

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: P265800

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265800  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-90-D-U-T2U-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 600mA LIGHT ENGINES 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: 7442.6 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 92  
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

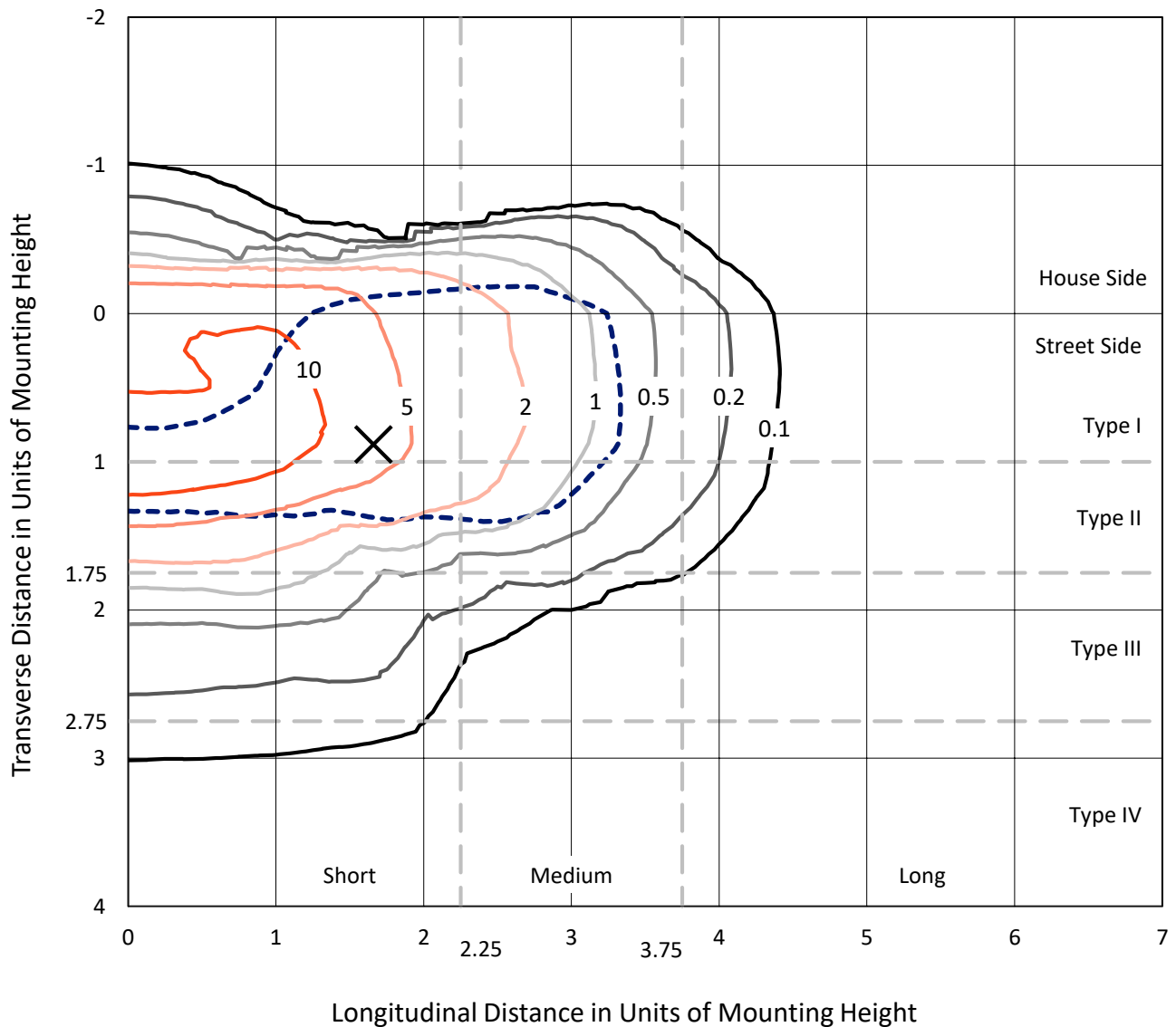


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

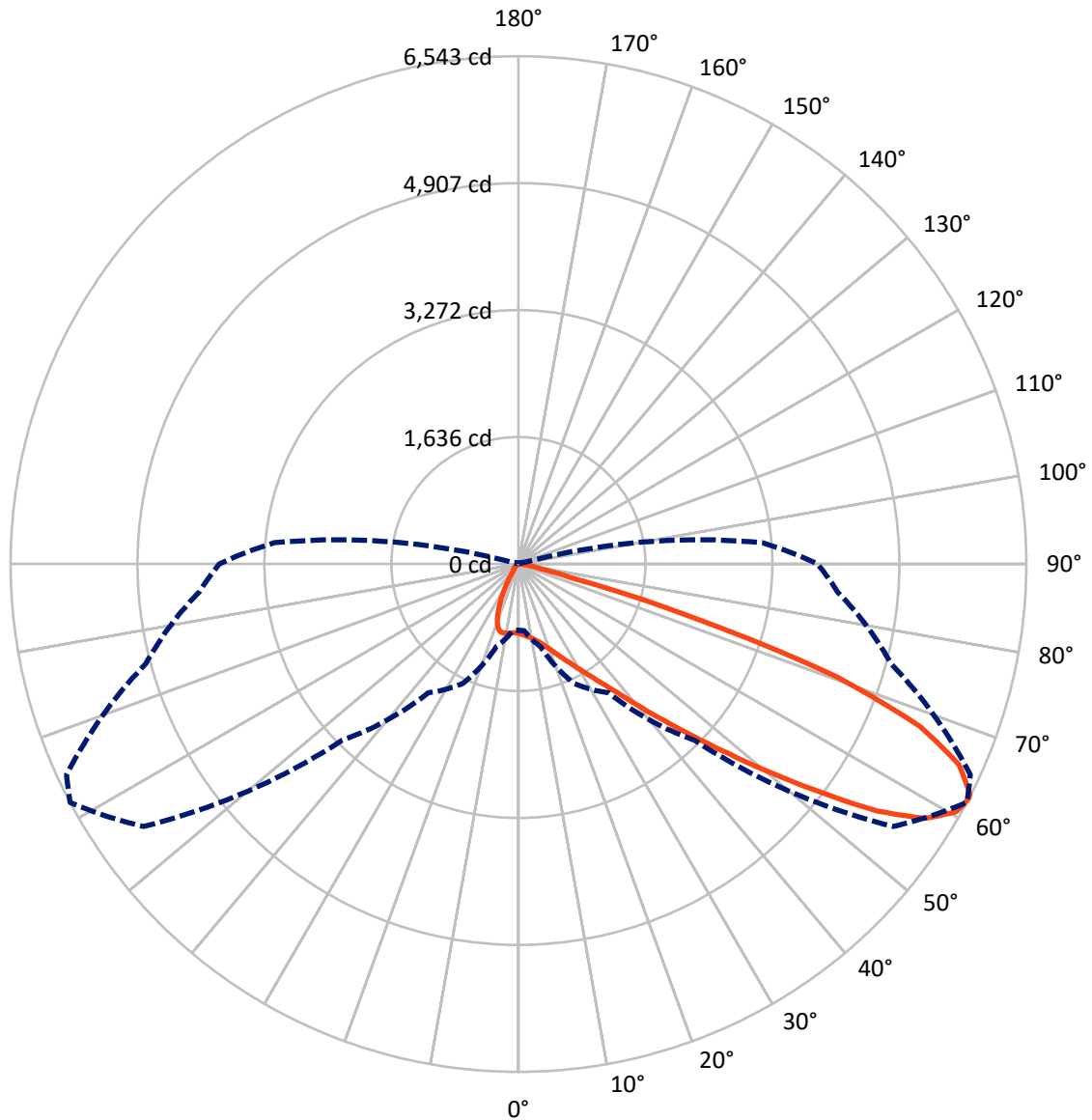


Based on 10 foot mounting height. Maximum calculated value = 17.1 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral      - - - Horizontal Cone Through 62-Deg Vertical

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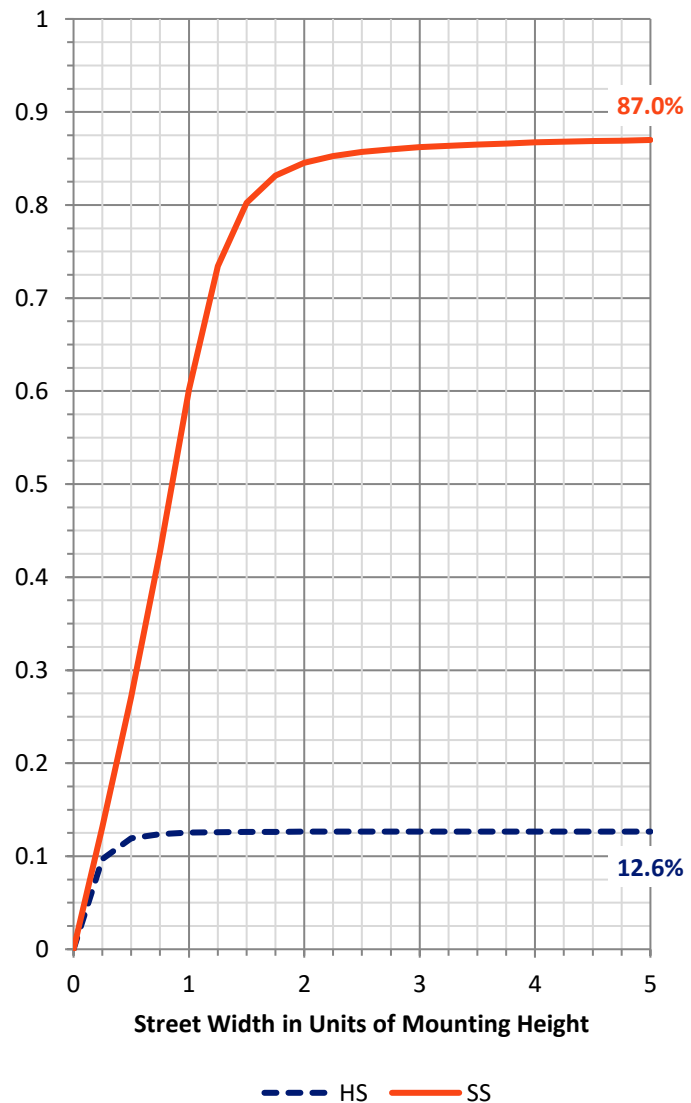
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	951.6	0.0	951.6
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	6490.9	0.0	6490.9
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	7442.6	0.0	7442.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.3	1.2
10°-20°	240.9	3.2
20°-30°	404.6	5.4
30°-40°	775.7	10.4
40°-50°	1584.3	21.3
50°-60°	2096.6	28.2
60°-70°	1628.7	21.9
70°-80°	587.9	7.9
80°-90°	37.5	0.5
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°	7442.6	100.0
0°-180°	7442.6	100.0



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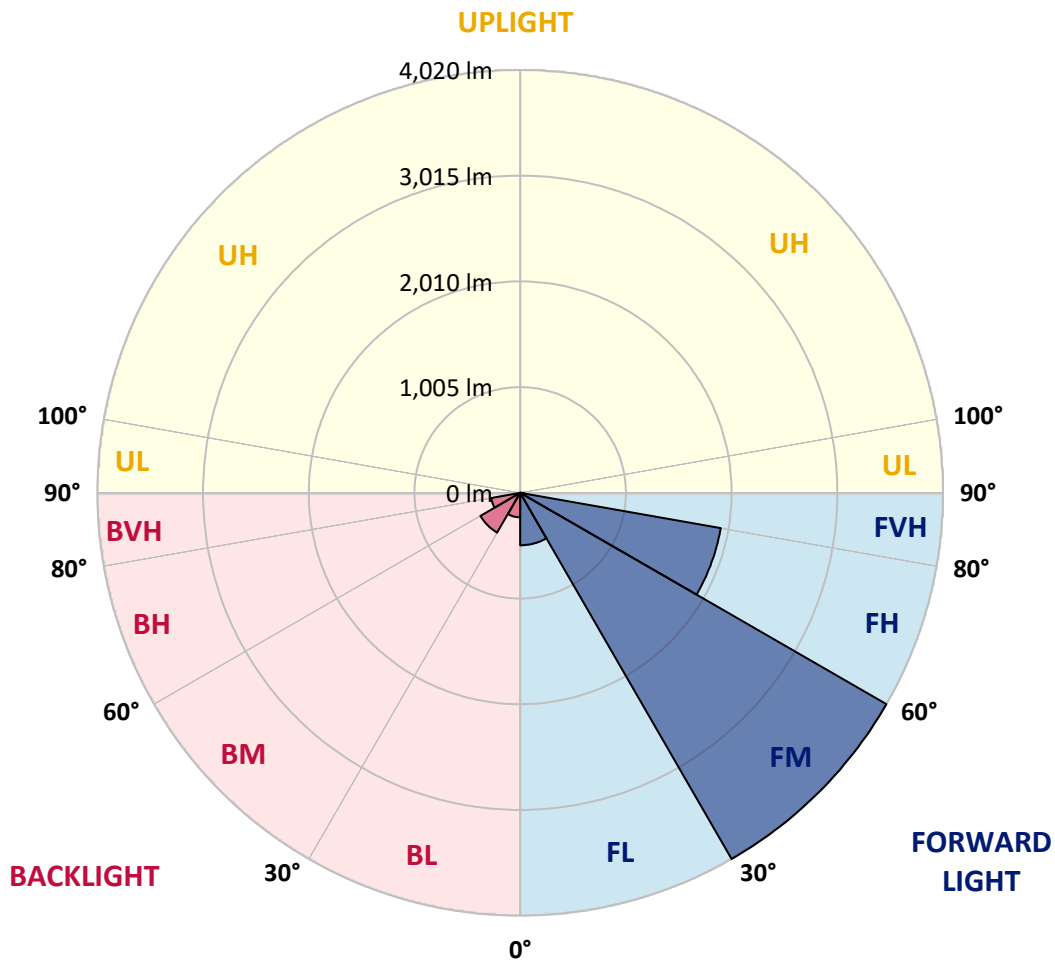
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	499.0	6.7			
FM	(30°-60°)	4019.8	54.0			
FH	(60°-80°)	1936.4	26.0			G2/5000
FVH	(80°-90°)	35.8	0.5			G1/100
BL	(0°-30°)	232.9	3.1	B1/500		
BM	(30°-60°)	436.9	5.9	B1/1000		
BH	(60°-80°)	280.2	3.8	B1/500		G1/500
BVH	(80°-90°)	1.6	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°	62°	65°	75°	85°
0°	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6
2.5°	920.4	918.4	916.7	914.8	914.8	912.9	911.2	907.6	903.9	900.2	898.3
5°	936.8	935.0	933.2	935.0	933.2	933.2	931.4	927.7	923.9	918.4	912.9
7.5°	949.6	947.8	945.9	947.8	949.6	951.5	953.3	949.6	947.8	940.4	935.0
10°	966.0	964.2	962.4	966.0	966.0	975.2	977.0	975.2	973.5	968.0	958.9
12.5°	989.8	991.6	991.6	995.3	999.0	1010.1	1013.6	1008.2	1008.2	1000.8	989.8
15°	1033.8	1033.8	1033.8	1037.5	1039.2	1053.9	1057.6	1052.0	1055.8	1042.9	1032.0
17.5°	1075.9	1077.6	1081.4	1088.7	1088.7	1101.5	1108.8	1108.8	1116.1	1099.6	1085.1
20°	1117.9	1119.7	1125.2	1141.7	1141.7	1158.3	1171.0	1176.5	1183.8	1167.3	1141.7
22.5°	1163.7	1163.7	1172.8	1198.5	1192.9	1225.8	1249.7	1258.9	1266.2	1244.2	1204.0
25°	1233.3	1225.8	1233.3	1257.0	1253.3	1299.0	1343.0	1352.2	1361.3	1335.7	1275.4
27.5°	1365.0	1353.9	1328.4	1330.2	1330.2	1383.3	1445.5	1458.3	1463.8	1441.8	1366.9
30°	1628.4	1628.4	1533.2	1469.3	1427.1	1474.7	1562.5	1584.5	1591.8	1558.9	1460.1
32.5°	2087.8	2087.8	1912.0	1749.2	1590.0	1590.0	1690.6	1730.9	1738.2	1699.9	1584.5
35°	2673.1	2669.6	2406.1	2182.8	1871.8	1754.7	1840.6	1908.4	1930.4	1879.2	1745.5
37.5°	3295.3	3271.4	2987.9	2731.7	2305.4	2018.1	2043.7	2133.5	2153.5	2111.5	1954.2
40°	3800.3	3772.8	3544.2	3330.0	2865.4	2439.0	2336.5	2418.9	2442.6	2384.1	2203.0
42.5°	4257.7	4190.1	4032.8	3879.1	3509.4	3167.2	2726.3	2759.2	2784.8	2722.7	2482.9
45°	4588.9	4484.6	4404.1	4356.5	4160.8	3966.7	3231.3	3165.4	3174.5	3097.6	2788.5
47.5°	4598.1	4524.9	4532.2	4656.6	4737.1	4729.8	3888.1	3653.9	3619.1	3491.1	3114.2
50°	4159.0	4201.1	4334.6	4689.5	5125.0	5388.5	4669.4	4232.2	4127.8	3897.2	3438.1
52.5°	3427.0	3492.9	3743.5	4341.9	5181.8	5822.2	5480.0	4892.6	4706.0	4299.7	3686.9
55°	2684.1	2687.8	2951.3	3560.6	4803.0	5900.7	6127.7	5619.0	5333.5	4605.4	3851.6
57.5°	1846.1	1946.7	2281.7	2691.5	3948.5	5509.2	6371.0	6182.6	5814.8	4793.9	3966.7
60°	1209.5	1214.9	1604.6	2078.6	2687.8	4482.8	6222.7	6480.8	6204.6	4905.5	4045.4
62°	852.6	861.8	1103.3	1697.9	2025.5	3213.0	5895.2	6543.1	6424.0	4971.3	4127.8
62.5°	790.4	797.8	1000.8	1602.8	1902.9	2881.9	5778.2	6528.4	6457.0	4993.3	4157.0
65°	580.0	580.0	655.0	1101.5	1394.2	1557.1	4896.3	6237.4	6413.1	5168.8	4266.9
67.5°	448.3	451.9	477.5	678.8	1052.0	944.1	3125.2	5582.4	5955.8	5428.7	4329.1
70°	386.1	384.2	402.5	450.1	759.3	627.6	1375.9	4356.5	4987.7	5362.8	4272.3
72.5°	285.4	287.3	329.4	395.3	528.8	408.0	622.0	2312.7	3234.9	4197.3	3661.2
75°	183.0	184.8	232.4	311.1	380.6	267.2	358.7	689.8	1324.7	2327.4	2239.6
77.5°	122.6	126.2	151.9	217.7	333.0	166.5	225.0	289.1	398.8	872.8	803.3
80°	82.4	82.4	96.9	146.3	210.5	139.1	120.7	192.1	206.8	270.7	135.5
82.5°	54.8	54.8	64.0	96.9	137.3	124.4	73.2	104.4	120.7	135.5	47.6
85°	33.0	33.0	43.8	60.4	89.7	69.4	47.6	58.6	62.3	86.0	25.6
87.5°	20.1	18.2	29.3	42.1	47.6	42.1	31.1	31.1	33.0	47.6	12.8
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°	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6	896.6
2.5°	894.7	892.8	891.1	887.4	882.0	878.3	874.6	870.9	867.3	867.3	872.8
5°	911.2	905.8	898.3	891.1	880.1	872.8	867.3	859.9	856.4	856.4	858.2
7.5°	931.4	925.9	912.9	900.2	883.8	870.9	858.2	841.6	828.9	823.3	828.9
10°	953.3	945.9	927.7	907.6	889.2	856.4	814.3	763.0	719.1	698.9	708.1
12.5°	980.7	971.5	949.6	922.2	880.1	799.6	695.3	576.4	501.3	466.6	473.9
15°	1021.0	1008.2	977.0	935.0	841.6	667.8	497.8	360.5	291.0	261.6	265.3
17.5°	1068.5	1052.0	1010.1	931.4	742.9	481.2	296.4	210.5	181.2	173.8	173.8
20°	1119.7	1097.8	1042.9	903.9	592.8	301.9	184.8	161.1	150.0	144.5	144.5
22.5°	1172.8	1143.5	1070.4	839.8	422.7	188.5	151.9	135.5	122.6	117.0	117.0
25°	1236.8	1198.5	1097.8	728.3	269.0	151.9	130.0	113.5	100.6	93.3	95.1
27.5°	1312.0	1262.5	1121.7	589.2	173.8	131.7	107.9	91.4	80.5	76.8	76.8
30°	1390.5	1332.0	1127.2	441.0	140.9	113.5	89.7	75.0	67.7	64.0	64.0
32.5°	1498.6	1421.7	1110.7	292.8	118.9	95.1	75.0	62.3	56.8	54.8	54.8
35°	1641.3	1538.7	1072.1	181.2	100.6	78.7	62.3	54.8	49.3	47.6	47.6
37.5°	1822.4	1701.6	1004.6	124.4	86.0	64.0	53.1	47.6	43.8	42.1	42.1
40°	2063.9	1899.2	916.7	107.9	73.2	54.8	45.8	42.1	38.4	38.4	38.4
42.5°	2320.1	2139.0	803.3	95.1	62.3	47.6	40.2	36.7	34.8	33.0	33.0
45°	2600.1	2384.1	662.4	84.3	53.1	42.1	36.7	31.1	29.3	29.3	29.3
47.5°	2878.1	2636.6	508.7	73.2	45.8	36.7	31.1	27.5	25.6	23.7	23.7
50°	3163.6	2865.4	373.2	64.0	40.2	33.0	27.5	23.7	20.1	18.2	18.2
52.5°	3370.4	3002.6	272.6	54.8	34.8	27.5	22.0	18.2	14.6	12.8	12.8
55°	3522.2	3086.8	199.5	45.8	31.1	23.7	18.2	14.6	11.0	11.0	9.2
57.5°	3641.1	3127.0	150.0	40.2	27.5	20.1	14.6	11.0	9.2	7.4	7.4
60°	3732.5	3128.7	111.6	33.0	23.7	16.4	11.0	7.4	5.5	5.5	5.5
62°	3853.4	3152.6	91.4	27.5	22.0	14.6	9.2	5.5	3.7	1.8	1.8
62.5°	3888.1	3161.8	87.9	27.5	20.1	12.8	7.4	5.5	3.7	1.8	1.8
65°	4049.1	3178.3	67.7	22.0	16.4	11.0	5.5	3.7	0.0	0.0	0.0
67.5°	4195.5	3152.6	49.3	16.4	12.8	7.4	5.5	1.8	0.0	0.0	0.0
70°	4180.9	2977.0	34.8	11.0	9.2	5.5	3.7	0.0	0.0	0.0	0.0
72.5°	3445.3	2228.5	23.7	9.2	5.5	3.7	1.8	0.0	0.0	0.0	0.0
75°	2080.4	975.2	16.4	5.5	5.5	3.7	1.8	0.0	0.0	0.0	0.0
77.5°	682.5	353.2	11.0	3.7	3.7	1.8	1.8	0.0	0.0	0.0	0.0
80°	111.6	58.6	5.5	3.7	3.7	1.8	1.8	0.0	0.0	0.0	0.0
82.5°	34.8	14.6	3.7	3.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0
85°	12.8	5.5	3.7	3.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0
87.5°	5.5	3.7	3.7	3.7	1.8	1.8	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)