

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: P398173

Luminaire Tested: **ARCH-S-PA1-90-830-U-T4W**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398173  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-90-830-U-T4W  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9211 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

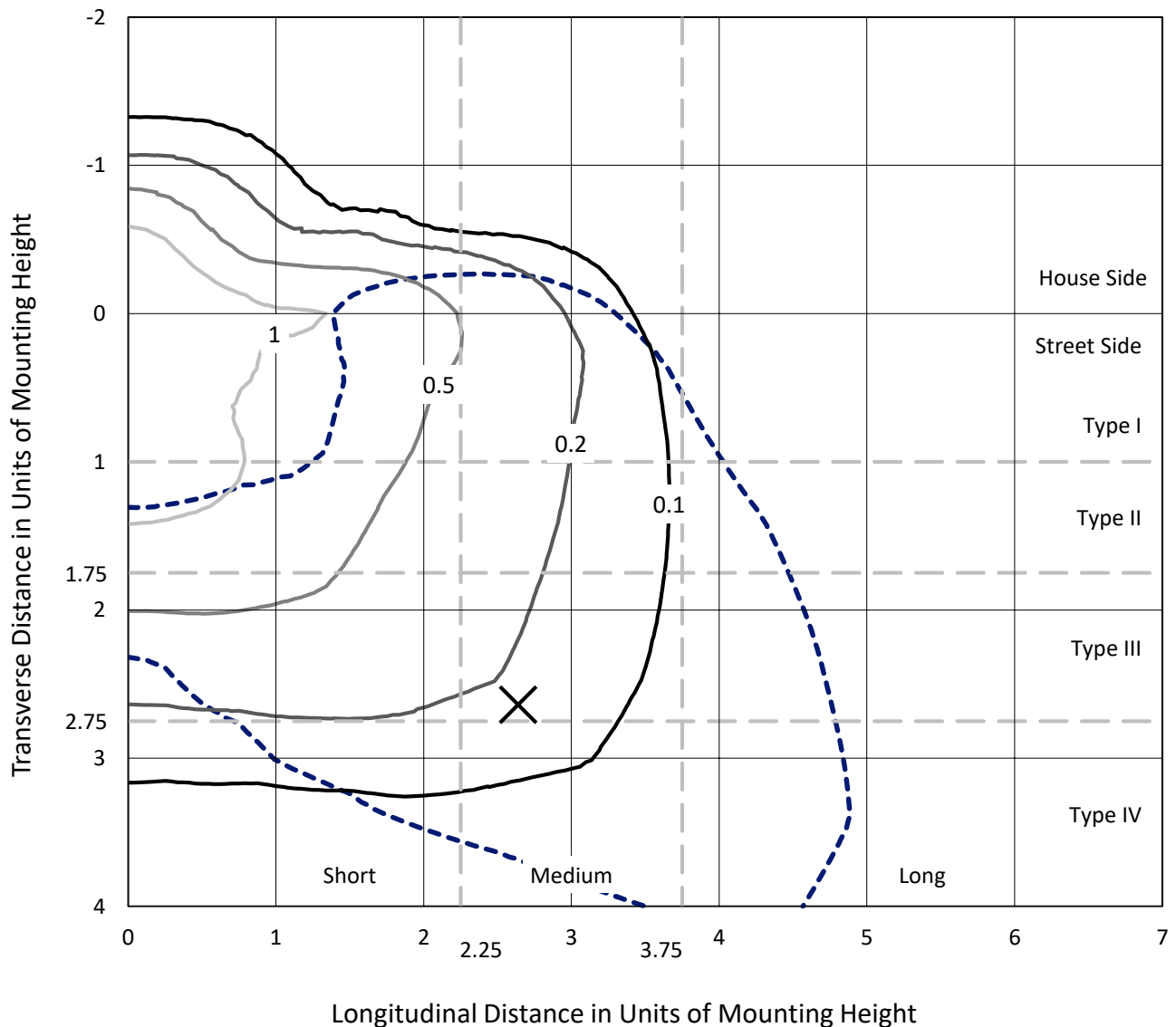
Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

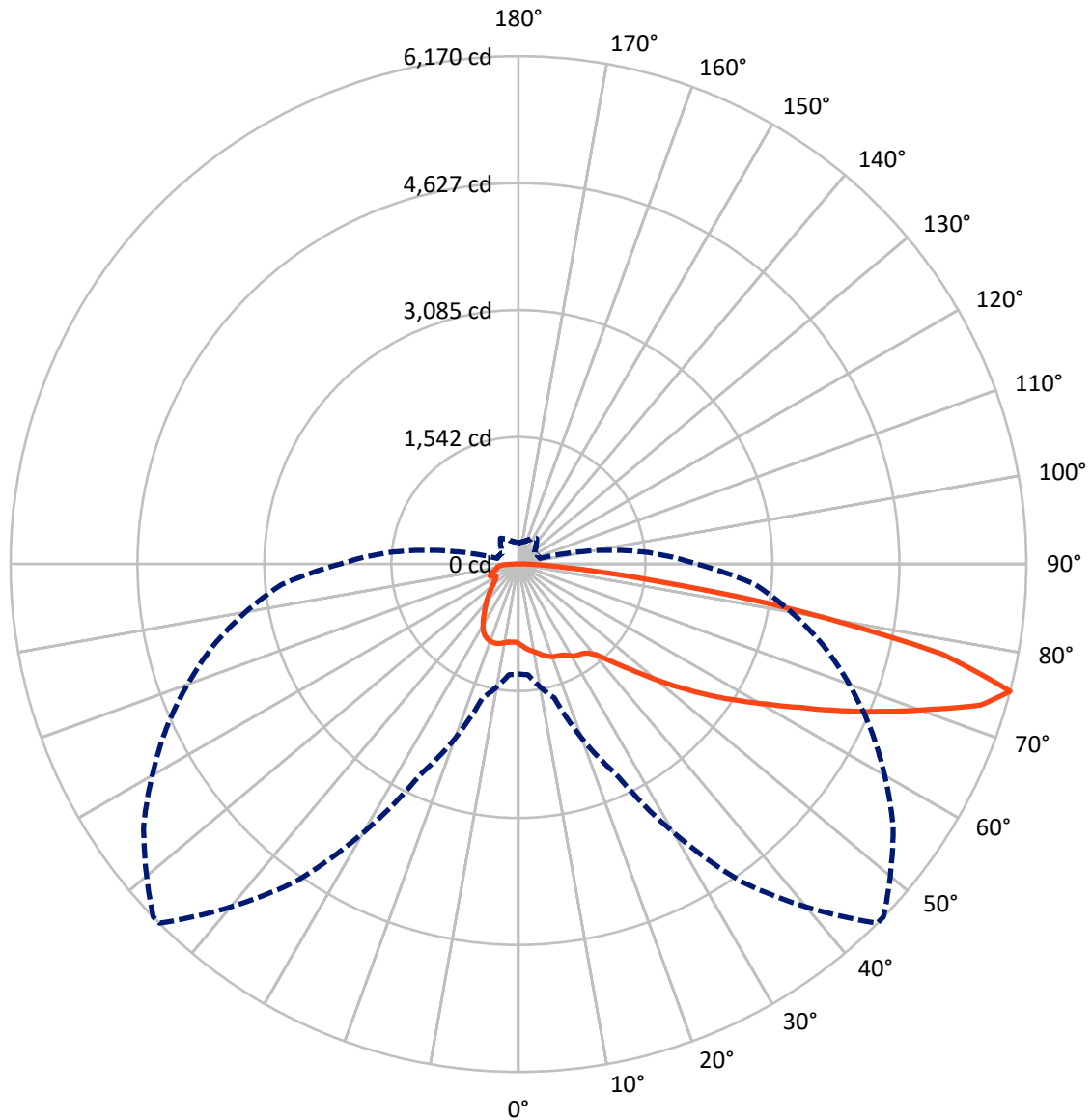
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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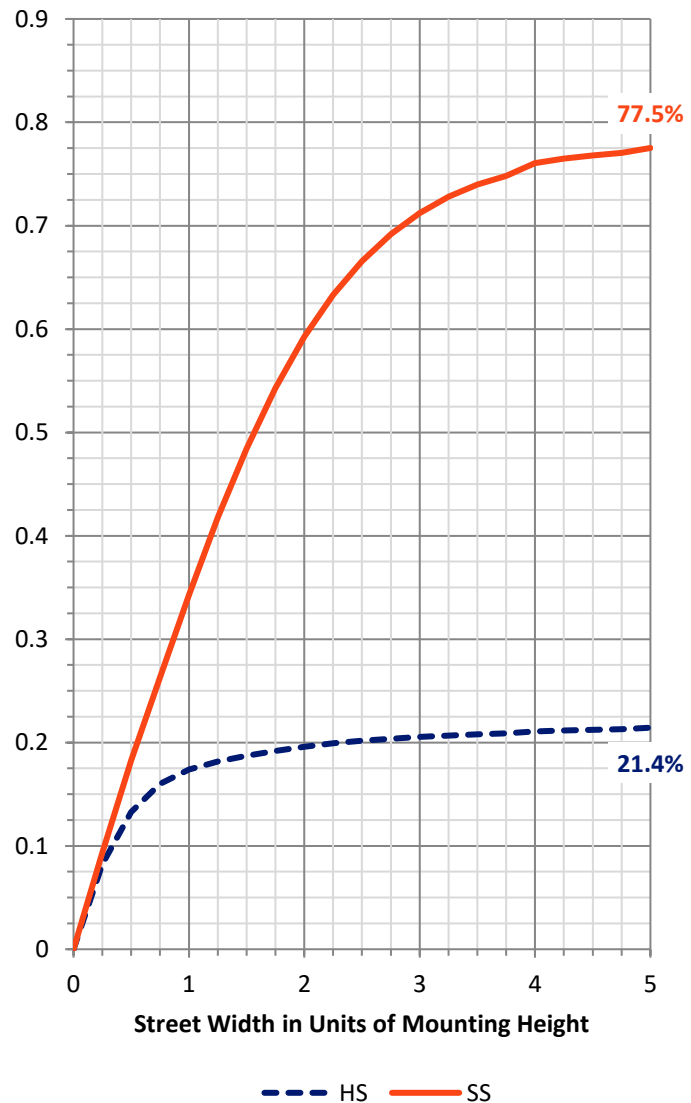
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2035.6	0.0	2035.6
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	7175.4	0.0	7175.4
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	9211.0	0.0	9211.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.7	1.0
10°-20°	304.5	3.3
20°-30°	519.1	5.6
30°-40°	727.3	7.9
40°-50°	1068.4	11.6
50°-60°	1700.4	18.5
60°-70°	2418.9	26.3
70°-80°	2025.3	22.0
80°-90°	351.5	3.8
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°	9211.0	100.0
0°-180°	9211.0	100.0



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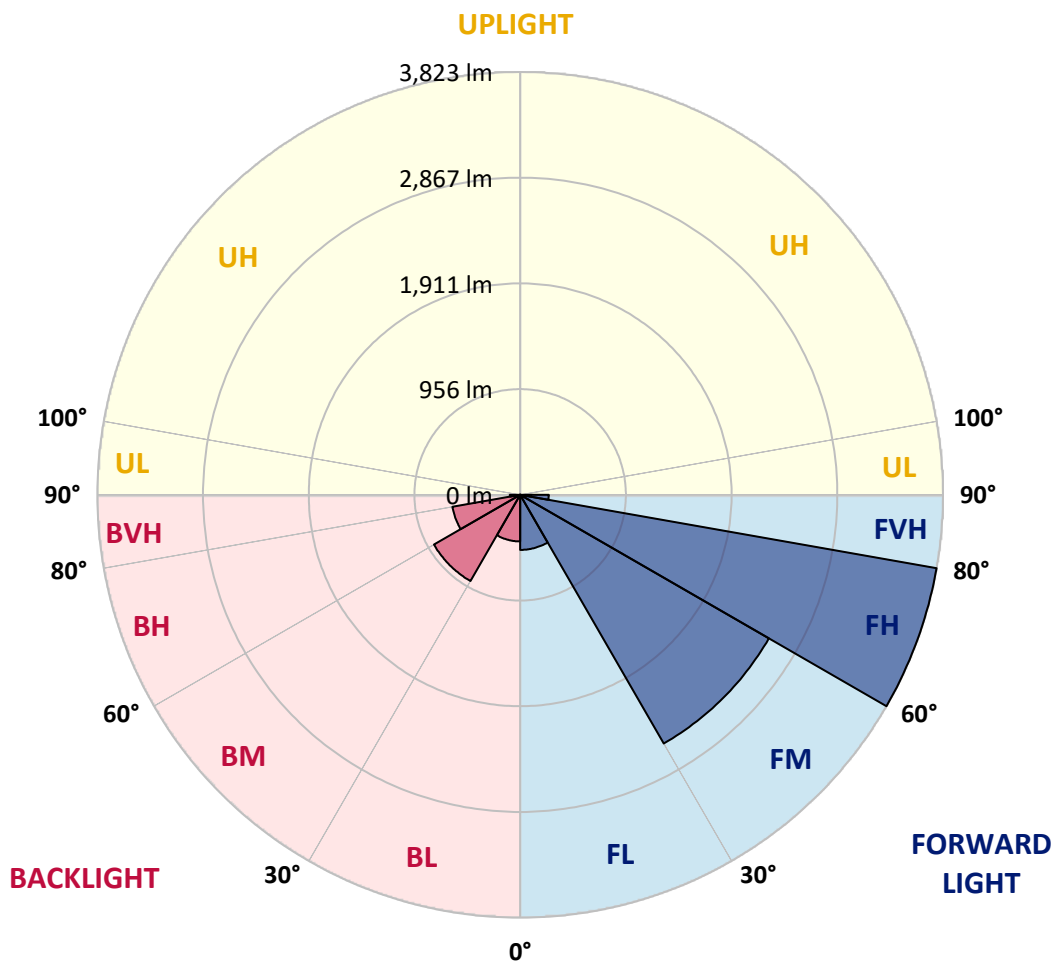
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	497.9	5.4			
FM	(30°-60°)	2596.3	28.2			
FH	(60°-80°)	3822.8	41.5			G2/5000
FVH	(80°-90°)	258.4	2.8			G3/500
BL	(0°-30°)	421.3	4.6	B1/500		
BM	(30°-60°)	899.8	9.8	B1/1000		
BH	(60°-80°)	621.4	6.7	B2/1000		G2/1000
BVH	(80°-90°)	93.1	1.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4
2.5°	1022.7	1017.8	1015.4	1015.4	1005.5	999.4	998.1	989.5	982.1	974.7	968.6
5°	1081.8	1078.1	1070.7	1064.6	1051.0	1033.8	1031.4	1012.9	994.4	977.2	962.4
7.5°	1136.0	1128.6	1120.0	1107.7	1085.5	1062.1	1058.4	1032.6	1006.7	980.9	961.2
10°	1181.5	1174.1	1161.8	1144.6	1116.3	1088.0	1084.3	1057.2	1030.1	999.4	971.0
12.5°	1224.6	1218.4	1200.0	1176.6	1143.4	1117.5	1113.8	1090.4	1062.1	1027.7	990.7
15°	1261.5	1255.3	1235.7	1208.6	1170.4	1150.7	1145.8	1123.7	1095.4	1058.4	1020.3
17.5°	1280.0	1280.0	1259.0	1229.5	1193.8	1179.0	1175.4	1148.3	1122.4	1086.7	1048.6
20°	1286.1	1288.6	1273.8	1238.1	1207.3	1201.2	1197.5	1175.4	1145.8	1111.4	1075.7
22.5°	1289.8	1294.7	1282.4	1241.8	1216.0	1212.3	1209.8	1195.0	1171.7	1138.4	1102.7
25°	1302.1	1302.1	1293.5	1248.0	1227.0	1225.8	1225.8	1217.2	1201.2	1172.9	1137.2
27.5°	1320.6	1319.3	1308.3	1261.5	1251.7	1255.3	1254.1	1252.9	1241.8	1213.5	1175.4
30°	1351.3	1351.3	1339.0	1288.6	1282.4	1298.4	1299.7	1302.1	1284.9	1240.6	1209.8
32.5°	1398.1	1393.2	1380.9	1315.7	1305.8	1320.6	1323.0	1321.8	1307.0	1265.2	1250.4
35°	1542.1	1531.0	1486.7	1376.0	1326.7	1335.3	1336.6	1342.7	1345.2	1312.0	1304.6
37.5°	1794.4	1779.6	1712.0	1518.7	1393.2	1372.3	1371.0	1387.0	1400.6	1371.0	1371.0
40°	2068.9	2056.6	2017.2	1764.9	1516.3	1447.3	1442.4	1457.2	1474.4	1453.5	1459.6
42.5°	2305.2	2315.0	2318.7	2025.8	1700.9	1587.6	1574.1	1553.2	1580.3	1561.8	1586.4
45°	2482.4	2477.5	2545.2	2292.9	1939.6	1763.6	1745.2	1688.6	1723.0	1721.8	1775.9
47.5°	2670.7	2662.1	2690.4	2543.9	2211.6	1979.0	1950.7	1867.0	1918.7	1954.4	2044.2
50°	2849.1	2851.6	2861.5	2742.1	2507.0	2241.2	2205.5	2093.5	2167.3	2242.4	2369.2
52.5°	3081.8	3064.5	3052.2	2973.5	2838.1	2514.4	2491.0	2363.0	2466.4	2555.0	2723.6
55°	3284.8	3273.8	3266.4	3262.7	3115.0	2815.9	2791.3	2658.4	2807.3	2870.1	3118.7
57.5°	3501.4	3495.3	3534.7	3597.4	3538.4	3122.4	3096.5	2968.5	3134.7	3179.0	3547.0
60°	3660.2	3663.9	3772.2	3932.2	3891.6	3454.7	3423.9	3310.7	3453.4	3492.8	3975.3
62.5°	3661.4	3698.4	3949.4	4236.2	4283.0	3837.4	3801.7	3678.7	3780.8	3780.8	4359.3
65°	3311.9	3353.7	3917.4	4311.3	4679.2	4292.8	4258.3	4065.1	4103.3	4051.6	4719.9
67.5°	2963.6	3012.8	3543.3	4317.4	4957.4	4780.2	4739.6	4451.6	4386.3	4255.9	4972.2
70°	2732.2	2766.7	3209.8	4237.4	5124.8	5289.7	5258.9	4818.3	4609.1	4426.9	4919.2
72.5°	2300.2	2287.9	2711.3	3857.1	5218.3	5868.1	5842.3	5217.1	4802.3	4345.7	4195.6
75°	1335.3	1350.1	1682.4	2825.8	4703.9	6169.7	6167.2	5558.0	4717.4	3838.7	2891.0
77.5°	385.2	396.3	552.6	1241.8	2974.7	5262.6	5431.2	5082.9	3987.6	2735.9	1499.0
80°	168.6	177.2	240.0	413.5	1281.2	3437.4	3585.1	3437.4	2404.9	1255.3	588.3
82.5°	99.7	105.8	156.3	256.0	614.1	1635.6	1835.0	1602.4	1037.5	532.9	243.7
85°	56.6	59.1	89.8	162.5	386.5	572.3	642.4	601.8	505.8	302.8	128.0
87.5°	25.8	27.1	44.3	76.3	216.6	193.2	200.6	265.8	292.9	184.6	64.0
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°	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4	967.4
2.5°	966.1	962.4	955.0	952.6	948.9	950.1	951.4	951.4	952.6	948.9	948.9
5°	956.3	950.1	942.7	942.7	942.7	952.6	961.2	966.1	968.6	968.6	966.1
7.5°	952.6	945.2	936.6	939.0	941.5	953.8	969.8	985.8	990.7	990.7	988.3
10°	960.0	952.6	946.4	950.1	956.3	966.1	978.4	993.2	1005.5	1006.7	1005.5
12.5°	977.2	968.6	962.4	969.8	977.2	983.4	989.5	995.7	1011.7	1014.1	1014.1
15°	1005.5	996.9	989.5	995.7	998.1	998.1	998.1	998.1	1014.1	1016.6	1016.6
17.5°	1033.8	1026.4	1019.0	1020.3	1012.9	1003.0	999.4	998.1	1006.7	1014.1	1015.4
20°	1060.9	1054.7	1047.4	1035.0	1016.6	998.1	992.0	992.0	996.9	1008.0	1008.0
22.5°	1090.4	1083.0	1070.7	1042.4	1011.7	985.8	979.7	983.4	989.5	1004.3	1003.0
25°	1123.7	1113.8	1092.9	1040.0	995.7	964.9	966.1	977.2	988.3	1004.3	1004.3
27.5°	1160.6	1147.0	1105.2	1020.3	960.0	930.4	941.5	967.4	983.4	1000.6	1003.0
30°	1201.2	1188.9	1115.0	985.8	902.1	875.1	902.1	944.0	968.6	984.6	988.3
32.5°	1250.4	1240.6	1123.7	941.5	827.1	803.7	843.1	894.7	934.1	952.6	956.3
35°	1312.0	1302.1	1134.7	891.1	756.9	732.3	768.0	820.9	872.6	896.0	903.4
37.5°	1392.0	1377.2	1144.6	836.9	697.8	669.5	686.7	734.7	781.5	813.5	822.1
40°	1494.1	1470.7	1153.2	775.4	646.1	614.1	620.3	643.7	670.7	699.1	710.1
42.5°	1638.1	1591.3	1154.4	710.1	593.2	563.7	561.2	568.6	568.6	568.6	572.3
45°	1838.7	1750.1	1156.9	648.6	539.1	508.3	500.9	498.4	480.0	444.3	441.8
47.5°	2092.2	1958.1	1168.0	596.9	482.4	455.4	445.5	435.7	401.2	364.3	356.9
50°	2417.2	2199.3	1190.1	547.7	434.4	416.0	403.7	380.3	342.1	313.8	306.5
52.5°	2791.3	2486.1	1211.0	496.0	398.8	386.5	371.7	343.4	302.8	285.5	283.1
55°	3220.8	2806.1	1252.9	450.4	368.0	359.4	345.8	318.8	288.0	275.7	274.5
57.5°	3660.2	3164.2	1312.0	409.8	338.5	333.5	333.5	310.1	290.5	285.5	285.5
60°	4083.6	3471.9	1266.4	371.7	311.4	313.8	337.2	331.1	316.3	322.5	326.1
62.5°	4412.2	3652.8	1027.7	340.9	291.7	313.8	374.1	374.1	356.9	354.5	354.5
65°	4552.5	3650.4	722.4	317.5	284.3	344.6	417.2	397.5	352.0	334.8	331.1
67.5°	4516.8	3490.4	498.4	301.5	281.8	376.6	436.9	381.5	329.8	315.1	304.0
70°	4203.0	3151.9	384.0	286.8	278.1	363.1	430.8	363.1	312.6	299.1	289.2
72.5°	3390.7	2527.9	318.8	272.0	263.4	336.0	409.8	345.8	299.1	284.3	274.5
75°	2162.4	1590.1	269.5	252.3	235.1	301.5	381.5	328.6	284.3	264.6	257.2
77.5°	1040.0	685.5	235.1	228.9	211.7	279.4	353.2	306.5	264.6	248.6	243.7
80°	420.9	313.8	204.3	205.5	194.5	265.8	333.5	285.5	244.9	227.7	219.1
82.5°	219.1	182.1	172.3	177.2	177.2	253.5	318.8	268.3	227.7	220.3	192.0
85°	118.2	113.2	132.9	142.8	153.8	228.9	296.6	249.8	208.0	178.5	172.3
87.5°	57.8	73.8	75.1	86.2	107.1	183.4	249.8	209.2	173.5	144.0	141.5
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)