

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: P258181

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258181  
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-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 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: 7488.7 lumens  
Efficiency: N/A  
Efficacy: 90.2 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

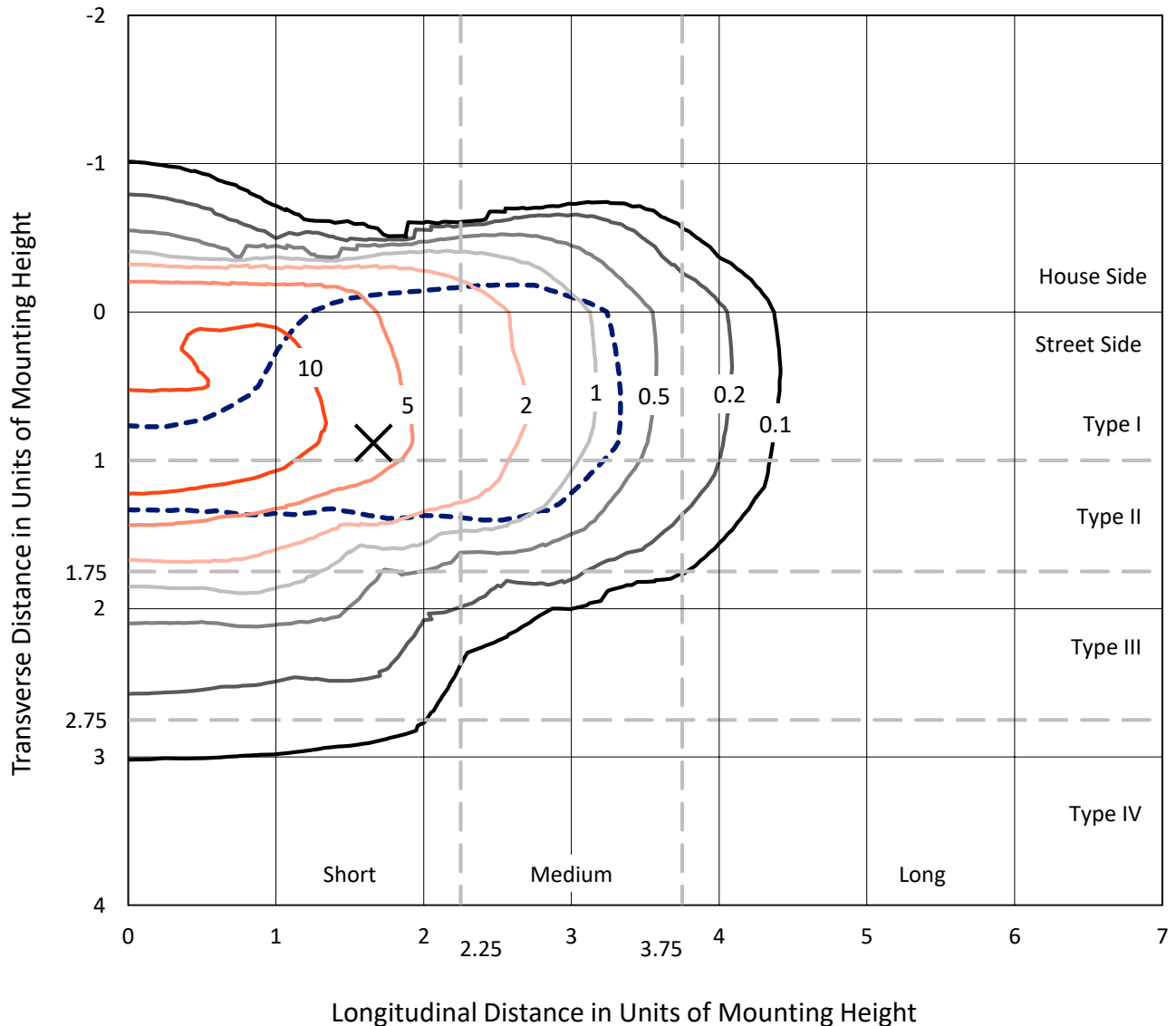


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

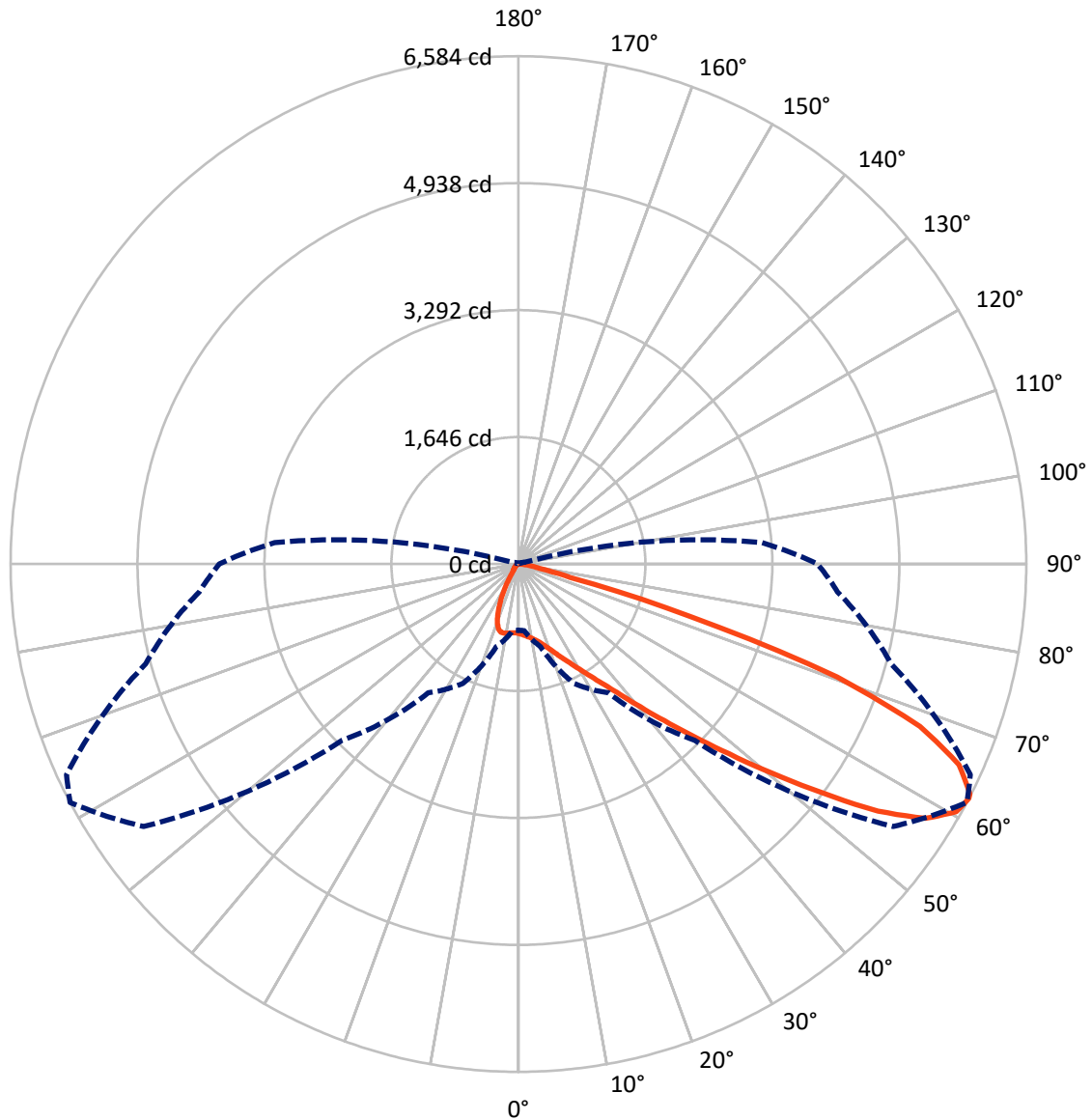


Based on 10 foot mounting height. Maximum calculated value = 17.2 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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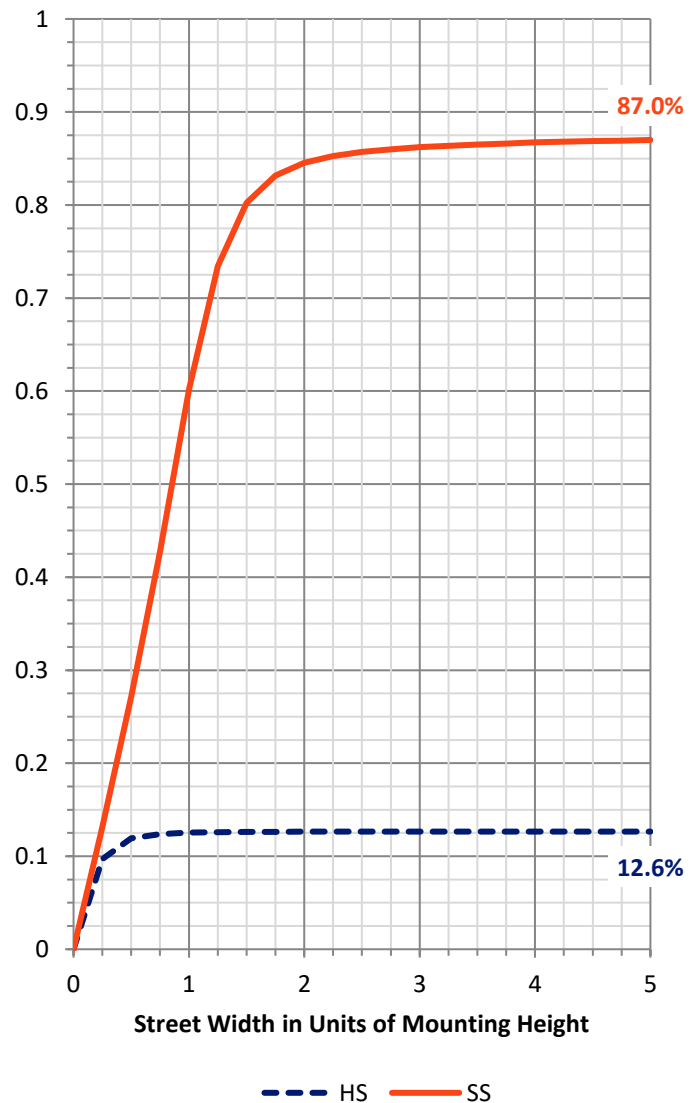
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	957.5	0.0	957.5
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	6531.1	0.0	6531.1
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	7488.7	0.0	7488.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.8	1.2
10°-20°	242.4	3.2
20°-30°	407.2	5.4
30°-40°	780.5	10.4
40°-50°	1594.1	21.3
50°-60°	2109.6	28.2
60°-70°	1638.8	21.9
70°-80°	591.5	7.9
80°-90°	37.7	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°	7488.7	100.0
0°-180°	7488.7	100.0



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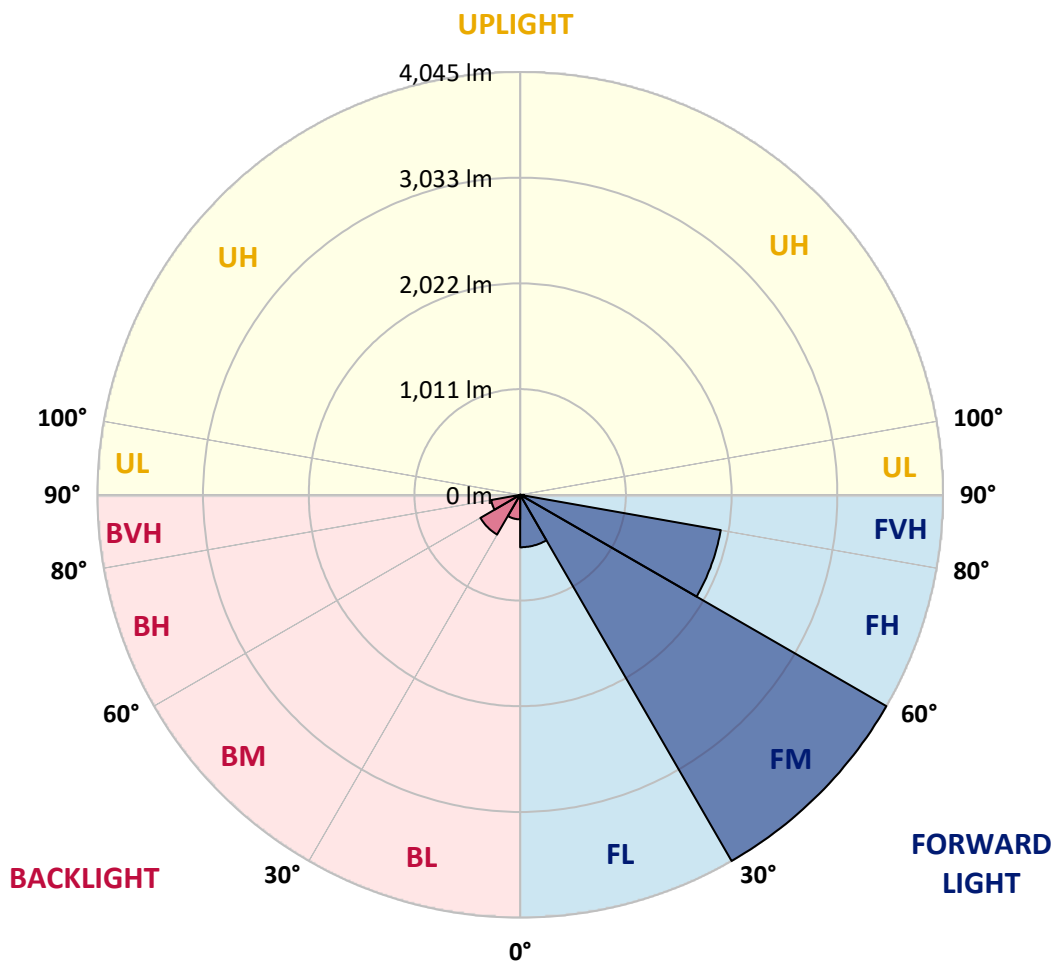
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	502.1	6.7			
FM	(30°-60°)	4044.6	54.0			
FH	(60°-80°)	1948.4	26.0			G2/5000
FVH	(80°-90°)	36.1	0.5			G1/100
BL	(0°-30°)	234.3	3.1	B1/500		
BM	(30°-60°)	439.6	5.9	B1/1000		
BH	(60°-80°)	282.0	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°	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2
2.5°	926.1	924.3	922.3	920.5	920.5	918.7	916.8	913.2	909.5	905.8	903.9
5°	942.6	940.7	939.0	940.7	939.0	939.0	937.1	933.4	929.7	924.3	918.7
7.5°	955.5	953.7	951.7	953.7	955.5	957.3	959.2	955.5	953.7	946.3	940.7
10°	972.1	970.2	968.4	972.1	972.1	981.2	983.2	981.2	979.4	973.9	964.6
12.5°	996.0	997.9	997.9	1001.5	1005.1	1016.2	1019.9	1014.4	1014.4	1007.1	996.0
15°	1040.1	1040.1	1040.1	1043.9	1045.7	1060.5	1064.0	1058.6	1062.2	1049.4	1038.3
17.5°	1082.5	1084.4	1088.0	1095.5	1095.5	1108.3	1115.6	1115.6	1123.0	1106.5	1091.7
20°	1124.9	1126.7	1132.3	1148.8	1148.8	1165.4	1178.3	1183.9	1191.2	1174.5	1148.8
22.5°	1170.9	1170.9	1180.1	1205.9	1200.3	1233.5	1257.5	1266.7	1274.0	1251.9	1211.3
25°	1240.8	1233.5	1240.8	1264.7	1261.1	1307.2	1351.3	1360.5	1369.7	1344.0	1283.2
27.5°	1373.4	1362.4	1336.6	1338.4	1338.4	1391.9	1454.5	1467.4	1472.9	1450.8	1375.2
30°	1638.6	1638.6	1542.7	1478.4	1436.0	1483.8	1572.2	1594.3	1601.7	1568.5	1469.1
32.5°	2100.6	2100.6	1923.8	1760.0	1599.9	1599.9	1701.0	1741.6	1749.0	1710.4	1594.3
35°	2689.8	2686.0	2420.9	2196.3	1883.4	1765.5	1852.1	1920.2	1942.3	1890.7	1756.4
37.5°	3315.7	3291.8	3006.4	2748.6	2319.7	2030.7	2056.5	2146.6	2166.9	2124.5	1966.2
40°	3823.8	3796.2	3566.1	3350.7	2883.1	2454.1	2351.0	2433.9	2457.8	2398.9	2216.6
42.5°	4284.0	4216.0	4057.7	3903.0	3531.0	3186.8	2743.2	2776.3	2802.1	2739.4	2498.3
45°	4617.3	4512.4	4431.3	4383.5	4186.5	3991.3	3251.2	3185.0	3194.2	3116.8	2805.8
47.5°	4626.5	4552.9	4560.3	4685.4	4766.4	4759.0	3912.1	3676.6	3641.5	3512.6	3133.4
50°	4184.6	4227.0	4361.4	4718.6	5156.7	5421.8	4698.2	4258.3	4153.4	3921.5	3459.2
52.5°	3448.2	3514.6	3766.7	4368.7	5213.8	5858.2	5513.9	4922.9	4735.1	4326.4	3709.7
55°	2700.8	2704.5	2969.5	3582.6	4832.6	5937.2	6165.6	5653.8	5366.6	4633.9	3875.3
57.5°	1857.6	1958.8	2295.7	2708.1	3972.8	5543.4	6410.5	6220.7	5850.9	4823.5	3991.3
60°	1216.9	1222.4	1614.7	2091.4	2704.5	4510.6	6261.3	6520.9	6243.0	4935.8	4070.6
62°	857.9	867.1	1110.2	1708.5	2038.0	3232.9	5931.8	6583.5	6463.9	5002.1	4153.4
62.5°	795.3	802.7	1007.1	1612.7	1914.7	2899.6	5814.0	6568.7	6497.0	5024.2	4182.8
65°	583.6	583.6	659.1	1108.3	1402.9	1566.7	4926.6	6276.1	6452.9	5200.8	4293.3
67.5°	451.0	454.7	480.5	683.0	1058.6	950.0	3144.5	5617.0	5992.6	5462.3	4355.8
70°	388.4	386.7	405.1	452.9	764.0	631.5	1384.5	4383.5	5018.6	5396.1	4298.8
72.5°	287.3	289.0	331.4	397.7	532.1	410.6	625.9	2327.0	3255.0	4223.3	3683.9
75°	184.1	186.0	233.9	313.0	383.0	268.8	360.9	694.1	1332.9	2341.8	2253.4
77.5°	123.4	127.1	152.9	219.1	335.1	167.5	226.5	290.8	401.3	878.1	808.2
80°	82.8	82.8	97.6	147.3	211.8	140.0	121.5	193.3	208.0	272.5	136.2
82.5°	55.2	55.2	64.5	97.6	138.1	125.2	73.6	104.9	121.5	136.2	47.8
85°	33.1	33.1	44.1	60.7	90.2	69.9	47.8	58.9	62.6	86.6	25.7
87.5°	20.2	18.5	29.5	42.4	47.8	42.4	31.2	31.2	33.1	47.8	12.9
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°	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2	902.2
2.5°	900.3	898.4	896.6	892.8	887.4	883.7	880.0	876.4	872.7	872.7	878.1
5°	916.8	911.3	903.9	896.6	885.5	878.1	872.7	865.4	861.6	861.6	863.4
7.5°	937.1	931.6	918.7	905.8	889.3	876.4	863.4	846.9	833.9	828.5	833.9
10°	959.2	951.7	933.4	913.2	894.8	861.6	819.2	767.6	723.6	703.3	712.5
12.5°	986.8	977.6	955.5	927.8	885.5	804.4	699.6	579.9	504.4	469.5	476.8
15°	1027.2	1014.4	983.2	940.7	846.9	672.0	500.7	362.6	292.7	263.4	266.9
17.5°	1075.1	1058.6	1016.2	937.1	747.5	484.2	298.3	211.8	182.3	175.0	175.0
20°	1126.7	1104.6	1049.4	909.5	596.4	303.7	186.0	162.0	151.0	145.5	145.5
22.5°	1180.1	1150.6	1077.0	845.0	425.2	189.7	152.9	136.2	123.4	117.8	117.8
25°	1244.6	1205.9	1104.6	732.7	270.6	152.9	130.7	114.1	101.3	93.9	95.7
27.5°	1320.1	1270.3	1128.5	592.8	175.0	132.5	108.6	92.1	81.0	77.3	77.3
30°	1399.2	1340.3	1134.1	443.7	141.7	114.1	90.2	75.5	68.1	64.5	64.5
32.5°	1507.8	1430.5	1117.5	294.6	119.6	95.7	75.5	62.6	57.1	55.2	55.2
35°	1651.5	1548.3	1078.8	182.3	101.3	79.2	62.6	55.2	49.7	47.8	47.8
37.5°	1833.7	1712.2	1010.7	125.2	86.6	64.5	53.4	47.8	44.1	42.4	42.4
40°	2076.7	1911.0	922.3	108.6	73.6	55.2	46.0	42.4	38.7	38.7	38.7
42.5°	2334.5	2152.2	808.2	95.7	62.6	47.8	40.5	36.8	35.0	33.1	33.1
45°	2616.1	2398.9	666.5	84.6	53.4	42.4	36.8	31.2	29.5	29.5	29.5
47.5°	2895.9	2653.0	511.8	73.6	46.0	36.8	31.2	27.7	25.7	23.9	23.9
50°	3183.2	2883.1	375.6	64.5	40.5	33.1	27.7	23.9	20.2	18.5	18.5
52.5°	3391.2	3021.1	274.3	55.2	35.0	27.7	22.1	18.5	14.7	12.9	12.9
55°	3544.0	3105.8	200.7	46.0	31.2	23.9	18.5	14.7	11.0	11.0	9.2
57.5°	3663.7	3146.3	151.0	40.5	27.7	20.2	14.7	11.0	9.2	7.3	7.3
60°	3755.7	3148.2	112.3	33.1	23.9	16.6	11.0	7.3	5.6	5.6	5.6
62°	3877.2	3172.2	92.1	27.7	22.1	14.7	9.2	5.6	3.8	1.8	1.8
62.5°	3912.1	3181.3	88.4	27.7	20.2	12.9	7.3	5.6	3.8	1.8	1.8
65°	4074.2	3197.9	68.1	22.1	16.6	11.0	5.6	3.8	0.0	0.0	0.0
67.5°	4221.4	3172.2	49.7	16.6	12.9	7.3	5.6	1.8	0.0	0.0	0.0
70°	4206.7	2995.4	35.0	11.0	9.2	5.6	3.8	0.0	0.0	0.0	0.0
72.5°	3466.7	2242.3	23.9	9.2	5.6	3.8	1.8	0.0	0.0	0.0	0.0
75°	2093.3	981.2	16.6	5.6	5.6	3.8	1.8	0.0	0.0	0.0	0.0
77.5°	686.7	355.3	11.0	3.8	3.8	1.8	1.8	0.0	0.0	0.0	0.0
80°	112.3	58.9	5.6	3.8	3.8	1.8	1.8	0.0	0.0	0.0	0.0
82.5°	35.0	14.7	3.8	3.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0
85°	12.9	5.6	3.8	3.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0
87.5°	5.6	3.8	3.8	3.8	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)