

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: P234833

Luminaire Tested: **ARCH-M-AF48-60-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234833
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-M-AF48-60-D-U-T4W-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6744 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 63
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

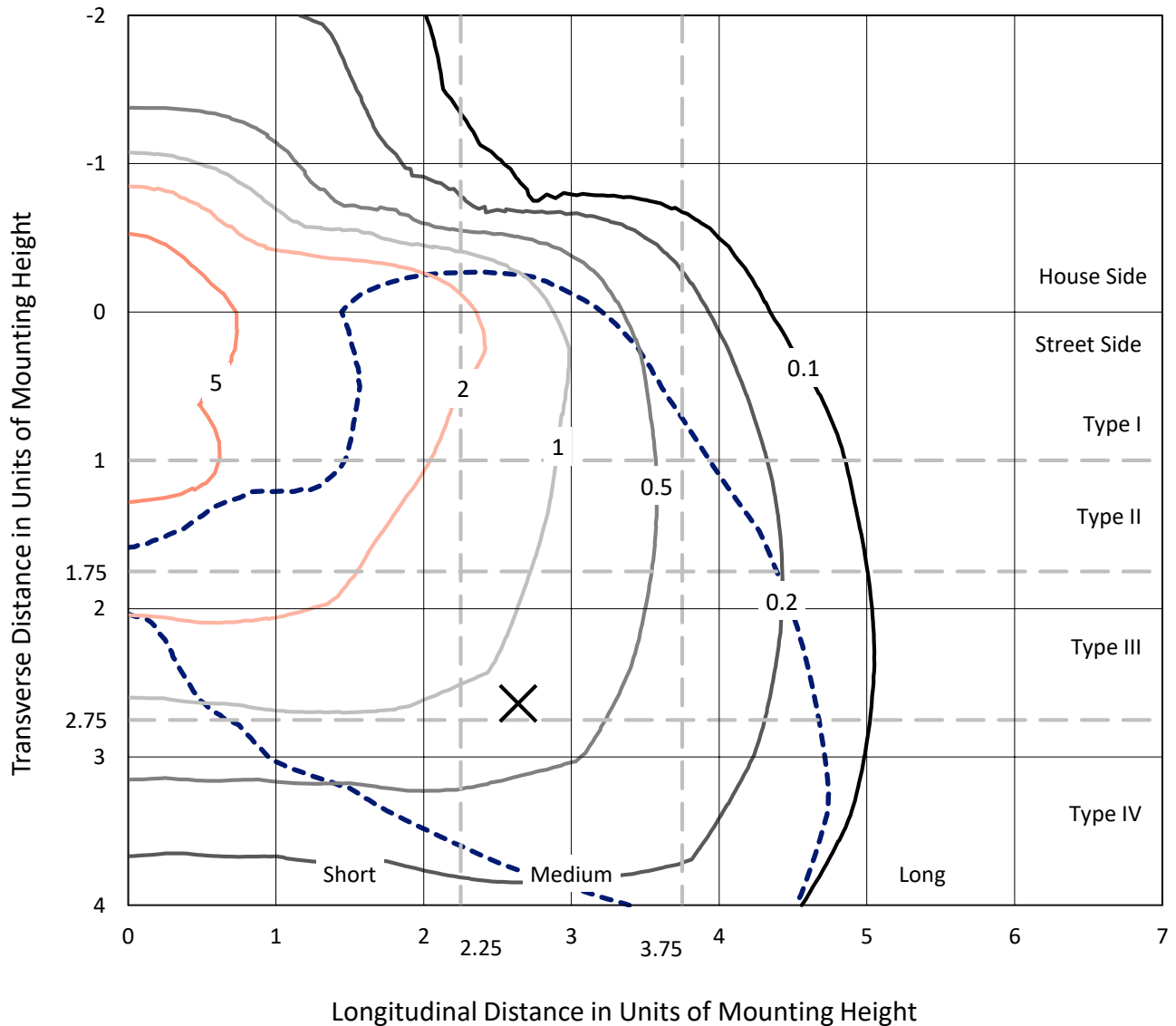


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

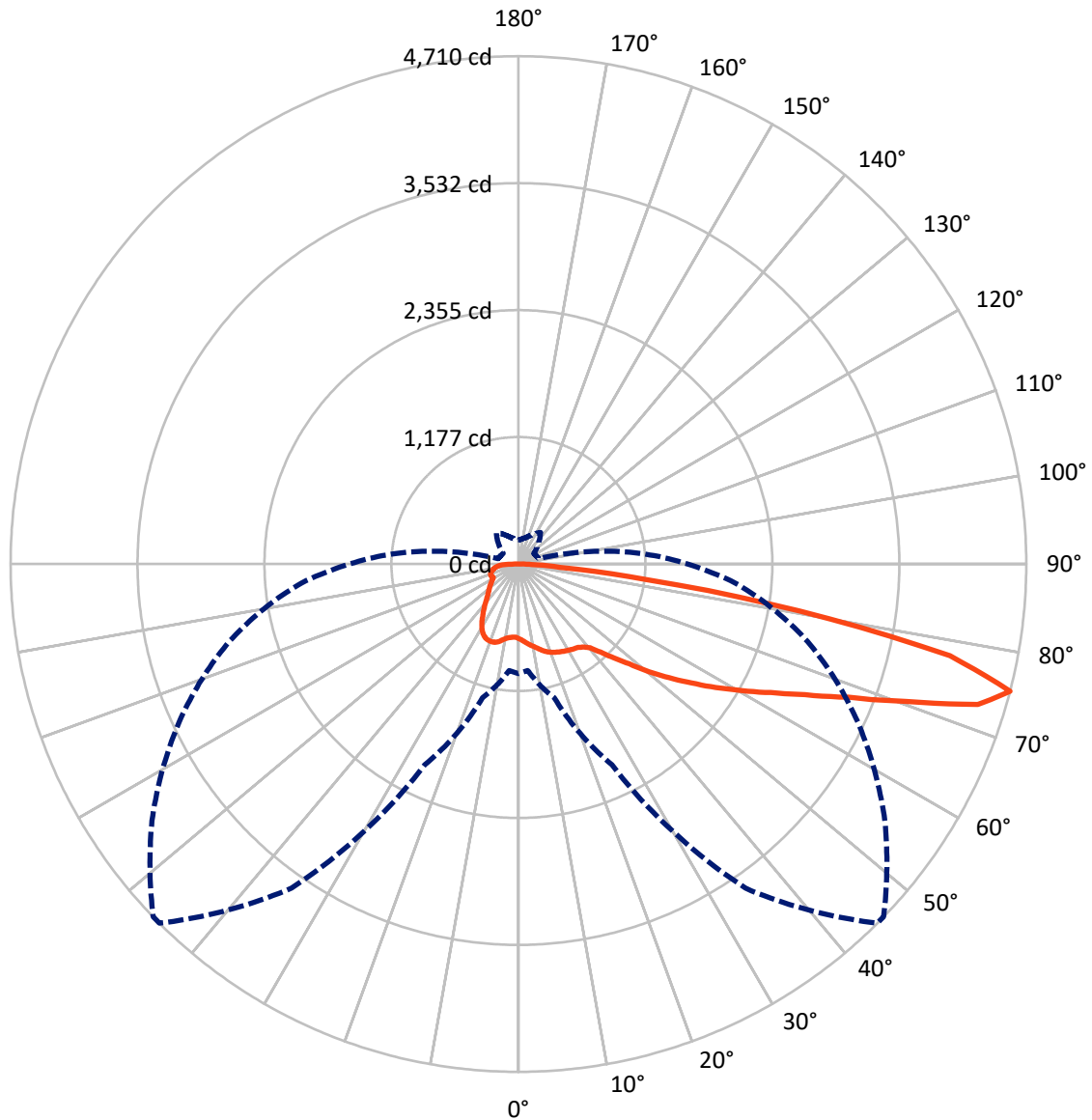


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1562.3	0.0	1562.3
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	5181.7	0.0	5181.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	6744.0	0.0	6744.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	1.0
10°-20°	222.0	3.3
20°-30°	381.0	5.6
30°-40°	532.9	7.9
40°-50°	781.6	11.6
50°-60°	1217.6	18.1
60°-70°	1752.0	26.0
70°-80°	1526.2	22.6
80°-90°	262.1	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°	6744.0	100.0
0°-180°	6744.0	100.0



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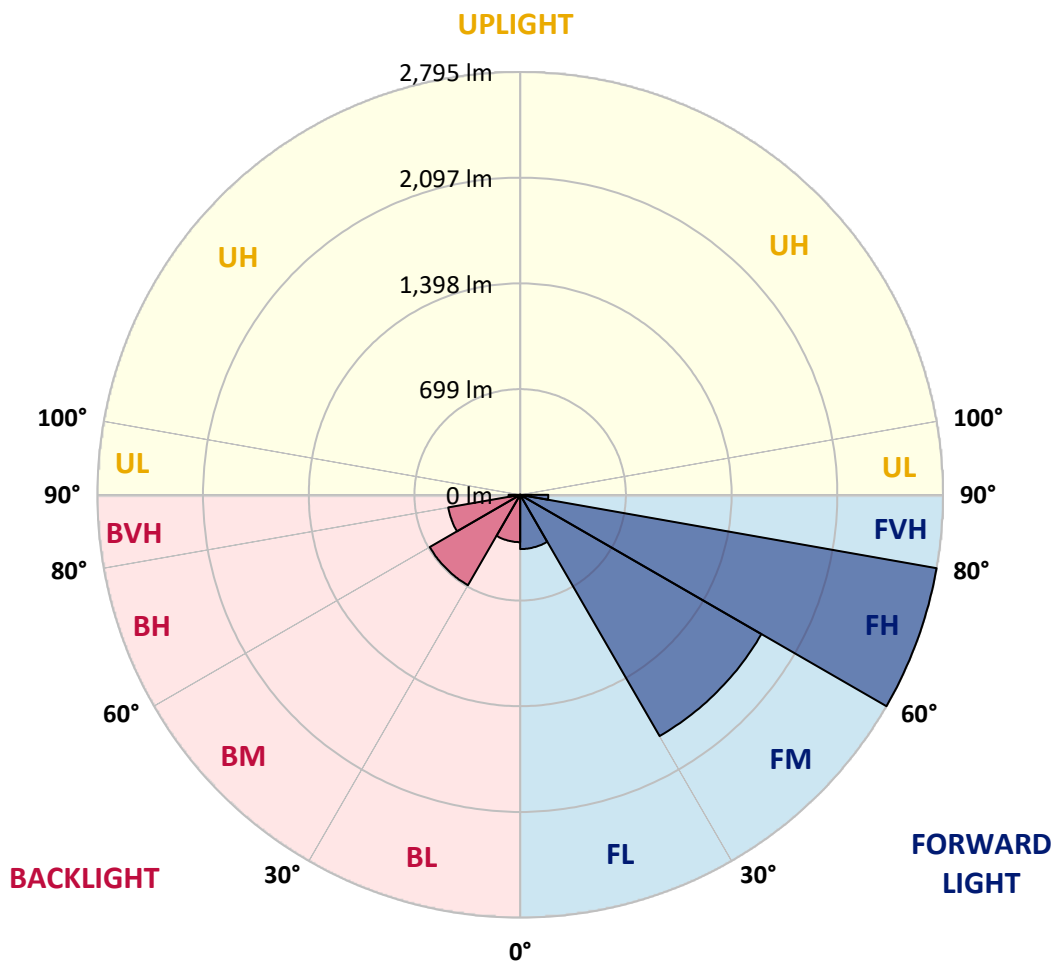
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	358.6	5.3			
FM	(30°-60°)	1841.7	27.3			
FH	(60°-80°)	2795.5	41.5			G2/5000
FVH	(80°-90°)	186.0	2.8			G2/225
BL	(0°-30°)	312.9	4.6	B1/500		
BM	(30°-60°)	690.5	10.2	B1/1000		
BH	(60°-80°)	482.8	7.2	B1/500		G1/500
BVH	(80°-90°)	76.1	1.1			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4
2.5°	725.5	720.2	720.2	716.3	716.3	709.7	707.1	705.8	699.2	695.3	691.4
5°	767.4	760.9	759.6	750.4	746.5	732.0	730.7	721.5	709.7	697.9	688.7
7.5°	805.5	801.6	795.0	785.8	774.0	755.6	754.3	739.9	720.2	704.5	691.4
10°	833.0	830.4	821.2	809.4	796.3	777.9	776.6	760.9	737.3	718.9	700.5
12.5°	865.8	861.9	850.1	834.3	819.9	802.9	801.6	788.4	762.2	738.6	715.0
15°	897.3	892.1	877.6	861.9	846.2	831.7	831.7	817.3	789.7	762.2	734.6
17.5°	913.1	910.4	896.0	879.0	865.8	855.3	854.0	840.9	813.4	784.5	754.3
20°	918.3	919.6	906.5	888.1	879.0	873.7	872.4	863.2	833.0	805.5	776.6
22.5°	917.0	920.9	910.4	890.8	888.1	888.1	888.1	877.6	854.0	826.5	797.6
25°	922.2	927.5	919.6	896.0	896.0	901.3	901.3	896.0	875.0	851.4	822.5
27.5°	940.6	944.5	938.0	905.2	906.5	914.4	913.1	914.4	901.3	879.0	850.1
30°	962.9	968.2	960.3	919.6	918.3	926.2	926.2	932.7	923.6	899.9	876.3
32.5°	1023.3	1021.9	997.0	935.4	931.4	939.3	939.3	945.9	940.6	922.2	899.9
35°	1203.0	1183.3	1128.2	986.5	947.2	951.1	951.1	962.9	965.5	951.1	931.4
37.5°	1386.6	1380.1	1338.1	1123.0	1004.9	976.0	974.7	991.8	1003.6	991.8	978.7
40°	1571.6	1566.4	1557.2	1305.3	1125.6	1020.6	1016.7	1031.1	1052.1	1044.2	1036.4
42.5°	1743.5	1740.9	1750.0	1485.0	1279.1	1116.4	1104.6	1087.5	1117.7	1115.1	1115.1
45°	1878.6	1885.2	1890.4	1653.0	1445.7	1239.7	1225.3	1167.6	1208.2	1218.7	1226.6
47.5°	1954.7	1959.9	1978.3	1816.9	1612.3	1382.7	1372.2	1277.8	1331.5	1363.0	1385.3
50°	2063.6	2049.1	2064.9	1977.0	1813.0	1569.0	1540.1	1426.0	1494.2	1549.3	1601.8
52.5°	2168.5	2144.9	2158.0	2162.0	2041.3	1751.3	1721.2	1600.5	1685.8	1772.3	1865.5
55°	2263.0	2261.7	2274.8	2341.7	2261.7	1946.8	1912.7	1793.3	1916.6	2009.8	2167.2
57.5°	2339.1	2352.2	2409.9	2550.3	2516.2	2159.3	2121.3	2017.7	2163.3	2256.4	2517.5
60°	2428.3	2449.3	2545.0	2727.4	2748.4	2382.4	2343.0	2268.2	2416.5	2510.9	2922.8
62.5°	2458.4	2488.6	2685.4	2913.7	2991.1	2626.4	2590.9	2541.1	2682.8	2768.0	3326.9
65°	2257.7	2315.5	2762.8	3009.4	3252.1	2920.2	2890.1	2846.8	2947.8	3004.2	3601.1
67.5°	2202.6	2228.9	2611.9	3147.2	3497.4	3298.0	3267.9	3193.1	3195.7	3172.1	3690.3
70°	2125.2	2154.1	2457.1	3250.8	3849.0	3814.9	3778.2	3557.8	3422.7	3279.7	3514.5
72.5°	1810.4	1801.2	2117.4	2971.4	4018.3	4455.1	4411.8	3950.0	3590.6	3186.5	2966.1
75°	1016.7	990.5	1284.3	2055.7	3669.3	4709.6	4708.3	4148.1	3472.5	2775.9	2019.0
77.5°	295.2	287.3	423.7	861.9	2470.3	4091.7	4141.6	3741.5	2897.9	1994.0	1108.5
80°	139.1	141.7	182.3	284.7	1054.7	2640.8	2783.8	2463.7	1731.7	919.6	457.8
82.5°	87.9	89.2	124.6	183.7	446.0	1199.0	1317.1	1108.5	686.1	397.5	202.0
85°	55.1	55.1	82.6	120.7	266.3	383.1	415.9	377.8	293.9	216.5	110.2
87.5°	30.2	30.2	49.9	69.5	145.6	123.3	127.3	150.9	183.7	132.5	55.1
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°	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4
2.5°	690.0	687.4	683.5	682.2	680.9	679.5	680.9	683.5	680.9	680.9	682.2
5°	686.1	683.5	678.2	678.2	679.5	680.9	687.4	691.4	692.7	692.7	692.7
7.5°	686.1	682.2	678.2	679.5	682.2	687.4	697.9	704.5	709.7	711.0	711.0
10°	692.7	687.4	684.8	687.4	695.3	699.2	709.7	720.2	726.8	729.4	729.4
12.5°	704.5	699.2	699.2	704.5	715.0	720.2	729.4	737.3	745.1	749.1	749.1
15°	724.2	717.6	718.9	728.1	739.9	745.1	751.7	754.3	760.9	766.1	766.1
17.5°	742.5	736.0	738.6	749.1	756.9	759.6	763.5	762.2	764.8	768.8	770.1
20°	763.5	756.9	758.3	764.8	766.1	763.5	763.5	759.6	758.3	764.8	767.4
22.5°	784.5	777.9	776.6	772.7	766.1	759.6	755.6	751.7	749.1	755.6	758.3
25°	809.4	800.2	793.7	776.6	759.6	747.8	742.5	739.9	738.6	745.1	747.8
27.5°	837.0	827.8	808.1	771.4	743.8	724.2	720.2	720.2	722.8	726.8	729.4
30°	863.2	854.0	818.6	759.6	716.3	687.4	683.5	687.4	694.0	697.9	701.9
32.5°	889.4	880.3	825.2	741.2	675.6	638.9	636.3	642.8	653.3	655.9	658.6
35°	924.9	915.7	833.0	715.0	624.5	585.1	582.5	586.4	595.6	599.5	603.5
37.5°	974.7	969.5	844.8	686.1	577.2	533.9	526.1	523.4	528.7	527.4	532.6
40°	1040.3	1044.2	865.8	648.1	531.3	486.7	469.6	461.8	456.5	446.0	451.3
42.5°	1136.1	1138.7	889.4	604.8	492.0	442.1	419.8	405.4	394.9	377.8	380.4
45°	1276.4	1254.1	917.0	558.9	456.5	406.7	380.4	363.4	349.0	334.5	335.8
47.5°	1462.7	1394.5	947.2	520.8	421.1	377.8	354.2	334.5	317.5	305.7	307.0
50°	1692.3	1569.0	977.3	485.4	385.7	355.5	334.5	313.5	296.5	284.7	283.4
52.5°	1995.4	1778.9	997.0	446.0	350.3	335.8	317.5	297.8	276.8	262.4	261.1
55°	2310.2	2022.9	1014.1	398.8	316.2	313.5	304.4	282.1	257.1	238.8	236.1
57.5°	2656.5	2284.0	1027.2	352.9	289.9	295.2	292.5	266.3	238.8	221.7	220.4
60°	2971.4	2554.2	985.2	312.2	266.3	276.8	279.4	257.1	242.7	246.6	247.9
62.5°	3288.9	2762.8	825.2	282.1	250.6	265.0	287.3	286.0	279.4	286.0	287.3
65°	3403.0	2806.1	585.1	257.1	234.8	270.2	312.2	309.6	279.4	267.6	265.0
67.5°	3338.7	2677.5	393.6	237.4	223.0	276.8	338.5	309.6	268.9	253.2	247.9
70°	3033.0	2361.4	288.6	217.8	212.5	275.5	352.9	308.3	263.7	246.6	240.1
72.5°	2419.1	1822.2	232.2	199.4	196.8	268.9	360.8	305.7	258.4	240.1	232.2
75°	1566.4	1133.5	195.5	181.0	173.2	258.4	356.8	297.8	251.9	228.3	223.0
77.5°	726.8	488.0	166.6	160.0	150.9	242.7	345.0	282.1	237.4	215.1	208.6
80°	338.5	230.9	140.4	139.1	135.1	229.6	329.3	263.7	220.4	202.0	191.5
82.5°	181.0	139.1	114.1	114.1	118.1	213.8	309.6	241.4	198.1	188.9	161.4
85°	95.8	80.0	82.6	89.2	101.0	188.9	283.4	217.8	173.2	144.3	140.4
87.5°	48.5	51.2	51.2	60.3	77.4	153.5	233.5	179.7	146.9	118.1	115.4
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)