

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: P398059

Luminaire Tested: **ARCH-S-PA1-80-740-U-T2R**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398059  
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-PA1-80-740-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10942 lumens  
Efficiency: N/A  
Efficacy: 131.8 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

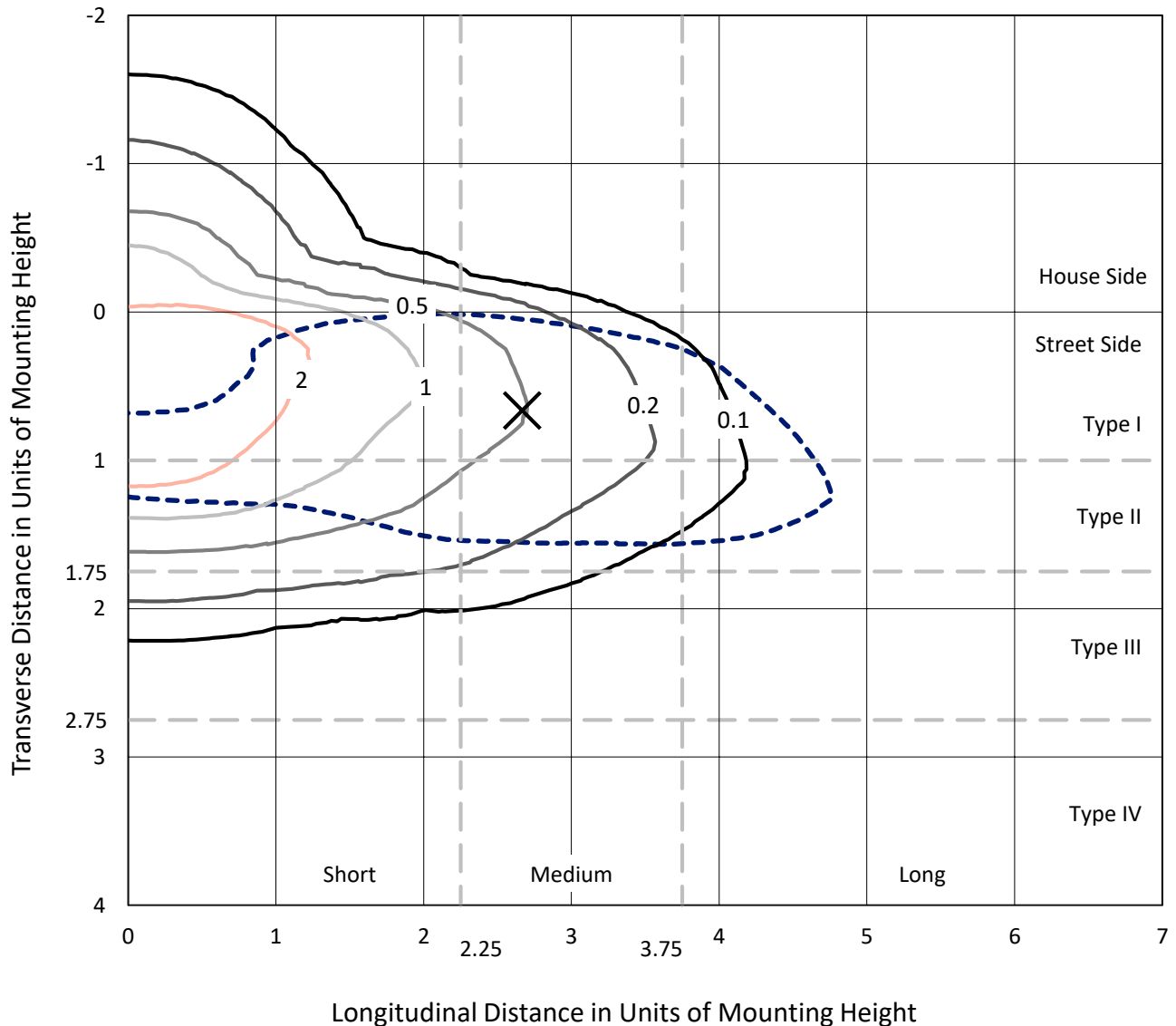
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

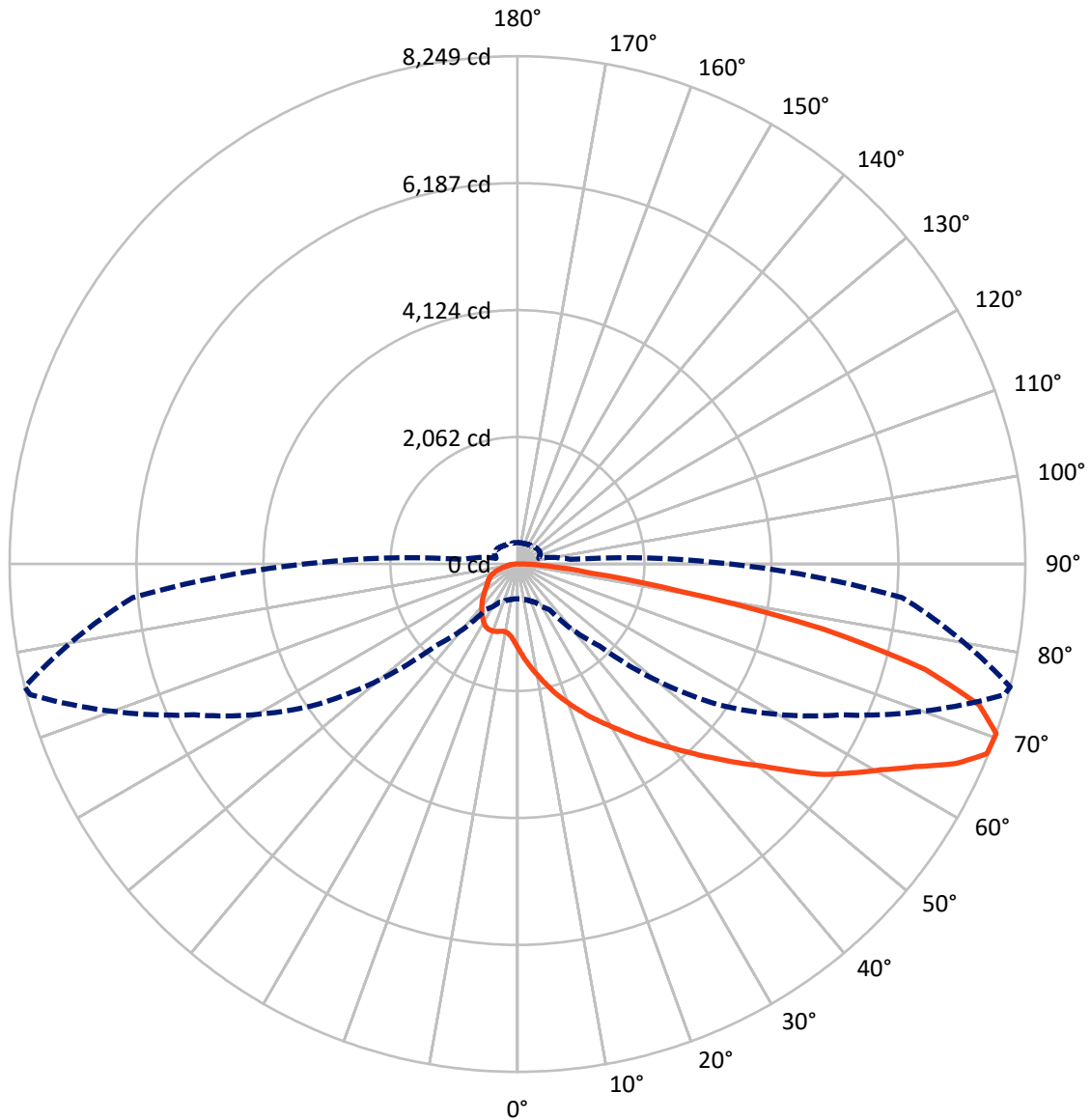


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc  
 Type II - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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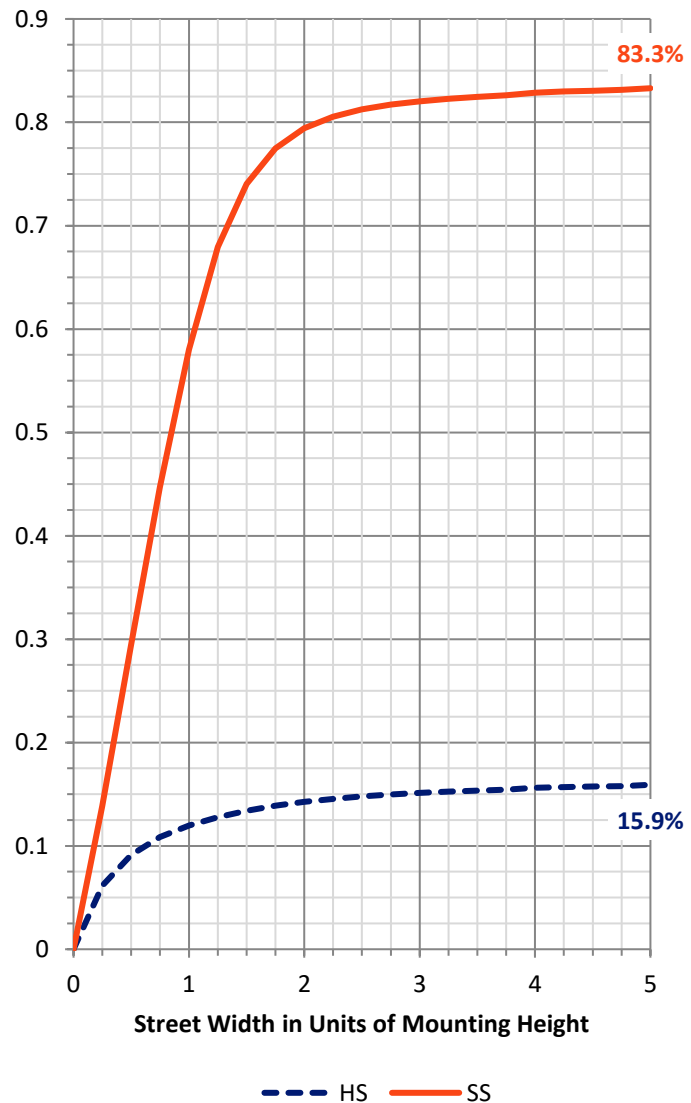
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1786.4	0.0	1786.4
	% Fixture	16.3	0.0	16.3
<b>Street Side</b>	Lumens	9155.6	0.0	9155.6
	% Fixture	83.7	0.0	83.7
<b>Total</b>	Lumens	10942.0	0.0	10942.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.2	1.3
10°-20°	483.2	4.4
20°-30°	864.5	7.9
30°-40°	1398.5	12.8
40°-50°	2023.1	18.5
50°-60°	2315.6	21.2
60°-70°	2130.1	19.5
70°-80°	1317.2	12.0
80°-90°	267.5	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°	10942.0	100.0
0°-180°	10942.0	100.0



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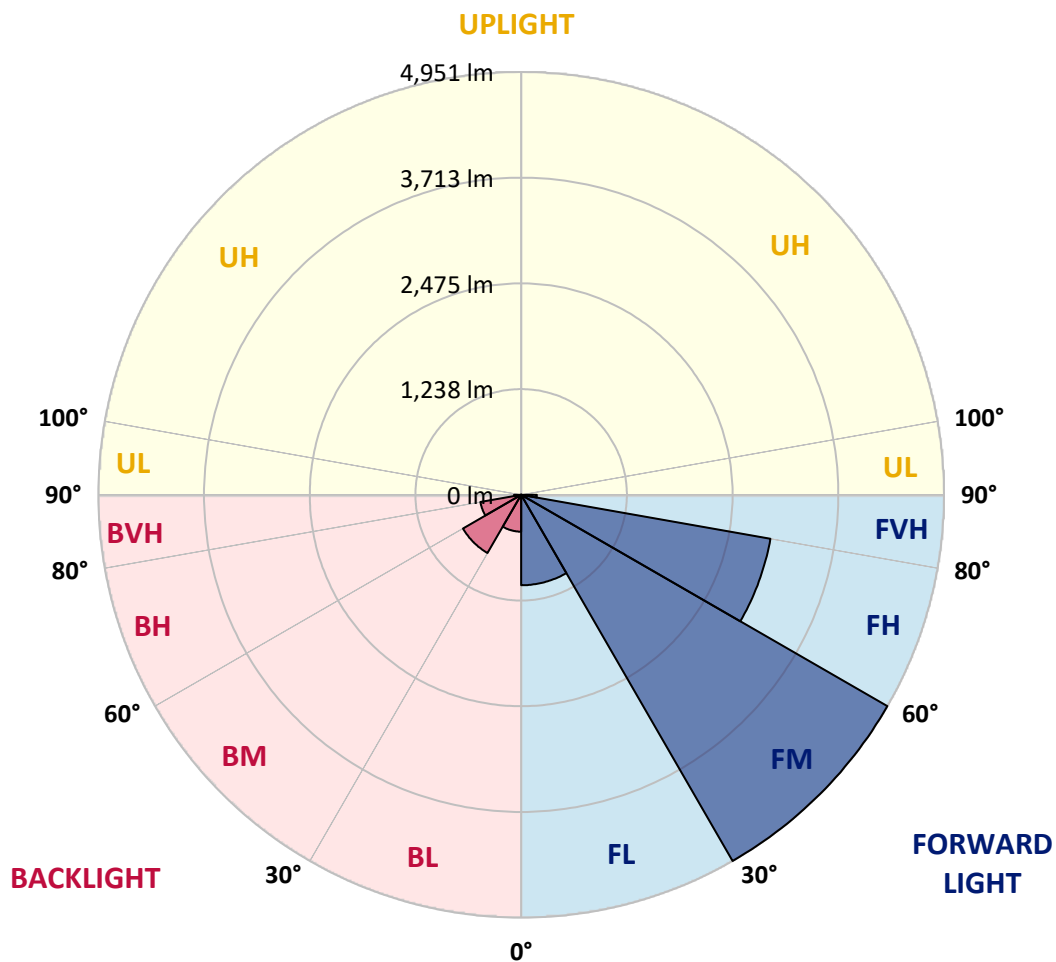
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1058.5	9.7			
FM	(30°-60°)	4950.7	45.2			
FH	(60°-80°)	2962.8	27.1			G2/5000
FVH	(80°-90°)	183.6	1.7			G2/225
BL	(0°-30°)	431.5	3.9	B1/500		
BM	(30°-60°)	786.5	7.2	B1/1000		
BH	(60°-80°)	484.5	4.4	B1/500		G1/500
BVH	(80°-90°)	83.9	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°	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3
2.5°	1743.9	1730.9	1729.5	1709.4	1690.6	1640.3	1604.3	1541.0	1477.7	1476.3	1412.9
5°	2015.8	2002.9	1995.7	1971.2	1939.6	1873.4	1808.6	1710.8	1602.9	1595.7	1476.3
7.5°	2200.0	2188.5	2174.1	2164.0	2133.8	2074.8	1995.7	1879.1	1730.9	1716.5	1549.6
10°	2323.7	2316.5	2313.7	2306.5	2287.8	2240.3	2164.0	2040.3	1859.0	1843.2	1627.3
12.5°	2377.0	2374.1	2387.0	2407.2	2414.4	2395.7	2322.3	2205.8	2000.0	1982.7	1720.9
15°	2315.1	2318.0	2351.1	2420.1	2493.5	2533.8	2490.6	2377.0	2159.7	2135.2	1830.2
17.5°	2286.3	2290.6	2313.7	2379.9	2483.5	2608.6	2628.8	2539.6	2313.7	2279.1	1945.3
20°	2336.7	2342.4	2359.7	2411.5	2483.5	2617.3	2722.3	2695.0	2464.7	2428.8	2056.1
22.5°	2464.7	2471.9	2470.5	2503.6	2552.5	2644.6	2774.1	2841.7	2623.0	2582.7	2171.2
25°	2738.1	2732.4	2683.5	2667.6	2680.6	2739.6	2843.2	2982.7	2788.5	2748.2	2292.1
27.5°	3109.3	3102.2	3012.9	2932.4	2860.4	2886.3	2941.0	3096.4	2956.8	2910.8	2407.2
30°	3506.5	3497.8	3394.2	3263.3	3103.6	3066.2	3059.0	3195.7	3126.6	3077.7	2529.5
32.5°	3893.5	3886.3	3775.5	3623.0	3402.9	3290.6	3221.6	3306.5	3319.4	3271.9	2663.3
35°	4246.0	4246.0	4151.1	3969.8	3720.9	3551.1	3437.4	3443.2	3541.0	3486.3	2815.8
37.5°	4559.7	4558.3	4454.7	4276.3	4037.4	3843.2	3702.2	3608.6	3752.5	3705.0	2975.5
40°	4808.6	4798.6	4722.3	4566.9	4326.6	4133.8	3991.4	3802.9	3988.5	3945.3	3145.3
42.5°	4989.9	4984.2	4932.4	4797.1	4568.3	4387.0	4289.2	4047.5	4256.1	4212.9	3343.9
45°	5060.4	5071.9	5071.9	4943.9	4762.6	4597.1	4554.0	4316.5	4545.3	4502.2	3556.8
47.5°	4946.8	4977.0	5038.8	5047.5	4887.8	4775.5	4789.9	4587.0	4843.2	4820.1	3789.9
50°	4591.4	4647.5	4782.7	5027.3	4938.1	4912.2	4991.4	4863.3	5162.6	5155.4	4073.4
52.5°	3674.8	3811.5	4233.1	4671.9	4903.6	4975.5	5191.4	5174.1	5574.1	5585.6	4443.2
55°	2818.7	2870.5	3358.3	4105.0	4692.1	4955.4	5325.2	5477.7	6020.1	6034.5	4782.7
57.5°	2279.1	2313.7	2579.9	3358.3	4210.1	4846.0	5430.2	5654.7	6362.6	6400.0	5084.9
60°	1805.8	1856.1	2034.5	2569.8	3535.2	4582.7	5503.6	5851.8	6730.9	6787.0	5446.0
62.5°	1342.4	1366.9	1535.3	1903.6	2798.6	4109.3	5464.7	6066.2	7182.7	7250.4	5880.6
65°	955.4	977.0	1096.4	1354.0	2069.1	3469.1	5238.8	6225.9	7749.6	7818.7	6318.0
67.5°	715.1	723.7	791.4	946.8	1394.2	2695.0	4781.3	6198.6	8164.0	8225.9	6493.5
70°	565.5	568.3	601.4	684.9	906.5	1876.3	3979.9	5797.1	8194.2	8248.9	6271.9
72.5°	469.1	467.6	486.3	526.6	631.7	1187.0	2948.2	5051.8	7805.7	7843.2	5653.2
75°	387.0	389.9	402.9	425.9	482.0	782.7	1910.8	4030.2	6886.3	6846.0	4743.9
77.5°	325.2	323.7	329.5	349.6	389.9	562.6	1119.4	2912.2	5103.6	5083.4	3113.7
80°	261.9	264.7	273.4	290.6	328.1	428.8	661.9	1817.3	2738.1	2664.7	1487.8
82.5°	175.5	202.9	220.1	240.3	283.5	316.5	420.1	923.7	1224.5	1205.8	674.8
85°	83.5	110.8	164.0	187.1	230.2	198.6	284.9	440.3	612.9	605.8	243.2
87.5°	17.3	17.3	87.8	105.0	142.4	84.9	158.3	191.4	296.4	277.7	99.3
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°	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3
2.5°	1375.5	1336.7	1259.0	1197.1	1133.8	1097.8	1053.2	1031.7	1027.3	1015.8	1024.5
5°	1400.0	1323.7	1177.0	1080.6	1015.8	984.2	968.3	962.6	961.2	958.3	958.3
7.5°	1433.1	1316.5	1125.2	1027.3	985.6	975.5	979.9	988.5	989.9	992.8	991.4
10°	1473.4	1318.0	1096.4	1014.4	994.2	995.7	1010.1	1021.6	1027.3	1031.7	1030.2
12.5°	1529.5	1335.3	1092.1	1023.0	1014.4	1020.1	1034.5	1046.0	1051.8	1053.2	1053.2
15°	1602.9	1371.2	1102.2	1041.7	1034.5	1038.8	1047.5	1051.8	1053.2	1051.8	1051.8
17.5°	1683.5	1414.4	1116.5	1053.2	1041.7	1037.4	1034.5	1030.2	1021.6	1015.8	1015.8
20°	1761.1	1453.2	1123.7	1051.8	1031.7	1014.4	997.1	975.5	961.2	949.6	949.6
22.5°	1838.8	1489.2	1123.7	1036.0	1004.3	971.2	935.3	900.7	879.1	864.7	864.7
25°	1920.9	1523.7	1115.1	1008.6	961.2	913.7	864.7	821.6	800.0	785.6	782.7
27.5°	1989.9	1543.9	1092.1	969.8	907.9	847.5	791.4	746.8	730.9	718.0	718.0
30°	2063.3	1556.8	1048.9	919.4	847.5	778.4	720.9	684.9	667.6	648.9	647.5
32.5°	2145.3	1565.5	1000.0	866.2	785.6	712.2	663.3	634.5	597.1	577.0	574.1
35°	2240.3	1577.0	948.2	805.8	723.7	657.6	628.8	581.3	545.3	528.1	526.6
37.5°	2341.0	1585.6	892.1	752.5	667.6	621.6	592.8	536.7	505.0	479.1	476.3
40°	2447.5	1585.6	834.5	700.7	623.0	605.8	551.1	500.7	447.5	434.5	431.7
42.5°	2565.5	1582.7	777.0	650.4	581.3	569.8	526.6	473.4	446.0	434.5	431.7
45°	2690.6	1572.7	722.3	592.8	538.1	515.1	482.0	467.6	456.1	456.1	456.1
47.5°	2833.1	1564.0	660.4	541.0	506.5	480.6	456.1	447.5	446.0	450.4	454.7
50°	3015.8	1561.1	608.6	503.6	482.0	451.8	448.9	441.7	443.2	443.2	443.2
52.5°	3237.4	1535.3	559.7	476.3	457.6	421.6	430.2	437.4	440.3	438.8	437.4
55°	3400.0	1489.2	518.0	457.6	440.3	410.1	421.6	433.1	436.0	431.7	431.7
57.5°	3546.8	1424.5	484.9	443.2	428.8	402.9	415.8	427.3	424.5	423.0	421.6
60°	3715.1	1362.6	459.0	436.0	417.3	400.0	411.5	418.7	414.4	411.5	410.1
62.5°	3897.8	1302.2	440.3	436.0	408.6	398.6	407.2	410.1	401.4	398.6	398.6
65°	3982.7	1207.2	420.1	436.0	404.3	395.7	398.6	395.7	387.0	387.0	385.6
67.5°	3843.2	1050.4	394.2	430.2	410.1	391.4	385.6	381.3	371.2	371.2	368.3
70°	3457.6	863.3	356.8	411.5	411.5	389.9	368.3	358.3	346.8	351.1	345.3
72.5°	2954.0	684.9	310.8	379.9	402.9	388.5	349.6	333.8	323.7	328.1	319.4
75°	2392.8	530.9	256.1	329.5	381.3	381.3	330.9	309.4	297.8	297.8	287.8
77.5°	1525.2	392.8	208.6	273.4	342.4	371.2	315.1	282.0	264.7	260.4	253.2
80°	755.4	276.3	171.2	217.3	292.1	348.2	303.6	250.4	225.9	217.3	204.3
82.5°	401.4	191.4	136.7	169.8	233.1	313.7	289.2	215.8	185.6	172.7	158.3
85°	179.9	118.0	109.4	129.5	177.0	257.6	260.4	177.0	142.4	169.8	125.2
87.5°	66.2	53.2	53.2	66.2	102.2	107.9	184.2	113.7	90.6	61.9	48.9
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)