

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: P214747

Luminaire Tested: **ARCH-AF24-80-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-80-D-U-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9158 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G2

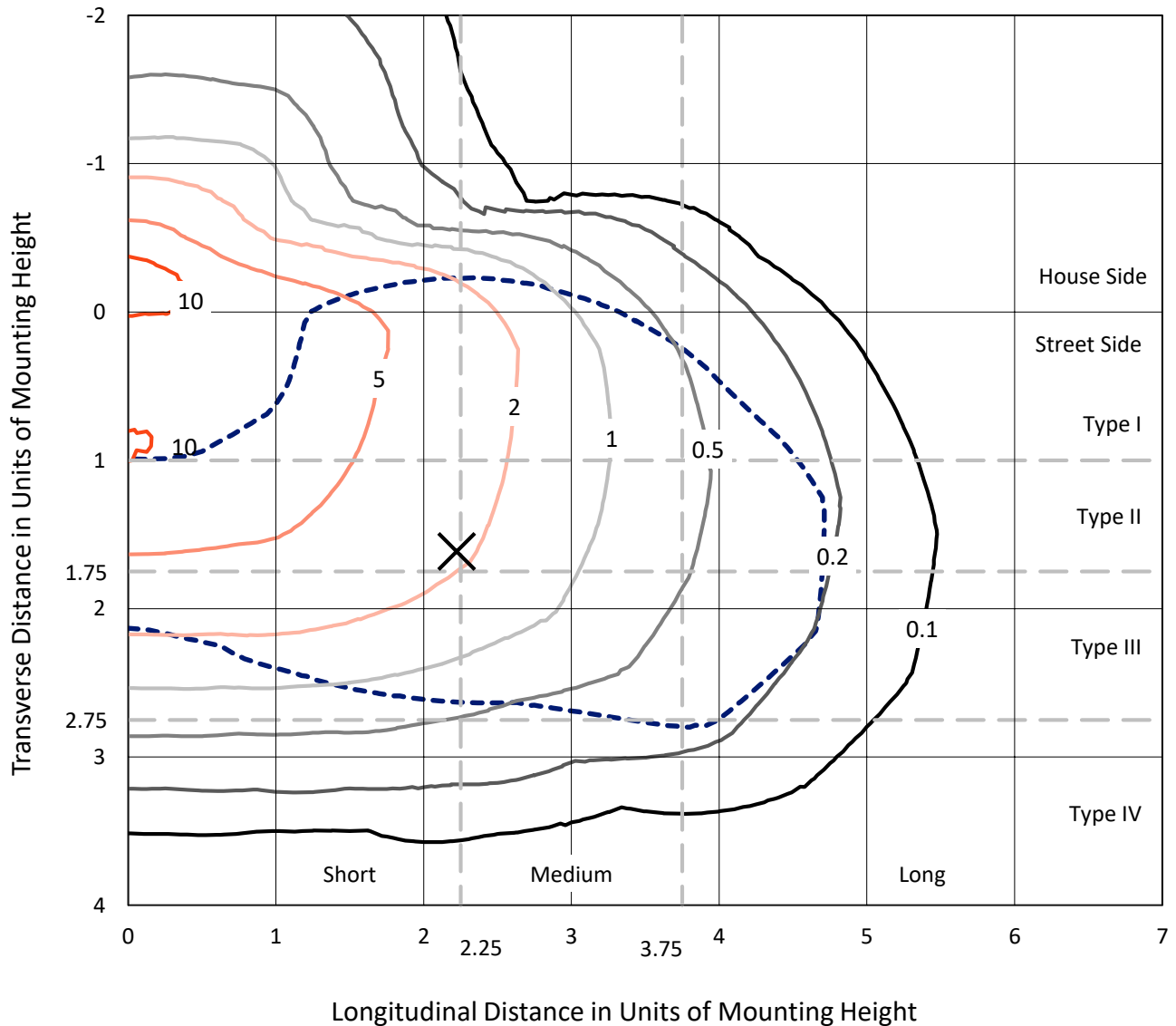
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

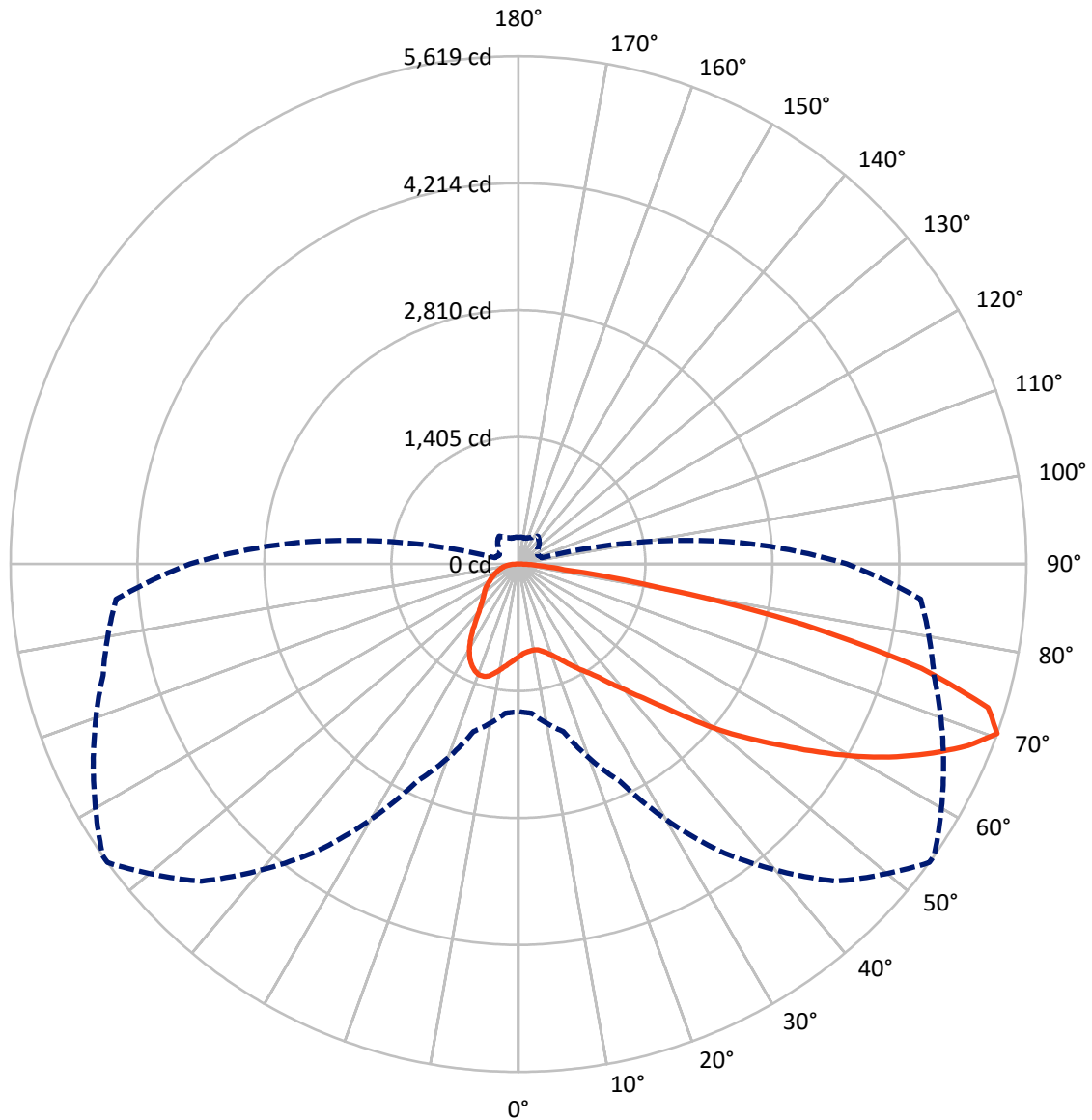


Based on 10 foot mounting height. Maximum calculated value = 11.9 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2077.0	0.0	2077.0
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	7081.0	0.0	7081.0
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	9158.0	0.0	9158.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.6	1.1
10°-20°	321.3	3.5
20°-30°	558.2	6.1
30°-40°	815.7	8.9
40°-50°	1280.3	14.0
50°-60°	1968.7	21.5
60°-70°	2405.3	26.3
70°-80°	1491.3	16.3
80°-90°	216.6	2.4
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°	9158.0	100.0
0°-180°	9158.0	100.0



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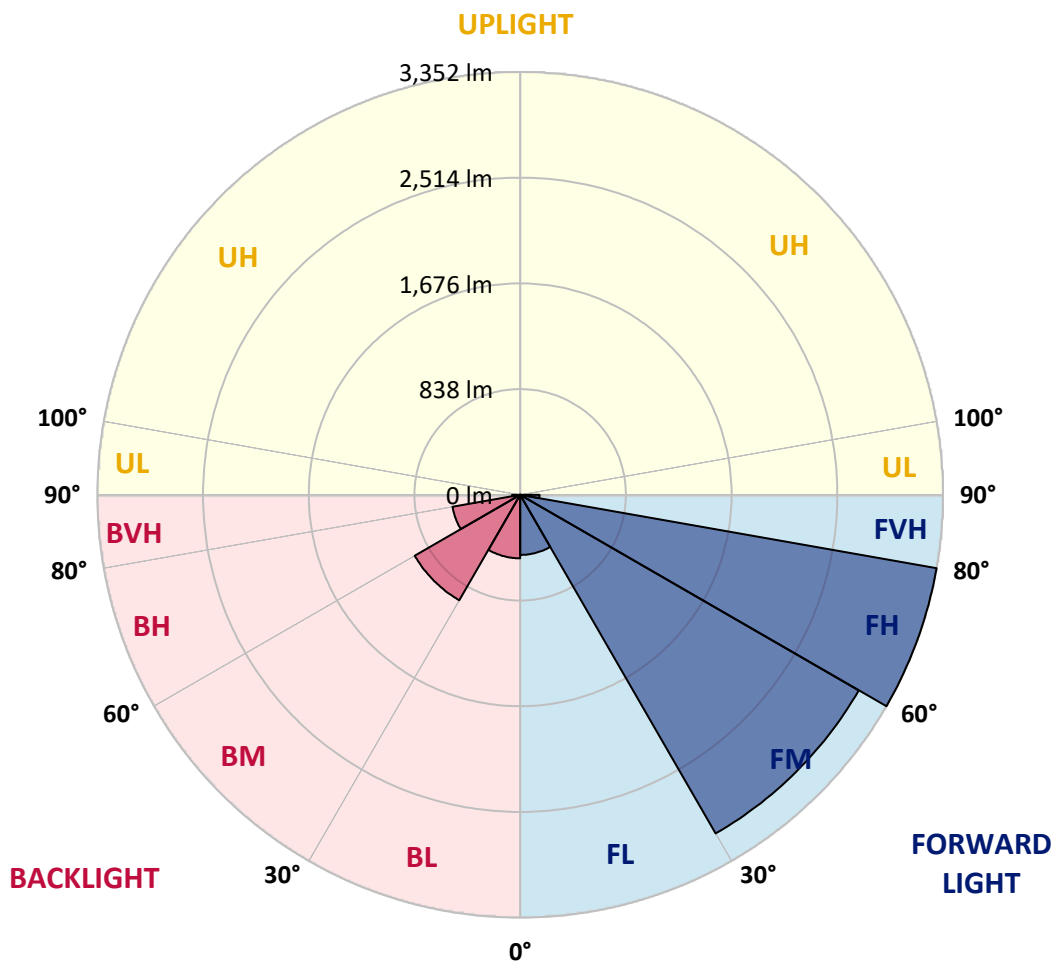
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	476.5	5.2			
FM	(30°-60°)	3099.6	33.8			
FH	(60°-80°)	3352.0	36.6			G2/5000
FVH	(80°-90°)	153.0	1.7			G2/225
BL	(0°-30°)	503.5	5.5	B2/1000		
BM	(30°-60°)	965.2	10.5	B1/1000		
BH	(60°-80°)	544.6	5.9	B2/1000		G2/1000
BVH	(80°-90°)	63.7	0.7			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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6
2.5°	984.3	981.0	981.0	986.0	987.7	992.7	992.7	994.4	999.4	1007.8	1017.9
5°	954.2	952.5	954.2	960.9	964.2	974.3	977.6	979.3	989.4	1002.8	1017.9
7.5°	924.0	922.3	925.7	935.7	945.8	960.9	969.3	970.9	986.0	1004.5	1024.6
10°	913.9	912.2	917.3	925.7	935.7	952.5	965.9	967.6	989.4	1011.2	1039.7
12.5°	927.3	925.7	930.7	939.1	949.1	960.9	976.0	977.6	1006.1	1034.7	1064.8
15°	960.9	960.9	962.5	967.6	977.6	987.7	1001.1	1002.8	1033.0	1066.5	1096.7
17.5°	1012.9	1009.5	1009.5	1007.8	1014.5	1019.6	1036.3	1038.0	1069.9	1100.1	1130.2
20°	1076.6	1074.9	1068.2	1059.8	1058.1	1061.5	1078.3	1079.9	1111.8	1136.9	1165.5
22.5°	1153.7	1155.4	1140.3	1121.9	1113.5	1118.5	1133.6	1135.3	1158.7	1180.5	1205.7
25°	1256.0	1251.0	1229.2	1202.3	1185.6	1185.6	1200.7	1200.7	1222.5	1235.9	1252.7
27.5°	1353.3	1343.2	1323.1	1284.5	1257.7	1262.7	1277.8	1277.8	1297.9	1303.0	1311.3
30°	1458.9	1448.9	1423.7	1375.1	1339.9	1336.5	1354.9	1353.3	1380.1	1378.4	1371.7
32.5°	1588.0	1583.0	1541.1	1479.0	1432.1	1420.3	1437.1	1438.8	1455.6	1450.5	1428.7
35°	1769.1	1767.5	1728.9	1619.9	1557.9	1536.1	1546.1	1546.1	1557.9	1544.4	1507.5
37.5°	1997.2	2000.6	1967.0	1806.0	1718.8	1681.9	1683.6	1681.9	1685.3	1670.2	1631.6
40°	2225.3	2233.7	2232.0	2037.5	1926.8	1863.1	1839.6	1836.2	1844.6	1837.9	1801.0
42.5°	2525.4	2545.6	2498.6	2322.5	2198.4	2091.1	2027.4	2019.0	2037.5	2045.8	2010.6
45°	2837.3	2830.6	2756.8	2629.4	2517.0	2379.5	2258.8	2245.4	2258.8	2284.0	2247.1
47.5°	3000.0	2995.0	2976.5	2912.8	2896.0	2738.4	2555.6	2543.9	2518.7	2553.9	2510.3
50°	3268.3	3273.3	3197.9	3191.2	3261.6	3174.4	2891.0	2864.2	2818.9	2847.4	2810.5
52.5°	3462.8	3441.0	3394.1	3452.8	3672.4	3625.5	3206.3	3194.5	3152.6	3145.9	3129.1
55°	3541.6	3541.6	3550.0	3685.9	3999.4	3937.4	3548.4	3560.1	3503.1	3456.1	3477.9
57.5°	3565.1	3575.2	3647.3	3872.0	4383.5	4180.5	3925.7	3942.4	3860.3	3766.4	3835.1
60°	3449.4	3479.6	3652.3	3977.6	4599.8	4438.8	4323.1	4328.1	4209.1	4071.6	4192.3
62.5°	3152.6	3189.5	3498.0	4021.2	4564.6	4703.7	4698.7	4710.5	4547.8	4376.7	4527.7
65°	2788.7	2825.6	3154.3	3898.8	4537.7	4893.2	5042.5	5074.3	4864.7	4635.0	4737.3
67.5°	2253.8	2302.4	2614.3	3486.3	4406.9	5049.2	5364.5	5398.0	5109.6	4769.1	4718.8
70°	1633.3	1656.8	1918.4	2649.5	3873.7	4963.7	5619.3	5617.7	5190.1	4759.1	4467.3
72.5°	786.5	804.9	1031.3	1645.1	2770.3	4212.4	5434.9	5466.7	5079.4	4613.2	3892.1
75°	323.6	342.1	417.6	694.2	1453.9	2783.7	4606.5	4681.9	4613.2	4140.3	3045.3
77.5°	201.2	207.9	244.8	358.9	664.1	1299.6	3224.7	3327.0	3655.7	3316.9	2010.6
80°	150.9	156.0	182.8	251.5	419.2	479.6	1601.5	1730.6	2215.2	1903.3	910.6
82.5°	125.8	127.4	145.9	182.8	285.1	275.0	513.1	571.8	1033.0	726.1	313.6
85°	117.4	120.7	130.8	130.8	181.1	172.7	213.0	223.0	300.2	248.2	109.0
87.5°	60.4	57.0	115.7	102.3	93.9	83.8	90.6	97.3	112.4	119.1	48.6
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°	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6	1024.6
2.5°	1021.2	1026.3	1034.7	1043.0	1053.1	1064.8	1071.5	1079.9	1086.6	1083.3	1081.6
5°	1026.3	1034.7	1053.1	1069.9	1090.0	1113.5	1128.6	1145.3	1158.7	1162.1	1157.1
7.5°	1034.7	1049.7	1074.9	1105.1	1131.9	1162.1	1185.6	1209.1	1225.8	1229.2	1229.2
10°	1054.8	1071.5	1105.1	1145.3	1177.2	1209.1	1235.9	1254.3	1269.4	1276.1	1276.1
12.5°	1083.3	1103.4	1143.7	1192.3	1227.5	1257.7	1272.8	1281.2	1287.9	1294.6	1296.3
15°	1116.8	1138.6	1187.3	1239.2	1276.1	1291.2	1291.2	1289.5	1289.5	1292.9	1296.3
17.5°	1150.4	1173.8	1224.1	1279.5	1303.0	1294.6	1282.8	1277.8	1274.5	1272.8	1277.8
20°	1185.6	1209.1	1259.4	1311.3	1304.6	1269.4	1252.7	1240.9	1230.9	1225.8	1232.5
22.5°	1224.1	1245.9	1297.9	1333.1	1282.8	1229.2	1197.3	1178.9	1162.1	1152.0	1158.7
25°	1269.4	1291.2	1341.5	1339.9	1244.3	1168.8	1118.5	1088.3	1069.9	1059.8	1059.8
27.5°	1323.1	1341.5	1390.2	1323.1	1190.6	1088.3	1014.5	986.0	981.0	972.6	972.6
30°	1378.4	1393.5	1435.4	1284.5	1116.8	982.7	902.2	888.8	890.4	882.1	883.7
32.5°	1435.4	1450.5	1462.3	1227.5	1021.2	863.6	810.0	799.9	798.2	791.5	784.8
35°	1515.9	1537.7	1465.6	1150.4	905.5	764.7	726.1	716.0	706.0	682.5	682.5
37.5°	1638.3	1661.8	1457.2	1054.8	786.5	687.5	652.3	638.9	622.1	598.7	590.3
40°	1806.0	1806.0	1438.8	947.5	690.9	625.5	592.0	575.2	556.7	533.3	528.2
42.5°	2003.9	1957.0	1410.3	838.5	620.5	583.6	553.4	534.9	513.1	486.3	483.0
45°	2235.3	2107.9	1370.0	741.2	568.5	558.4	540.0	508.1	471.2	442.7	437.7
47.5°	2460.0	2243.7	1331.5	672.4	524.9	548.4	533.3	479.6	429.3	389.0	384.0
50°	2706.5	2364.5	1286.2	615.4	491.3	541.6	524.9	437.7	382.3	353.8	350.5
52.5°	2953.0	2486.9	1237.6	555.1	462.8	528.2	504.8	407.5	380.7	342.1	337.1
55°	3213.0	2629.4	1180.5	488.0	429.3	501.4	477.9	405.8	392.4	342.1	330.4
57.5°	3466.2	2787.0	1088.3	422.6	392.4	461.2	467.9	395.8	367.2	338.7	325.3
60°	3746.2	2954.7	935.7	367.2	360.5	427.6	454.4	374.0	338.7	328.7	322.0
62.5°	3970.9	3105.6	731.1	328.7	333.7	400.8	437.7	360.5	327.0	318.6	316.9
65°	4068.2	3109.0	524.9	295.1	306.9	375.6	420.9	348.8	316.9	313.6	311.9
67.5°	3965.9	2938.0	368.9	263.3	278.4	352.2	399.1	337.1	306.9	308.6	305.2
70°	3635.6	2577.4	270.0	233.1	251.5	327.0	375.6	322.0	295.1	298.5	293.5
72.5°	3041.9	2008.9	216.3	207.9	229.7	300.2	352.2	305.2	276.7	278.4	268.3
75°	2247.1	1331.5	181.1	186.1	204.6	275.0	322.0	283.4	256.6	249.9	243.2
77.5°	1336.5	684.2	149.2	162.7	182.8	244.8	288.4	256.6	234.8	223.0	218.0
80°	551.7	276.7	122.4	137.5	159.3	218.0	254.9	224.7	209.6	197.9	191.2
82.5°	219.7	135.8	97.3	112.4	134.2	189.5	223.0	197.9	182.8	174.4	156.0
85°	83.8	67.1	65.4	78.8	100.6	145.9	184.5	166.0	154.3	132.5	127.4
87.5°	33.5	30.2	30.2	38.6	57.0	92.2	132.5	115.7	120.7	95.6	97.3
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)