

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: P214604

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214604  
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-AF24-50-D-U-T2R-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6658 lumens  
Efficiency: N/A  
Efficacy: 123.3 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

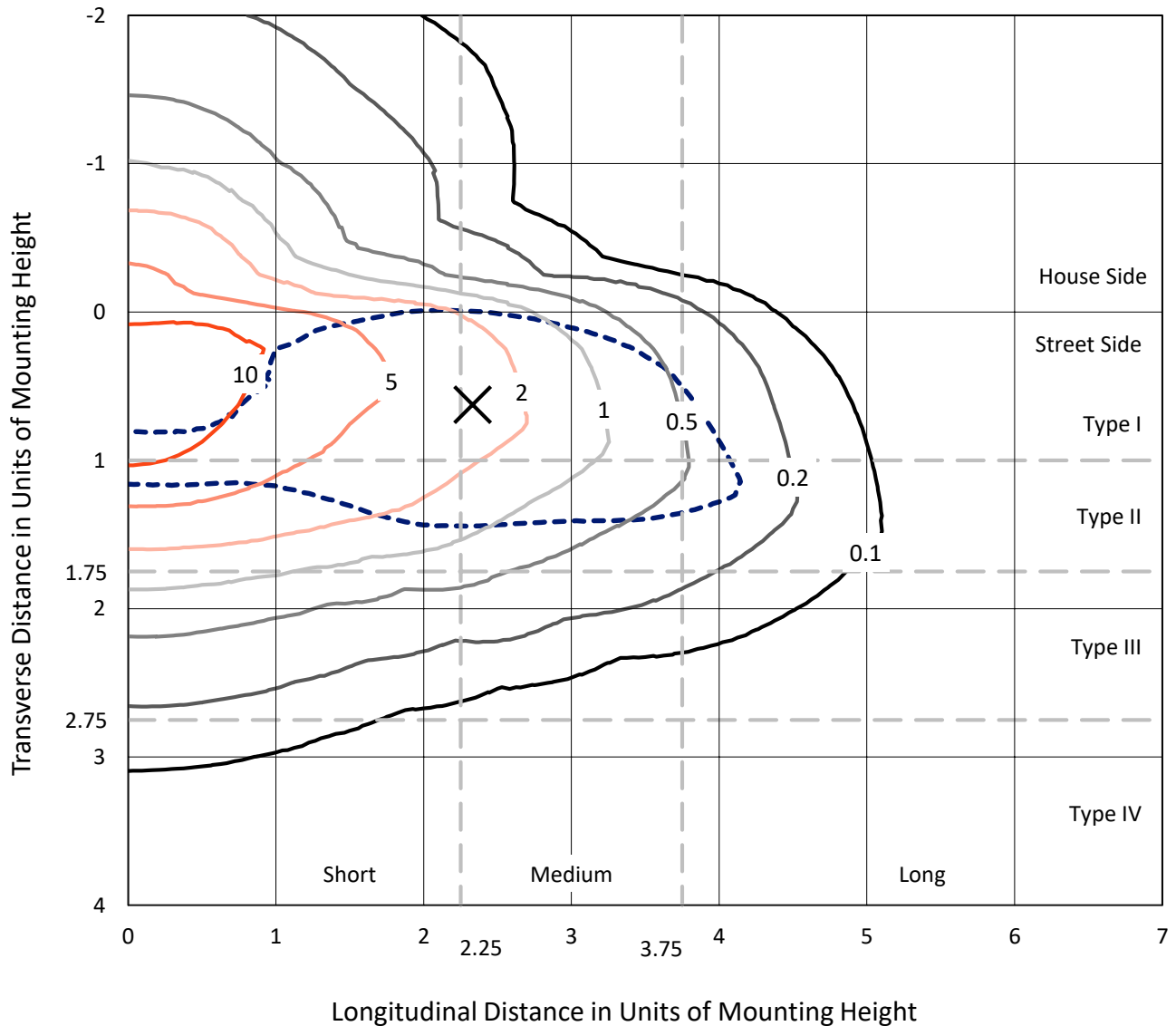
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

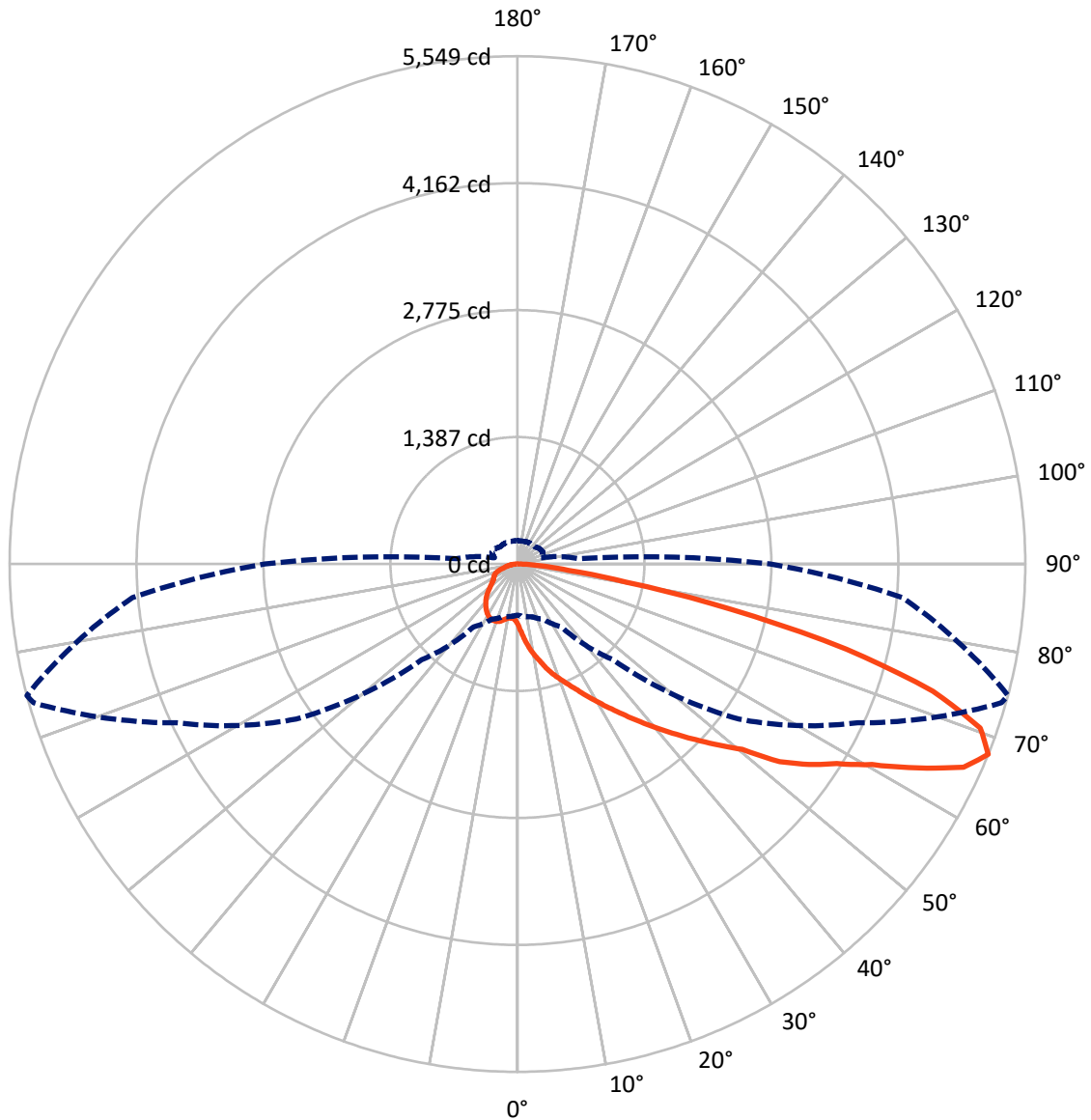
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.8 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
<b>House Side</b>	Lumens	1136.9	0.0	1136.9
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	5521.1	0.0	5521.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	6658.0	0.0	6658.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.5	1.2
10°-20°	280.1	4.2
20°-30°	510.9	7.7
30°-40°	838.6	12.6
40°-50°	1212.7	18.2
50°-60°	1429.1	21.5
60°-70°	1388.8	20.9
70°-80°	772.0	11.6
80°-90°	148.4	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°	6658.0	100.0
0°-180°	6658.0	100.0



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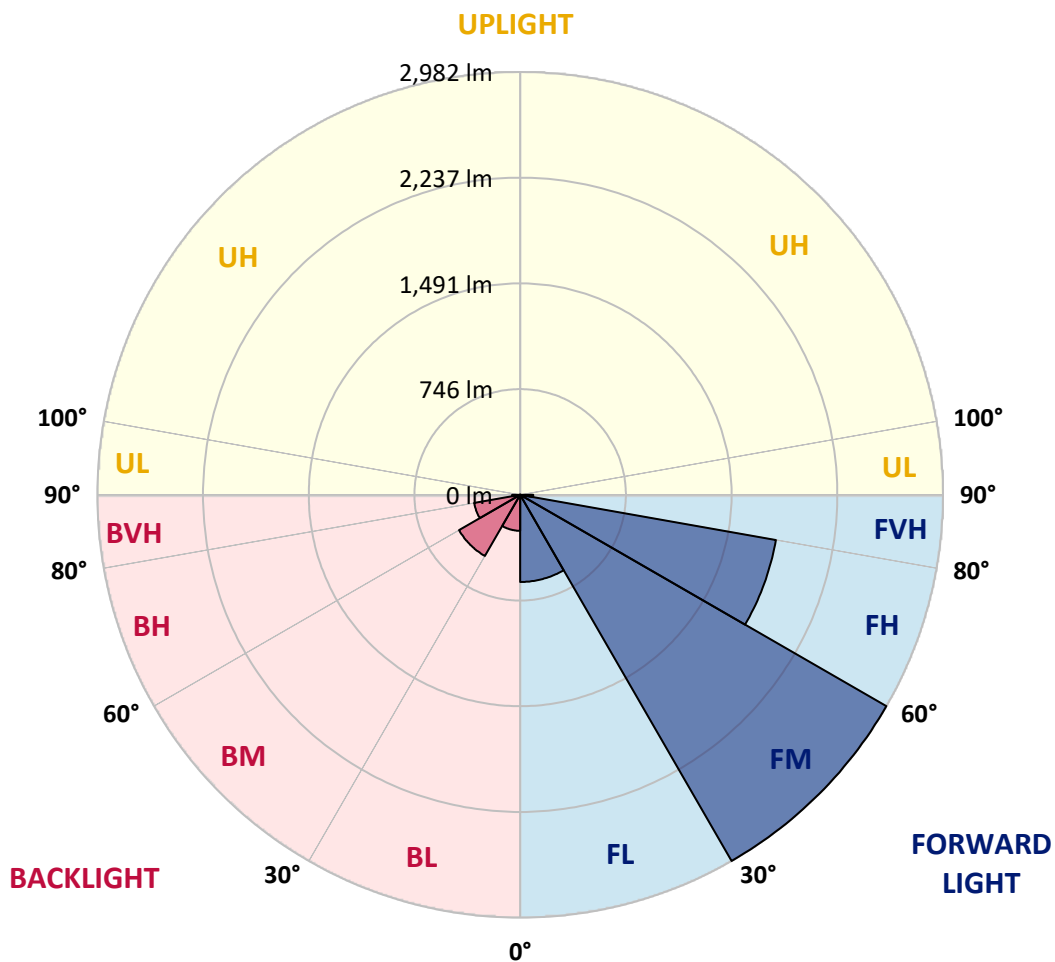
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	614.7	9.2			
FM	(30°-60°)	2982.4	44.8			
FH	(60°-80°)	1831.5	27.5			G2/5000
FVH	(80°-90°)	92.4	1.4			G1/100
BL	(0°-30°)	253.8	3.8	B1/500		
BM	(30°-60°)	497.9	7.5	B1/1000		
BH	(60°-80°)	329.2	4.9	B1/500		G1/500
BVH	(80°-90°)	56.1	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°	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7
2.5°	935.3	938.1	932.5	920.0	901.9	868.5	839.3	787.8	741.9	736.3	687.6
5°	1099.6	1102.4	1095.4	1080.1	1060.6	1024.4	984.0	917.2	843.5	829.5	726.6
7.5°	1212.3	1213.7	1205.4	1190.0	1174.7	1138.5	1098.2	1023.0	932.5	921.4	776.7
10°	1308.4	1311.1	1300.0	1290.3	1273.6	1237.4	1195.6	1116.3	1023.0	1007.7	828.2
12.5°	1397.4	1400.2	1393.3	1384.9	1379.3	1345.9	1300.0	1205.4	1105.1	1088.4	889.4
15°	1457.3	1460.1	1461.5	1472.6	1479.5	1455.9	1410.0	1307.0	1194.2	1178.9	961.8
17.5°	1440.6	1447.5	1468.4	1508.8	1551.9	1553.3	1515.7	1407.2	1281.9	1265.2	1035.5
20°	1391.9	1397.4	1422.5	1483.7	1568.6	1617.3	1614.6	1508.8	1364.0	1345.9	1103.7
22.5°	1432.2	1439.2	1439.2	1476.8	1560.3	1650.7	1686.9	1609.0	1446.1	1429.4	1171.9
25°	1604.8	1609.0	1579.8	1564.5	1595.1	1678.6	1746.8	1717.6	1546.4	1526.9	1245.7
27.5°	1845.6	1838.6	1802.5	1741.2	1707.8	1730.1	1799.7	1820.6	1661.9	1638.2	1322.3
30°	2085.0	2080.8	2039.1	1957.0	1881.8	1834.5	1858.1	1912.4	1787.2	1759.3	1396.0
32.5°	2309.1	2302.1	2256.2	2160.2	2075.3	1987.6	1941.6	1995.9	1920.8	1888.8	1478.2
35°	2515.1	2497.0	2451.1	2350.9	2263.2	2179.7	2066.9	2075.3	2065.5	2032.1	1568.6
37.5°	2682.1	2668.2	2618.1	2524.8	2431.6	2352.2	2233.9	2165.7	2221.4	2189.4	1673.0
40°	2829.7	2814.3	2762.8	2669.6	2583.3	2508.1	2414.9	2275.7	2396.8	2360.6	1789.9
42.5°	2941.0	2929.9	2888.1	2796.3	2712.7	2644.5	2598.6	2414.9	2579.1	2544.3	1918.0
45°	3000.9	2989.7	2967.4	2893.7	2817.1	2764.2	2768.4	2580.5	2769.8	2740.6	2069.7
47.5°	2927.1	2935.4	2954.9	2941.0	2893.7	2868.6	2920.1	2751.7	2982.8	2954.9	2233.9
50°	2729.4	2737.8	2815.7	2911.8	2928.5	2959.1	3056.5	2949.4	3208.2	3186.0	2437.2
52.5°	2243.7	2289.6	2505.4	2735.0	2892.3	3018.9	3208.2	3243.0	3588.2	3588.2	2796.3
55°	1695.3	1735.7	1982.0	2382.9	2751.7	3024.5	3319.6	3442.1	3862.4	3868.0	2984.2
57.5°	1373.8	1398.8	1519.9	1930.5	2456.6	2954.9	3451.8	3613.3	4090.7	4115.7	3226.3
60°	1114.9	1128.8	1208.1	1493.5	2048.8	2767.0	3546.5	3858.2	4416.4	4451.2	3535.3
62.5°	896.4	910.3	963.2	1134.4	1607.6	2414.9	3529.8	4113.0	4850.6	4907.7	3940.4
65°	715.4	730.7	765.5	871.3	1191.4	1977.8	3358.6	4243.8	5300.2	5355.9	4209.0
67.5°	558.1	572.1	595.7	665.3	839.3	1479.5	2953.5	4106.0	5502.0	5549.4	4222.9
70°	421.7	428.7	448.2	492.7	599.9	982.7	2311.9	3643.9	5321.1	5364.2	3944.5
72.5°	327.1	325.7	336.8	359.1	419.0	676.4	1532.4	2963.3	4704.5	4749.0	3365.5
75°	267.2	265.8	272.8	279.8	303.4	453.7	904.7	2231.2	3797.0	3712.1	2524.8
77.5°	225.5	224.1	231.0	232.4	242.2	313.2	515.0	1468.4	2533.2	2387.0	1422.5
80°	190.7	189.3	197.6	200.4	207.4	229.7	296.5	794.8	1272.2	1205.4	679.2
82.5°	143.4	148.9	164.2	171.2	179.6	169.8	183.7	350.7	590.1	563.7	295.1
85°	69.6	82.1	123.9	137.8	147.5	107.2	125.3	165.6	265.8	253.3	119.7
87.5°	23.7	20.9	73.8	87.7	96.0	48.7	69.6	91.9	110.0	100.2	37.6
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°	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7
2.5°	666.7	645.8	615.2	591.5	576.2	563.7	558.1	556.7	554.0	552.6	552.6
5°	680.6	643.0	595.7	570.7	563.7	558.1	560.9	562.3	562.3	562.3	562.3
7.5°	701.5	648.6	591.5	574.8	573.4	573.4	581.8	586.0	588.8	588.8	588.8
10°	729.3	658.4	598.5	584.6	588.8	591.5	601.3	606.9	609.6	611.0	612.4
12.5°	766.9	679.2	612.4	601.3	606.9	608.2	615.2	618.0	620.8	622.2	622.2
15°	817.0	709.8	634.7	620.8	622.2	620.8	620.8	618.0	616.6	616.6	619.4
17.5°	868.5	739.1	654.2	634.7	629.1	618.0	609.6	602.7	598.5	595.7	597.1
20°	920.0	765.5	665.3	637.5	622.2	604.1	588.8	579.0	573.4	567.9	570.7
22.5°	971.5	790.6	669.5	629.1	606.9	580.4	563.7	548.4	535.9	527.5	528.9
25°	1028.6	818.4	669.5	619.4	586.0	558.1	537.3	512.2	494.1	487.2	489.9
27.5°	1085.7	842.1	662.5	601.3	562.3	534.5	503.9	474.6	463.5	459.3	460.7
30°	1142.7	860.2	647.2	579.0	537.3	506.6	466.3	446.8	432.9	421.7	423.1
32.5°	1199.8	872.7	626.3	551.2	510.8	471.8	438.4	416.2	391.1	377.2	378.6
35°	1265.2	882.4	601.3	523.3	481.6	441.2	416.2	380.0	353.5	342.4	339.6
37.5°	1333.4	889.4	574.8	492.7	452.4	419.0	393.9	349.4	324.3	309.0	307.6
40°	1407.2	892.2	542.8	460.7	424.5	405.0	364.7	331.3	288.1	278.4	278.4
42.5°	1494.9	890.8	510.8	428.7	393.9	373.0	343.8	328.5	290.9	281.2	275.6
45°	1595.1	890.8	476.0	391.1	363.3	332.7	320.1	310.4	285.3	289.5	292.3
47.5°	1709.2	888.0	434.3	360.5	338.2	311.8	304.8	283.9	274.2	277.0	279.8
50°	1866.5	892.2	396.7	335.4	320.1	297.9	289.5	278.4	274.2	275.6	274.2
52.5°	2085.0	878.3	360.5	320.1	306.2	277.0	277.0	275.6	277.0	275.6	275.6
55°	2204.7	847.6	334.0	311.8	296.5	267.2	272.8	275.6	278.4	277.0	277.0
57.5°	2374.5	826.8	313.2	306.2	290.9	264.5	270.0	275.6	277.0	275.6	275.6
60°	2574.9	812.8	299.3	307.6	286.7	264.5	271.4	275.6	274.2	272.8	272.8
62.5°	2807.4	807.3	289.5	311.8	282.5	265.8	271.4	275.6	270.0	268.6	268.6
65°	2895.1	757.2	277.0	314.6	285.3	265.8	270.0	271.4	264.5	263.1	261.7
67.5°	2760.1	670.9	258.9	309.0	293.7	265.8	265.8	264.5	256.1	254.7	251.9
70°	2458.0	556.7	231.0	290.9	299.3	267.2	260.3	253.3	245.0	245.0	239.4
72.5°	2012.6	438.4	194.9	258.9	295.1	271.4	249.1	239.4	229.7	229.7	224.1
75°	1450.3	327.1	155.9	215.7	277.0	270.0	235.2	222.7	211.6	210.2	203.2
77.5°	826.8	229.7	126.7	168.4	246.4	263.1	222.7	203.2	190.7	186.5	182.3
80°	424.5	154.5	103.0	132.2	204.6	243.6	213.0	180.9	167.0	160.1	153.1
82.5°	201.8	103.0	79.3	97.4	154.5	213.0	200.4	155.9	140.6	132.2	123.9
85°	90.5	61.2	52.9	62.6	110.0	165.6	176.8	128.1	110.0	137.8	101.6
87.5°	29.2	27.8	27.8	29.2	52.9	72.4	129.4	94.6	87.7	72.4	61.2
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)