

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: P398123

Luminaire Tested: **ARCH-S-PA1-90-730-U-T2U-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398123  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-90-730-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7248 lumens  
Efficiency: N/A  
Efficacy: 77.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

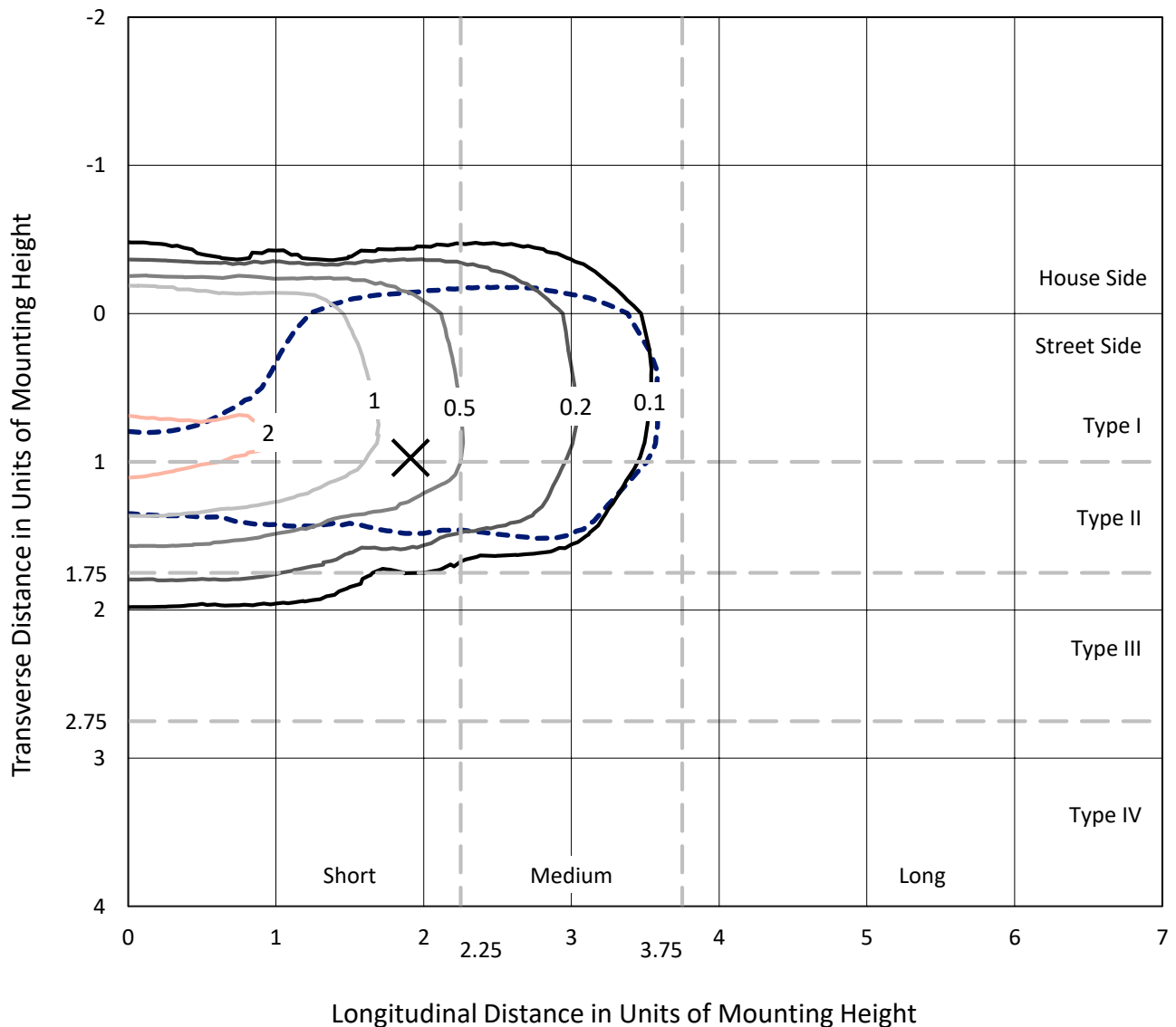
Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

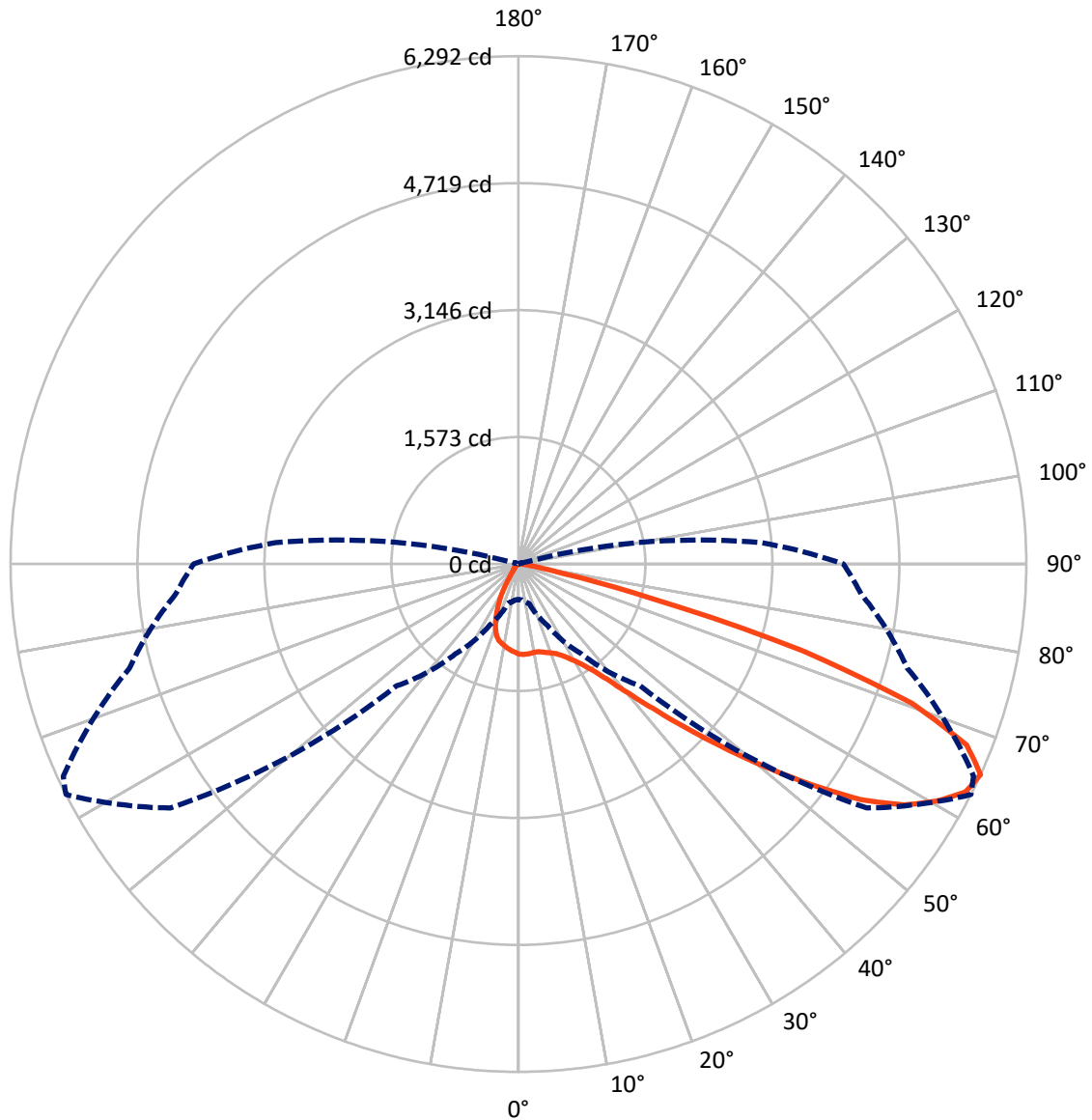
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical



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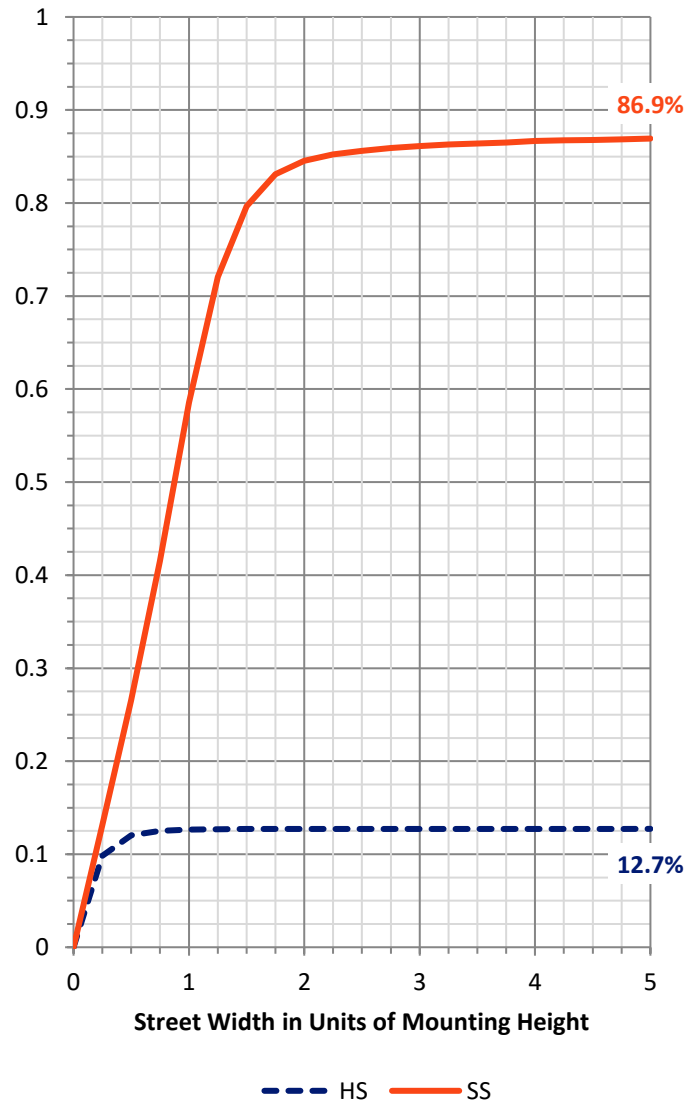
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	932.8	0.0	932.8
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	6315.2	0.0	6315.2
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	7248.0	0.0	7248.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.9	1.4
10°-20°	251.3	3.5
20°-30°	372.5	5.1
30°-40°	691.7	9.5
40°-50°	1465.3	20.2
50°-60°	2026.1	28.0
60°-70°	1622.0	22.4
70°-80°	673.9	9.3
80°-90°	43.3	0.6
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°	7248.0	100.0
0°-180°	7248.0	100.0

**Coefficient of Utilization**



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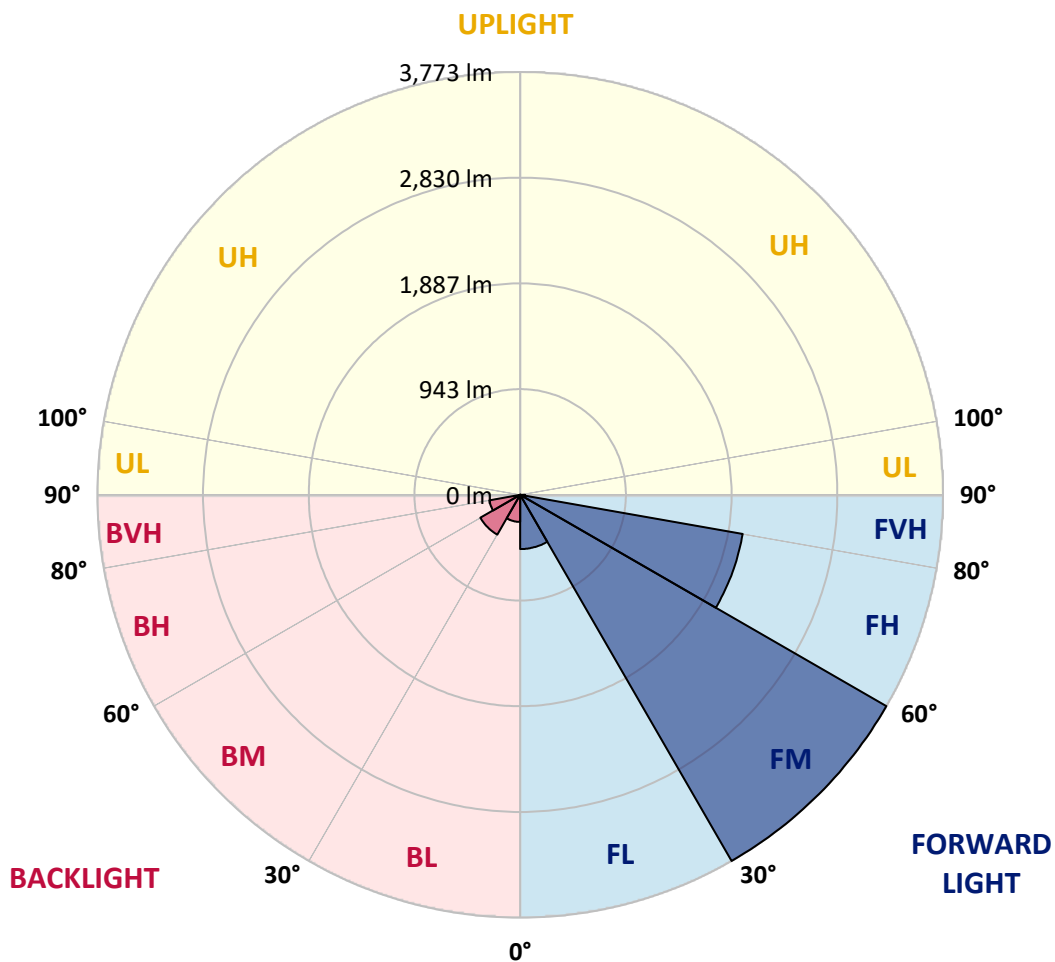
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	484.0	6.7			
FM	(30°-60°)	3773.3	52.1			
FH	(60°-80°)	2016.6	27.8			G2/5000
FVH	(80°-90°)	41.3	0.6			G1/100
BL	(0°-30°)	241.8	3.3	B1/500		
BM	(30°-60°)	409.8	5.7	B1/1000		
BH	(60°-80°)	279.3	3.9	B1/500		G1/500
BVH	(80°-90°)	2.0	0.0			G0/10
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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6
2.5°	1135.7	1133.0	1130.2	1128.9	1128.9	1127.5	1122.0	1120.7	1117.9	1115.2	1112.5
5°	1124.8	1120.7	1119.3	1120.7	1122.0	1124.8	1122.0	1122.0	1119.3	1116.6	1111.1
7.5°	1097.4	1094.7	1096.0	1100.1	1101.5	1111.1	1112.5	1116.6	1116.6	1113.8	1109.7
10°	1064.6	1063.2	1063.2	1070.0	1076.9	1090.6	1100.1	1111.1	1112.5	1112.5	1105.6
12.5°	1039.9	1038.6	1042.7	1050.9	1064.6	1082.4	1098.8	1115.2	1117.9	1119.3	1108.3
15°	1024.9	1024.9	1030.4	1046.8	1065.9	1090.6	1109.7	1131.6	1134.3	1133.0	1117.9
17.5°	1011.2	1012.6	1023.5	1050.9	1072.8	1105.6	1128.9	1153.5	1154.9	1153.5	1128.9
20°	1005.7	1008.5	1024.9	1060.5	1085.1	1122.0	1152.1	1176.8	1178.1	1172.7	1139.8
22.5°	1020.8	1022.1	1042.7	1081.0	1104.2	1145.3	1183.6	1206.9	1208.2	1200.0	1156.2
25°	1072.8	1072.8	1090.6	1123.4	1143.9	1185.0	1226.0	1253.4	1253.4	1243.8	1193.2
27.5°	1194.6	1183.6	1179.5	1189.1	1195.9	1239.7	1283.5	1317.7	1316.3	1302.7	1241.1
30°	1429.9	1402.5	1358.8	1309.5	1284.9	1315.0	1356.0	1399.8	1398.4	1376.5	1299.9
32.5°	1825.4	1785.7	1681.7	1551.7	1446.3	1412.1	1450.4	1498.3	1499.7	1473.7	1394.3
35°	2379.5	2316.6	2130.5	1949.9	1709.0	1579.1	1590.0	1642.0	1658.4	1644.7	1553.1
37.5°	2913.2	2855.7	2677.8	2427.4	2100.4	1834.9	1788.4	1833.6	1852.7	1852.7	1755.6
40°	3450.9	3383.9	3226.5	2974.8	2629.9	2234.5	2067.5	2104.5	2125.0	2129.1	2001.9
42.5°	3882.0	3838.2	3717.8	3522.1	3199.2	2935.1	2469.8	2449.3	2468.5	2453.4	2287.8
45°	4180.3	4146.0	4062.6	3988.7	3831.3	3698.6	3007.6	2869.4	2881.7	2829.7	2609.4
47.5°	4241.8	4203.5	4185.7	4288.4	4400.6	4433.4	3668.5	3368.8	3356.5	3241.6	2943.3
50°	3973.6	3977.7	4043.4	4336.2	4804.2	5099.8	4434.8	3932.6	3887.4	3631.6	3253.9
52.5°	3394.8	3460.5	3626.1	4100.9	4927.4	5584.2	5201.0	4530.5	4460.8	4010.6	3486.5
55°	2655.9	2740.8	3013.1	3559.0	4670.1	5800.4	5846.9	5151.8	4993.0	4295.2	3667.1
57.5°	1974.5	2000.5	2318.0	2816.0	4061.2	5588.3	6178.0	5630.7	5426.8	4522.3	3846.4
60°	1230.1	1246.5	1581.8	2144.2	3076.0	4804.2	6178.0	5960.5	5766.1	4726.2	4010.6
62.5°	764.9	770.4	896.3	1469.6	2090.8	3563.1	5922.1	6216.3	6060.3	4872.6	4151.5
65°	440.6	446.1	504.9	830.6	1360.1	2133.2	5268.1	6291.6	6221.8	4988.9	4261.0
67.5°	321.6	324.3	347.6	466.6	889.4	1096.0	3957.2	5989.2	6076.8	5046.4	4258.2
70°	279.1	283.2	313.3	364.0	641.7	673.2	2014.2	5172.3	5417.2	4964.3	4131.0
72.5°	214.8	220.3	265.5	342.1	470.7	484.4	729.3	3680.8	4051.6	4451.2	3782.1
75°	147.8	153.3	198.4	281.9	388.6	362.6	400.9	1694.0	2137.3	2985.7	2879.0
77.5°	94.4	95.8	124.5	205.2	335.2	257.2	275.0	552.8	775.8	1350.5	1358.8
80°	62.9	64.3	76.6	132.7	229.9	238.1	169.7	255.9	280.5	394.1	273.7
82.5°	38.3	38.3	52.0	83.5	139.6	197.0	110.8	134.1	143.7	151.9	71.2
85°	15.1	15.1	31.5	54.7	87.6	91.7	69.8	78.0	82.1	88.9	32.8
87.5°	4.1	4.1	17.8	30.1	38.3	42.4	42.4	38.3	41.0	50.6	16.4
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°	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6	1116.6
2.5°	1111.1	1107.0	1101.5	1096.0	1090.6	1086.5	1082.4	1082.4	1079.6	1075.5	1072.8
5°	1108.3	1101.5	1089.2	1079.6	1064.6	1053.6	1045.4	1038.6	1034.5	1024.9	1023.5
7.5°	1104.2	1096.0	1078.2	1059.1	1034.5	1015.3	996.1	982.5	968.8	957.8	955.1
10°	1097.4	1087.8	1061.8	1034.5	1000.3	964.7	919.5	867.5	819.6	792.3	784.1
12.5°	1097.4	1085.1	1050.9	1013.9	964.7	877.1	762.2	647.2	558.3	518.6	507.7
15°	1104.2	1087.8	1042.7	992.0	900.4	722.5	536.4	384.5	287.3	257.2	250.4
17.5°	1111.1	1087.8	1030.4	961.9	782.7	524.1	305.1	202.5	171.0	164.2	164.2
20°	1113.8	1085.1	1013.9	905.8	625.3	325.7	182.0	151.9	139.6	135.5	135.5
22.5°	1124.8	1086.5	1001.6	825.1	454.3	191.6	143.7	127.3	114.9	110.8	110.8
25°	1152.1	1102.9	1004.4	722.5	291.5	145.0	121.8	105.4	93.0	87.6	87.6
27.5°	1195.9	1139.8	1019.4	603.4	183.4	124.5	102.6	84.8	75.3	69.8	69.8
30°	1245.2	1180.9	1026.2	466.6	136.8	105.4	83.5	67.0	60.2	56.1	54.7
32.5°	1331.4	1252.0	1020.8	320.2	112.2	88.9	67.0	53.4	47.9	46.5	46.5
35°	1469.6	1376.5	1009.8	201.1	93.0	71.2	53.4	43.8	39.7	38.3	36.9
37.5°	1657.0	1558.5	977.0	132.7	76.6	56.1	43.8	36.9	32.8	31.5	31.5
40°	1885.6	1766.5	914.0	101.3	65.7	45.2	36.9	31.5	28.7	27.4	27.4
42.5°	2146.9	1997.8	814.2	87.6	54.7	38.3	31.5	26.0	24.6	23.3	23.3
45°	2432.9	2240.0	676.0	78.0	46.5	31.5	26.0	23.3	20.5	20.5	19.2
47.5°	2736.7	2483.5	520.0	68.4	39.7	27.4	23.3	19.2	17.8	16.4	16.4
50°	3029.5	2701.1	365.3	58.8	32.8	23.3	19.2	16.4	15.1	13.7	13.7
52.5°	3236.1	2832.4	258.6	50.6	27.4	20.5	15.1	12.3	10.9	10.9	10.9
55°	3401.7	2914.5	180.6	42.4	23.3	17.8	12.3	9.6	9.6	8.2	8.2
57.5°	3557.7	2967.9	132.7	35.6	19.2	13.7	9.6	6.8	6.8	5.5	5.5
60°	3719.1	2996.6	101.3	28.7	16.4	10.9	6.8	5.5	4.1	4.1	4.1
62.5°	3882.0	3014.4	78.0	23.3	13.7	8.2	5.5	4.1	2.7	1.4	1.4
65°	4024.3	3019.9	60.2	17.8	10.9	5.5	4.1	1.4	0.0	0.0	0.0
67.5°	4066.7	2957.0	46.5	13.7	8.2	4.1	2.7	0.0	0.0	0.0	0.0
70°	3951.7	2790.0	35.6	10.9	6.8	2.7	1.4	0.0	0.0	0.0	0.0
72.5°	3507.0	2339.8	27.4	6.8	5.5	2.7	1.4	0.0	0.0	0.0	0.0
75°	2509.5	1247.9	19.2	5.5	4.1	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	1154.9	483.0	13.7	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0
80°	225.8	120.4	5.5	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	52.0	20.5	2.7	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
85°	17.8	6.8	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)