

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: P214744

Luminaire Tested: **ARCH-AF24-50-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214744  
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-AF24-50-D-U-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6621 lumens  
Efficiency: N/A  
Efficacy: 122.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

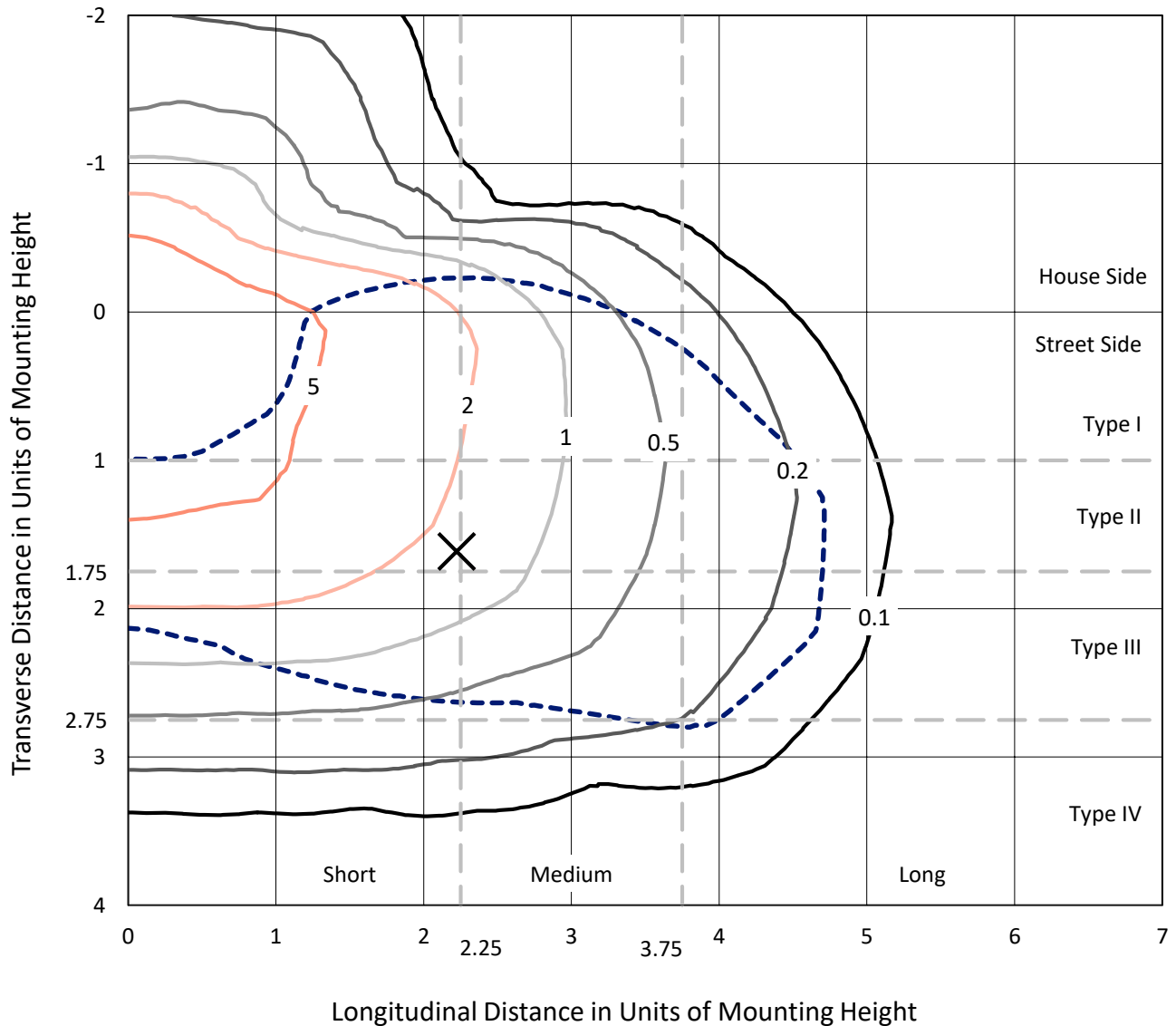
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

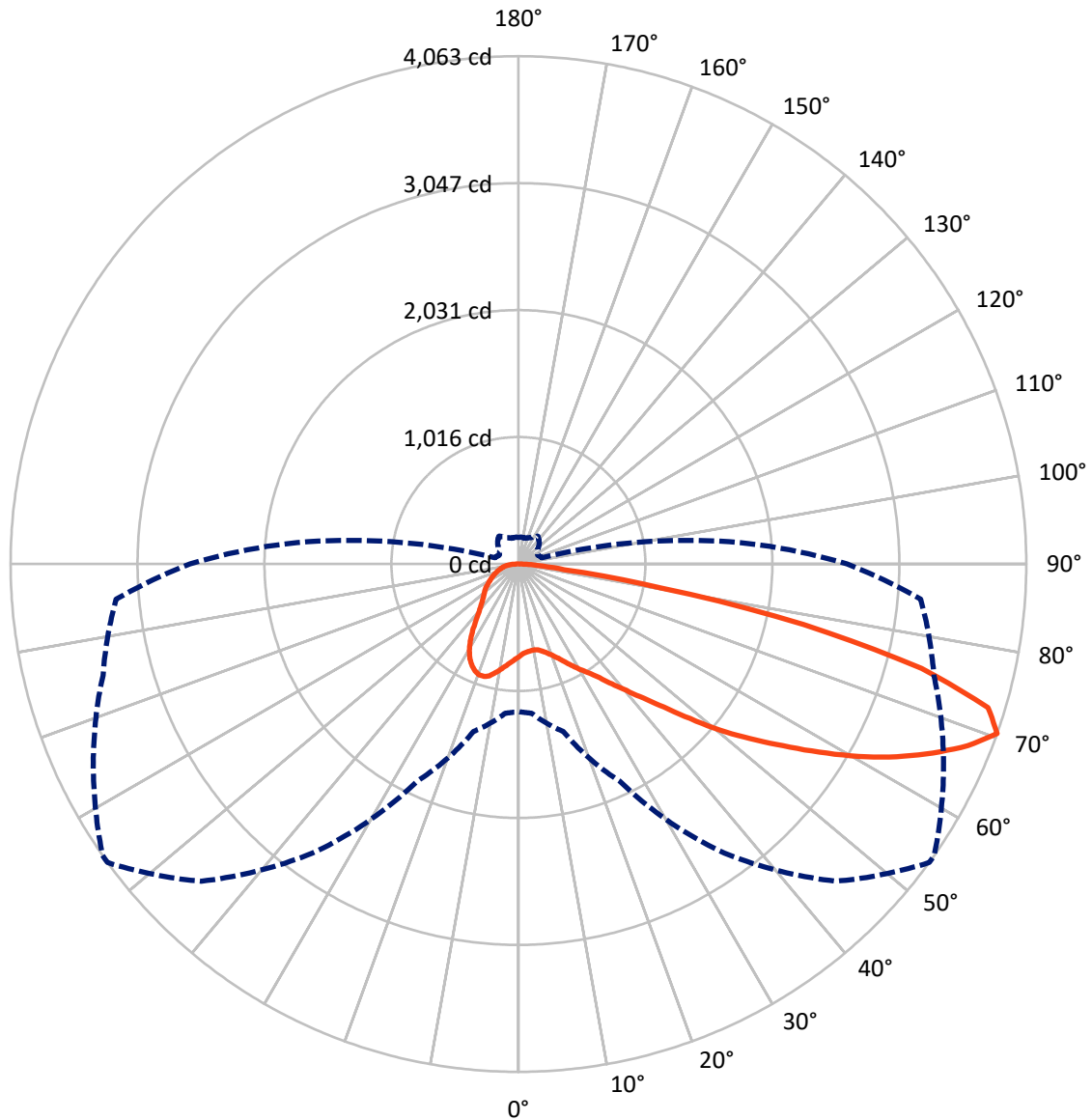


Based on 10 foot mounting height. Maximum calculated value = 8.6 fc  
 Type III - Short - Non-Cutoff

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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	1501.6	0.0	1501.6
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	5119.4	0.0	5119.4
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	6621.0	0.0	6621.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.7	1.1
10°-20°	232.3	3.5
20°-30°	403.6	6.1
30°-40°	589.8	8.9
40°-50°	925.6	14.0
50°-60°	1423.3	21.5
60°-70°	1739.0	26.3
70°-80°	1078.2	16.3
80°-90°	156.6	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°	6621.0	100.0
0°-180°	6621.0	100.0

**Coefficient of Utilization**



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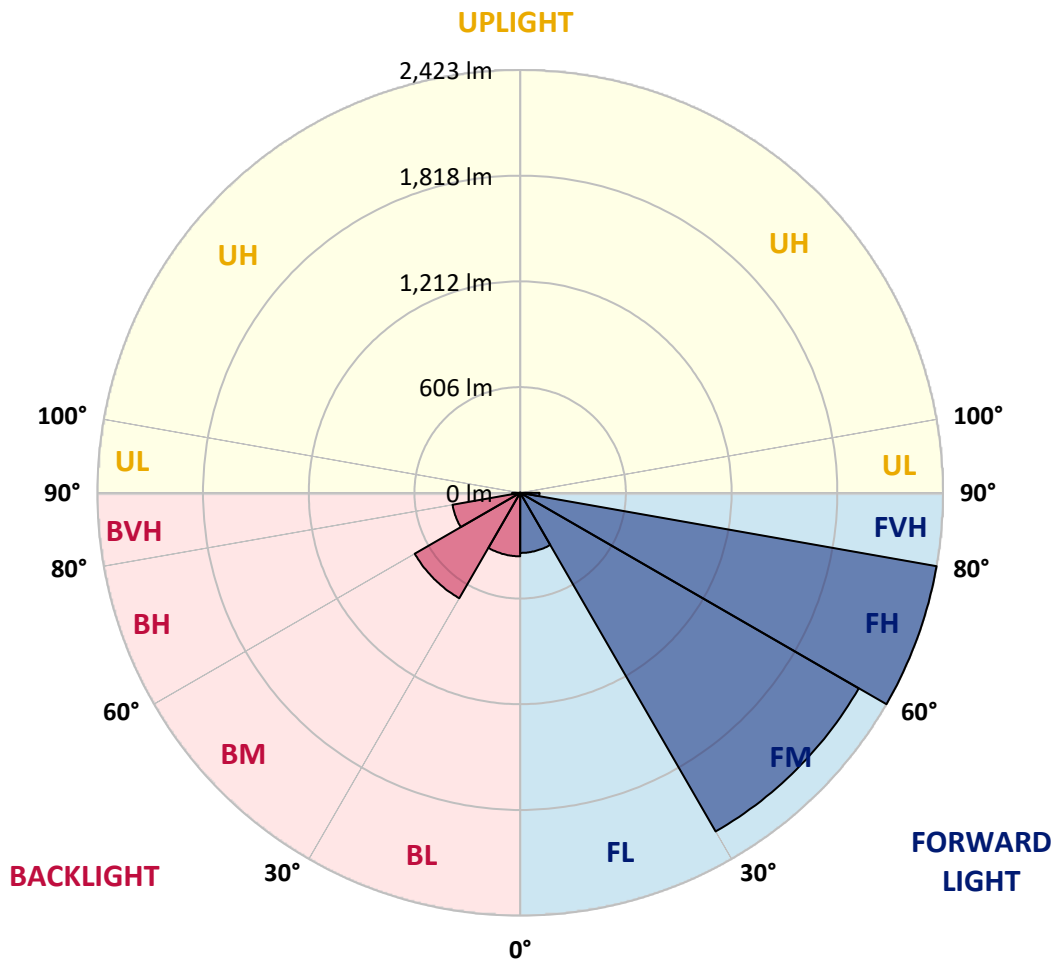
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	344.5	5.2			
FM	(30°-60°)	2240.9	33.8			
FH	(60°-80°)	2423.4	36.6			G2/5000
FVH	(80°-90°)	110.6	1.7			G2/225
BL	(0°-30°)	364.0	5.5	B1/500		
BM	(30°-60°)	697.8	10.5	B1/1000		
BH	(60°-80°)	393.8	5.9	B1/500		G1/500
BVH	(80°-90°)	46.0	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8
2.5°	711.7	709.2	709.2	712.9	714.1	717.7	717.7	718.9	722.6	728.6	735.9
5°	689.8	688.6	689.8	694.7	697.1	704.4	706.8	708.0	715.3	725.0	735.9
7.5°	668.0	666.8	669.2	676.5	683.8	694.7	700.7	702.0	712.9	726.2	740.8
10°	660.7	659.5	663.2	669.2	676.5	688.6	698.3	699.5	715.3	731.1	751.7
12.5°	670.4	669.2	672.9	678.9	686.2	694.7	705.6	706.8	727.4	748.0	769.9
15°	694.7	694.7	695.9	699.5	706.8	714.1	723.8	725.0	746.8	771.1	792.9
17.5°	732.3	729.8	729.8	728.6	733.5	737.1	749.2	750.5	773.5	795.3	817.1
20°	778.3	777.1	772.3	766.2	765.0	767.4	779.6	780.8	803.8	822.0	842.6
22.5°	834.1	835.3	824.4	811.1	805.0	808.6	819.6	820.8	837.7	853.5	871.7
25°	908.1	904.4	888.7	869.3	857.1	857.1	868.1	868.1	883.8	893.5	905.6
27.5°	978.4	971.1	956.6	928.7	909.3	912.9	923.8	923.8	938.4	942.0	948.1
30°	1054.8	1047.5	1029.3	994.1	968.7	966.3	979.6	978.4	997.8	996.6	991.7
32.5°	1148.1	1144.5	1114.2	1069.3	1035.4	1026.9	1039.0	1040.2	1052.3	1048.7	1032.9
35°	1279.0	1277.8	1250.0	1171.1	1126.3	1110.5	1117.8	1117.8	1126.3	1116.6	1089.9
37.5°	1443.9	1446.4	1422.1	1305.7	1242.7	1216.0	1217.2	1216.0	1218.4	1207.5	1179.6
40°	1608.8	1614.9	1613.7	1473.0	1393.0	1346.9	1330.0	1327.5	1333.6	1328.8	1302.1
42.5°	1825.8	1840.4	1806.4	1679.1	1589.4	1511.8	1465.8	1459.7	1473.0	1479.1	1453.6
45°	2051.3	2046.5	1993.1	1901.0	1819.8	1720.3	1633.1	1623.4	1633.1	1651.2	1624.6
47.5°	2168.9	2165.3	2152.0	2105.9	2093.8	1979.8	1847.6	1839.2	1821.0	1846.4	1814.9
50°	2362.9	2366.5	2312.0	2307.1	2358.1	2295.0	2090.1	2070.7	2038.0	2058.6	2031.9
52.5°	2503.5	2487.8	2453.8	2496.3	2655.1	2621.1	2318.0	2309.6	2279.2	2274.4	2262.3
55°	2560.5	2560.5	2566.6	2664.8	2891.5	2846.6	2565.4	2573.9	2532.6	2498.7	2514.4
57.5°	2577.5	2584.8	2636.9	2799.4	3169.1	3022.4	2838.2	2850.3	2790.9	2723.0	2772.7
60°	2493.8	2515.7	2640.5	2875.7	3325.5	3209.1	3125.5	3129.1	3043.0	2943.6	3030.9
62.5°	2279.2	2305.9	2529.0	2907.3	3300.1	3400.7	3397.1	3405.5	3287.9	3164.3	3273.4
65°	2016.2	2042.8	2280.5	2818.8	3280.7	3537.7	3645.6	3668.6	3517.1	3351.0	3424.9
67.5°	1629.4	1664.6	1890.1	2520.5	3186.1	3650.4	3878.4	3902.6	3694.1	3448.0	3411.6
70°	1180.8	1197.8	1386.9	1915.5	2800.6	3588.6	4062.6	4061.4	3752.3	3440.7	3229.7
72.5°	568.6	581.9	745.6	1189.3	2002.8	3045.5	3929.3	3952.3	3672.3	3335.2	2813.9
75°	234.0	247.3	301.9	501.9	1051.1	2012.5	3330.4	3384.9	3335.2	2993.3	2201.7
77.5°	145.5	150.3	177.0	259.4	480.1	939.6	2331.4	2405.3	2643.0	2398.1	1453.6
80°	109.1	112.8	132.1	181.9	303.1	346.7	1157.8	1251.2	1601.5	1376.0	658.3
82.5°	90.9	92.1	105.5	132.1	206.1	198.8	371.0	413.4	746.8	525.0	226.7
85°	84.9	87.3	94.6	94.6	130.9	124.9	154.0	161.2	217.0	179.4	78.8
87.5°	43.6	41.2	83.7	74.0	67.9	60.6	65.5	70.3	81.2	86.1	35.2
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°	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8	740.8
2.5°	738.3	742.0	748.0	754.1	761.4	769.9	774.7	780.8	785.6	783.2	782.0
5°	742.0	748.0	761.4	773.5	788.0	805.0	815.9	828.0	837.7	840.2	836.5
7.5°	748.0	758.9	777.1	798.9	818.3	840.2	857.1	874.1	886.2	888.7	888.7
10°	762.6	774.7	798.9	828.0	851.1	874.1	893.5	906.9	917.8	922.6	922.6
12.5°	783.2	797.7	826.8	862.0	887.5	909.3	920.2	926.2	931.1	935.9	937.2
15°	807.4	823.2	858.4	895.9	922.6	933.5	933.5	932.3	932.3	934.7	937.2
17.5°	831.7	848.7	885.0	925.0	942.0	935.9	927.5	923.8	921.4	920.2	923.8
20°	857.1	874.1	910.5	948.1	943.2	917.8	905.6	897.2	889.9	886.2	891.1
22.5°	885.0	900.8	938.4	963.8	927.5	888.7	865.6	852.3	840.2	832.9	837.7
25°	917.8	933.5	969.9	968.7	899.6	845.0	808.6	786.8	773.5	766.2	766.2
27.5°	956.6	969.9	1005.1	956.6	860.8	786.8	733.5	712.9	709.2	703.2	703.2
30°	996.6	1007.5	1037.8	928.7	807.4	710.4	652.3	642.6	643.8	637.7	638.9
32.5°	1037.8	1048.7	1057.2	887.5	738.3	624.4	585.6	578.3	577.1	572.2	567.4
35°	1096.0	1111.7	1059.6	831.7	654.7	552.8	525.0	517.7	510.4	493.4	493.4
37.5°	1184.5	1201.5	1053.5	762.6	568.6	497.1	471.6	461.9	449.8	432.8	426.8
40°	1305.7	1305.7	1040.2	685.0	499.5	452.2	428.0	415.8	402.5	385.5	381.9
42.5°	1448.8	1414.8	1019.6	606.2	448.6	421.9	400.1	386.7	371.0	351.6	349.2
45°	1616.1	1523.9	990.5	535.9	411.0	403.7	390.4	367.3	340.7	320.1	316.4
47.5°	1778.5	1622.1	962.6	486.2	379.5	396.4	385.5	346.7	310.4	281.3	277.6
50°	1956.8	1709.4	929.9	444.9	355.2	391.6	379.5	316.4	276.4	255.8	253.4
52.5°	2135.0	1797.9	894.7	401.3	334.6	381.9	364.9	294.6	275.2	247.3	243.7
55°	2322.9	1901.0	853.5	352.8	310.4	362.5	345.5	293.4	283.7	247.3	238.8
57.5°	2506.0	2015.0	786.8	305.5	283.7	333.4	338.3	286.1	265.5	244.9	235.2
60°	2708.4	2136.2	676.5	265.5	260.7	309.2	328.6	270.4	244.9	237.6	232.8
62.5°	2870.9	2245.3	528.6	237.6	241.3	289.8	316.4	260.7	236.4	230.3	229.1
65°	2941.2	2247.7	379.5	213.4	221.9	271.6	304.3	252.2	229.1	226.7	225.5
67.5°	2867.2	2124.1	266.7	190.3	201.3	254.6	288.5	243.7	221.9	223.1	220.7
70°	2628.4	1863.4	195.2	168.5	181.9	236.4	271.6	232.8	213.4	215.8	212.2
72.5°	2199.2	1452.4	156.4	150.3	166.1	217.0	254.6	220.7	200.0	201.3	194.0
75°	1624.6	962.6	130.9	134.6	147.9	198.8	232.8	204.9	185.5	180.6	175.8
77.5°	966.3	494.6	107.9	117.6	132.1	177.0	208.5	185.5	169.7	161.2	157.6
80°	398.9	200.0	88.5	99.4	115.2	157.6	184.3	162.5	151.5	143.1	138.2
82.5°	158.8	98.2	70.3	81.2	97.0	137.0	161.2	143.1	132.1	126.1	112.8
85°	60.6	48.5	47.3	57.0	72.7	105.5	133.4	120.0	111.5	95.8	92.1
87.5°	24.2	21.8	21.8	27.9	41.2	66.7	95.8	83.7	87.3	69.1	70.3
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)