

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: P397582

Luminaire Tested: **ARCH-S-PA1-100-827-U-T2R**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397582  
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-PA1-100-827-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8711 lumens  
Efficiency: N/A  
Efficacy: 90.7 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): 96  
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

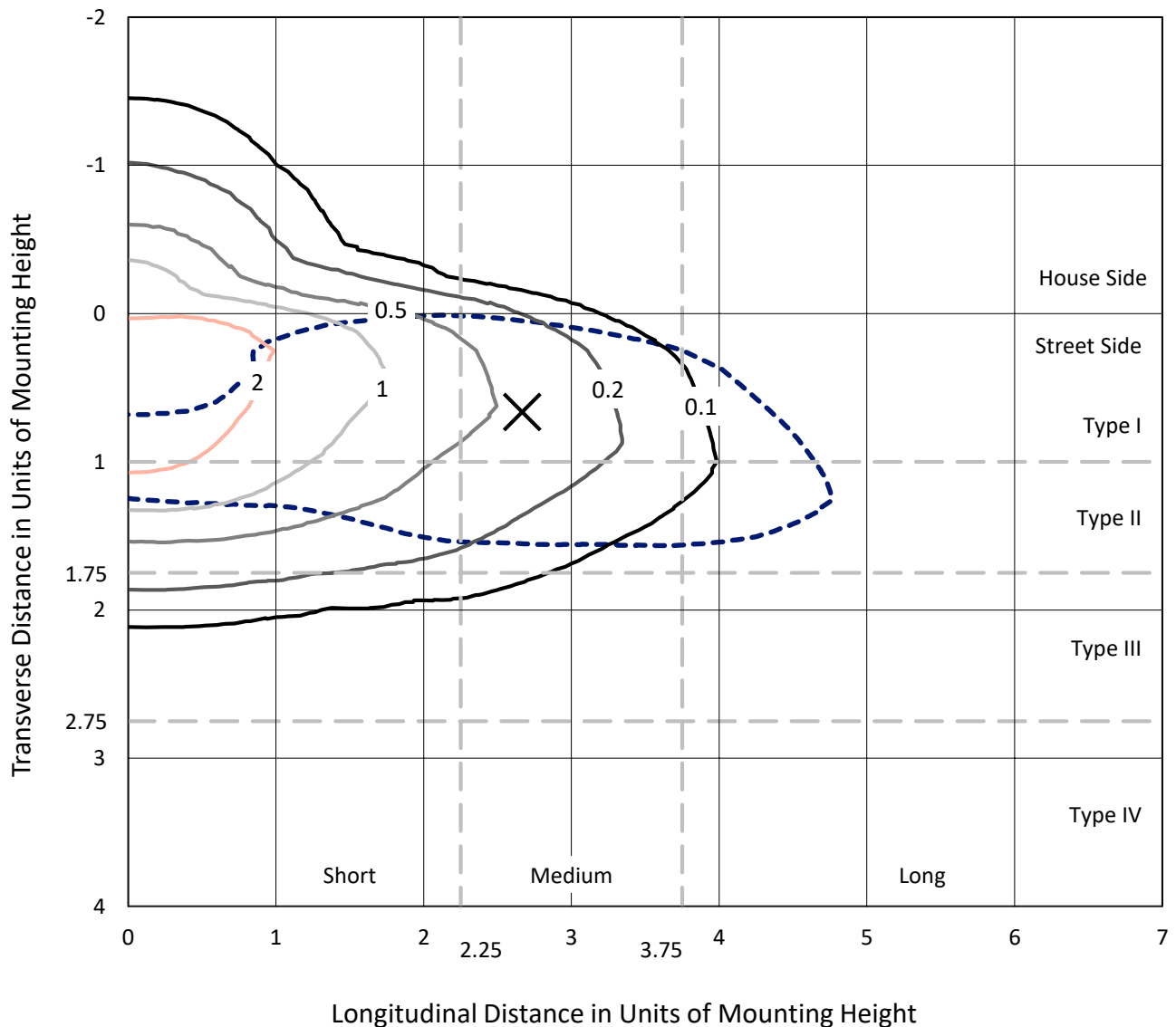


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

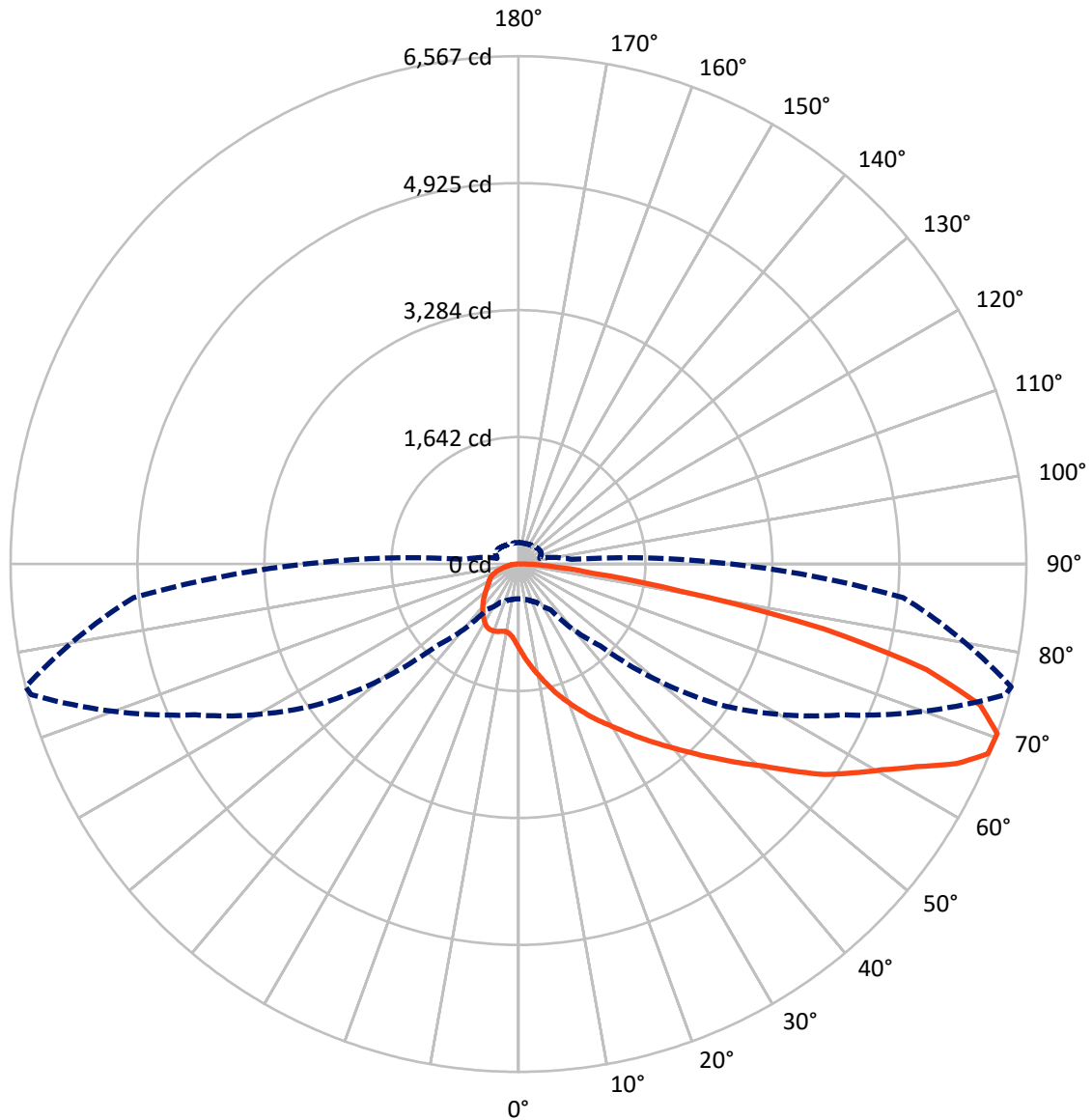


Based on 25 foot mounting height. Maximum calculated value = 3 fc  
 Type II - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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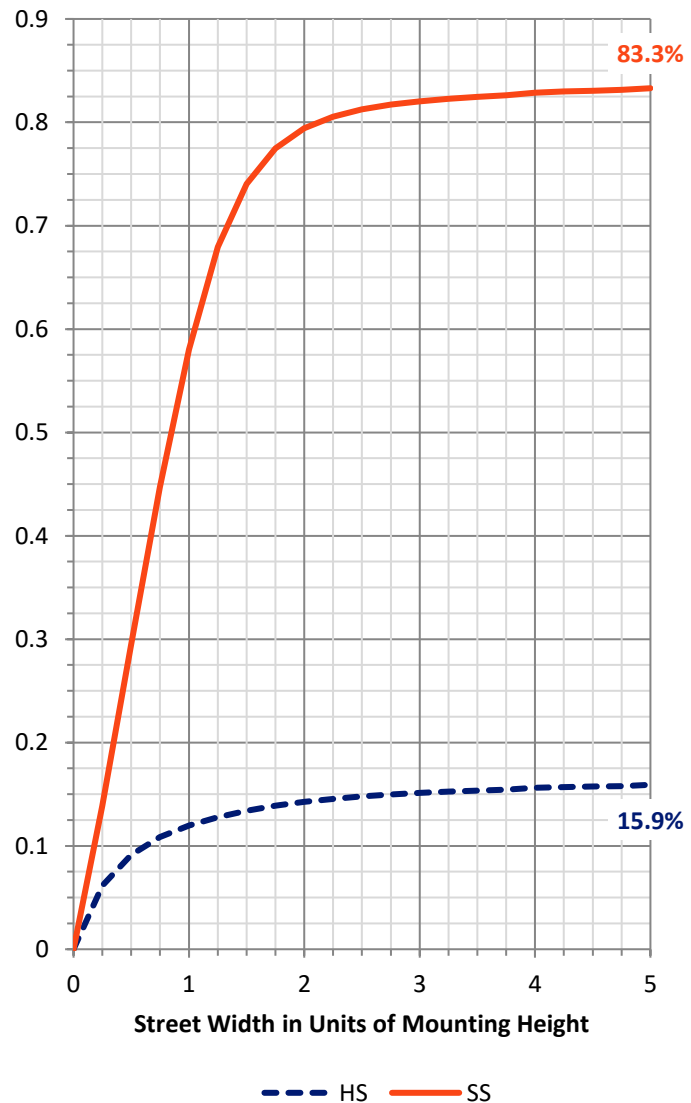
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1422.2	0.0	1422.2
	% Fixture	16.3	0.0	16.3
<b>Street Side</b>	Lumens	7288.8	0.0	7288.8
	% Fixture	83.7	0.0	83.7
<b>Total</b>	Lumens	8711.0	0.0	8711.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	1.3
10°-20°	384.7	4.4
20°-30°	688.3	7.9
30°-40°	1113.4	12.8
40°-50°	1610.6	18.5
50°-60°	1843.5	21.2
60°-70°	1695.8	19.5
70°-80°	1048.7	12.0
80°-90°	212.9	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°	8711.0	100.0
0°-180°	8711.0	100.0



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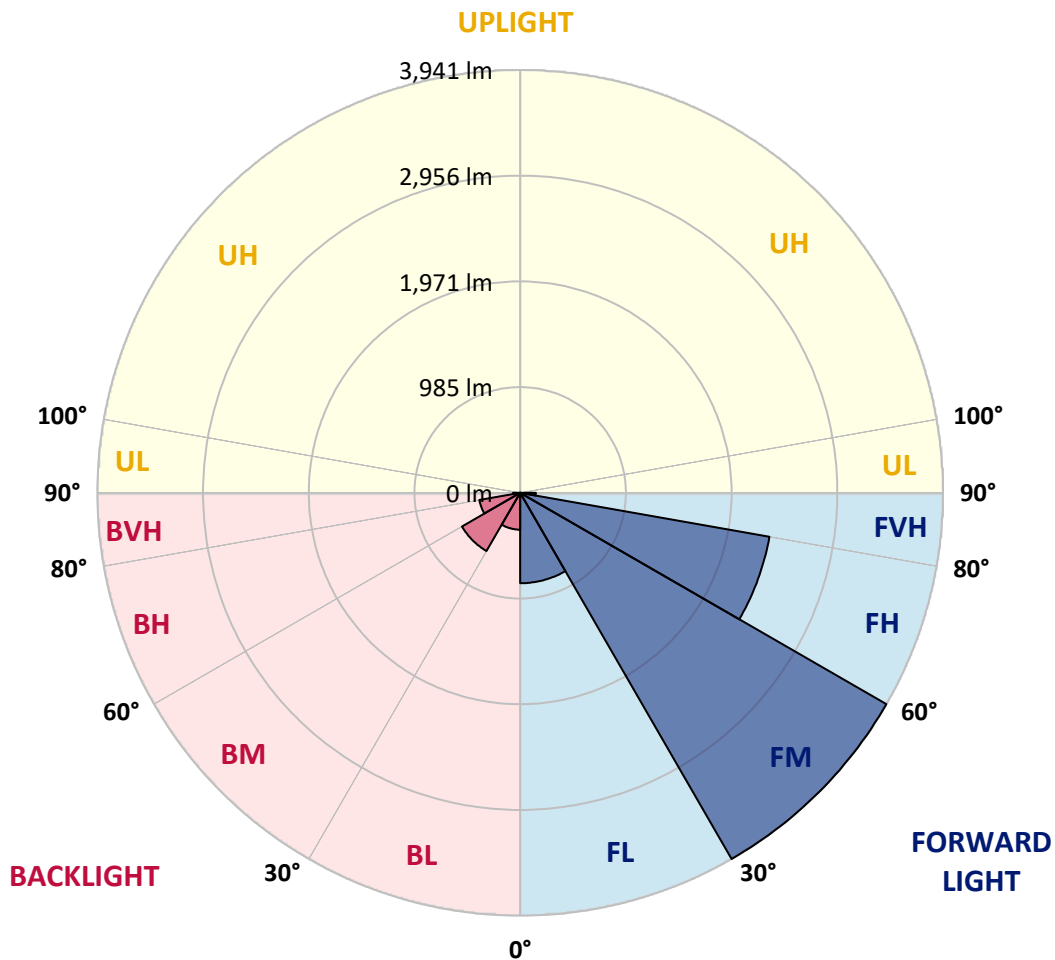
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	842.6	9.7			
FM	(30°-60°)	3941.3	45.2			
FH	(60°-80°)	2358.7	27.1			G2/5000
FVH	(80°-90°)	146.2	1.7			G2/225
BL	(0°-30°)	343.5	3.9	B1/500		
BM	(30°-60°)	626.2	7.2	B1/1000		
BH	(60°-80°)	385.7	4.4	B1/500		G1/500
BVH	(80°-90°)	66.8	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°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1388.3	1378.0	1376.9	1360.8	1345.9	1305.8	1277.2	1226.8	1176.4	1175.3	1124.9
5°	1604.8	1594.5	1588.8	1569.3	1544.1	1491.4	1439.9	1362.0	1276.1	1270.3	1175.3
7.5°	1751.4	1742.3	1730.8	1722.8	1698.7	1651.8	1588.8	1496.0	1378.0	1366.6	1233.7
10°	1849.9	1844.2	1841.9	1836.2	1821.3	1783.5	1722.8	1624.3	1480.0	1467.4	1295.5
12.5°	1892.3	1890.0	1900.3	1916.4	1922.1	1907.2	1848.8	1756.0	1592.2	1578.5	1370.0
15°	1843.1	1845.4	1871.7	1926.7	1985.1	2017.2	1982.8	1892.3	1719.4	1699.9	1457.0
17.5°	1820.2	1823.6	1841.9	1894.6	1977.1	2076.7	2092.8	2021.8	1841.9	1814.4	1548.7
20°	1860.3	1864.8	1878.6	1919.8	1977.1	2083.6	2167.2	2145.5	1962.2	1933.6	1636.9
22.5°	1962.2	1967.9	1966.8	1993.1	2032.1	2105.4	2208.5	2262.3	2088.2	2056.1	1728.5
25°	2179.8	2175.3	2136.3	2123.7	2134.0	2181.0	2263.5	2374.6	2219.9	2187.9	1824.7
27.5°	2475.4	2469.6	2398.6	2334.5	2277.2	2297.8	2341.4	2465.1	2354.0	2317.3	1916.4
30°	2791.5	2784.7	2702.2	2597.9	2470.8	2441.0	2435.3	2544.1	2489.1	2450.2	2013.7
32.5°	3099.7	3093.9	3005.7	2884.3	2709.1	2619.7	2564.7	2632.3	2642.6	2604.8	2120.3
35°	3380.3	3380.3	3304.7	3160.4	2962.2	2827.0	2736.5	2741.1	2819.0	2775.5	2241.7
37.5°	3630.0	3628.9	3546.4	3404.4	3214.2	3059.6	2947.3	2872.9	2987.4	2949.6	2368.8
40°	3828.2	3820.2	3759.5	3635.7	3444.4	3291.0	3177.6	3027.5	3175.3	3140.9	2504.0
42.5°	3972.5	3967.9	3926.7	3819.0	3636.9	3492.6	3414.7	3222.2	3388.3	3354.0	2662.1
45°	4028.6	4037.8	4037.8	3935.9	3791.5	3659.8	3625.4	3436.4	3618.6	3584.2	2831.6
47.5°	3938.1	3962.2	4011.5	4018.3	3891.2	3801.8	3813.3	3651.8	3855.7	3837.3	3017.2
50°	3655.2	3699.9	3807.6	4002.3	3931.3	3910.7	3973.7	3871.7	4110.0	4104.2	3242.8
52.5°	2925.5	3034.4	3370.0	3719.4	3903.8	3961.1	4132.9	4119.1	4437.6	4446.7	3537.2
55°	2244.0	2285.2	2673.5	3268.0	3735.4	3945.0	4239.4	4360.8	4792.7	4804.1	3807.6
57.5°	1814.4	1841.9	2053.8	2673.5	3351.7	3858.0	4323.0	4501.7	5065.3	5095.1	4048.1
60°	1437.6	1477.7	1619.7	2045.8	2814.4	3648.3	4381.4	4658.7	5358.5	5403.2	4335.6
62.5°	1068.7	1088.2	1222.2	1515.5	2228.0	3271.5	4350.5	4829.3	5718.2	5772.1	4681.6
65°	760.6	777.8	872.9	1077.9	1647.2	2761.7	4170.7	4956.5	6169.5	6224.5	5029.8
67.5°	569.3	576.2	630.0	753.7	1110.0	2145.5	3806.4	4934.7	6499.4	6548.7	5169.5
70°	450.2	452.5	478.8	545.2	721.6	1493.7	3168.4	4615.1	6523.5	6567.0	4993.1
72.5°	373.4	372.3	387.2	419.2	502.9	945.0	2347.1	4021.8	6214.2	6244.0	4500.6
75°	308.1	310.4	320.7	339.1	383.7	623.1	1521.2	3208.5	5482.2	5450.2	3776.6
77.5°	258.9	257.7	262.3	278.4	310.4	447.9	891.2	2318.4	4063.0	4047.0	2478.8
80°	208.5	210.8	217.6	231.4	261.2	341.4	526.9	1446.7	2179.8	2121.4	1184.4
82.5°	139.7	161.5	175.3	191.3	225.7	252.0	334.5	735.4	974.8	959.9	537.2
85°	66.4	88.2	130.6	148.9	183.3	158.1	226.8	350.5	488.0	482.2	193.6
87.5°	13.7	13.7	69.9	83.6	113.4	67.6	126.0	152.3	236.0	221.1	79.0
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°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1095.1	1064.1	1002.3	953.0	902.6	874.0	838.5	821.3	817.9	808.7	815.6
5°	1114.5	1053.8	937.0	860.3	808.7	783.5	770.9	766.3	765.2	762.9	762.9
7.5°	1140.9	1048.1	895.8	817.9	784.7	776.6	780.1	786.9	788.1	790.4	789.2
10°	1173.0	1049.3	872.9	807.6	791.5	792.7	804.1	813.3	817.9	821.3	820.2
12.5°	1217.6	1063.0	869.4	814.4	807.6	812.1	823.6	832.8	837.3	838.5	838.5
15°	1276.1	1091.6	877.4	829.3	823.6	827.0	833.9	837.3	838.5	837.3	837.3
17.5°	1340.2	1126.0	888.9	838.5	829.3	825.9	823.6	820.2	813.3	808.7	808.7
20°	1402.1	1156.9	894.6	837.3	821.3	807.6	793.8	776.6	765.2	756.0	756.0
22.5°	1463.9	1185.6	894.6	824.7	799.5	773.2	744.6	717.1	699.9	688.4	688.4
25°	1529.2	1213.1	887.7	803.0	765.2	727.4	688.4	654.1	636.9	625.4	623.1
27.5°	1584.2	1229.1	869.4	772.1	722.8	674.7	630.0	594.5	581.9	571.6	571.6
30°	1642.6	1239.4	835.1	732.0	674.7	619.7	573.9	545.2	531.5	516.6	515.5
32.5°	1707.9	1246.3	796.1	689.6	625.4	567.0	528.1	505.2	475.4	459.3	457.0
35°	1783.5	1255.4	754.9	641.5	576.2	523.5	500.6	462.8	434.1	420.4	419.2
37.5°	1863.7	1262.3	710.2	599.1	531.5	494.8	471.9	427.3	402.1	381.4	379.2
40°	1948.5	1262.3	664.4	557.8	496.0	482.2	438.7	398.6	356.2	345.9	343.6
42.5°	2042.4	1260.0	618.6	517.8	462.8	453.6	419.2	376.9	355.1	345.9	343.6
45°	2142.0	1252.0	575.0	471.9	428.4	410.1	383.7	372.3	363.1	363.1	363.1
47.5°	2255.4	1245.1	525.8	430.7	403.2	382.6	363.1	356.2	355.1	358.5	362.0
50°	2400.9	1242.8	484.5	400.9	383.7	359.7	357.4	351.7	352.8	352.8	352.8
52.5°	2577.3	1222.2	445.6	379.2	364.3	335.6	342.5	348.2	350.5	349.4	348.2
55°	2706.8	1185.6	412.4	364.3	350.5	326.5	335.6	344.8	347.1	343.6	343.6
57.5°	2823.6	1134.0	386.0	352.8	341.4	320.7	331.0	340.2	337.9	336.8	335.6
60°	2957.6	1084.8	365.4	347.1	332.2	318.4	327.6	333.3	329.9	327.6	326.5
62.5°	3103.1	1036.7	350.5	347.1	325.3	317.3	324.2	326.5	319.6	317.3	317.3
65°	3170.7	961.1	334.5	347.1	321.9	315.0	317.3	315.0	308.1	308.1	307.0
67.5°	3059.6	836.2	313.9	342.5	326.5	311.6	307.0	303.6	295.5	295.5	293.2
70°	2752.6	687.3	284.1	327.6	327.6	310.4	293.2	285.2	276.1	279.5	274.9
72.5°	2351.7	545.2	247.4	302.4	320.7	309.3	278.4	265.8	257.7	261.2	254.3
75°	1904.9	422.7	203.9	262.3	303.6	303.6	263.5	246.3	237.1	237.1	229.1
77.5°	1214.2	312.7	166.1	217.6	272.6	295.5	250.9	224.5	210.8	207.3	201.6
80°	601.4	219.9	136.3	173.0	232.5	277.2	241.7	199.3	179.8	173.0	162.7
82.5°	319.6	152.3	108.8	135.2	185.6	249.7	230.2	171.8	147.8	137.5	126.0
85°	143.2	93.9	87.1	103.1	140.9	205.0	207.3	140.9	113.4	135.2	99.7
87.5°	52.7	42.4	42.4	52.7	81.3	85.9	146.6	90.5	72.2	49.3	38.9
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)