

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: STREETWORKS

Report Number: P214874

Luminaire Tested: **ARCH-AF24-90-D-U-T4W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214874  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-90-D-U-T4W  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9977.9 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 28.75 FT

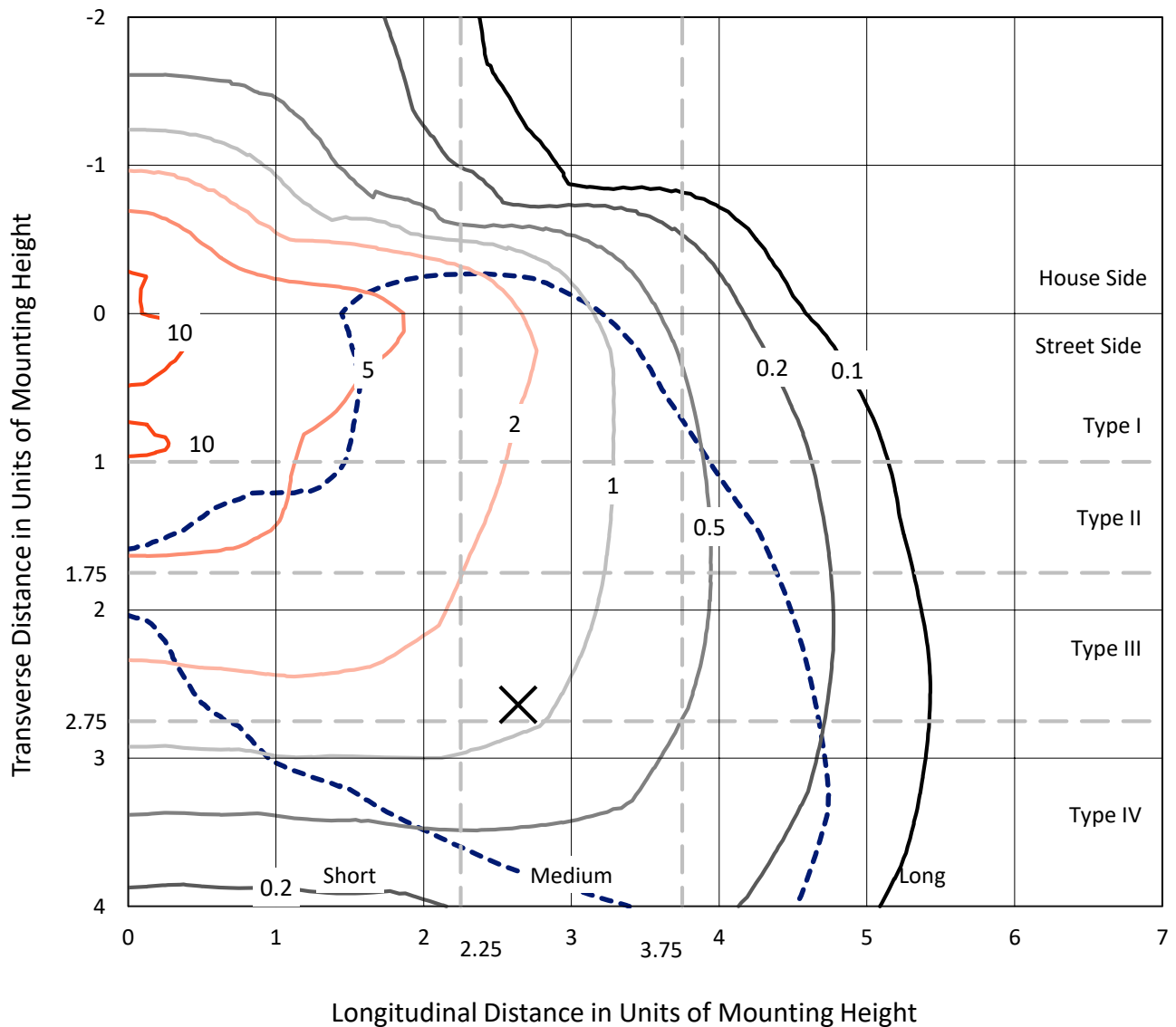


REPORT NUMBER: P214874

CATALOG NUMBER: ARCH-AF24-90-D-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

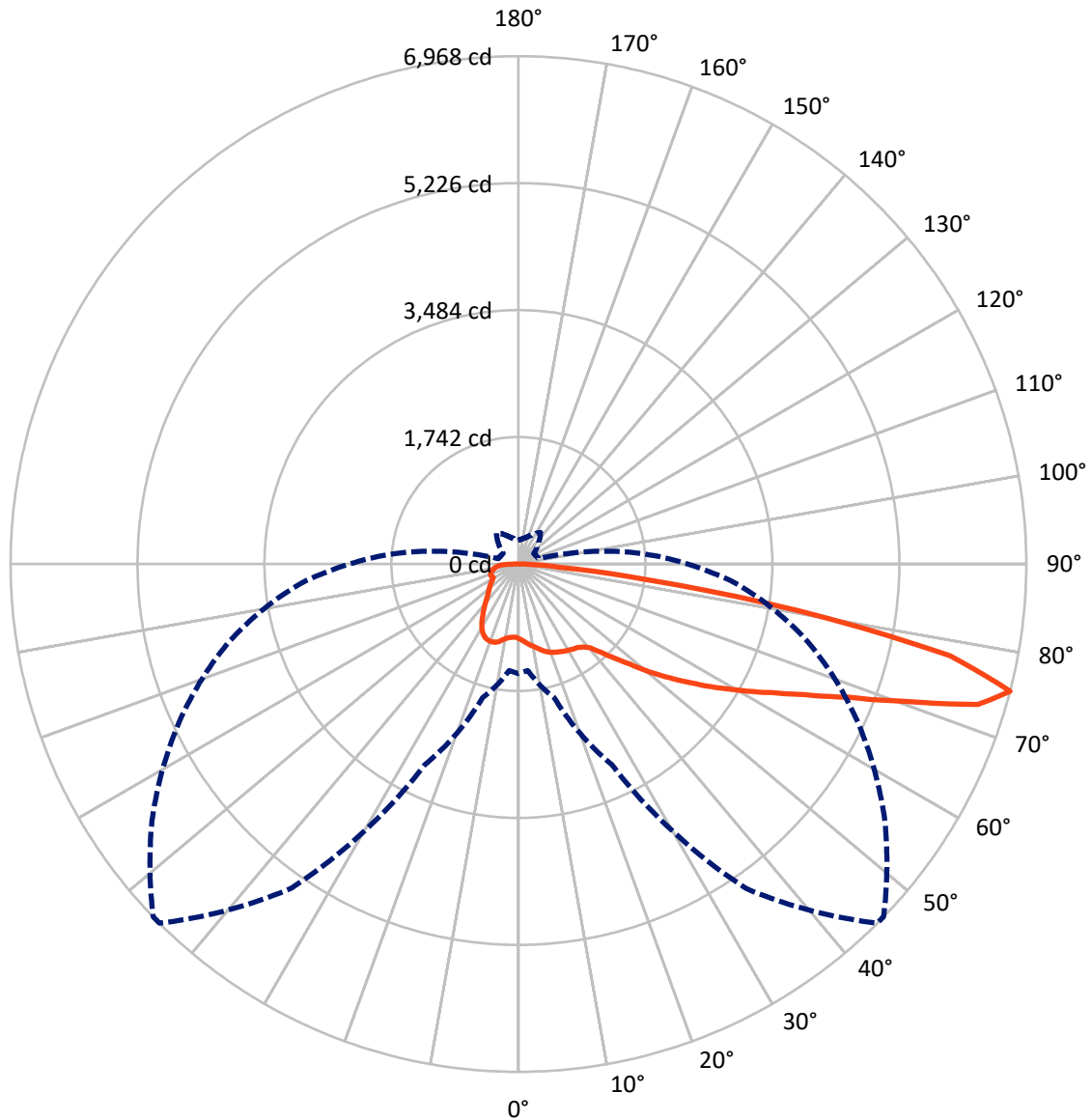


Based on 10 foot mounting height. Maximum calculated value = 12 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214874

CATALOG NUMBER: ARCH-AF24-90-D-U-T4W

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P214874

CATALOG NUMBER: ARCH-AF24-90-D-U-T4W

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2311.5	0.0	2311.5
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	7666.4	0.0	7666.4
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	9977.9	0.0	9977.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.4	1.0
10°-20°	328.5	3.3
20°-30°	563.7	5.6
30°-40°	788.4	7.9
40°-50°	1156.5	11.6
50°-60°	1801.5	18.1
60°-70°	2592.2	26.0
70°-80°	2258.1	22.6
80°-90°	387.8	3.9
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°	9977.9	100.0
0°-180°	9977.9	100.0

**Coefficient of Utilization**



REPORT NUMBER: P214874

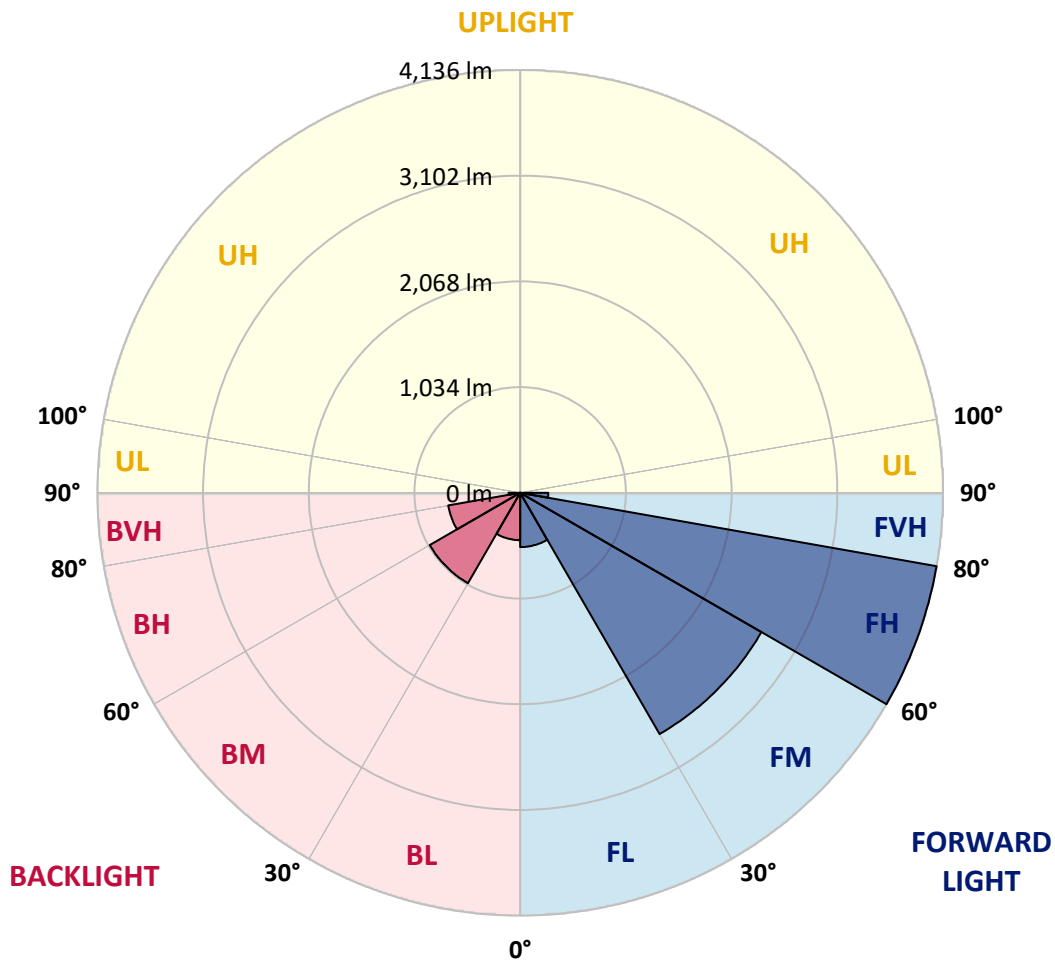
CATALOG NUMBER: ARCH-AF24-90-D-U-T4W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	530.6	5.3			
FM (30°-60°)	2724.8	27.3			
FH (60°-80°)	4135.9	41.5			G2/5000
FVH (80°-90°)	275.1	2.8			G3/500
BL (0°-30°)	463.0	4.6	B1/500		
BM (30°-60°)	1021.5	10.2	B2/2500		
BH (60°-80°)	714.3	7.2	B2/1000		G2/1000
BVH (80°-90°)	112.7	1.1			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Medium





REPORT NUMBER: P214874

CATALOG NUMBER: ARCH-AF24-90-D-U-T4W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8
2.5°	1073.4	1065.6	1065.6	1059.8	1059.8	1050.1	1046.2	1044.2	1034.5	1028.7	1022.8
5°	1135.5	1125.8	1123.8	1110.2	1104.4	1083.0	1081.1	1067.6	1050.1	1032.6	1019.0
7.5°	1191.7	1185.9	1176.2	1162.6	1145.2	1118.0	1116.0	1094.7	1065.6	1042.3	1022.8
10°	1232.5	1228.6	1215.1	1197.6	1178.1	1151.0	1149.1	1125.8	1090.8	1063.7	1036.5
12.5°	1281.0	1275.2	1257.7	1234.4	1213.1	1187.9	1185.9	1166.5	1127.7	1092.7	1057.8
15°	1327.6	1319.8	1298.5	1275.2	1251.9	1230.5	1230.5	1209.2	1168.4	1127.7	1086.9
17.5°	1350.9	1347.0	1325.6	1300.4	1281.0	1265.5	1263.5	1244.1	1203.4	1160.6	1116.0
20°	1358.7	1360.6	1341.2	1314.0	1300.4	1292.7	1290.8	1277.2	1232.5	1191.7	1149.1
22.5°	1356.7	1362.6	1347.0	1317.9	1314.0	1314.0	1314.0	1298.5	1263.5	1222.8	1180.1
25°	1364.5	1372.3	1360.6	1325.6	1325.6	1333.4	1333.4	1325.6	1294.6	1259.7	1217.0
27.5°	1391.6	1397.5	1387.7	1339.2	1341.2	1352.9	1350.9	1352.9	1333.4	1300.4	1257.7
30°	1424.7	1432.4	1420.8	1360.6	1358.7	1370.3	1370.3	1380.0	1366.5	1331.5	1296.6
32.5°	1514.0	1512.0	1475.1	1383.8	1378.0	1389.7	1389.7	1399.4	1391.6	1364.5	1331.5
35°	1779.8	1750.7	1669.3	1459.5	1401.3	1407.2	1407.2	1424.7	1428.6	1407.2	1378.0
37.5°	2051.5	2041.9	1979.7	1661.5	1486.8	1444.1	1442.2	1467.3	1484.8	1467.3	1448.0
40°	2325.3	2317.5	2303.9	1931.2	1665.4	1510.1	1504.2	1525.5	1556.6	1545.0	1533.3
42.5°	2579.5	2575.6	2589.2	2197.1	1892.5	1651.8	1634.3	1609.0	1653.7	1649.8	1649.8
45°	2779.5	2789.1	2796.8	2445.6	2138.9	1834.2	1812.9	1727.5	1787.6	1803.2	1814.8
47.5°	2892.0	2899.8	2927.0	2688.2	2385.4	2045.7	2030.3	1890.5	1970.0	2016.6	2049.6
50°	3053.1	3031.7	3055.0	2925.0	2682.4	2321.4	2278.6	2109.8	2210.7	2292.2	2369.9
52.5°	3208.4	3173.4	3192.8	3198.7	3020.1	2591.1	2546.5	2367.9	2494.1	2622.2	2760.0
55°	3348.1	3346.2	3365.6	3464.5	3346.2	2880.3	2829.9	2653.2	2835.7	2973.5	3206.4
57.5°	3460.6	3480.1	3565.5	3773.2	3722.7	3194.8	3138.5	2985.2	3200.6	3338.4	3724.7
60°	3592.7	3623.7	3765.4	4035.2	4066.2	3524.8	3466.5	3355.9	3575.2	3714.9	4324.4
62.5°	3637.3	3681.9	3973.1	4310.8	4425.3	3885.8	3833.3	3759.5	3969.3	4095.4	4922.2
65°	3340.3	3425.8	4087.6	4452.5	4811.6	4320.5	4275.8	4211.8	4361.2	4444.7	5327.8
67.5°	3258.8	3297.7	3864.4	4656.3	5174.5	4879.5	4834.9	4724.2	4728.1	4693.2	5459.9
70°	3144.3	3187.0	3635.4	4809.6	5694.7	5644.2	5589.9	5263.8	5063.9	4852.4	5199.8
72.5°	2678.5	2664.9	3132.7	4396.2	5945.1	6591.4	6527.3	5844.1	5312.4	4714.6	4388.5
75°	1504.2	1465.4	1900.1	3041.4	5428.8	6967.9	6966.0	6137.2	5137.7	4107.0	2987.1
77.5°	436.7	425.0	627.0	1275.2	3654.8	6053.8	6127.6	5535.6	4287.5	2950.2	1640.1
80°	205.7	209.6	269.8	421.1	1560.5	3907.1	4118.7	3645.1	2562.1	1360.6	677.4
82.5°	130.0	132.0	184.4	271.7	659.9	1774.0	1948.7	1640.1	1015.1	588.1	298.9
85°	81.5	81.5	122.2	178.6	394.0	566.7	615.3	558.9	434.8	320.3	163.1
87.5°	44.6	44.6	73.8	102.9	215.4	182.5	188.2	223.2	271.7	196.0	81.5
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: P214874

CATALOG NUMBER: ARCH-AF24-90-D-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8
2.5°	1020.9	1017.0	1011.2	1009.2	1007.3	1005.4	1007.3	1011.2	1007.3	1007.3	1009.2
5°	1015.1	1011.2	1003.4	1003.4	1005.4	1007.3	1017.0	1022.8	1024.8	1024.8	1024.8
7.5°	1015.1	1009.2	1003.4	1005.4	1009.2	1017.0	1032.6	1042.3	1050.1	1052.0	1052.0
10°	1024.8	1017.0	1013.1	1017.0	1028.7	1034.5	1050.1	1065.6	1075.3	1079.1	1079.1
12.5°	1042.3	1034.5	1034.5	1042.3	1057.8	1065.6	1079.1	1090.8	1102.4	1108.3	1108.3
15°	1071.4	1061.7	1063.7	1077.3	1094.7	1102.4	1112.2	1116.0	1125.8	1133.5	1133.5
17.5°	1098.5	1088.8	1092.7	1108.3	1119.9	1123.8	1129.6	1127.7	1131.6	1137.4	1139.4
20°	1129.6	1119.9	1121.9	1131.6	1133.5	1129.6	1129.6	1123.8	1121.9	1131.6	1135.5
22.5°	1160.6	1151.0	1149.1	1143.2	1133.5	1123.8	1118.0	1112.2	1108.3	1118.0	1121.9
25°	1197.6	1184.0	1174.2	1149.1	1123.8	1106.3	1098.5	1094.7	1092.7	1102.4	1106.3
27.5°	1238.3	1224.8	1195.6	1141.3	1100.5	1071.4	1065.6	1065.6	1069.5	1075.3	1079.1
30°	1277.2	1263.5	1211.2	1123.8	1059.8	1017.0	1011.2	1017.0	1026.7	1032.6	1038.4
32.5°	1315.9	1302.3	1220.9	1096.6	999.6	945.2	941.3	951.0	966.6	970.5	974.4
35°	1368.4	1354.8	1232.5	1057.8	923.9	865.6	861.7	867.6	881.2	887.0	892.8
37.5°	1442.2	1434.4	1249.9	1015.1	854.1	789.9	778.4	774.5	782.1	780.2	788.0
40°	1539.1	1545.0	1281.0	958.8	786.0	720.1	694.9	683.2	675.5	659.9	667.7
42.5°	1680.8	1684.7	1315.9	894.8	727.8	654.1	621.1	599.8	584.2	558.9	562.8
45°	1888.6	1855.5	1356.7	826.9	675.5	601.7	562.8	537.7	516.3	494.9	496.8
47.5°	2164.2	2063.2	1401.3	770.6	623.1	558.9	524.1	494.9	469.7	452.2	454.2
50°	2503.8	2321.4	1446.0	718.1	570.6	526.0	494.9	463.9	438.6	421.1	419.2
52.5°	2952.1	2632.0	1475.1	659.9	518.2	496.8	469.7	440.6	409.5	388.2	386.3
55°	3418.0	2992.9	1500.4	590.0	467.8	463.9	450.3	417.3	380.4	353.2	349.3
57.5°	3930.4	3379.2	1519.8	522.1	428.9	436.7	432.8	394.0	353.2	328.1	326.1
60°	4396.2	3779.0	1457.6	462.0	394.0	409.5	413.4	380.4	359.1	364.9	366.8
62.5°	4866.0	4087.6	1220.9	417.3	370.7	392.1	425.0	423.1	413.4	423.1	425.0
65°	5034.8	4151.6	865.6	380.4	347.4	399.9	462.0	458.1	413.4	396.0	392.1
67.5°	4939.7	3961.5	582.3	351.3	330.0	409.5	500.7	458.1	397.9	374.6	366.8
70°	4487.5	3493.7	427.0	322.2	314.5	407.6	522.1	456.1	390.2	364.9	355.2
72.5°	3579.1	2696.0	343.5	295.0	291.1	397.9	533.8	452.2	382.4	355.2	343.5
75°	2317.5	1676.9	289.2	267.8	256.2	382.4	527.9	440.6	372.7	337.7	330.0
77.5°	1075.3	722.0	246.5	236.8	223.2	359.1	510.5	417.3	351.3	318.3	308.6
80°	500.7	341.6	207.7	205.7	199.9	339.6	487.1	390.2	326.1	298.9	283.4
82.5°	267.8	205.7	168.9	168.9	174.7	316.4	458.1	357.1	293.1	279.5	238.8
85°	141.7	118.4	122.2	132.0	149.5	279.5	419.2	322.2	256.2	213.5	207.7
87.5°	71.8	75.7	75.7	89.3	114.5	227.1	345.5	265.9	217.4	174.7	170.8
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)