

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: P397969

Luminaire Tested: **ARCH-S-PA1-70-727-U-T2R**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397969  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-70-727-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8470 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 74  
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

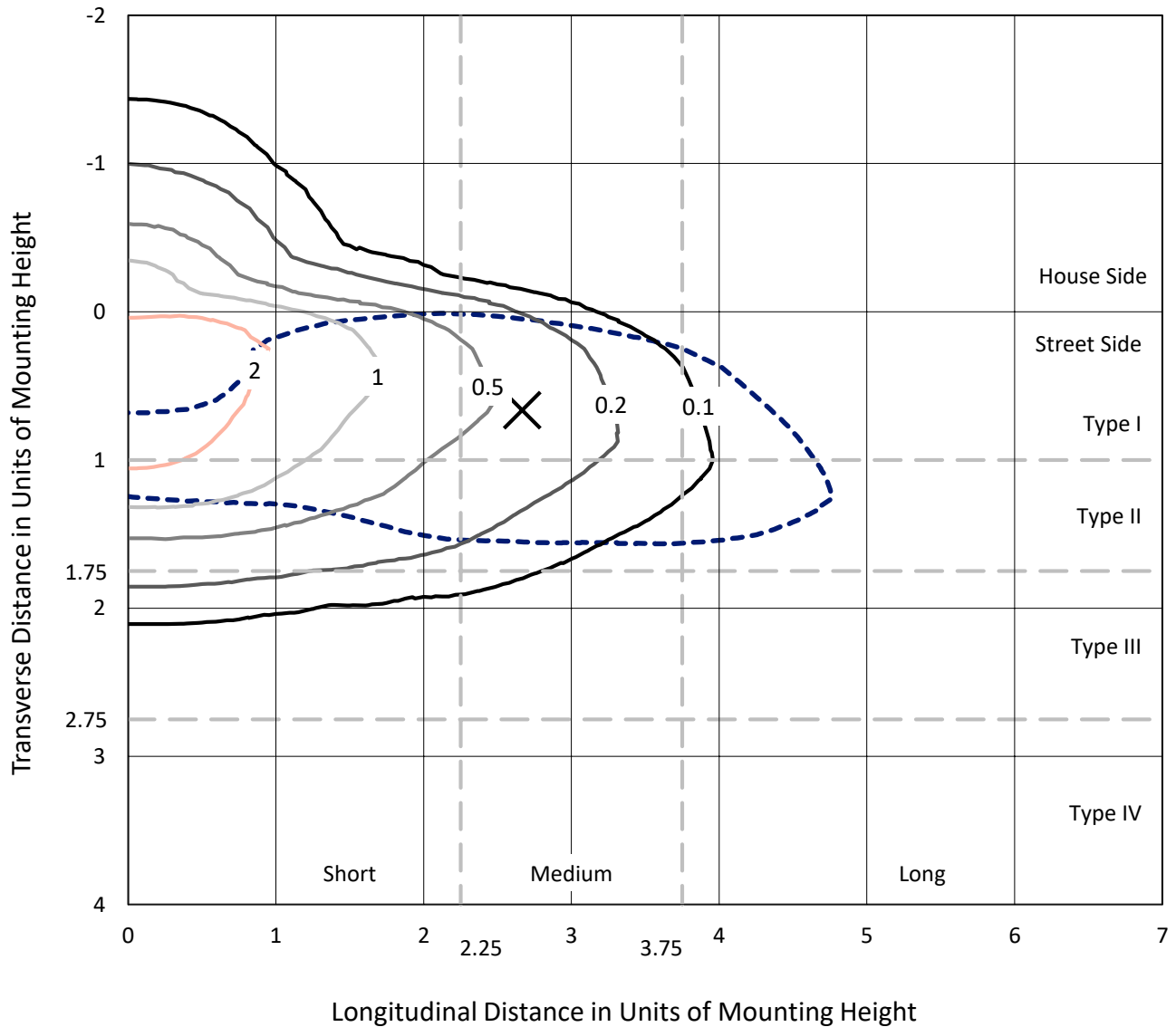


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

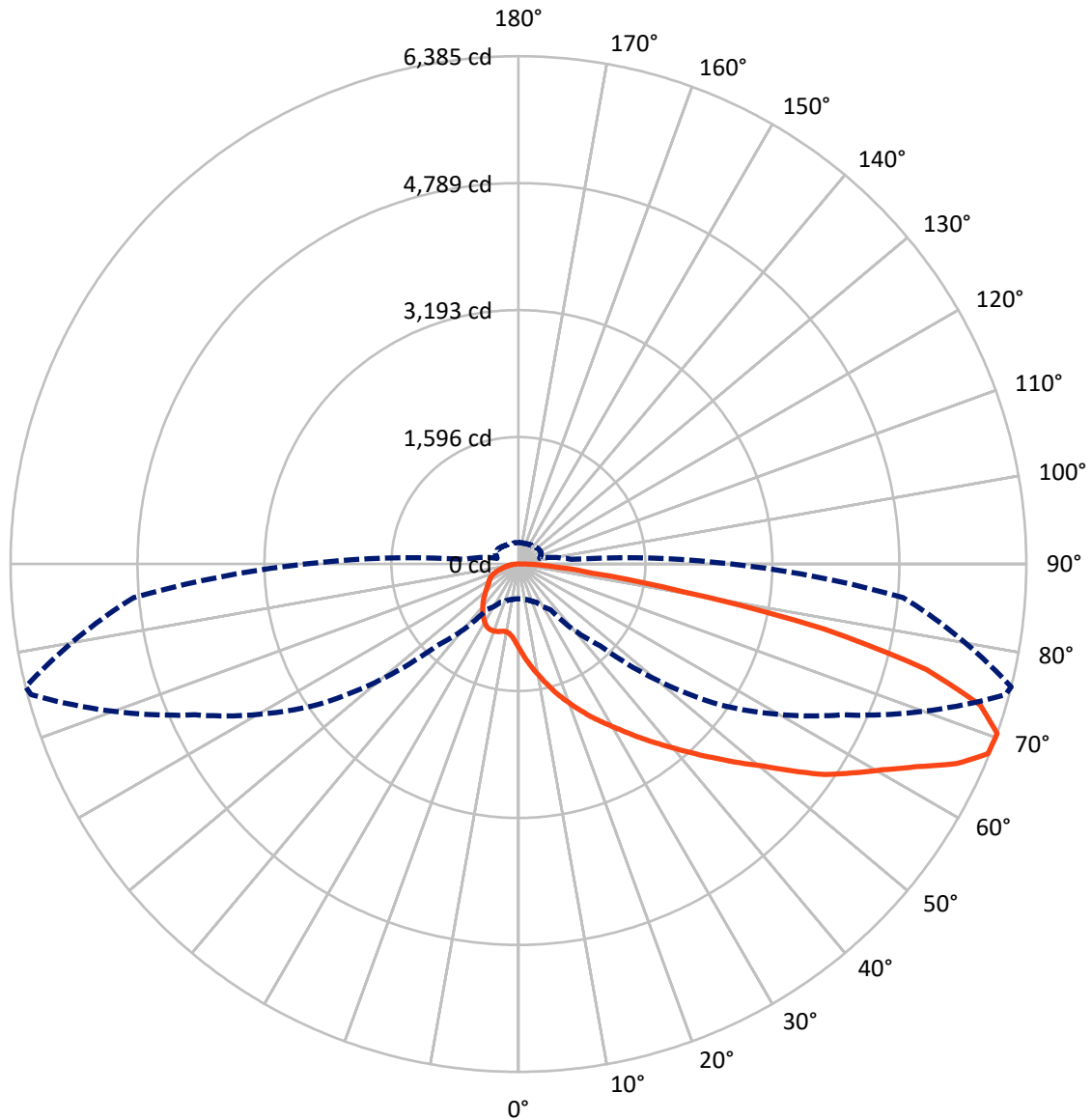


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type II - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1382.8	0.0	1382.8
	% Fixture	16.3	0.0	16.3
<b>Street Side</b>	Lumens	7087.2	0.0	7087.2
	% Fixture	83.7	0.0	83.7
<b>Total</b>	Lumens	8470.0	0.0	8470.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.1	1.3
10°-20°	374.0	4.4
20°-30°	669.2	7.9
30°-40°	1082.6	12.8
40°-50°	1566.1	18.5
50°-60°	1792.5	21.2
60°-70°	1648.9	19.5
70°-80°	1019.6	12.0
80°-90°	207.0	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°	8470.0	100.0
0°-180°	8470.0	100.0



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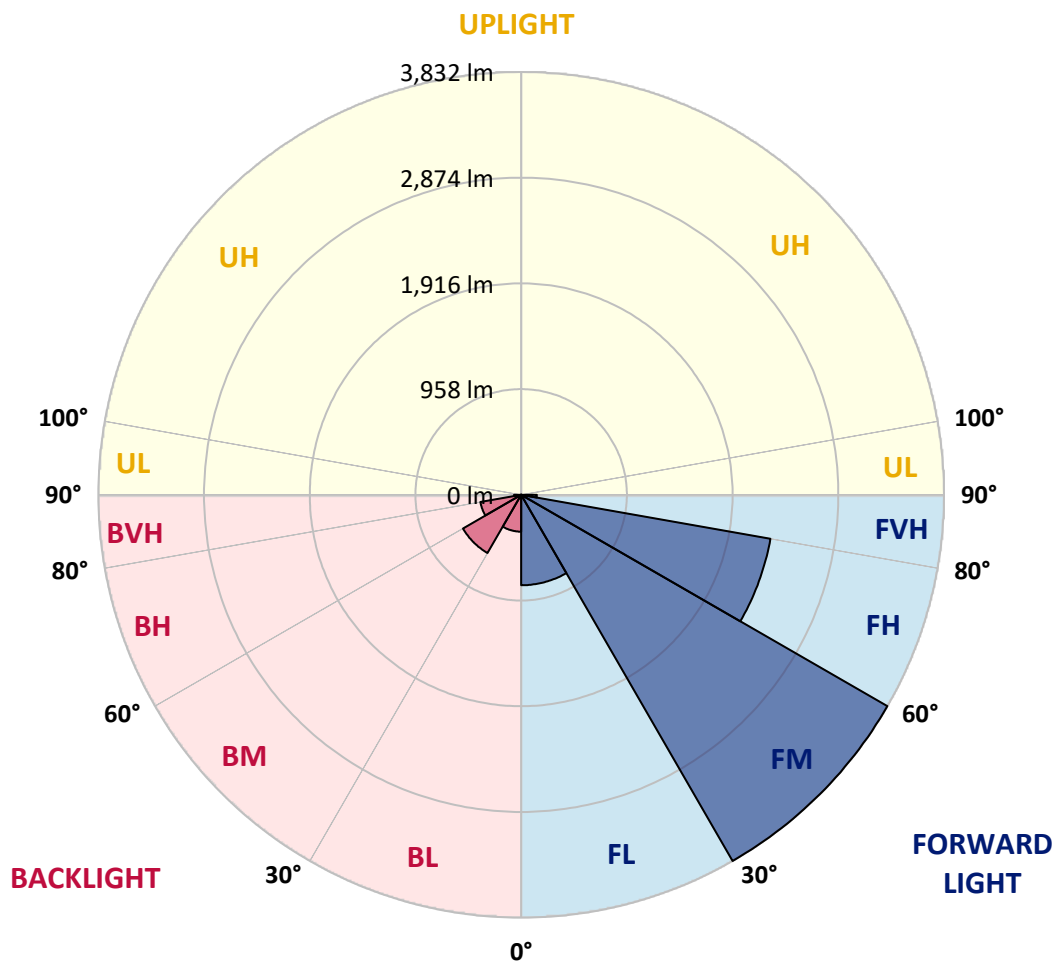
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	819.3	9.7			
FM (30°-60°)	3832.3	45.2			
FH (60°-80°)	2293.4	27.1			G2/5000
FVH (80°-90°)	142.1	1.7			G2/225
BL (0°-30°)	334.0	3.9	B1/500		
BM (30°-60°)	608.8	7.2	B1/1000		
BH (60°-80°)	375.1	4.4	B1/500		G1/500
BVH (80°-90°)	64.9	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°	75°	76°	85°
0°	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2
2.5°	1349.9	1339.9	1338.8	1323.2	1308.7	1269.7	1241.9	1192.9	1143.9	1142.7	1093.7
5°	1560.4	1550.4	1544.8	1525.9	1501.4	1450.1	1400.0	1324.3	1240.8	1235.2	1142.7
7.5°	1703.0	1694.1	1682.9	1675.1	1651.7	1606.1	1544.8	1454.6	1339.9	1328.7	1199.5
10°	1798.8	1793.2	1791.0	1785.4	1770.9	1734.2	1675.1	1579.3	1439.0	1426.8	1259.7
12.5°	1840.0	1837.7	1847.8	1863.4	1868.9	1854.5	1797.6	1707.4	1548.2	1534.8	1332.1
15°	1792.1	1794.3	1819.9	1873.4	1930.2	1961.4	1928.0	1840.0	1671.8	1652.9	1416.7
17.5°	1769.8	1773.1	1791.0	1842.2	1922.4	2019.3	2034.9	1965.8	1791.0	1764.2	1505.8
20°	1808.8	1813.2	1826.6	1866.7	1922.4	2026.0	2107.3	2086.1	1907.9	1880.1	1591.6
22.5°	1907.9	1913.5	1912.4	1938.0	1975.9	2047.1	2147.4	2199.7	2030.4	1999.2	1680.7
25°	2119.5	2115.1	2077.2	2065.0	2075.0	2120.6	2200.8	2308.9	2158.5	2127.3	1774.3
27.5°	2406.9	2401.3	2332.3	2269.9	2214.2	2234.3	2276.6	2396.9	2288.8	2253.2	1863.4
30°	2714.3	2707.6	2627.4	2526.1	2402.4	2373.5	2367.9	2473.7	2420.3	2382.4	1958.0
32.5°	3013.9	3008.3	2922.6	2804.5	2634.1	2547.2	2493.8	2559.5	2569.5	2532.7	2061.6
35°	3286.8	3286.8	3213.3	3072.9	2880.2	2748.8	2660.8	2665.3	2741.0	2698.7	2179.7
37.5°	3529.6	3528.5	3448.3	3310.2	3125.3	2974.9	2865.8	2793.4	2904.8	2868.0	2303.3
40°	3722.3	3714.5	3655.4	3535.2	3349.2	3199.9	3089.6	2943.7	3087.4	3054.0	2434.7
42.5°	3862.6	3858.2	3818.1	3713.4	3536.3	3395.9	3320.2	3133.1	3294.6	3261.2	2588.4
45°	3917.2	3926.1	3926.1	3827.0	3686.6	3558.5	3525.1	3341.4	3518.4	3485.0	2753.3
47.5°	3829.2	3852.6	3900.5	3907.2	3783.5	3696.7	3707.8	3550.7	3749.0	3731.2	2933.7
50°	3554.1	3597.5	3702.2	3891.6	3822.5	3802.5	3863.7	3764.6	3996.3	3990.7	3153.1
52.5°	2844.6	2950.4	3276.8	3616.5	3795.8	3851.5	4018.5	4005.2	4314.8	4323.7	3439.4
55°	2181.9	2222.0	2599.6	3177.6	3632.1	3835.9	4122.1	4240.2	4660.1	4671.2	3702.2
57.5°	1764.2	1791.0	1997.0	2599.6	3258.9	3751.2	4203.4	4377.2	4925.2	4954.1	3936.1
60°	1397.8	1436.8	1574.9	1989.2	2736.6	3547.4	4260.2	4529.8	5210.3	5253.7	4215.7
62.5°	1039.2	1058.1	1188.4	1473.5	2166.3	3181.0	4230.2	4695.7	5560.0	5612.4	4552.0
65°	739.6	756.3	848.7	1048.1	1601.6	2685.3	4055.3	4819.3	5998.8	6052.3	4890.6
67.5°	553.6	560.2	612.6	732.9	1079.3	2086.1	3701.1	4798.2	6319.6	6367.5	5026.5
70°	437.7	439.9	465.6	530.2	701.7	1452.4	3080.7	4487.4	6343.0	6385.3	4855.0
72.5°	363.1	362.0	376.5	407.6	489.0	918.9	2282.1	3910.5	6042.3	6071.2	4376.1
75°	299.6	301.8	311.9	329.7	373.1	605.9	1479.1	3119.7	5330.6	5299.4	3672.1
77.5°	251.7	250.6	255.1	270.6	301.8	435.5	866.5	2254.3	3950.6	3935.0	2410.2
80°	202.7	204.9	211.6	225.0	253.9	331.9	512.3	1406.7	2119.5	2062.7	1151.7
82.5°	135.9	157.0	170.4	186.0	219.4	245.0	325.2	715.1	947.8	933.4	522.4
85°	64.6	85.8	127.0	144.8	178.2	153.7	220.5	340.8	474.5	468.9	188.2
87.5°	13.4	13.4	67.9	81.3	110.3	65.7	122.5	148.1	229.4	215.0	76.9
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°	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2	1059.2
2.5°	1064.8	1034.7	974.6	926.7	877.7	849.8	815.3	798.6	795.2	786.3	793.0
5°	1083.7	1024.7	911.1	836.5	786.3	761.8	749.6	745.1	744.0	741.8	741.8
7.5°	1109.3	1019.1	871.0	795.2	762.9	755.1	758.5	765.2	766.3	768.5	767.4
10°	1140.5	1020.2	848.7	785.2	769.6	770.7	781.9	790.8	795.2	798.6	797.5
12.5°	1184.0	1033.6	845.4	791.9	785.2	789.7	800.8	809.7	814.2	815.3	815.3
15°	1240.8	1061.4	853.2	806.4	800.8	804.2	810.8	814.2	815.3	814.2	814.2
17.5°	1303.1	1094.9	864.3	815.3	806.4	803.0	800.8	797.5	790.8	786.3	786.3
20°	1363.3	1124.9	869.9	814.2	798.6	785.2	771.9	755.1	744.0	735.1	735.1
22.5°	1423.4	1152.8	869.9	801.9	777.4	751.8	724.0	697.2	680.5	669.4	669.4
25°	1486.9	1179.5	863.2	780.8	744.0	707.3	669.4	636.0	619.3	608.1	605.9
27.5°	1540.4	1195.1	845.4	750.7	702.8	656.0	612.6	578.1	565.8	555.8	555.8
30°	1597.2	1205.1	811.9	711.7	656.0	602.6	558.0	530.2	516.8	502.3	501.2
32.5°	1660.7	1211.8	774.1	670.5	608.1	551.3	513.5	491.2	462.2	446.6	444.4
35°	1734.2	1220.7	734.0	623.7	560.2	509.0	486.7	450.0	422.1	408.8	407.6
37.5°	1812.1	1227.4	690.5	582.5	516.8	481.2	458.9	415.4	390.9	370.9	368.7
40°	1894.5	1227.4	646.0	542.4	482.3	468.9	426.6	387.6	346.4	336.4	334.1
42.5°	1985.9	1225.2	601.4	503.4	450.0	441.1	407.6	366.4	345.3	336.4	334.1
45°	2082.8	1217.4	559.1	458.9	416.6	398.7	373.1	362.0	353.1	353.1	353.1
47.5°	2193.0	1210.7	511.2	418.8	392.1	372.0	353.1	346.4	345.3	348.6	352.0
50°	2334.5	1208.5	471.1	389.8	373.1	349.7	347.5	341.9	343.0	343.0	343.0
52.5°	2506.0	1188.4	433.3	368.7	354.2	326.3	333.0	338.6	340.8	339.7	338.6
55°	2631.9	1152.8	401.0	354.2	340.8	317.4	326.3	335.2	337.5	334.1	334.1
57.5°	2745.5	1102.6	375.3	343.0	331.9	311.9	321.9	330.8	328.6	327.5	326.3
60°	2875.8	1054.8	355.3	337.5	323.0	309.6	318.5	324.1	320.8	318.5	317.4
62.5°	3017.2	1008.0	340.8	337.5	316.3	308.5	315.2	317.4	310.7	308.5	308.5
65°	3083.0	934.5	325.2	337.5	313.0	306.3	308.5	306.3	299.6	299.6	298.5
67.5°	2974.9	813.1	305.2	333.0	317.4	302.9	298.5	295.2	287.4	287.4	285.1
70°	2676.4	668.3	276.2	318.5	318.5	301.8	285.1	277.3	268.4	271.8	267.3
72.5°	2286.6	530.2	240.6	294.0	311.9	300.7	270.6	258.4	250.6	253.9	247.3
75°	1852.2	411.0	198.3	255.1	295.2	295.2	256.2	239.5	230.6	230.6	222.8
77.5°	1180.6	304.1	161.5	211.6	265.1	287.4	243.9	218.3	204.9	201.6	196.0
80°	584.7	213.8	132.5	168.2	226.1	269.5	235.0	193.8	174.9	168.2	158.2
82.5°	310.7	148.1	105.8	131.4	180.4	242.8	223.9	167.1	143.7	133.7	122.5
85°	139.2	91.3	84.6	100.2	137.0	199.4	201.6	137.0	110.3	131.4	96.9
87.5°	51.2	41.2	41.2	51.2	79.1	83.5	142.6	88.0	70.2	47.9	37.9
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)