

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: P234720

Luminaire Tested: **ARCH-AF24-70-D-U-T3-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234720  
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-AF24-70-D-U-T3-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6585 lumens  
Efficiency: N/A  
Efficacy: 89.0 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

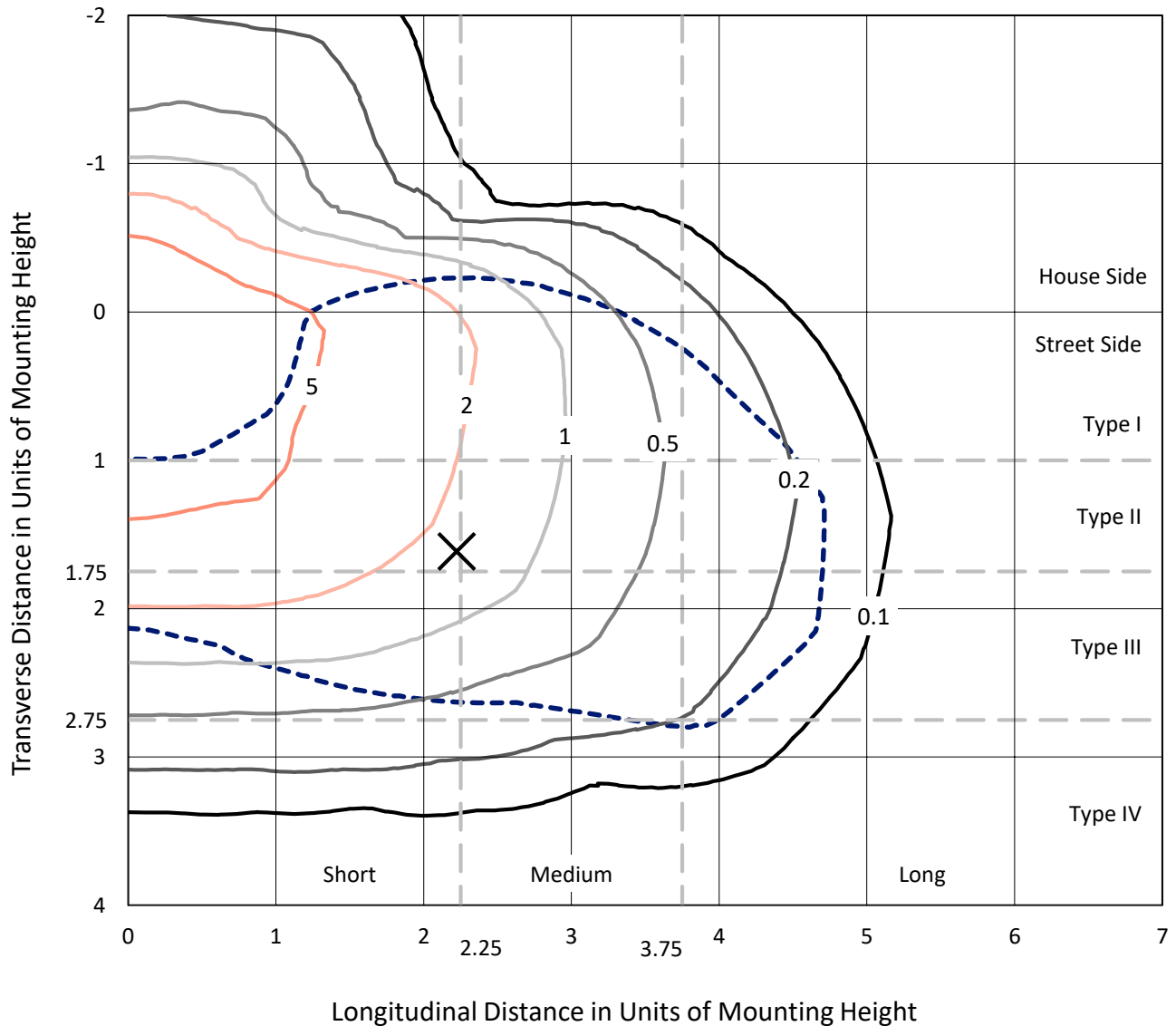
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

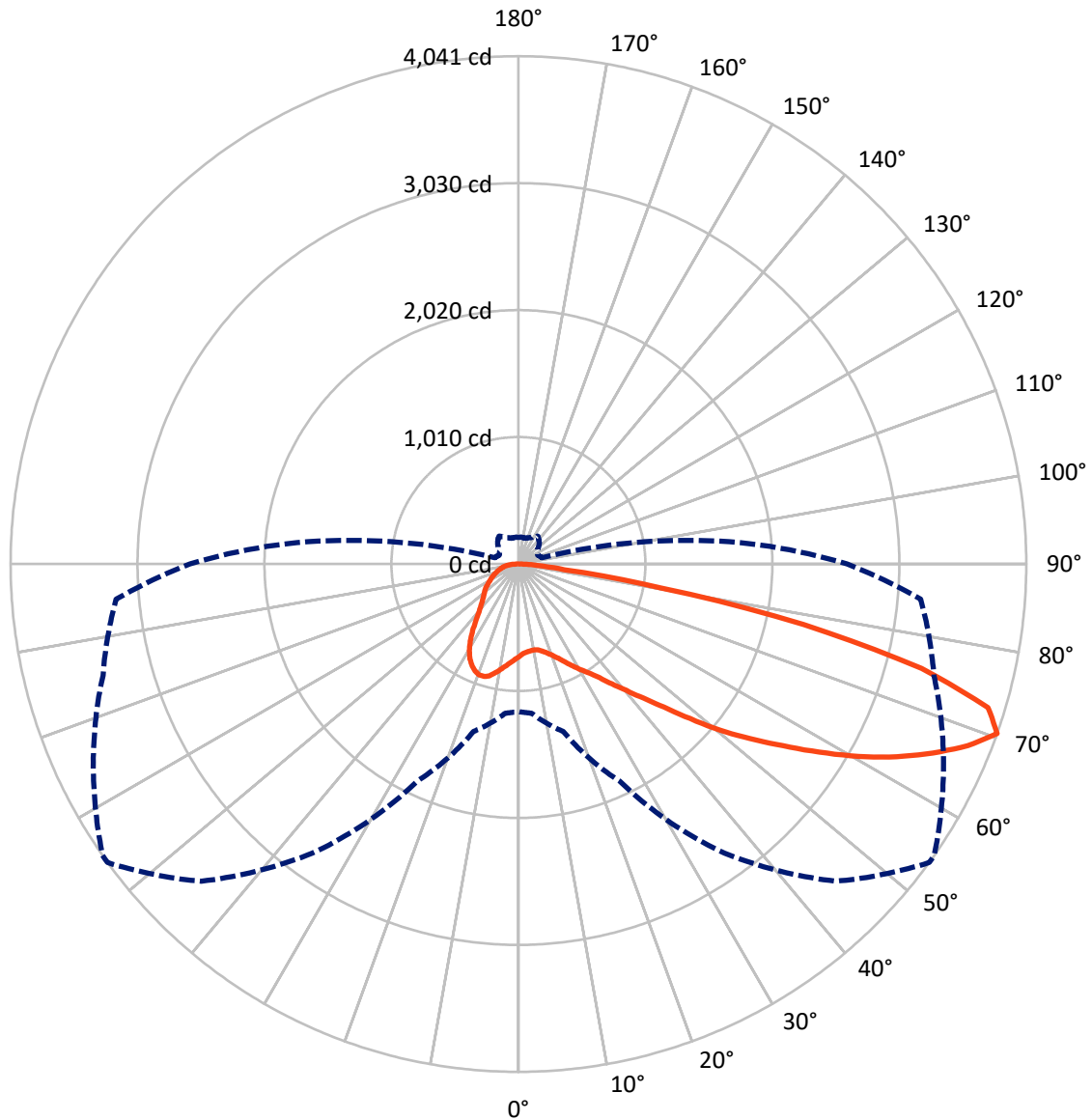


Based on 10 foot mounting height. Maximum calculated value = 8.6 fc  
 Type III - Short - Non-Cutoff

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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	1493.5	0.0	1493.5
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	5091.6	0.0	5091.6
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	6585.0	0.0	6585.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	1.1
10°-20°	231.0	3.5
20°-30°	401.4	6.1
30°-40°	586.5	8.9
40°-50°	920.6	14.0
50°-60°	1415.6	21.5
60°-70°	1729.5	26.3
70°-80°	1072.3	16.3
80°-90°	155.8	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°	6585.0	100.0
0°-180°	6585.0	100.0

**Coefficient of Utilization**



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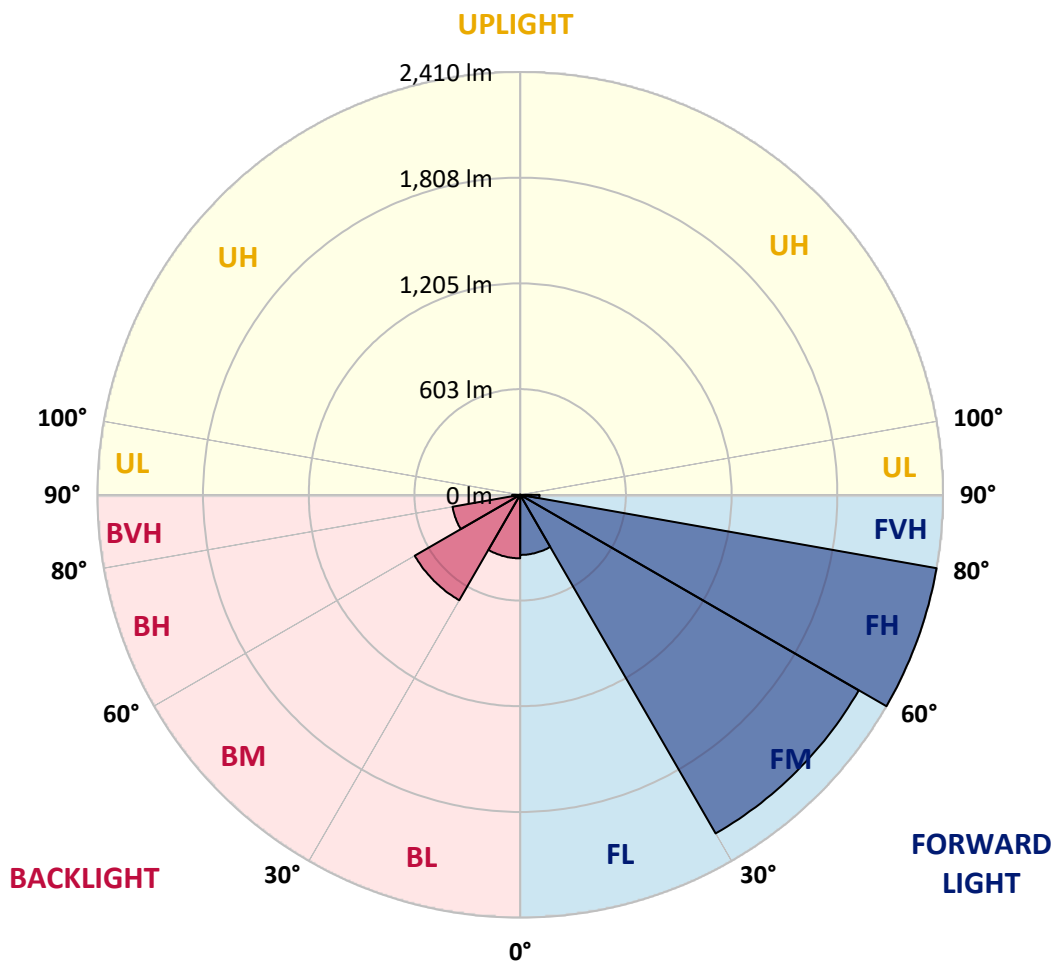
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	342.6	5.2			
FM	(30°-60°)	2228.7	33.8			
FH	(60°-80°)	2410.2	36.6			G2/5000
FVH	(80°-90°)	110.0	1.7			G2/225
BL	(0°-30°)	362.1	5.5	B1/500		
BM	(30°-60°)	694.0	10.5	B1/1000		
BH	(60°-80°)	391.6	5.9	B1/500		G1/500
BVH	(80°-90°)	45.8	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°	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
2.5°	707.8	705.4	705.4	709.0	710.2	713.8	713.8	715.0	718.6	724.7	731.9
5°	686.1	684.9	686.1	690.9	693.3	700.6	703.0	704.2	711.4	721.1	731.9
7.5°	664.4	663.2	665.6	672.8	680.1	690.9	696.9	698.1	709.0	722.3	736.7
10°	657.1	655.9	659.6	665.6	672.8	684.9	694.5	695.7	711.4	727.1	747.6
12.5°	666.8	665.6	669.2	675.2	682.5	690.9	701.8	703.0	723.5	744.0	765.7
15°	690.9	690.9	692.1	695.7	703.0	710.2	719.8	721.1	742.8	766.9	788.6
17.5°	728.3	725.9	725.9	724.7	729.5	733.1	745.2	746.4	769.3	791.0	812.7
20°	774.1	772.9	768.1	762.0	760.8	763.3	775.3	776.5	799.4	817.5	838.0
22.5°	829.6	830.8	819.9	806.7	800.6	804.3	815.1	816.3	833.2	848.9	867.0
25°	903.1	899.5	883.8	864.5	852.5	852.5	863.3	863.3	879.0	888.7	900.7
27.5°	973.1	965.8	951.4	923.6	904.3	907.9	918.8	918.8	933.3	936.9	942.9
30°	1049.0	1041.8	1023.7	988.7	963.4	961.0	974.3	973.1	992.4	991.1	986.3
32.5°	1141.9	1138.3	1108.1	1063.5	1029.7	1021.3	1033.3	1034.6	1046.6	1043.0	1027.3
35°	1272.1	1270.9	1243.2	1164.8	1120.2	1104.5	1111.7	1111.7	1120.2	1110.5	1084.0
37.5°	1436.1	1438.5	1414.4	1298.6	1235.9	1209.4	1210.6	1209.4	1211.8	1201.0	1173.2
40°	1600.1	1606.1	1604.9	1465.0	1385.4	1339.6	1322.7	1320.3	1326.4	1321.5	1295.0
42.5°	1815.9	1830.4	1796.6	1670.0	1580.8	1503.6	1457.8	1451.8	1465.0	1471.0	1445.7
45°	2040.2	2035.3	1982.3	1890.7	1809.9	1711.0	1624.2	1614.5	1624.2	1642.3	1615.7
47.5°	2157.1	2153.5	2140.3	2094.4	2082.4	1969.0	1837.6	1829.2	1811.1	1836.4	1805.0
50°	2350.1	2353.7	2299.4	2294.6	2345.2	2282.5	2078.8	2059.5	2026.9	2047.4	2020.9
52.5°	2489.9	2474.3	2440.5	2482.7	2640.6	2606.9	2305.4	2297.0	2266.9	2262.0	2250.0
55°	2546.6	2546.6	2552.6	2650.3	2875.8	2831.2	2551.4	2559.9	2518.9	2485.1	2500.8
57.5°	2563.5	2570.7	2622.6	2784.1	3151.9	3006.0	2822.7	2834.8	2775.7	2708.2	2757.6
60°	2480.3	2502.0	2626.2	2860.1	3307.4	3191.7	3108.5	3112.1	3026.5	2927.6	3014.4
62.5°	2266.9	2293.4	2515.2	2891.4	3282.1	3382.2	3378.6	3387.0	3270.1	3147.1	3255.6
65°	2005.2	2031.7	2268.1	2803.4	3262.8	3518.5	3625.8	3648.7	3498.0	3332.8	3406.3
67.5°	1620.6	1655.5	1879.8	2506.8	3168.8	3630.6	3857.3	3881.4	3674.0	3429.2	3393.1
70°	1174.4	1191.3	1379.4	1905.1	2785.3	3569.1	4040.6	4039.3	3731.9	3422.0	3212.2
72.5°	565.5	578.8	741.6	1182.9	1991.9	3028.9	3907.9	3930.8	3652.3	3317.1	2798.6
75°	232.7	246.0	300.2	499.2	1045.4	2001.6	3312.3	3366.5	3317.1	2977.1	2189.7
77.5°	144.7	149.5	176.0	258.0	477.5	934.5	2318.7	2392.3	2628.6	2385.0	1445.7
80°	108.5	112.1	131.4	180.9	301.4	344.9	1151.5	1244.4	1592.8	1368.6	654.7
82.5°	90.4	91.6	104.9	131.4	205.0	197.7	369.0	411.2	742.8	522.1	225.5
85°	84.4	86.8	94.1	94.1	130.2	124.2	153.1	160.4	215.8	178.5	78.4
87.5°	43.4	41.0	83.2	73.6	67.5	60.3	65.1	69.9	80.8	85.6	35.0
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°	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
2.5°	734.3	737.9	744.0	750.0	757.2	765.7	770.5	776.5	781.3	778.9	777.7
5°	737.9	744.0	757.2	769.3	783.8	800.6	811.5	823.5	833.2	835.6	832.0
7.5°	744.0	754.8	772.9	794.6	813.9	835.6	852.5	869.4	881.4	883.8	883.8
10°	758.4	770.5	794.6	823.5	846.5	869.4	888.7	901.9	912.8	917.6	917.6
12.5°	778.9	793.4	822.3	857.3	882.6	904.3	915.2	921.2	926.0	930.9	932.1
15°	803.0	818.7	853.7	891.1	917.6	928.4	928.4	927.2	927.2	929.7	932.1
17.5°	827.2	844.0	880.2	920.0	936.9	930.9	922.4	918.8	916.4	915.2	918.8
20°	852.5	869.4	905.5	942.9	938.1	912.8	900.7	892.3	885.0	881.4	886.2
22.5°	880.2	895.9	933.3	958.6	922.4	883.8	860.9	847.7	835.6	828.4	833.2
25°	912.8	928.4	964.6	963.4	894.7	840.4	804.3	782.5	769.3	762.0	762.0
27.5°	951.4	964.6	999.6	951.4	856.1	782.5	729.5	709.0	705.4	699.3	699.3
30°	991.1	1002.0	1032.1	923.6	803.0	706.6	648.7	639.1	640.3	634.2	635.4
32.5°	1032.1	1043.0	1051.4	882.6	734.3	621.0	582.4	575.2	573.9	569.1	564.3
35°	1090.0	1105.7	1053.8	827.2	651.1	549.8	522.1	514.9	507.6	490.8	490.8
37.5°	1178.0	1194.9	1047.8	758.4	565.5	494.4	469.0	459.4	447.3	430.5	424.4
40°	1298.6	1298.6	1034.6	681.3	496.8	449.8	425.6	413.6	400.3	383.4	379.8
42.5°	1440.9	1407.1	1014.1	602.9	446.1	419.6	397.9	384.6	369.0	349.7	347.3
45°	1607.3	1515.7	985.1	533.0	408.8	401.5	388.3	365.3	338.8	318.3	314.7
47.5°	1768.9	1613.3	957.4	483.5	377.4	394.3	383.4	344.9	308.7	279.7	276.1
50°	1946.1	1700.1	924.8	442.5	353.3	389.5	377.4	314.7	274.9	254.4	252.0
52.5°	2123.4	1788.2	889.9	399.1	332.8	379.8	362.9	293.0	273.7	246.0	242.4
55°	2310.3	1890.7	848.9	350.9	308.7	360.5	343.6	291.8	282.2	246.0	237.5
57.5°	2492.3	2004.0	782.5	303.9	282.2	331.6	336.4	284.6	264.1	243.6	233.9
60°	2693.7	2124.6	672.8	264.1	259.2	307.5	326.8	268.9	243.6	236.3	231.5
62.5°	2855.3	2233.1	525.7	236.3	239.9	288.2	314.7	259.2	235.1	229.1	227.9
65°	2925.2	2235.5	377.4	212.2	220.7	270.1	302.6	250.8	227.9	225.5	224.3
67.5°	2851.7	2112.5	265.3	189.3	200.2	253.2	287.0	242.4	220.7	221.9	219.5
70°	2614.1	1853.3	194.1	167.6	180.9	235.1	270.1	231.5	212.2	214.6	211.0
72.5°	2187.3	1444.5	155.5	149.5	165.2	215.8	253.2	219.5	199.0	200.2	192.9
75°	1615.7	957.4	130.2	133.8	147.1	197.7	231.5	203.8	184.5	179.7	174.8
77.5°	961.0	492.0	107.3	117.0	131.4	176.0	207.4	184.5	168.8	160.4	156.8
80°	396.7	199.0	88.0	98.9	114.5	156.8	183.3	161.6	150.7	142.3	137.5
82.5°	158.0	97.7	69.9	80.8	96.5	136.3	160.4	142.3	131.4	125.4	112.1
85°	60.3	48.2	47.0	56.7	72.3	104.9	132.6	119.4	110.9	95.3	91.6
87.5°	24.1	21.7	21.7	27.7	41.0	66.3	95.3	83.2	86.8	68.7	69.9
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)