

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: P234693

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234693
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-AF24-80-D-U-T2R-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7155 lumens
Efficiency: N/A
Efficacy: 86.2 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

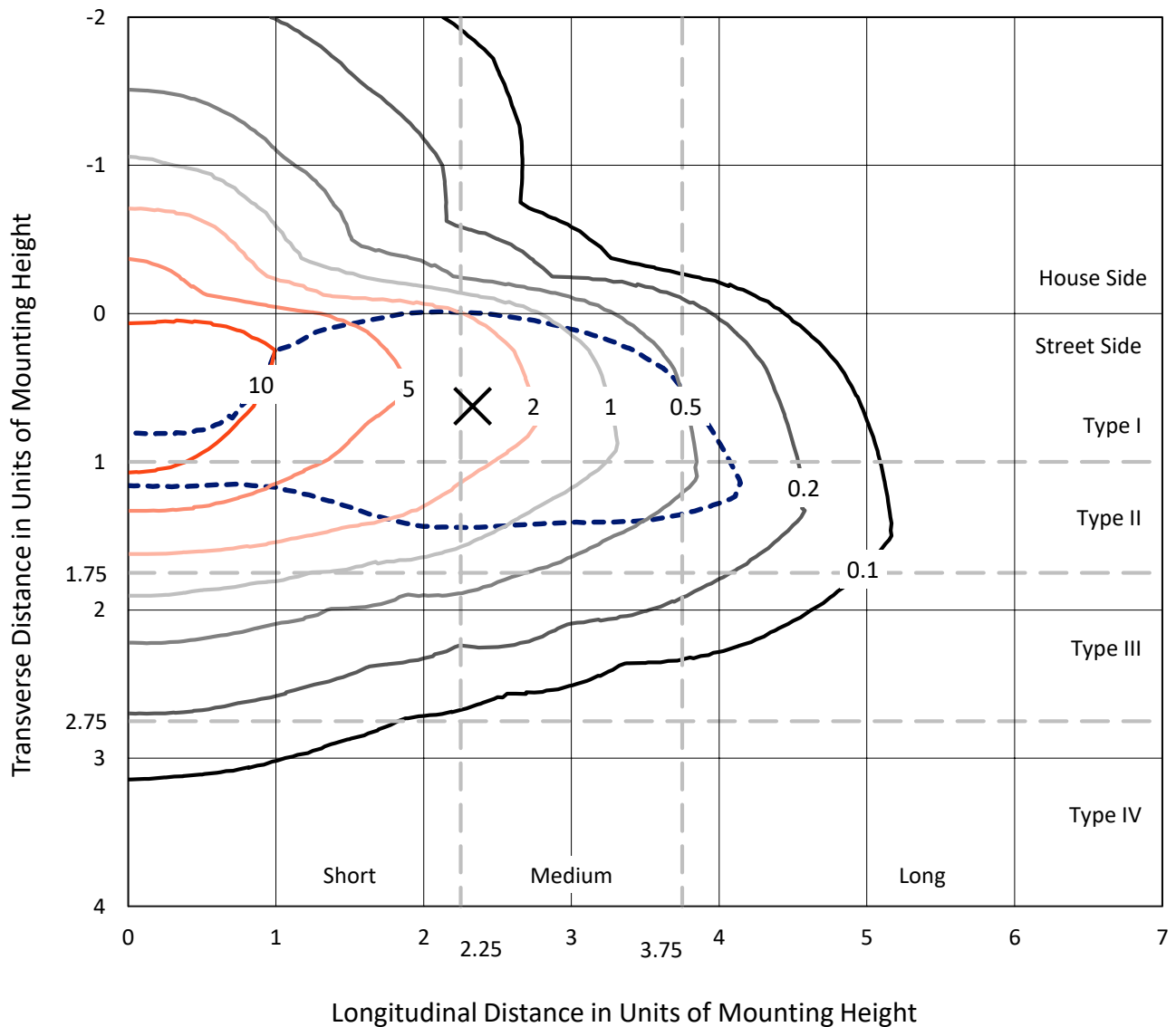
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

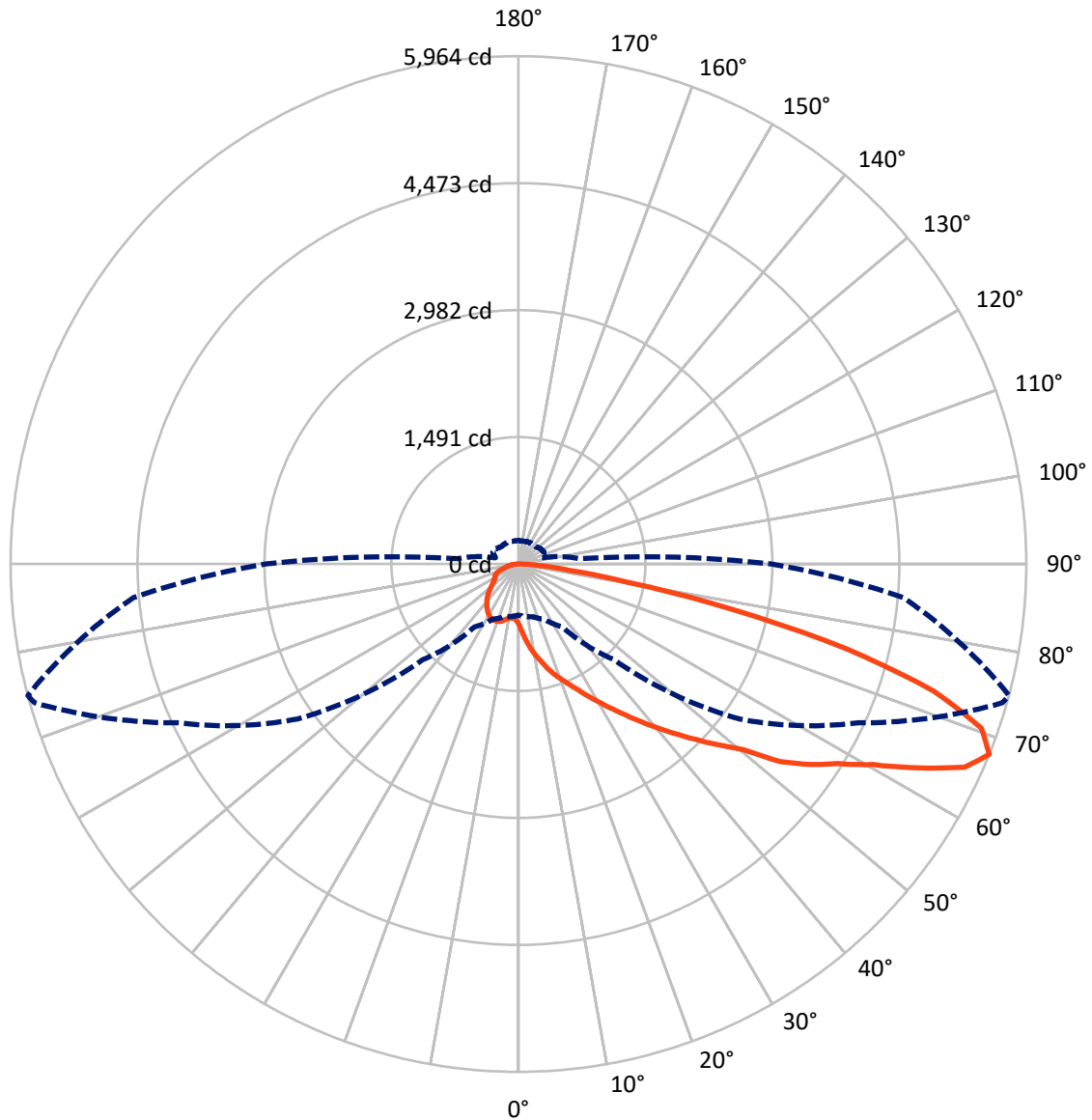
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.8 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
House Side	Lumens	1221.8	0.0	1221.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	5933.2	0.0	5933.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	7155.0	0.0	7155.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	1.2
10°-20°	301.0	4.2
20°-30°	549.0	7.7
30°-40°	901.1	12.6
40°-50°	1303.2	18.2
50°-60°	1535.8	21.5
60°-70°	1492.4	20.9
70°-80°	829.6	11.6
80°-90°	159.5	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°	7155.0	100.0
0°-180°	7155.0	100.0



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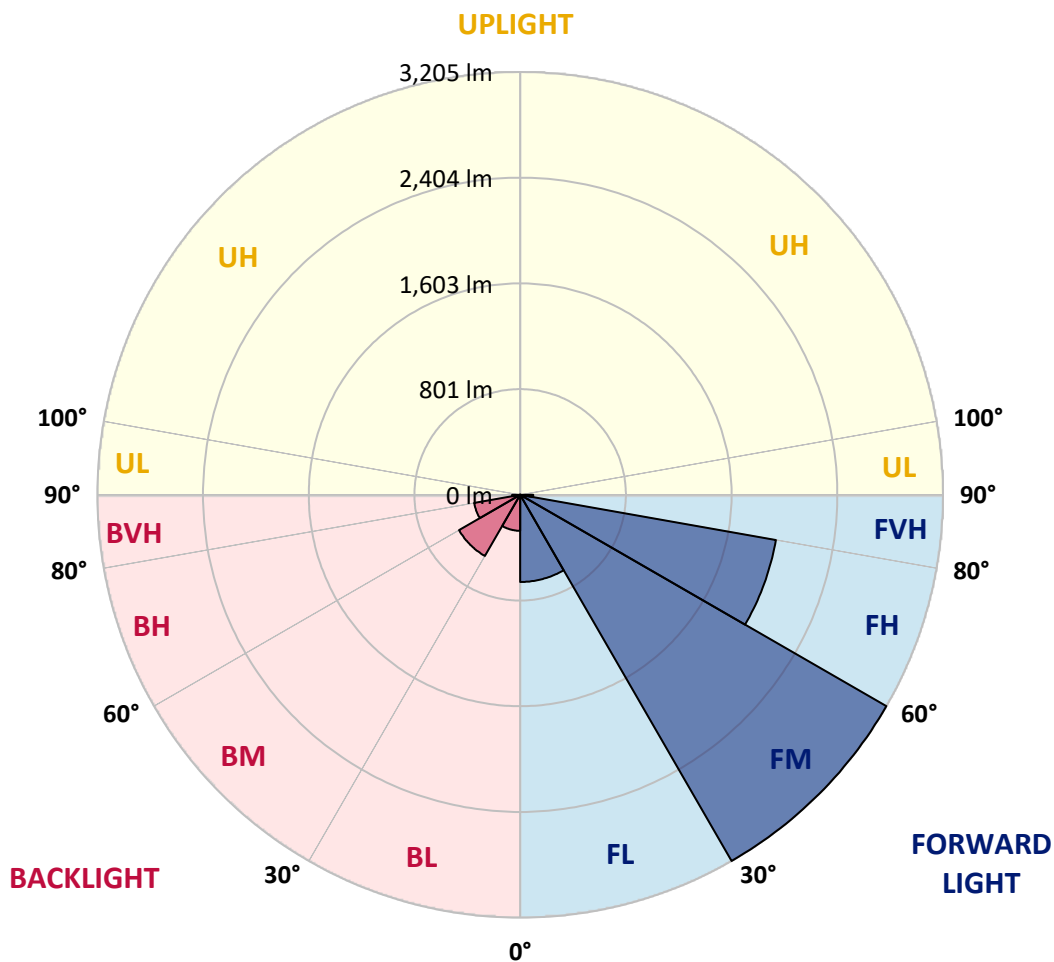
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	660.6	9.2			
FM (30°-60°)	3205.1	44.8			
FH (60°-80°)	1968.3	27.5			G2/5000
FVH (80°-90°)	99.3	1.4			G1/100
BL (0°-30°)	272.7	3.8	B1/500		
BM (30°-60°)	535.1	7.5	B1/1000		
BH (60°-80°)	353.8	4.9	B1/500		G1/500
BVH (80°-90°)	60.2	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°	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0
2.5°	1005.2	1008.1	1002.2	988.7	969.3	933.4	901.9	846.6	797.2	791.3	738.9
5°	1181.7	1184.6	1177.2	1160.7	1139.8	1100.9	1057.5	985.7	906.4	891.5	780.8
7.5°	1302.8	1304.3	1295.3	1278.9	1262.4	1223.5	1180.2	1099.4	1002.2	990.2	834.6
10°	1406.0	1409.0	1397.0	1386.6	1368.6	1329.7	1284.9	1199.6	1099.4	1082.9	890.0
12.5°	1501.7	1504.7	1497.3	1488.3	1482.3	1446.4	1397.0	1295.3	1187.6	1169.7	955.8
15°	1566.1	1569.1	1570.5	1582.5	1590.0	1564.6	1515.2	1404.5	1283.4	1266.9	1033.6
17.5°	1548.1	1555.6	1578.0	1621.4	1667.8	1669.3	1628.9	1512.2	1377.6	1359.6	1112.8
20°	1495.8	1501.7	1528.7	1594.5	1685.7	1738.1	1735.1	1621.4	1465.8	1446.4	1186.1
22.5°	1539.1	1546.6	1546.6	1587.0	1676.7	1774.0	1812.9	1729.1	1554.1	1536.1	1259.4
25°	1724.6	1729.1	1697.7	1681.2	1714.1	1803.9	1877.2	1845.8	1661.8	1640.8	1338.7
27.5°	1983.4	1975.9	1937.0	1871.2	1835.3	1859.2	1934.0	1956.5	1785.9	1760.5	1421.0
30°	2240.6	2236.2	2191.3	2103.0	2022.3	1971.4	1996.8	2055.2	1920.6	1890.6	1500.2
32.5°	2481.5	2474.0	2424.6	2321.4	2230.2	2135.9	2086.6	2144.9	2064.1	2029.7	1588.5
35°	2702.8	2683.4	2634.0	2526.3	2432.1	2342.4	2221.2	2230.2	2219.7	2183.8	1685.7
37.5°	2882.3	2867.4	2813.5	2713.3	2613.1	2527.8	2400.7	2327.4	2387.2	2352.8	1797.9
40°	3040.9	3024.4	2969.1	2868.9	2776.1	2695.4	2595.1	2445.6	2575.7	2536.8	1923.5
42.5°	3160.5	3148.6	3103.7	3005.0	2915.2	2841.9	2792.6	2595.1	2771.6	2734.2	2061.2
45°	3224.9	3212.9	3189.0	3109.7	3027.4	2970.6	2975.1	2773.1	2976.6	2945.2	2224.2
47.5°	3145.6	3154.6	3175.5	3160.5	3109.7	3082.8	3138.1	2957.1	3205.4	3175.5	2400.7
50°	2933.2	2942.2	3025.9	3129.1	3147.1	3180.0	3284.7	3169.5	3447.7	3423.8	2619.1
52.5°	2411.2	2460.5	2692.4	2939.2	3108.2	3244.3	3447.7	3485.1	3856.1	3856.1	3005.0
55°	1821.8	1865.2	2130.0	2560.7	2957.1	3250.3	3567.4	3699.0	4150.7	4156.7	3206.9
57.5°	1476.3	1503.2	1633.4	2074.6	2640.0	3175.5	3709.5	3883.0	4396.0	4423.0	3467.2
60°	1198.1	1213.1	1298.3	1605.0	2201.8	2973.6	3811.2	4146.2	4746.0	4783.4	3799.2
62.5°	963.3	978.2	1035.1	1219.0	1727.6	2595.1	3793.2	4420.0	5212.7	5274.1	4234.5
65°	768.8	785.3	822.7	936.3	1280.4	2125.5	3609.3	4560.6	5695.9	5755.7	4523.2
67.5°	599.8	614.8	640.2	715.0	901.9	1590.0	3174.0	4412.5	5912.7	5963.6	4538.1
70°	453.2	460.7	481.6	529.5	644.7	1056.0	2484.5	3915.9	5718.3	5764.7	4239.0
72.5°	351.5	350.0	362.0	385.9	450.2	726.9	1646.8	3184.5	5055.7	5103.5	3616.7
75°	287.2	285.7	293.2	300.6	326.1	487.6	972.2	2397.7	4080.4	3989.2	2713.3
77.5°	242.3	240.8	248.3	249.8	260.3	336.5	553.4	1578.0	2722.3	2565.2	1528.7
80°	204.9	203.4	212.4	215.4	222.9	246.8	318.6	854.1	1367.1	1295.3	729.9
82.5°	154.1	160.0	176.5	184.0	193.0	182.5	197.4	376.9	634.2	605.8	317.1
85°	74.8	88.2	133.1	148.1	158.6	115.2	134.6	178.0	285.7	272.2	128.6
87.5°	25.4	22.4	79.3	94.2	103.2	52.4	74.8	98.7	118.2	107.7	40.4
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°	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0
2.5°	716.5	694.0	661.1	635.7	619.2	605.8	599.8	598.3	595.3	593.8	593.8
5°	731.4	691.0	640.2	613.3	605.8	599.8	602.8	604.3	604.3	604.3	604.3
7.5°	753.9	697.0	635.7	617.7	616.3	616.3	625.2	629.7	632.7	632.7	632.7
10°	783.8	707.5	643.2	628.2	632.7	635.7	646.2	652.2	655.1	656.6	658.1
12.5°	824.2	729.9	658.1	646.2	652.2	653.6	661.1	664.1	667.1	668.6	668.6
15°	878.0	762.8	682.1	667.1	668.6	667.1	667.1	664.1	662.6	662.6	665.6
17.5°	933.4	794.2	703.0	682.1	676.1	664.1	655.1	647.7	643.2	640.2	641.7
20°	988.7	822.7	715.0	685.1	668.6	649.2	632.7	622.2	616.3	610.3	613.3
22.5°	1044.0	849.6	719.5	676.1	652.2	623.7	605.8	589.3	575.9	566.9	568.4
25°	1105.4	879.5	719.5	665.6	629.7	599.8	577.4	550.4	531.0	523.5	526.5
27.5°	1166.7	904.9	712.0	646.2	604.3	574.4	541.5	510.1	498.1	493.6	495.1
30°	1228.0	924.4	695.5	622.2	577.4	544.5	501.1	480.1	465.2	453.2	454.7
32.5°	1289.3	937.8	673.1	592.3	548.9	507.1	471.2	447.2	420.3	405.4	406.8
35°	1359.6	948.3	646.2	562.4	517.5	474.2	447.2	408.3	379.9	368.0	365.0
37.5°	1432.9	955.8	617.7	529.5	486.1	450.2	423.3	375.4	348.5	332.1	330.6
40°	1512.2	958.8	583.3	495.1	456.2	435.3	391.9	356.0	309.6	299.2	299.2
42.5°	1606.4	957.3	548.9	460.7	423.3	400.9	369.5	353.0	312.6	302.1	296.2
45°	1714.1	957.3	511.6	420.3	390.4	357.5	344.0	333.6	306.6	311.1	314.1
47.5°	1836.8	954.3	466.7	387.4	363.5	335.1	327.6	305.1	294.7	297.7	300.6
50°	2005.8	958.8	426.3	360.5	344.0	320.1	311.1	299.2	294.7	296.2	294.7
52.5°	2240.6	943.8	387.4	344.0	329.1	297.7	297.7	296.2	297.7	296.2	296.2
55°	2369.3	910.9	359.0	335.1	318.6	287.2	293.2	296.2	299.2	297.7	297.7
57.5°	2551.8	888.5	336.5	329.1	312.6	284.2	290.2	296.2	297.7	296.2	296.2
60°	2767.2	873.5	321.6	330.6	308.1	284.2	291.7	296.2	294.7	293.2	293.2
62.5°	3016.9	867.5	311.1	335.1	303.6	285.7	291.7	296.2	290.2	288.7	288.7
65°	3111.2	813.7	297.7	338.0	306.6	285.7	290.2	291.7	284.2	282.7	281.2
67.5°	2966.1	721.0	278.2	332.1	315.6	285.7	285.7	284.2	275.2	273.7	270.7
70°	2641.5	598.3	248.3	312.6	321.6	287.2	279.7	272.2	263.3	263.3	257.3
72.5°	2162.9	471.2	209.4	278.2	317.1	291.7	267.7	257.3	246.8	246.8	240.8
75°	1558.6	351.5	167.5	231.8	297.7	290.2	252.8	239.3	227.4	225.9	218.4
77.5°	888.5	246.8	136.1	181.0	264.7	282.7	239.3	218.4	204.9	200.4	195.9
80°	456.2	166.0	110.7	142.1	219.9	261.8	228.9	194.4	179.5	172.0	164.5
82.5°	216.9	110.7	85.3	104.7	166.0	228.9	215.4	167.5	151.1	142.1	133.1
85°	97.2	65.8	56.8	67.3	118.2	178.0	190.0	137.6	118.2	148.1	109.2
87.5°	31.4	29.9	29.9	31.4	56.8	77.8	139.1	101.7	94.2	77.8	65.8
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)