

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: P257850

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2U-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257850  
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-AF48-80-D-U-T2U-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 535mA 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: 7919.7 lumens  
Efficiency: N/A  
Efficacy: 95.4 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

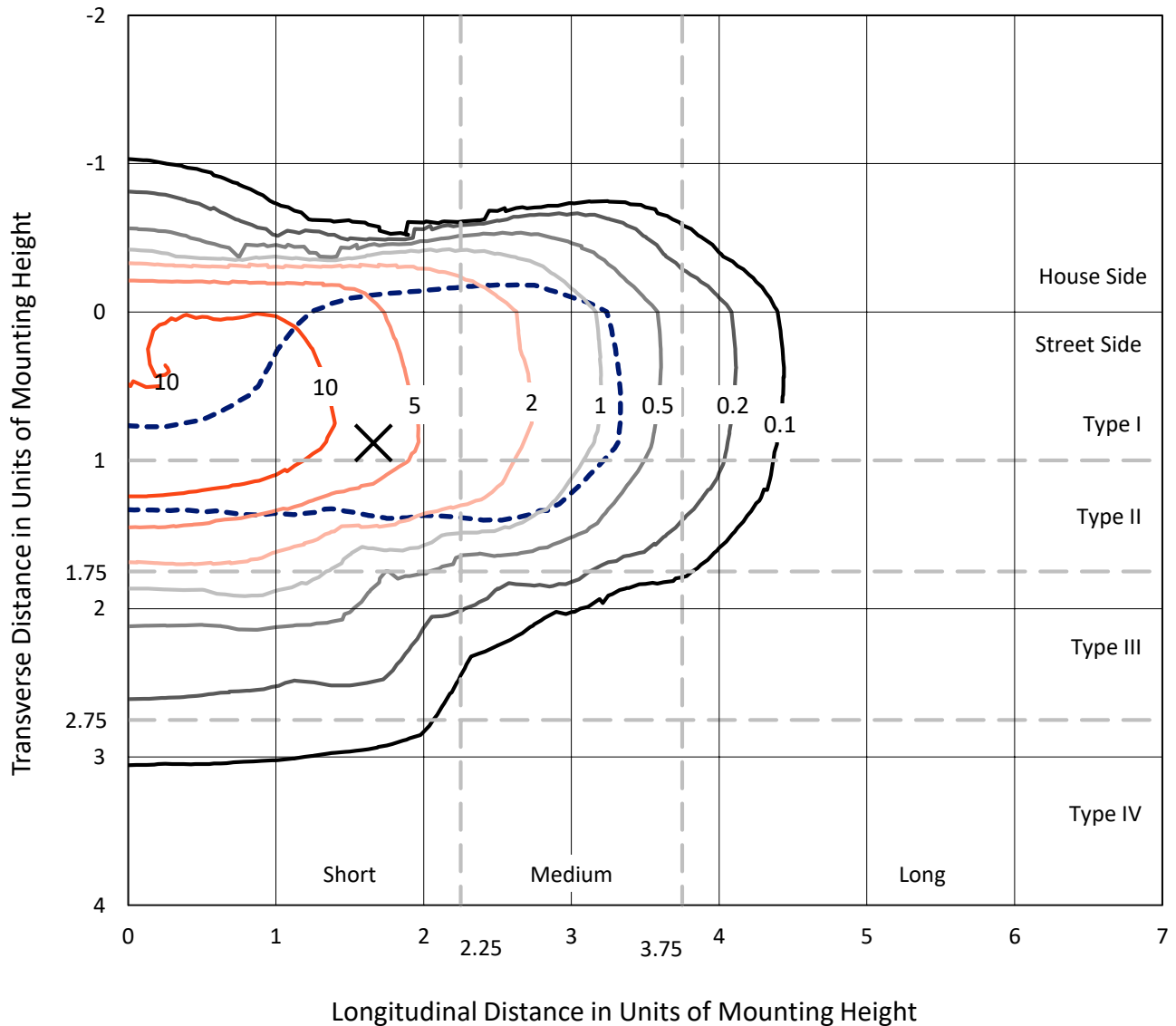
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

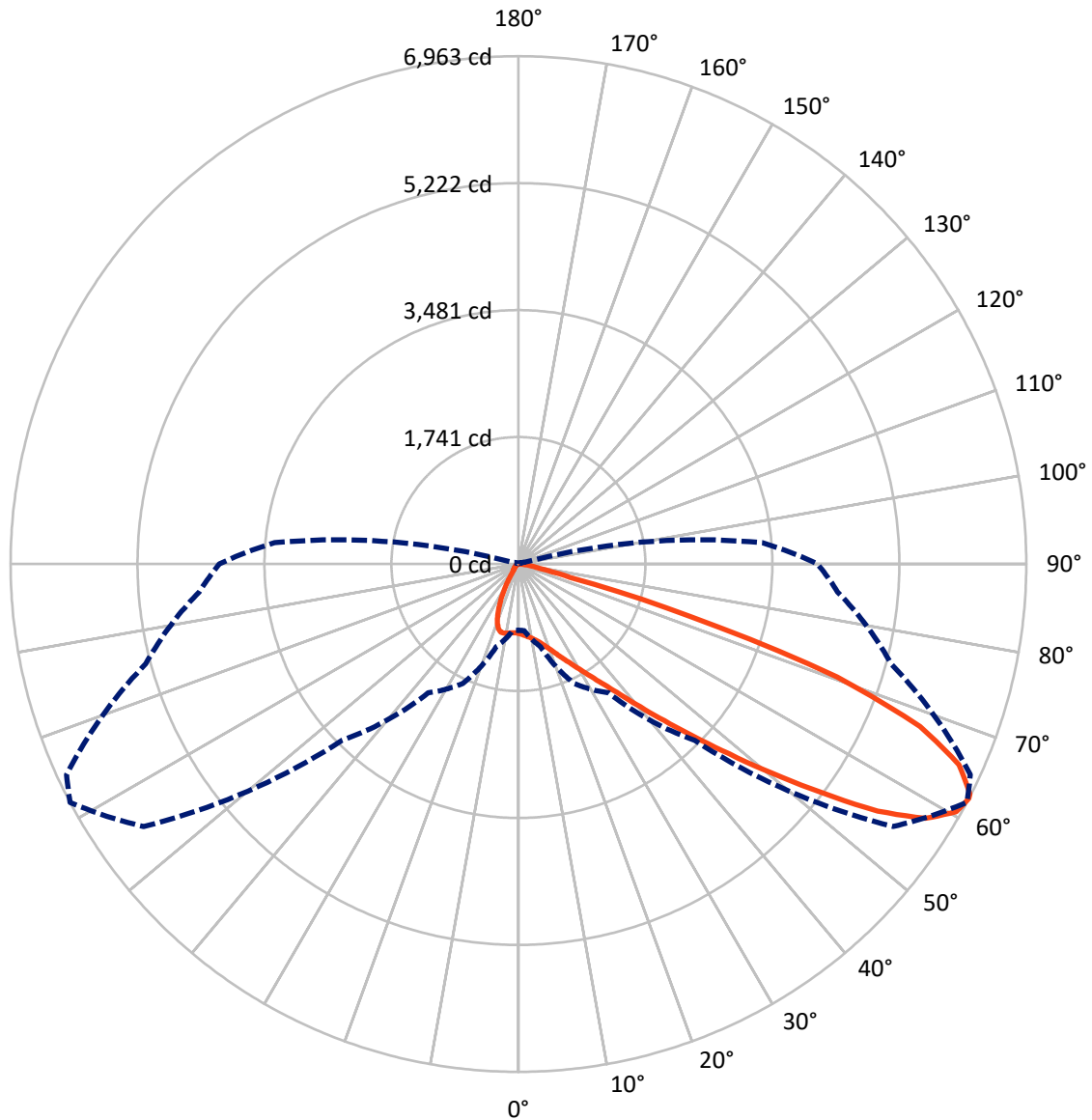
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.2 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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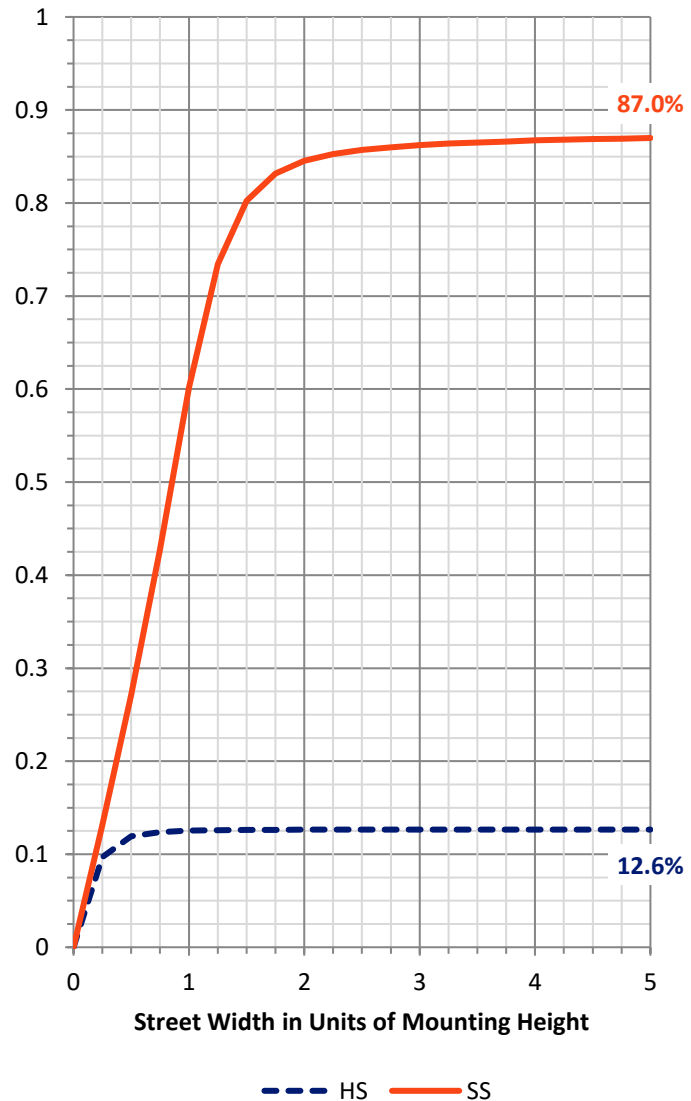
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1012.6	0.0	1012.6
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	6907.0	0.0	6907.0
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	7919.7	0.0	7919.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.8	1.2
10°-20°	256.4	3.2
20°-30°	430.6	5.4
30°-40°	825.4	10.4
40°-50°	1685.9	21.3
50°-60°	2231.0	28.2
60°-70°	1733.1	21.9
70°-80°	625.6	7.9
80°-90°	39.9	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°	7919.7	100.0
0°-180°	7919.7	100.0



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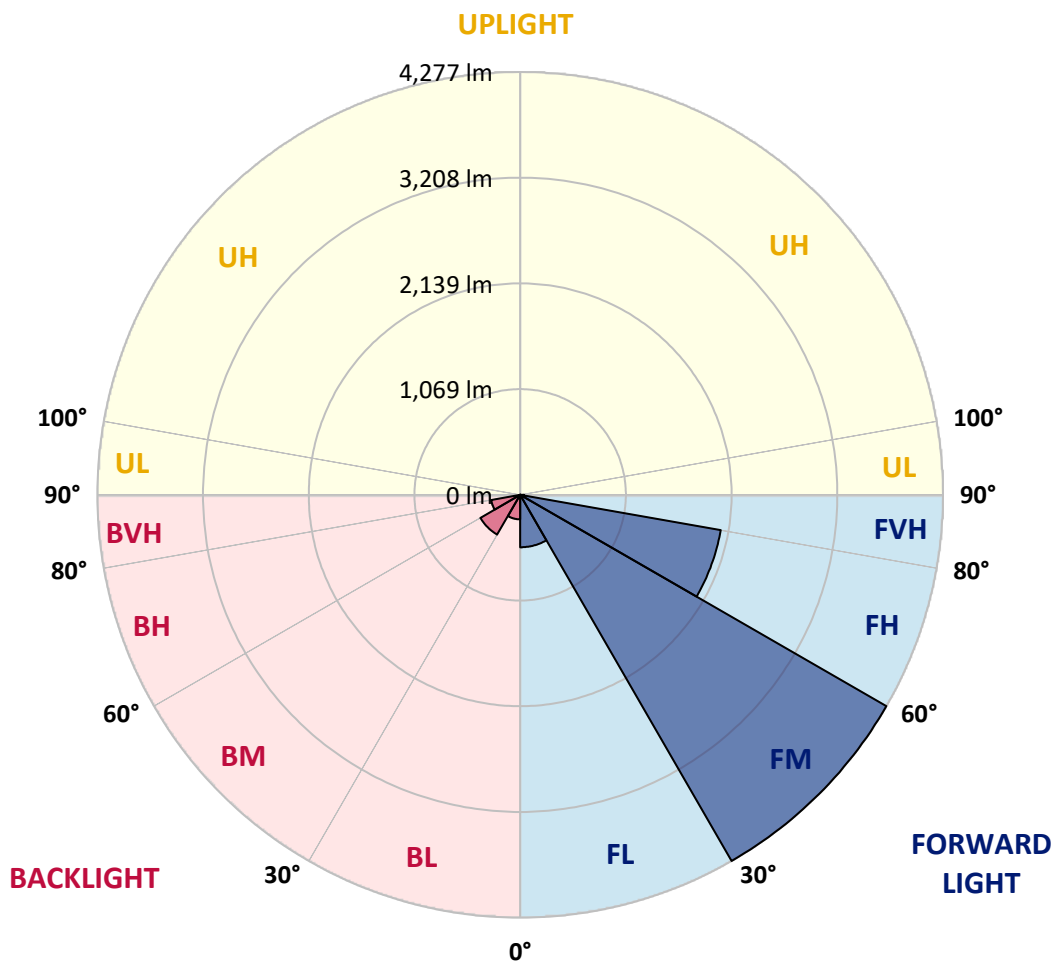
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	530.9	6.7			
FM (30°-60°)	4277.4	54.0			
FH (60°-80°)	2060.5	26.0			G2/5000
FVH (80°-90°)	38.1	0.5			G1/100
BL (0°-30°)	247.8	3.1	B1/500		
BM (30°-60°)	464.9	5.9	B1/1000		
BH (60°-80°)	298.2	3.8	B1/500		G1/500
BVH (80°-90°)	1.7	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°	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0
2.5°	979.4	977.4	975.5	973.5	973.5	971.6	969.7	965.7	961.8	957.9	955.9
5°	996.9	994.9	993.0	994.9	993.0	993.0	991.0	987.1	983.3	977.4	971.6
7.5°	1010.5	1008.5	1006.6	1008.5	1010.5	1012.4	1014.4	1010.5	1008.5	1000.8	994.9
10°	1028.1	1026.0	1024.1	1028.1	1028.1	1037.8	1039.7	1037.8	1035.8	1030.0	1020.2
12.5°	1053.3	1055.3	1055.3	1059.2	1063.1	1074.7	1078.6	1072.8	1072.8	1065.0	1053.3
15°	1100.1	1100.1	1100.1	1104.0	1105.9	1121.5	1125.3	1119.5	1123.4	1109.8	1098.1
17.5°	1144.8	1146.8	1150.7	1158.5	1158.5	1172.1	1179.9	1179.9	1187.6	1170.2	1154.6
20°	1189.6	1191.5	1197.4	1215.0	1215.0	1232.5	1246.1	1251.9	1259.7	1242.2	1215.0
22.5°	1238.3	1238.3	1248.0	1275.3	1269.5	1304.5	1329.8	1339.6	1347.3	1324.0	1281.1
25°	1312.2	1304.5	1312.2	1337.6	1333.7	1382.4	1429.1	1438.9	1448.6	1421.3	1357.0
27.5°	1452.5	1440.8	1413.5	1415.5	1415.5	1471.9	1538.1	1551.7	1557.6	1534.2	1454.4
30°	1732.9	1732.9	1631.6	1563.5	1518.7	1569.3	1662.7	1686.1	1693.9	1658.8	1553.7
32.5°	2221.5	2221.5	2034.6	1861.4	1692.0	1692.0	1799.1	1841.8	1849.7	1808.8	1686.1
35°	2844.5	2840.6	2560.3	2322.8	1991.8	1867.2	1958.6	2030.8	2054.1	1999.6	1857.5
37.5°	3506.6	3481.2	3179.4	2906.9	2453.2	2147.6	2174.8	2270.2	2291.6	2246.8	2079.4
40°	4043.9	4014.7	3771.3	3543.5	3049.0	2595.3	2486.3	2573.9	2599.2	2536.9	2344.2
42.5°	4530.6	4458.6	4291.2	4127.6	3734.4	3370.2	2901.0	2936.1	2963.3	2897.1	2642.1
45°	4883.1	4772.1	4686.4	4635.8	4427.4	4221.1	3438.4	3368.3	3378.1	3296.3	2967.3
47.5°	4892.8	4814.9	4822.7	4955.1	5040.8	5033.0	4137.3	3888.1	3851.2	3714.8	3313.7
50°	4425.5	4470.3	4612.5	4990.2	5453.6	5733.9	4968.8	4503.4	4392.4	4147.1	3658.4
52.5°	3646.7	3716.8	3983.6	4620.3	5513.9	6195.4	5831.2	5206.3	5007.7	4575.5	3923.2
55°	2856.3	2860.2	3140.5	3788.9	5110.9	6279.1	6520.5	5979.2	5675.5	4900.5	4098.5
57.5°	1964.5	2071.6	2427.9	2864.1	4201.7	5862.4	6779.4	6578.9	6187.5	5101.1	4221.1
60°	1287.0	1292.8	1707.5	2211.8	2860.2	4770.1	6621.8	6896.2	6602.2	5219.9	4304.8
62°	907.3	917.1	1174.0	1806.8	2155.4	3418.9	6273.2	6962.5	6835.9	5290.0	4392.4
62.5°	841.1	848.8	1065.0	1705.6	2024.8	3066.5	6148.7	6946.9	6871.0	5313.3	4423.5
65°	617.2	617.2	697.0	1172.1	1483.6	1656.9	5210.2	6637.3	6824.2	5500.3	4540.4
67.5°	477.0	480.9	508.2	722.3	1119.5	1004.6	3325.5	5940.3	6337.5	5776.7	4606.6
70°	410.8	408.9	428.3	478.9	808.0	667.8	1464.1	4635.8	5307.5	5706.6	4546.2
72.5°	303.7	305.7	350.5	420.5	562.7	434.1	662.0	2461.0	3442.3	4466.4	3895.9
75°	194.7	196.6	247.2	331.0	405.0	284.3	381.6	734.1	1409.6	2476.6	2383.2
77.5°	130.4	134.3	161.6	231.7	354.4	177.2	239.5	307.6	424.4	928.7	854.8
80°	87.6	87.6	103.2	155.8	223.9	148.0	128.5	204.4	220.0	288.2	144.0
82.5°	58.4	58.4	68.1	103.2	146.0	132.4	77.8	111.0	128.5	144.0	50.6
85°	35.1	35.1	46.7	64.2	95.4	74.0	50.6	62.3	66.2	91.6	27.2
87.5°	21.4	19.4	31.2	44.8	50.6	44.8	33.1	33.1	35.1	50.6	13.6
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°	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0	954.0
2.5°	952.1	950.1	948.2	944.3	938.5	934.6	930.7	926.8	922.9	922.9	928.7
5°	969.7	963.7	955.9	948.2	936.5	928.7	922.9	915.1	911.2	911.2	913.2
7.5°	991.0	985.2	971.6	957.9	940.4	926.8	913.2	895.6	882.0	876.2	882.0
10°	1014.4	1006.6	987.1	965.7	946.2	911.2	866.4	811.9	765.2	743.8	753.5
12.5°	1043.6	1033.9	1010.5	981.3	936.5	850.8	739.9	613.3	533.5	496.4	504.3
15°	1086.5	1072.8	1039.7	994.9	895.6	710.6	529.6	383.6	309.5	278.4	282.3
17.5°	1137.0	1119.5	1074.7	991.0	790.4	512.1	315.4	223.9	192.7	184.9	184.9
20°	1191.5	1168.2	1109.8	961.8	630.9	321.2	196.6	171.3	159.7	153.9	153.9
22.5°	1248.0	1216.9	1139.0	893.6	449.8	200.5	161.6	144.0	130.4	124.6	124.6
25°	1316.1	1275.3	1168.2	774.9	286.2	161.6	138.2	120.7	107.1	99.3	101.3
27.5°	1396.0	1343.4	1193.5	627.0	184.9	140.1	114.9	97.4	85.6	81.7	81.7
30°	1479.7	1417.4	1199.3	469.2	150.0	120.7	95.4	79.8	72.0	68.1	68.1
32.5°	1594.6	1512.8	1181.8	311.5	126.5	101.3	79.8	66.2	60.4	58.4	58.4
35°	1746.5	1637.4	1140.9	192.7	107.1	83.7	66.2	58.4	52.6	50.6	50.6
37.5°	1939.2	1810.7	1068.9	132.4	91.6	68.1	56.5	50.6	46.7	44.8	44.8
40°	2196.2	2020.9	975.5	114.9	77.8	58.4	48.7	44.8	40.9	40.9	40.9
42.5°	2468.8	2276.1	854.8	101.3	66.2	50.6	42.9	39.0	37.0	35.1	35.1
45°	2766.7	2536.9	704.8	89.6	56.5	44.8	39.0	33.1	31.2	31.2	31.2
47.5°	3062.6	2805.6	541.2	77.8	48.7	39.0	33.1	29.2	27.2	25.3	25.3
50°	3366.3	3049.0	397.2	68.1	42.9	35.1	29.2	25.3	21.4	19.4	19.4
52.5°	3586.4	3195.0	290.1	58.4	37.0	29.2	23.3	19.4	15.5	13.6	13.6
55°	3748.0	3284.6	212.3	48.7	33.1	25.3	19.4	15.5	11.7	11.7	9.7
57.5°	3874.5	3327.5	159.7	42.9	29.2	21.4	15.5	11.7	9.7	7.8	7.8
60°	3971.9	3329.4	118.8	35.1	25.3	17.5	11.7	7.8	5.8	5.8	5.8
62°	4100.4	3354.7	97.4	29.2	23.3	15.5	9.7	5.8	3.9	1.9	1.9
62.5°	4137.3	3364.4	93.5	29.2	21.4	13.6	7.8	5.8	3.9	1.9	1.9
65°	4308.7	3382.0	72.0	23.3	17.5	11.7	5.8	3.9	0.0	0.0	0.0
67.5°	4464.5	3354.7	52.6	17.5	13.6	7.8	5.8	1.9	0.0	0.0	0.0
70°	4448.9	3167.8	37.0	11.7	9.7	5.8	3.9	0.0	0.0	0.0	0.0
72.5°	3666.2	2371.4	25.3	9.7	5.8	3.9	1.9	0.0	0.0	0.0	0.0
75°	2213.8	1037.8	17.5	5.8	5.8	3.9	1.9	0.0	0.0	0.0	0.0
77.5°	726.2	375.7	11.7	3.9	3.9	1.9	1.9	0.0	0.0	0.0	0.0
80°	118.8	62.3	5.8	3.9	3.9	1.9	1.9	0.0	0.0	0.0	0.0
82.5°	37.0	15.5	3.9	3.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0
85°	13.6	5.8	3.9	3.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0
87.5°	5.8	3.9	3.9	3.9	1.9	1.9	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)