

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: P214609

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214609  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-100-D-U-T2R-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9972 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 96  
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: 28.75 FT

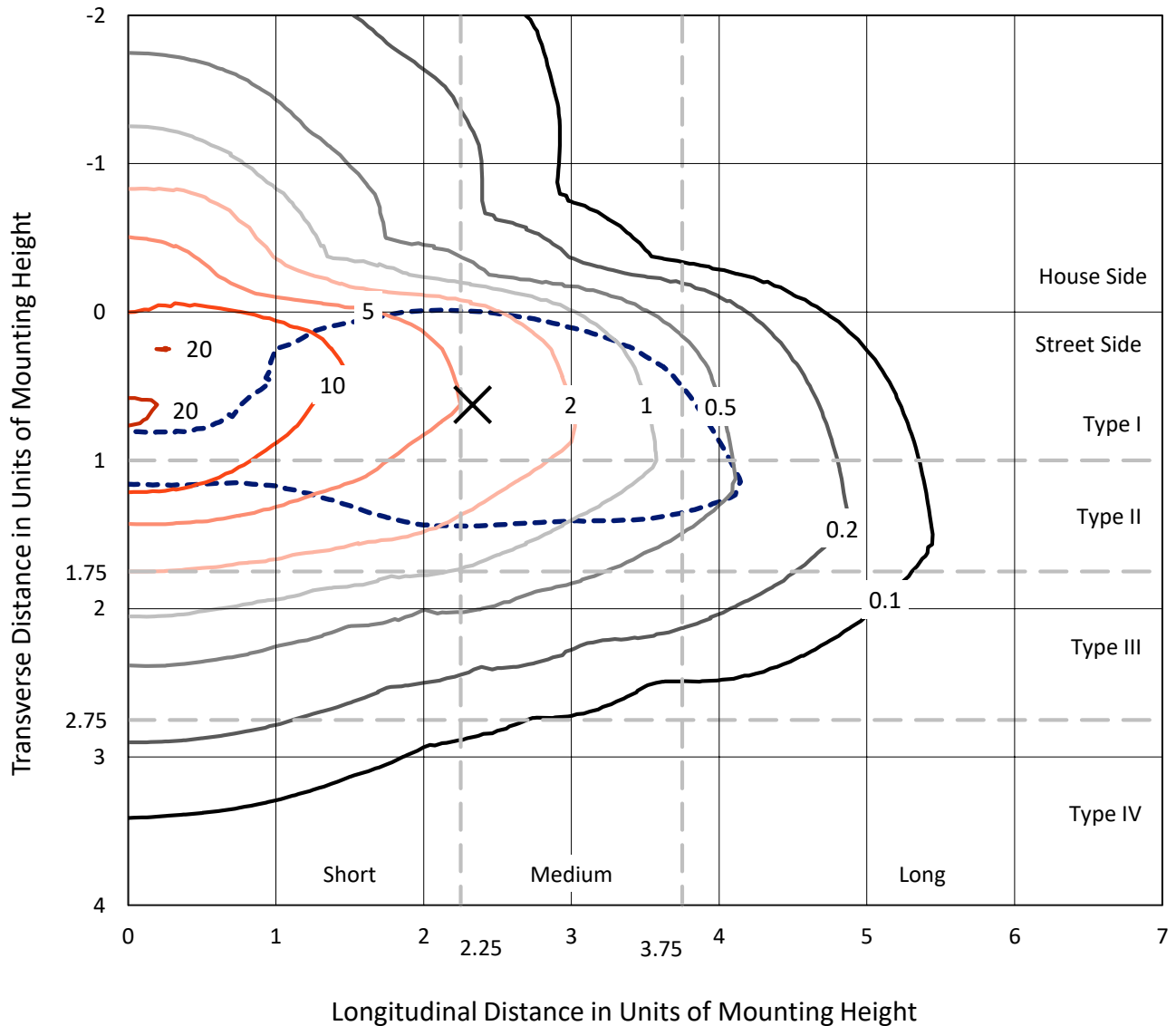


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

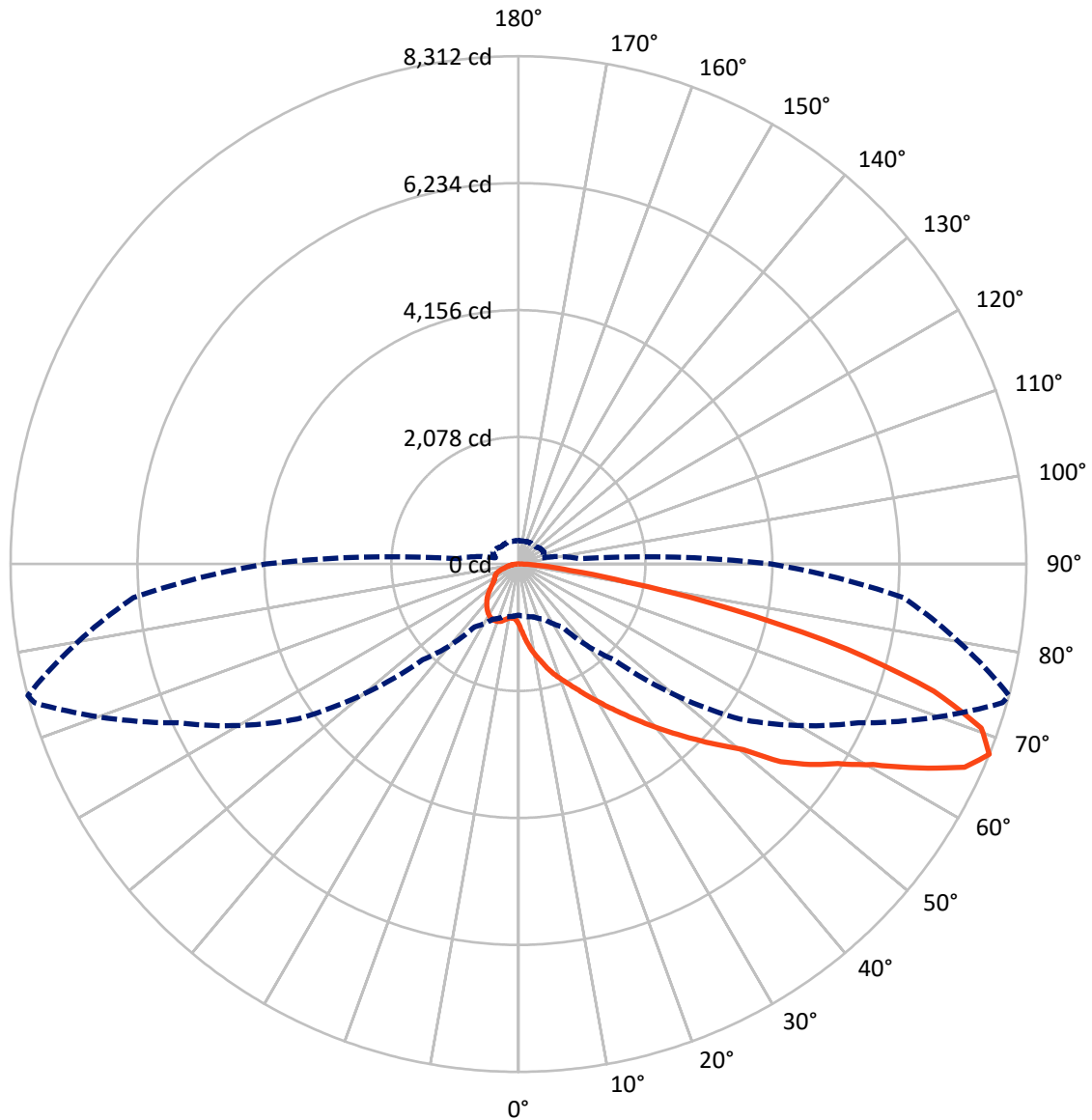


Based on 10 foot mounting height. Maximum calculated value = 20.7 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1702.9	0.0	1702.9
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	8269.1	0.0	8269.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	9972.0	0.0	9972.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	1.2
10°-20°	419.5	4.2
20°-30°	765.2	7.7
30°-40°	1255.9	12.6
40°-50°	1816.3	18.2
50°-60°	2140.5	21.5
60°-70°	2080.0	20.9
70°-80°	1156.2	11.6
80°-90°	222.3	2.2
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°	9972.0	100.0
0°-180°	9972.0	100.0



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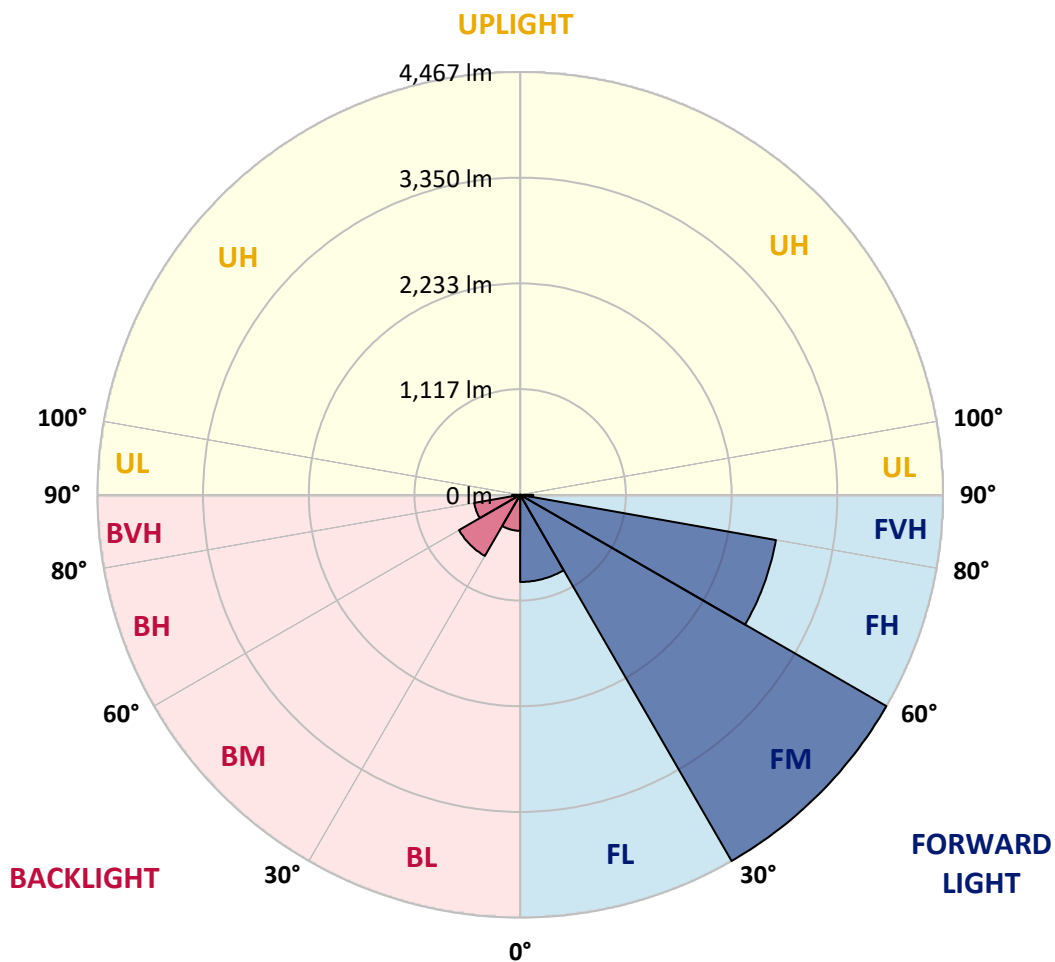
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	920.7	9.2			
FM (30°-60°)	4466.9	44.8			
FH (60°-80°)	2743.2	27.5			G2/5000
FVH (80°-90°)	138.4	1.4			G2/225
BL (0°-30°)	380.1	3.8	B1/500		
BM (30°-60°)	745.8	7.5	B1/1000		
BH (60°-80°)	493.1	4.9	B1/500		G1/500
BVH (80°-90°)	84.0	0.8			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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1
2.5°	1400.9	1405.1	1396.7	1378.0	1350.9	1300.8	1257.0	1179.9	1111.1	1102.8	1029.8
5°	1646.9	1651.0	1640.6	1617.7	1588.5	1534.3	1473.9	1373.8	1263.3	1242.5	1088.2
7.5°	1815.7	1817.8	1805.3	1782.4	1759.5	1705.2	1644.8	1532.2	1396.7	1380.0	1163.2
10°	1959.6	1963.7	1947.1	1932.5	1907.5	1853.3	1790.7	1671.9	1532.2	1509.3	1240.4
12.5°	2093.0	2097.2	2086.7	2074.2	2065.9	2015.9	1947.1	1805.3	1655.2	1630.2	1332.1
15°	2182.6	2186.8	2188.9	2205.6	2216.0	2180.6	2111.8	1957.5	1788.6	1765.7	1440.5
17.5°	2157.6	2168.0	2199.3	2259.8	2324.4	2326.5	2270.2	2107.6	1920.0	1895.0	1551.0
20°	2084.7	2093.0	2130.5	2222.2	2349.4	2422.4	2418.2	2259.8	2043.0	2015.9	1653.1
22.5°	2145.1	2155.5	2155.5	2211.8	2336.9	2472.4	2526.6	2409.9	2166.0	2140.9	1755.3
25°	2403.6	2409.9	2366.1	2343.2	2389.0	2514.1	2616.2	2572.5	2316.1	2286.9	1865.8
27.5°	2764.3	2753.8	2699.6	2607.9	2557.9	2591.2	2695.5	2726.7	2489.1	2453.6	1980.4
30°	3122.8	3116.6	3054.0	2931.0	2818.5	2747.6	2783.0	2864.3	2676.7	2635.0	2090.9
32.5°	3458.4	3448.0	3379.2	3235.4	3108.2	2976.9	2908.1	2989.4	2876.8	2828.9	2213.9
35°	3767.0	3739.9	3671.1	3521.0	3389.7	3264.6	3095.7	3108.2	3093.6	3043.6	2349.4
37.5°	4017.1	3996.3	3921.2	3781.6	3641.9	3523.1	3345.9	3243.7	3327.1	3279.2	2505.8
40°	4238.1	4215.2	4138.0	3998.4	3869.1	3756.6	3616.9	3408.4	3589.8	3535.6	2680.9
42.5°	4404.9	4388.2	4325.7	4188.1	4063.0	3960.8	3892.1	3616.9	3862.9	3810.8	2872.7
45°	4494.5	4477.8	4444.5	4334.0	4219.3	4140.1	4146.4	3865.0	4148.5	4104.7	3099.9
47.5°	4384.0	4396.5	4425.7	4404.9	4334.0	4296.5	4373.6	4121.4	4467.4	4425.7	3345.9
50°	4088.0	4100.5	4217.3	4361.1	4386.1	4432.0	4577.9	4417.4	4805.1	4771.8	3650.2
52.5°	3360.5	3429.3	3752.4	4096.4	4331.9	4521.6	4805.1	4857.3	5374.2	5374.2	4188.1
55°	2539.1	2599.6	2968.6	3568.9	4121.4	4530.0	4971.9	5155.4	5784.9	5793.3	4469.5
57.5°	2057.6	2095.1	2276.4	2891.4	3679.4	4425.7	5169.9	5411.8	6126.8	6164.3	4832.2
60°	1669.8	1690.7	1809.5	2236.8	3068.6	4144.3	5311.7	5778.7	6614.6	6666.7	5295.0
62.5°	1342.5	1363.4	1442.6	1699.0	2407.8	3616.9	5286.7	6160.2	7265.0	7350.5	5901.7
65°	1071.5	1094.4	1146.6	1305.0	1784.5	2962.3	5030.3	6356.1	7938.4	8021.8	6304.0
67.5°	835.9	856.8	892.2	996.5	1257.0	2216.0	4423.6	6149.7	8240.6	8311.5	6324.8
70°	631.7	642.1	671.3	738.0	898.5	1471.8	3462.6	5457.6	7969.6	8034.3	5907.9
72.5°	489.9	487.8	504.5	537.8	627.5	1013.1	2295.2	4438.2	7046.1	7112.8	5040.7
75°	400.3	398.2	408.6	419.0	454.5	679.6	1355.0	3341.7	5686.9	5559.8	3781.6
77.5°	337.7	335.6	346.1	348.1	362.7	469.0	771.3	2199.3	3794.1	3575.2	2130.5
80°	285.6	283.5	296.0	300.2	310.6	344.0	444.0	1190.3	1905.4	1805.3	1017.3
82.5°	214.7	223.1	246.0	256.4	268.9	254.3	275.2	525.3	883.9	844.3	441.9
85°	104.2	123.0	185.5	206.4	221.0	160.5	187.6	248.1	398.2	379.4	179.3
87.5°	35.4	31.3	110.5	131.3	143.8	73.0	104.2	137.6	164.7	150.1	56.3
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°	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1	988.1
2.5°	998.6	967.3	921.4	886.0	863.0	844.3	835.9	833.9	829.7	827.6	827.6
5°	1019.4	963.1	892.2	854.7	844.3	835.9	840.1	842.2	842.2	842.2	842.2
7.5°	1050.7	971.5	886.0	861.0	858.9	858.9	871.4	877.6	881.8	881.8	881.8
10°	1092.4	986.0	896.4	875.6	881.8	886.0	900.6	908.9	913.1	915.2	917.2
12.5°	1148.6	1017.3	917.2	900.6	908.9	911.0	921.4	925.6	929.8	931.8	931.8
15°	1223.7	1063.2	950.6	929.8	931.8	929.8	929.8	925.6	923.5	923.5	927.7
17.5°	1300.8	1107.0	979.8	950.6	942.3	925.6	913.1	902.7	896.4	892.2	894.3
20°	1378.0	1146.6	996.5	954.8	931.8	904.7	881.8	867.2	858.9	850.5	854.7
22.5°	1455.1	1184.1	1002.7	942.3	908.9	869.3	844.3	821.4	802.6	790.1	792.2
25°	1540.6	1225.8	1002.7	927.7	877.6	835.9	804.7	767.2	740.1	729.6	733.8
27.5°	1626.0	1261.2	992.3	900.6	842.2	800.5	754.6	710.9	694.2	687.9	690.0
30°	1711.5	1288.3	969.4	867.2	804.7	758.8	698.4	669.2	648.3	631.7	633.7
32.5°	1797.0	1307.1	938.1	825.5	765.1	706.7	656.7	623.3	585.8	564.9	567.0
35°	1895.0	1321.7	900.6	783.8	721.3	660.8	623.3	569.1	529.5	512.8	508.7
37.5°	1997.1	1332.1	861.0	738.0	677.5	627.5	590.0	523.2	485.7	462.8	460.7
40°	2107.6	1336.3	813.0	690.0	635.8	606.6	546.2	496.1	431.5	416.9	416.9
42.5°	2238.9	1334.2	765.1	642.1	590.0	558.7	514.9	492.0	435.7	421.1	412.8
45°	2389.0	1334.2	713.0	585.8	544.1	498.2	479.5	464.9	427.4	433.6	437.8
47.5°	2560.0	1330.0	650.4	539.9	506.6	467.0	456.5	425.3	410.7	414.8	419.0
50°	2795.5	1336.3	594.1	502.4	479.5	446.1	433.6	416.9	410.7	412.8	410.7
52.5°	3122.8	1315.4	539.9	479.5	458.6	414.8	414.8	412.8	414.8	412.8	412.8
55°	3302.1	1269.6	500.3	467.0	444.0	400.3	408.6	412.8	416.9	414.8	414.8
57.5°	3556.4	1238.3	469.0	458.6	435.7	396.1	404.4	412.8	414.8	412.8	412.8
60°	3856.6	1217.4	448.2	460.7	429.4	396.1	406.5	412.8	410.7	408.6	408.6
62.5°	4204.8	1209.1	433.6	467.0	423.2	398.2	406.5	412.8	404.4	402.3	402.3
65°	4336.1	1134.1	414.8	471.1	427.4	398.2	404.4	406.5	396.1	394.0	391.9
67.5°	4133.9	1004.8	387.7	462.8	439.9	398.2	398.2	396.1	383.6	381.5	377.3
70°	3681.5	833.9	346.1	435.7	448.2	400.3	389.8	379.4	366.9	366.9	358.6
72.5°	3014.4	656.7	291.9	387.7	441.9	406.5	373.2	358.6	344.0	344.0	335.6
75°	2172.2	489.9	233.5	323.1	414.8	404.4	352.3	333.5	316.9	314.8	304.4
77.5°	1238.3	344.0	189.7	252.2	369.0	394.0	333.5	304.4	285.6	279.3	273.1
80°	635.8	231.4	154.3	198.0	306.4	364.8	319.0	271.0	250.2	239.7	229.3
82.5°	302.3	154.3	118.8	145.9	231.4	319.0	300.2	233.5	210.6	198.0	185.5
85°	135.5	91.7	79.2	93.8	164.7	248.1	264.8	191.8	164.7	206.4	152.2
87.5°	43.8	41.7	41.7	43.8	79.2	108.4	193.9	141.8	131.3	108.4	91.7
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)