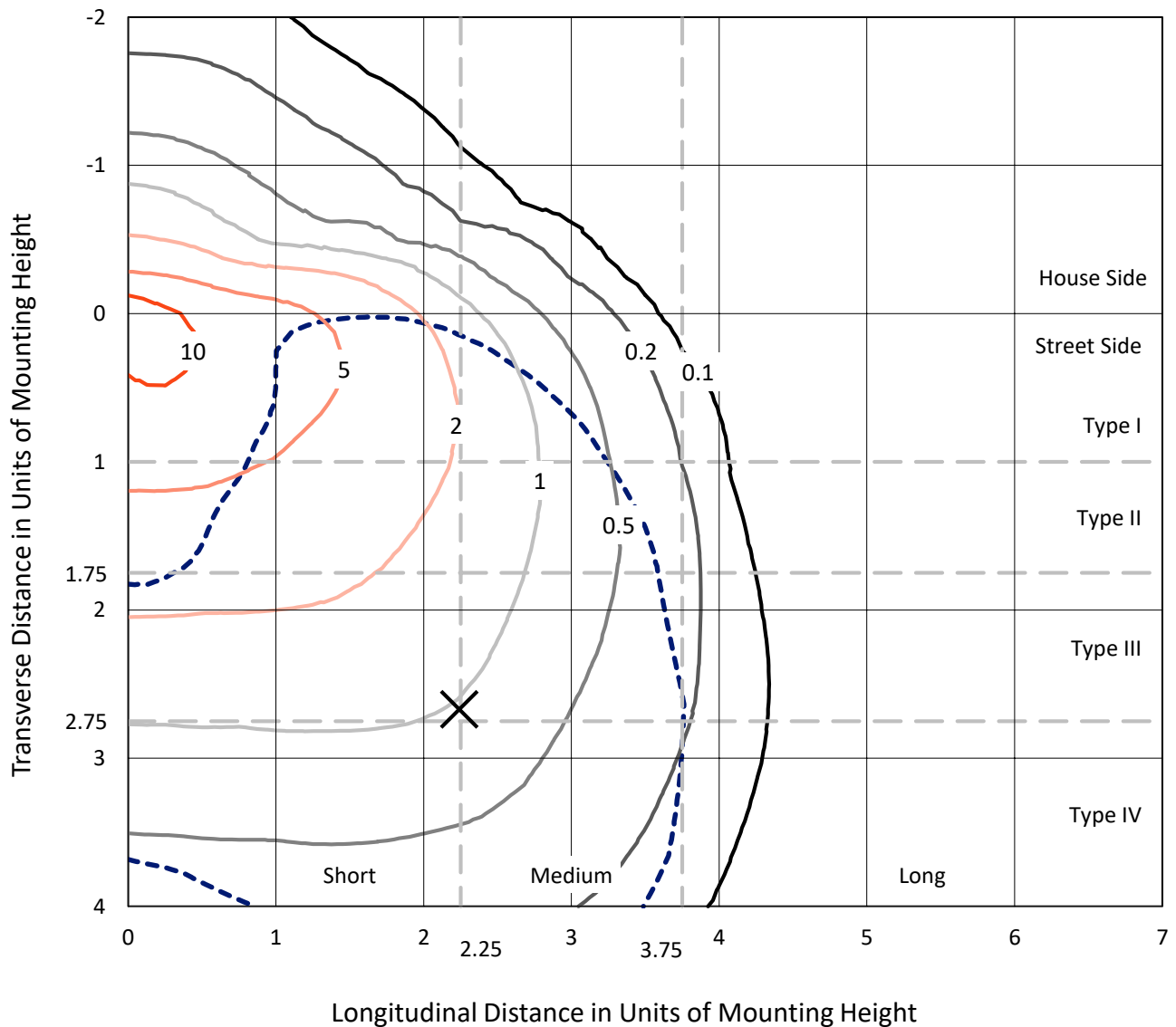
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P401832  
 CATALOG NUMBER: ENT-SA1F-735-U-SL4

### Iso-Footcandle Lines of Horizontal Illumination

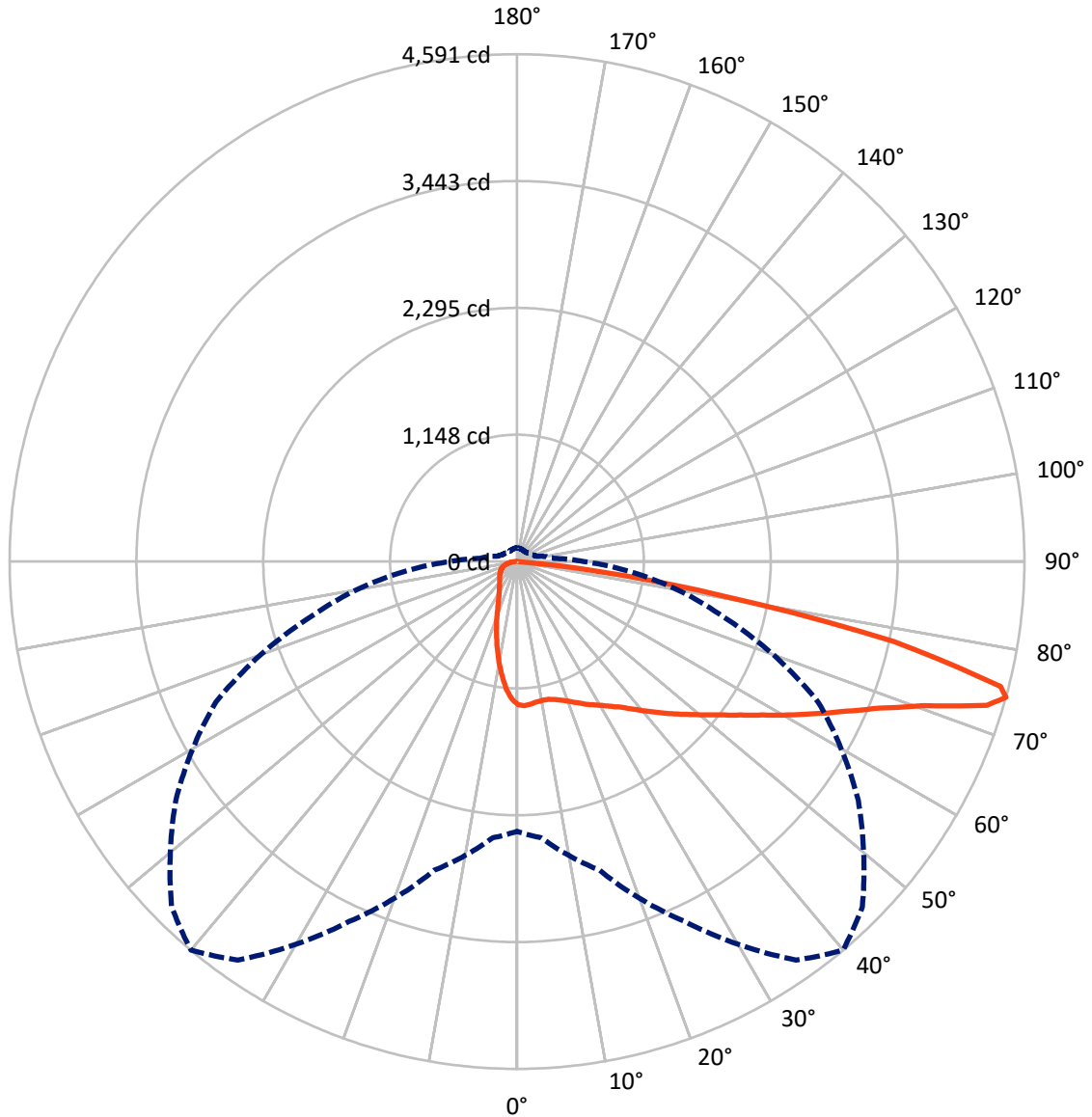
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.9 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P401832  
CATALOG NUMBER: ENT-SA1F-735-U-SL4

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

REPORT NUMBER: P401832

CATALOG NUMBER: ENT-SA1F-735-U-SL4

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1081.3	0.0	1081.3
	% Fixture	15.6	0.0	15.6
<b>Street Side</b>	Lumens	5853.7	0.0	5853.7
	% Fixture	84.4	0.0	84.4
<b>Total</b>	Lumens	6935.0	0.0	6935.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.3	1.6
10°-20°	294.3	4.2
20°-30°	451.4	6.5
30°-40°	651.9	9.4
40°-50°	937.9	13.5
50°-60°	1295.0	18.7
60°-70°	1632.7	23.5
70°-80°	1415.8	20.4
80°-90°	141.7	2.0
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°	6935.0	100.0
0°-180°	6935.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P401832

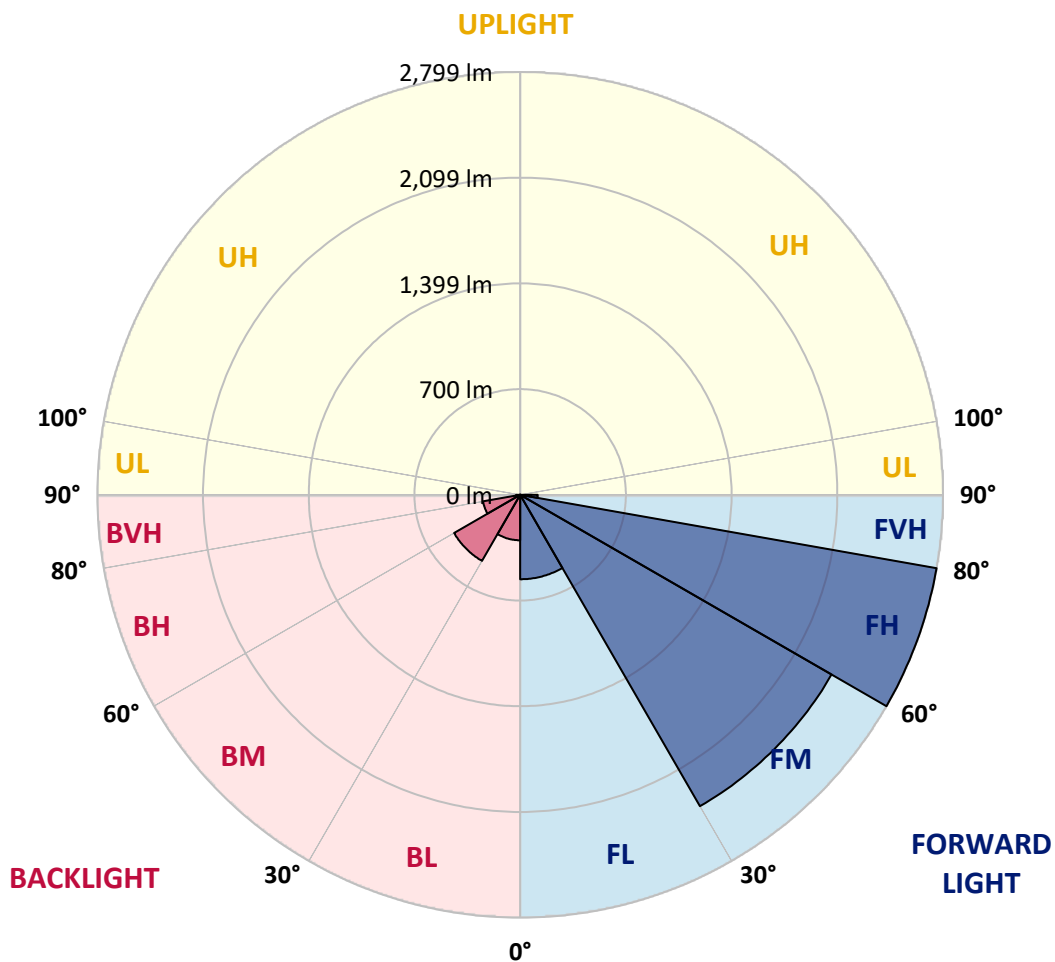
CATALOG NUMBER: ENT-SA1F-735-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	559.1	8.1			
FM (30°-60°)	2379.8	34.3			
FH (60°-80°)	2798.9	40.4			G2/5000
FVH (80°-90°)	115.9	1.7			G2/225
BL (0°-30°)	300.9	4.3	B1/500		
BM (30°-60°)	505.0	7.3	B1/1000		
BH (60°-80°)	249.6	3.6	B1/500		G1/500
BVH (80°-90°)	25.8	0.4			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 IV Short





REPORT NUMBER: P401832

CATALOG NUMBER: ENT-SA1F-735-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5
2.5°	1311.1	1310.1	1313.2	1311.1	1308.0	1305.9	1304.9	1298.7	1296.6	1290.3	1282.0
5°	1305.9	1305.9	1305.9	1303.9	1297.6	1295.5	1293.5	1284.1	1277.9	1267.5	1251.9
7.5°	1288.3	1291.4	1290.3	1289.3	1284.1	1282.0	1278.9	1267.5	1259.2	1243.6	1223.8
10°	1271.6	1271.6	1272.7	1276.8	1274.8	1275.8	1274.8	1262.3	1250.8	1231.1	1206.1
12.5°	1247.7	1251.9	1258.1	1269.6	1274.8	1278.9	1278.9	1269.6	1257.1	1233.2	1204.0
15°	1233.2	1238.4	1254.0	1274.8	1287.2	1294.5	1296.6	1285.1	1269.6	1245.6	1213.4
17.5°	1226.9	1233.2	1262.3	1291.4	1313.2	1319.5	1320.5	1308.0	1291.4	1262.3	1224.8
20°	1233.2	1240.4	1278.9	1318.4	1344.4	1349.6	1351.7	1334.0	1313.2	1285.1	1236.3
22.5°	1257.1	1267.5	1310.1	1352.7	1379.8	1387.0	1385.0	1360.0	1339.2	1309.1	1250.8
25°	1309.1	1315.3	1353.8	1399.5	1420.3	1428.6	1423.4	1395.4	1368.3	1338.2	1271.6
27.5°	1369.4	1377.7	1418.2	1452.6	1466.1	1468.1	1462.9	1433.8	1403.7	1378.7	1303.9
30°	1442.2	1449.4	1482.7	1508.7	1509.7	1510.8	1507.7	1474.4	1449.4	1429.7	1350.7
32.5°	1519.1	1520.1	1554.4	1566.9	1558.6	1561.7	1558.6	1522.2	1504.5	1498.3	1412.0
35°	1589.8	1590.8	1626.2	1630.4	1616.8	1617.9	1624.1	1581.5	1581.5	1596.0	1503.5
37.5°	1657.4	1660.5	1691.7	1687.5	1682.3	1691.7	1700.0	1663.6	1684.4	1726.0	1614.8
40°	1708.3	1715.6	1757.2	1755.1	1766.6	1775.9	1783.2	1764.5	1797.8	1878.9	1752.0
42.5°	1741.6	1756.2	1815.4	1830.0	1849.7	1866.4	1878.9	1877.8	1936.0	2048.3	1897.6
45°	1775.9	1790.5	1869.5	1904.8	1938.1	1964.1	1988.0	2000.5	2093.0	2227.2	2067.1
47.5°	1817.5	1830.0	1918.4	1988.0	2030.7	2066.0	2108.6	2135.7	2253.2	2409.1	2224.1
50°	1880.9	1889.3	1968.3	2076.4	2130.5	2179.3	2232.4	2287.5	2425.8	2595.3	2361.3
52.5°	1963.1	1968.3	2026.5	2165.8	2252.1	2304.1	2383.1	2455.9	2601.5	2763.7	2473.6
55°	2056.7	2052.5	2097.2	2272.9	2373.8	2451.8	2549.5	2623.3	2786.6	2910.3	2563.0
57.5°	2150.2	2147.1	2182.5	2375.9	2527.7	2619.2	2720.0	2798.0	2956.1	3047.6	2627.5
60°	2239.7	2228.2	2278.1	2496.5	2713.8	2818.8	2909.3	2981.0	3116.2	3146.3	2661.8
62.5°	2318.7	2318.7	2391.5	2645.2	2936.3	3030.9	3102.7	3150.5	3269.0	3219.1	2648.3
65°	2391.5	2400.8	2504.8	2811.5	3167.1	3263.8	3326.2	3344.9	3420.8	3222.2	2533.9
67.5°	2473.6	2488.2	2634.8	3006.0	3433.3	3536.2	3590.3	3584.1	3529.0	3174.4	2288.5
70°	2553.7	2577.6	2795.9	3256.5	3761.9	3901.2	3960.5	3837.8	3585.1	2909.3	1900.7
72.5°	2611.9	2652.4	2928.0	3507.1	4232.9	4447.1	4423.2	3907.4	3322.0	2397.7	1438.0
74°	2441.4	2509.0	2891.6	3593.4	4402.4	4590.6	4419.0	3769.1	3004.9	1930.8	1019.0
75°	2242.8	2308.3	2707.5	3559.1	4434.6	4518.8	4204.8	3525.8	2695.1	1496.2	665.4
77.5°	1660.5	1711.5	2079.5	2806.3	3507.1	3482.2	3130.7	2389.4	1327.8	451.3	280.7
80°	733.0	771.5	1026.2	1412.0	1899.7	1892.4	1762.4	1098.0	428.4	236.0	171.6
82.5°	221.5	220.4	295.3	411.7	721.6	735.1	624.9	378.5	204.8	97.7	83.2
85°	1.0	1.0	1.0	1.0	3.1	27.0	22.9	72.8	37.4	17.7	30.2
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
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: P401832

CATALOG NUMBER: ENT-SA1F-735-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5	1294.5
2.5°	1276.8	1275.8	1272.7	1265.4	1260.2	1244.6	1249.8	1239.4	1238.4	1236.3	1235.2
5°	1244.6	1240.4	1228.0	1213.4	1196.8	1170.8	1162.5	1146.9	1137.5	1134.4	1136.5
7.5°	1211.3	1202.0	1178.1	1146.9	1113.6	1075.1	1047.0	1025.2	1009.6	1004.4	997.1
10°	1190.5	1174.9	1134.4	1082.4	1028.3	974.3	927.5	895.2	871.3	852.6	852.6
12.5°	1183.3	1162.5	1103.2	1027.3	949.3	872.4	804.8	762.1	721.6	701.8	698.7
15°	1187.4	1158.3	1077.2	977.4	873.4	773.6	690.4	629.1	590.6	566.7	575.0
17.5°	1191.6	1155.2	1050.2	924.4	799.6	684.2	587.5	517.8	471.0	458.5	453.3
20°	1196.8	1148.9	1015.9	867.2	723.7	597.9	496.0	425.3	389.9	374.3	374.3
22.5°	1204.0	1140.6	980.5	803.7	645.7	513.6	419.0	366.0	337.9	328.6	328.6
25°	1214.4	1135.4	944.1	740.3	571.9	447.1	368.1	326.5	311.9	305.7	304.7
27.5°	1234.2	1136.5	908.8	675.8	499.1	391.0	331.7	304.7	293.2	290.1	289.1
30°	1264.4	1146.9	871.3	607.2	434.6	348.3	306.7	288.0	280.7	278.7	278.7
32.5°	1305.9	1165.6	840.1	545.9	386.8	314.0	285.9	273.5	269.3	267.2	268.3
35°	1370.4	1197.8	802.7	489.7	342.1	290.1	269.3	259.9	256.8	256.8	257.9
37.5°	1454.6	1247.7	766.3	437.7	311.9	269.3	253.7	248.5	245.4	247.5	248.5
40°	1560.7	1307.0	732.0	391.0	287.0	252.7	240.2	236.0	235.0	237.1	239.1
42.5°	1675.1	1378.7	700.8	352.5	267.2	239.1	228.7	226.7	225.6	226.7	229.8
45°	1808.2	1460.9	674.8	323.4	252.7	227.7	218.4	216.3	215.2	217.3	219.4
47.5°	1930.8	1534.7	654.0	303.6	240.2	219.4	210.0	206.9	206.9	206.9	209.0
50°	2030.7	1592.9	641.5	290.1	229.8	210.0	201.7	198.6	197.6	196.5	197.6
52.5°	2117.0	1636.6	637.4	281.8	221.5	201.7	193.4	191.3	189.2	187.2	188.2
55°	2174.1	1658.4	629.1	274.5	214.2	192.4	185.1	183.0	180.9	177.8	177.8
57.5°	2207.4	1656.3	610.3	270.3	210.0	184.0	176.8	176.8	174.7	169.5	170.5
60°	2210.5	1620.0	564.6	265.1	206.9	175.7	167.4	169.5	169.5	165.3	165.3
62.5°	2157.5	1524.3	476.2	251.6	202.8	169.5	160.1	165.3	167.4	163.2	163.2
65°	1994.3	1298.7	382.6	231.9	192.4	162.2	151.8	162.2	168.4	165.3	164.3
67.5°	1681.3	1028.3	316.1	210.0	180.9	152.8	143.5	157.0	165.3	165.3	164.3
70°	1349.6	780.9	259.9	186.1	163.2	141.4	134.1	145.6	152.8	154.9	154.9
72.5°	929.5	477.3	211.1	160.1	143.5	127.9	121.7	128.9	133.1	137.2	136.2
74°	599.9	334.8	185.1	145.6	131.0	117.5	114.4	117.5	119.6	123.7	124.8
75°	401.3	273.5	172.6	135.2	123.7	110.2	108.1	111.3	113.3	116.5	116.5
77.5°	230.8	195.5	139.3	112.3	102.9	94.6	93.6	94.6	97.7	100.9	99.8
80°	160.1	148.7	110.2	87.3	81.1	76.9	78.0	79.0	84.2	85.3	84.2
82.5°	96.7	107.1	78.0	65.5	61.3	60.3	63.4	65.5	69.7	70.7	69.7
85°	38.5	50.9	38.5	36.4	40.6	44.7	49.9	53.0	55.1	55.1	55.1
87.5°	0.0	7.3	9.4	14.6	22.9	27.0	35.4	38.5	40.6	39.5	38.5
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)