

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: P231013

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231013  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-70-D-U-T2R-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8858 lumens  
Efficiency: N/A  
Efficacy: 121.3 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

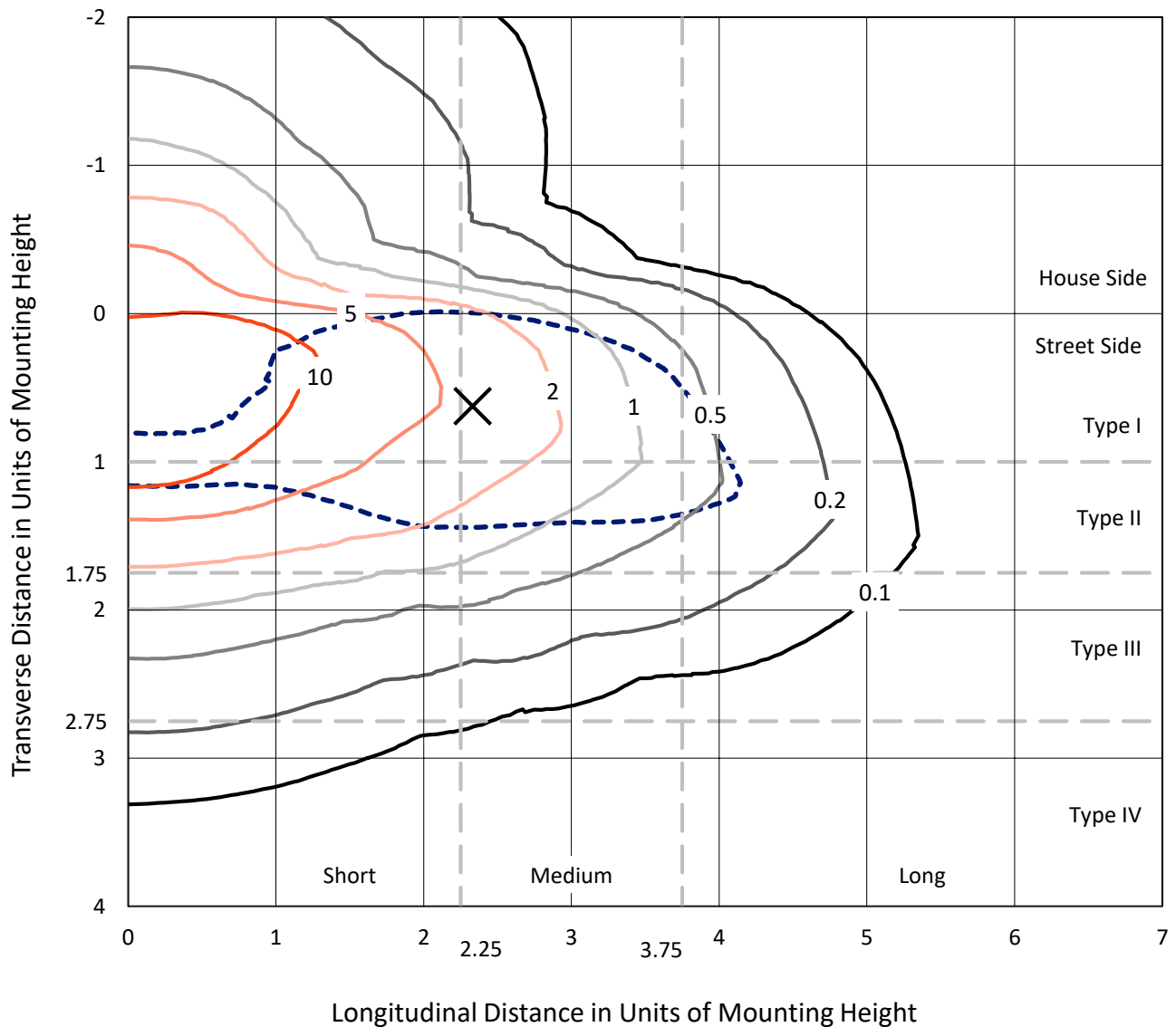
Input Watts (W): 73  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

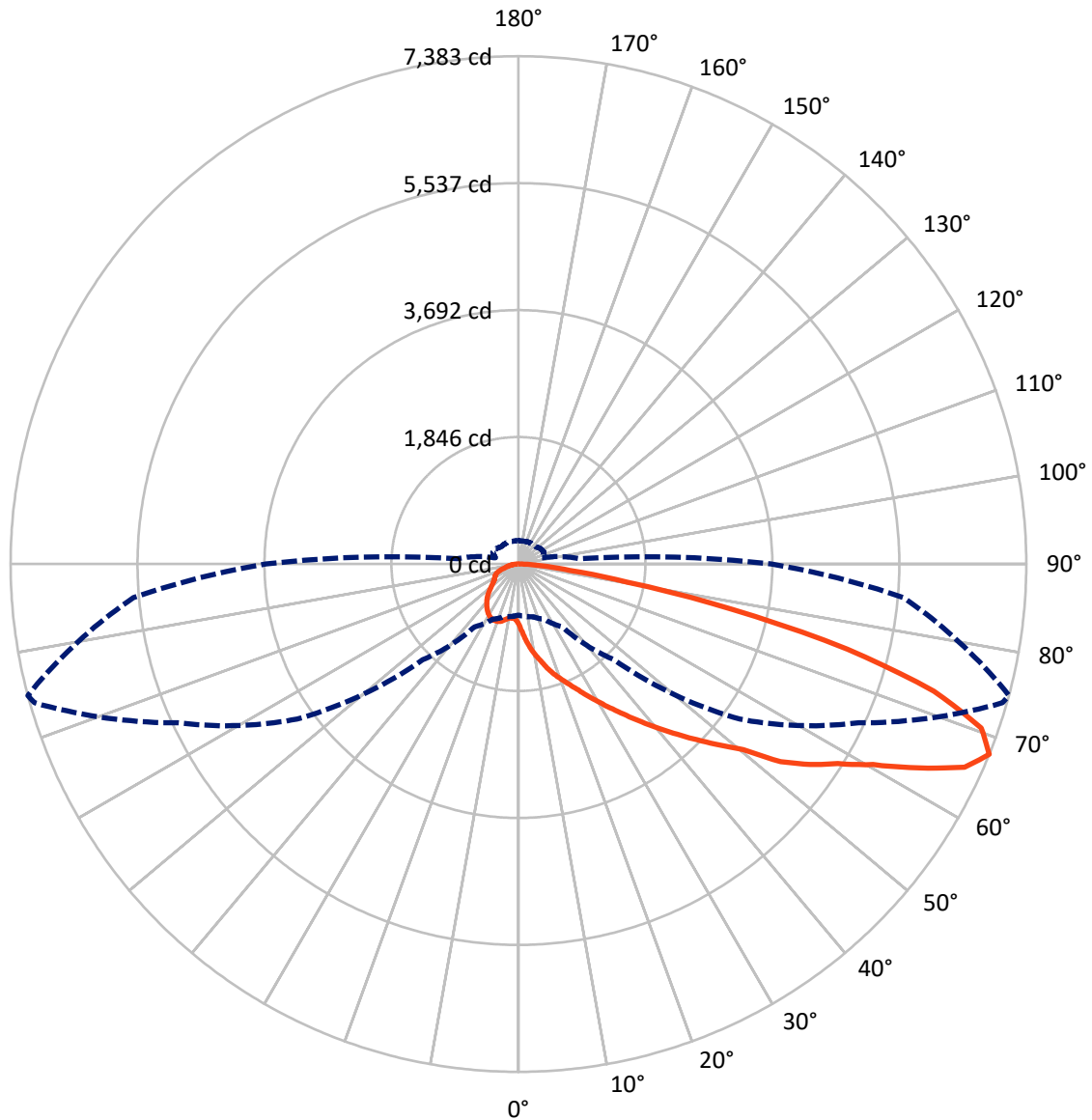
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.4 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical



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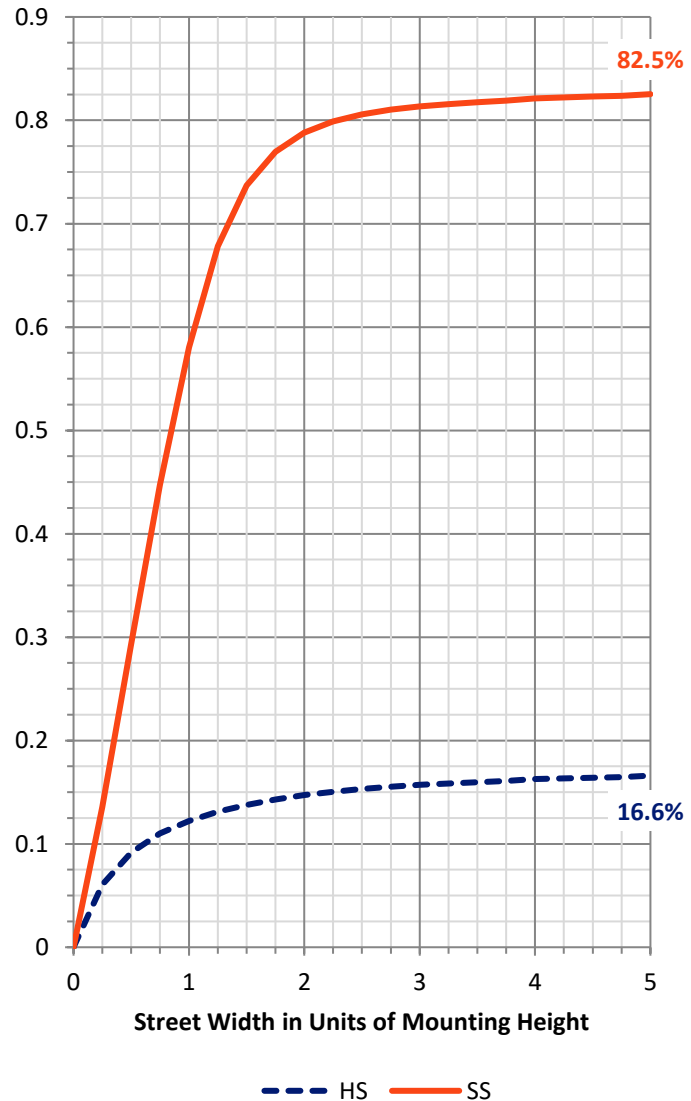
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1512.6	0.0	1512.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	7345.4	0.0	7345.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	8858.0	0.0	8858.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.1	1.2
10°-20°	372.6	4.2
20°-30°	679.7	7.7
30°-40°	1115.6	12.6
40°-50°	1613.4	18.2
50°-60°	1901.4	21.5
60°-70°	1847.7	20.9
70°-80°	1027.0	11.6
80°-90°	197.5	2.2
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°	8858.0	100.0
0°-180°	8858.0	100.0



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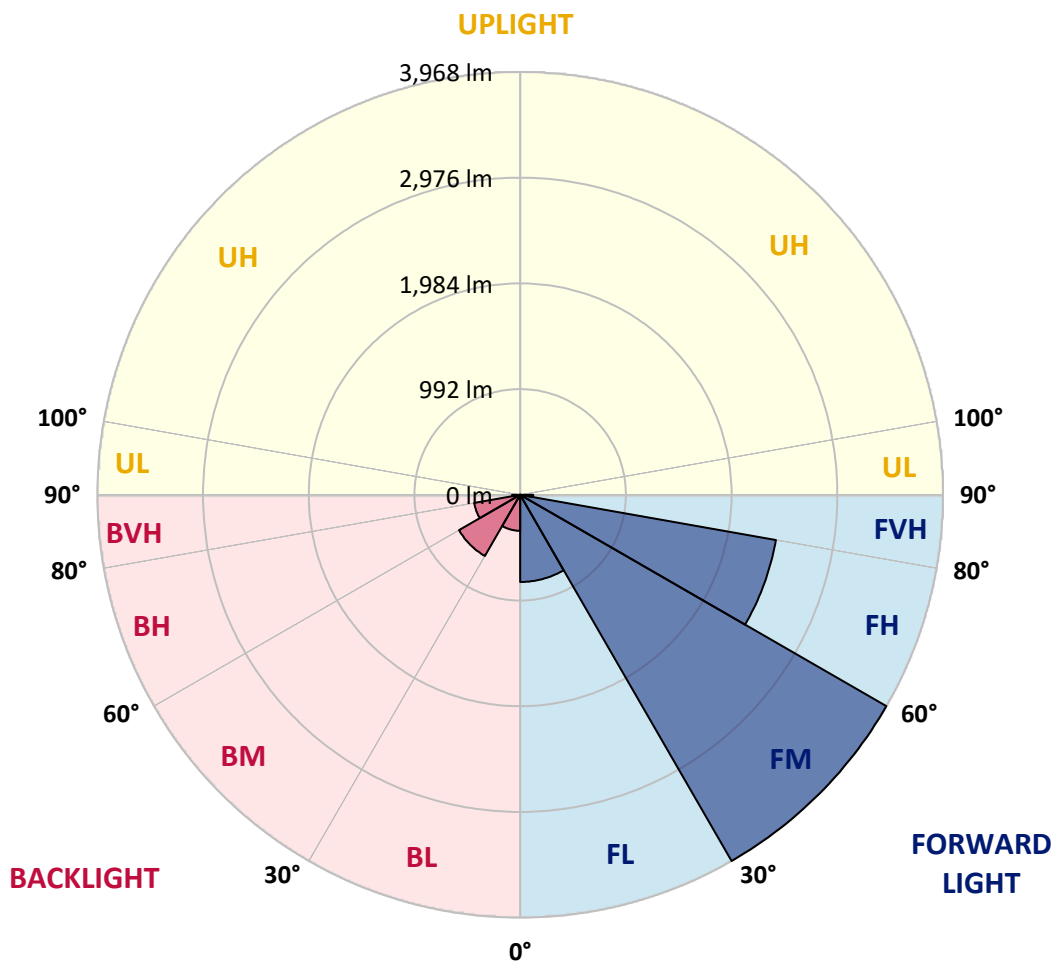
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	817.8	9.2			
FM	(30°-60°)	3967.9	44.8			
FH	(60°-80°)	2436.7	27.5			G2/5000
FVH	(80°-90°)	122.9	1.4			G2/225
BL	(0°-30°)	337.6	3.8	B1/500		
BM	(30°-60°)	662.5	7.5	B1/1000		
BH	(60°-80°)	438.0	4.9	B1/500		G1/500
BVH	(80°-90°)	74.6	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°	74°	75°	85°
0°	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7
2.5°	1244.4	1248.1	1240.7	1224.0	1199.9	1155.5	1116.6	1048.1	987.0	979.6	914.8
5°	1462.9	1466.6	1457.3	1437.0	1411.1	1362.9	1309.2	1220.3	1122.2	1103.7	966.6
7.5°	1612.9	1614.7	1603.6	1583.3	1562.9	1514.8	1461.0	1361.1	1240.7	1225.9	1033.3
10°	1740.7	1744.4	1729.6	1716.6	1694.4	1646.2	1590.7	1485.1	1361.1	1340.7	1101.8
12.5°	1859.2	1862.9	1853.6	1842.5	1835.1	1790.7	1729.6	1603.6	1470.3	1448.1	1183.3
15°	1938.8	1942.5	1944.4	1959.2	1968.4	1937.0	1875.8	1738.8	1588.8	1568.5	1279.6
17.5°	1916.6	1925.8	1953.6	2007.3	2064.7	2066.6	2016.6	1872.1	1705.5	1683.3	1377.7
20°	1851.8	1859.2	1892.5	1974.0	2086.9	2151.8	2148.1	2007.3	1814.7	1790.7	1468.5
22.5°	1905.5	1914.7	1914.7	1964.7	2075.8	2196.2	2244.4	2140.7	1924.0	1901.8	1559.2
25°	2135.1	2140.7	2101.8	2081.4	2122.1	2233.2	2324.0	2285.1	2057.3	2031.4	1657.3
27.5°	2455.5	2446.2	2398.0	2316.6	2272.1	2301.8	2394.3	2422.1	2211.0	2179.5	1759.2
30°	2774.0	2768.4	2712.8	2603.6	2503.6	2440.6	2472.1	2544.3	2377.7	2340.6	1857.3
32.5°	3072.1	3062.8	3001.7	2874.0	2761.0	2644.3	2583.2	2655.4	2555.4	2512.9	1966.6
35°	3346.2	3322.1	3261.0	3127.6	3011.0	2899.9	2749.9	2761.0	2748.0	2703.6	2086.9
37.5°	3568.4	3549.9	3483.2	3359.1	3235.0	3129.5	2972.1	2881.4	2955.4	2912.8	2225.8
40°	3764.7	3744.3	3675.8	3551.7	3436.9	3336.9	3212.8	3027.7	3188.8	3140.6	2381.4
42.5°	3912.8	3898.0	3842.4	3720.2	3609.1	3518.4	3457.3	3212.8	3431.3	3385.0	2551.7
45°	3992.4	3977.6	3948.0	3849.8	3748.0	3677.6	3683.2	3433.2	3685.0	3646.1	2753.6
47.5°	3894.3	3905.4	3931.3	3912.8	3849.8	3816.5	3885.0	3661.0	3968.4	3931.3	2972.1
50°	3631.3	3642.4	3746.1	3873.9	3896.1	3936.9	4066.5	3923.9	4268.3	4238.7	3242.5
52.5°	2985.1	3046.2	3333.2	3638.7	3848.0	4016.5	4268.3	4314.6	4773.9	4773.9	3720.2
55°	2255.5	2309.2	2636.9	3170.2	3661.0	4023.9	4416.5	4579.4	5138.7	5146.1	3970.2
57.5°	1827.7	1861.0	2022.1	2568.4	3268.4	3931.3	4592.4	4807.2	5442.4	5475.7	4292.4
60°	1483.3	1501.8	1607.3	1987.0	2725.8	3681.3	4718.3	5133.1	5875.7	5922.0	4703.5
62.5°	1192.5	1211.1	1281.4	1509.2	2138.8	3212.8	4696.1	5472.0	6453.4	6529.4	5242.4
65°	951.8	972.2	1018.5	1159.2	1585.1	2631.4	4468.3	5646.1	7051.6	7125.6	5599.8
67.5°	742.6	761.1	792.6	885.1	1116.6	1968.4	3929.5	5462.7	7320.1	7383.0	5618.3
70°	561.1	570.3	596.3	655.5	798.1	1307.4	3075.8	4847.9	7079.3	7136.7	5247.9
72.5°	435.2	433.3	448.1	477.8	557.4	900.0	2038.8	3942.4	6259.0	6318.3	4477.6
75°	355.5	353.7	362.9	372.2	403.7	603.7	1203.7	2968.4	5051.6	4938.7	3359.1
77.5°	300.0	298.1	307.4	309.2	322.2	416.6	685.2	1953.6	3370.2	3175.8	1892.5
80°	253.7	251.8	263.0	266.7	275.9	305.5	394.4	1057.4	1692.5	1603.6	903.7
82.5°	190.7	198.1	218.5	227.8	238.9	225.9	244.4	466.6	785.2	750.0	392.6
85°	92.6	109.3	164.8	183.3	196.3	142.6	166.7	220.4	353.7	337.0	159.3
87.5°	31.5	27.8	98.1	116.7	127.8	64.8	92.6	122.2	146.3	133.3	50.0
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°	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7
2.5°	887.0	859.2	818.5	787.0	766.6	750.0	742.6	740.7	737.0	735.2	735.2
5°	905.5	855.5	792.6	759.2	750.0	742.6	746.3	748.1	748.1	748.1	748.1
7.5°	933.3	862.9	787.0	764.8	762.9	762.9	774.0	779.6	783.3	783.3	783.3
10°	970.3	875.9	796.3	777.7	783.3	787.0	800.0	807.4	811.1	812.9	814.8
12.5°	1020.3	903.7	814.8	800.0	807.4	809.2	818.5	822.2	825.9	827.7	827.7
15°	1087.0	944.4	844.4	825.9	827.7	825.9	825.9	822.2	820.3	820.3	824.0
17.5°	1155.5	983.3	870.3	844.4	837.0	822.2	811.1	801.8	796.3	792.6	794.4
20°	1224.0	1018.5	885.1	848.1	827.7	803.7	783.3	770.3	762.9	755.5	759.2
22.5°	1292.5	1051.8	890.7	837.0	807.4	772.2	750.0	729.6	712.9	701.8	703.7
25°	1368.5	1088.8	890.7	824.0	779.6	742.6	714.8	681.5	657.4	648.1	651.8
27.5°	1444.4	1120.3	881.4	800.0	748.1	711.1	670.3	631.5	616.6	611.1	612.9
30°	1520.3	1144.4	861.1	770.3	714.8	674.0	620.3	594.4	575.9	561.1	562.9
32.5°	1596.2	1161.1	833.3	733.3	679.6	627.8	583.3	553.7	520.3	501.8	503.7
35°	1683.3	1174.0	800.0	696.3	640.7	587.0	553.7	505.5	470.4	455.5	451.8
37.5°	1774.0	1183.3	764.8	655.5	601.8	557.4	524.1	464.8	431.5	411.1	409.2
40°	1872.1	1187.0	722.2	612.9	564.8	538.9	485.2	440.7	383.3	370.4	370.4
42.5°	1988.8	1185.1	679.6	570.3	524.1	496.3	457.4	437.0	387.0	374.1	366.7
45°	2122.1	1185.1	633.3	520.3	483.3	442.6	425.9	412.9	379.6	385.2	388.9
47.5°	2274.0	1181.4	577.8	479.6	450.0	414.8	405.5	377.8	364.8	368.5	372.2
50°	2483.2	1187.0	527.8	446.3	425.9	396.3	385.2	370.4	364.8	366.7	364.8
52.5°	2774.0	1168.5	479.6	425.9	407.4	368.5	368.5	366.7	368.5	366.7	366.7
55°	2933.2	1127.7	444.4	414.8	394.4	355.5	362.9	366.7	370.4	368.5	368.5
57.5°	3159.1	1100.0	416.6	407.4	387.0	351.8	359.2	366.7	368.5	366.7	366.7
60°	3425.8	1081.4	398.1	409.2	381.5	351.8	361.1	366.7	364.8	362.9	362.9
62.5°	3735.0	1074.0	385.2	414.8	375.9	353.7	361.1	366.7	359.2	357.4	357.4
65°	3851.7	1007.4	368.5	418.5	379.6	353.7	359.2	361.1	351.8	350.0	348.1
67.5°	3672.1	892.6	344.4	411.1	390.7	353.7	353.7	351.8	340.7	338.9	335.2
70°	3270.2	740.7	307.4	387.0	398.1	355.5	346.3	337.0	325.9	325.9	318.5
72.5°	2677.7	583.3	259.2	344.4	392.6	361.1	331.5	318.5	305.5	305.5	298.1
75°	1929.5	435.2	207.4	287.0	368.5	359.2	312.9	296.3	281.5	279.6	270.4
77.5°	1100.0	305.5	168.5	224.1	327.8	350.0	296.3	270.4	253.7	248.1	242.6
80°	564.8	205.5	137.0	175.9	272.2	324.1	283.3	240.7	222.2	213.0	203.7
82.5°	268.5	137.0	105.6	129.6	205.5	283.3	266.7	207.4	187.0	175.9	164.8
85°	120.4	81.5	70.4	83.3	146.3	220.4	235.2	170.4	146.3	183.3	135.2
87.5°	38.9	37.0	37.0	38.9	70.4	96.3	172.2	125.9	116.7	96.3	81.5
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)