

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: P265809

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265809  
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-AF48-100-D-U-T2U-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 660mA 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: 8054 lumens  
Efficiency: N/A  
Efficacy: 79.7 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): 101  
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

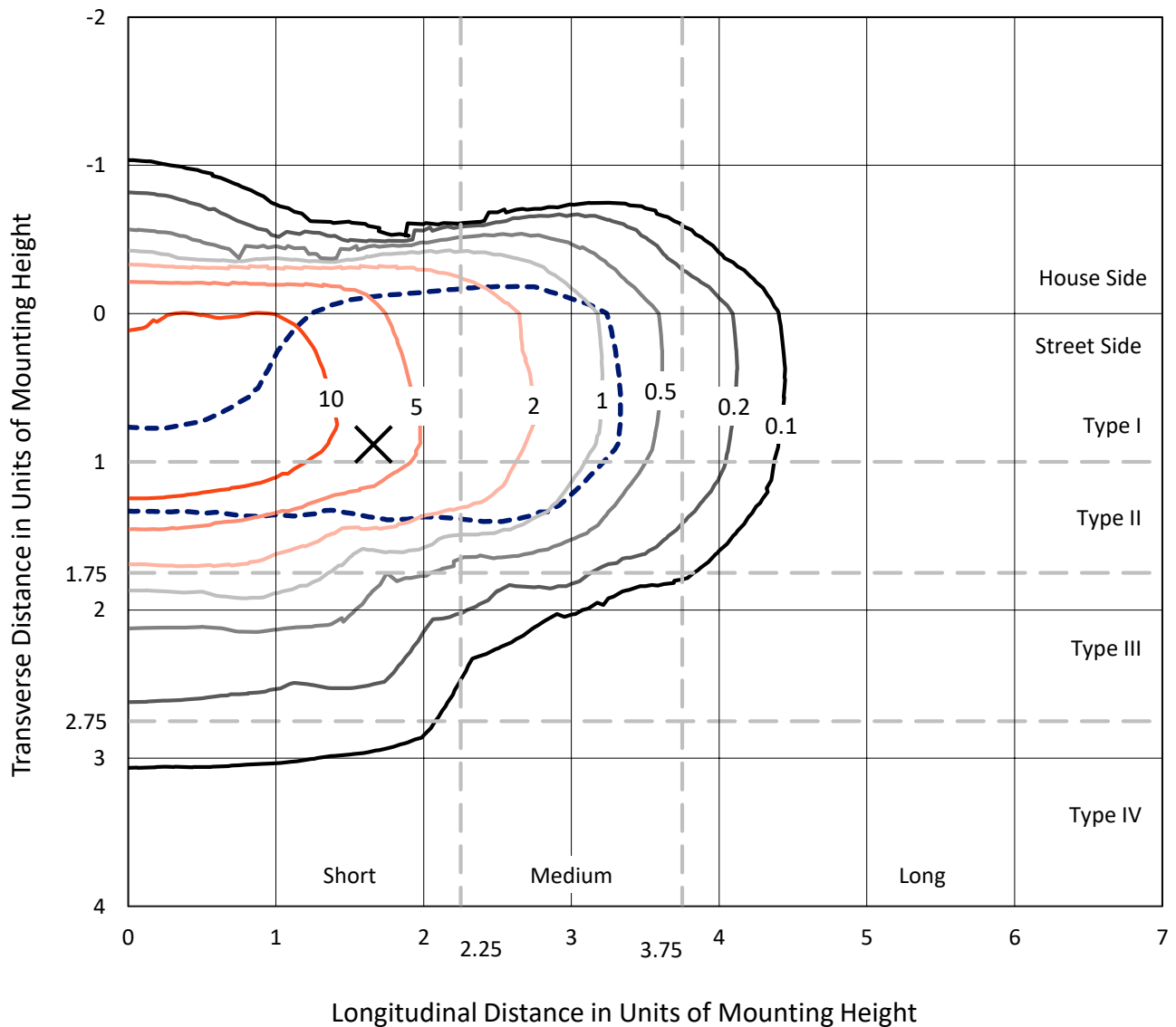


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

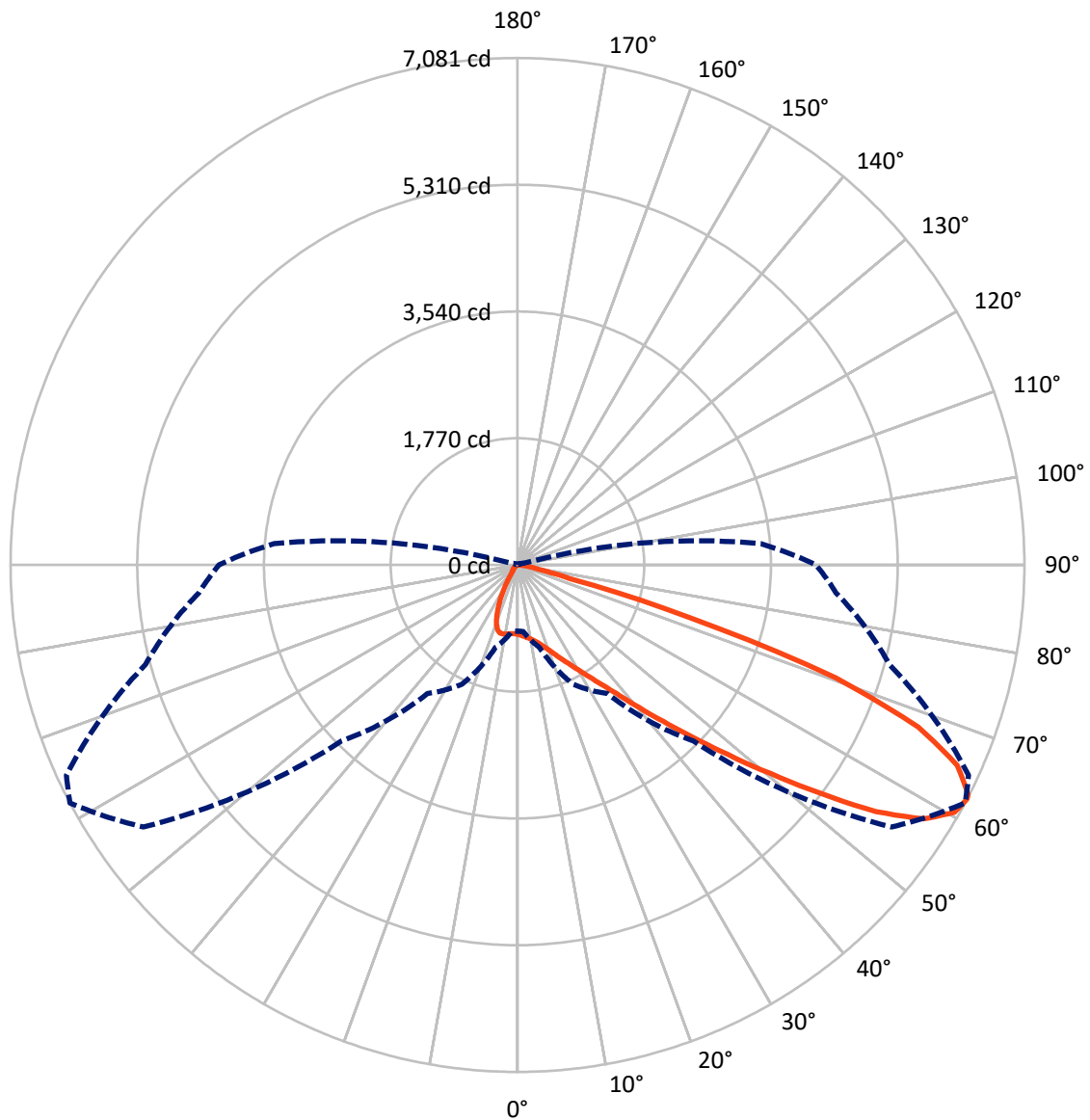


Based on 10 foot mounting height. Maximum calculated value = 18.5 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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



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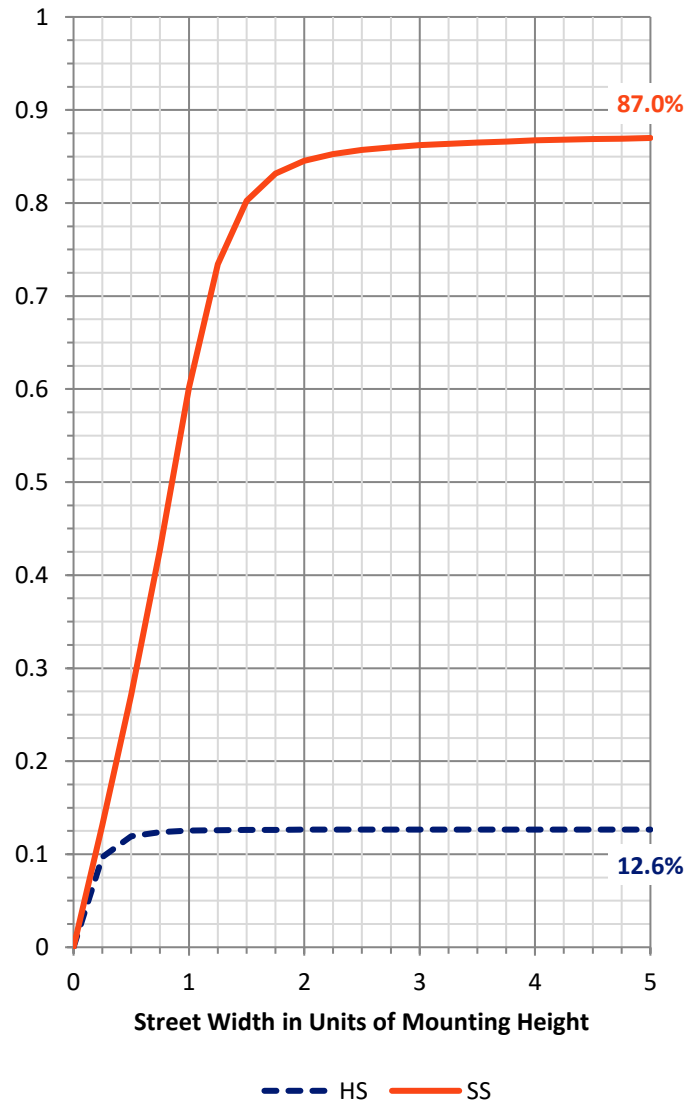
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1029.8	0.0	1029.8
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	7024.2	0.0	7024.2
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	8054.0	0.0	8054.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.4	1.2
10°-20°	260.7	3.2
20°-30°	437.9	5.4
30°-40°	839.4	10.4
40°-50°	1714.5	21.3
50°-60°	2268.9	28.2
60°-70°	1762.5	21.9
70°-80°	636.2	7.9
80°-90°	40.6	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°	8054.0	100.0
0°-180°	8054.0	100.0



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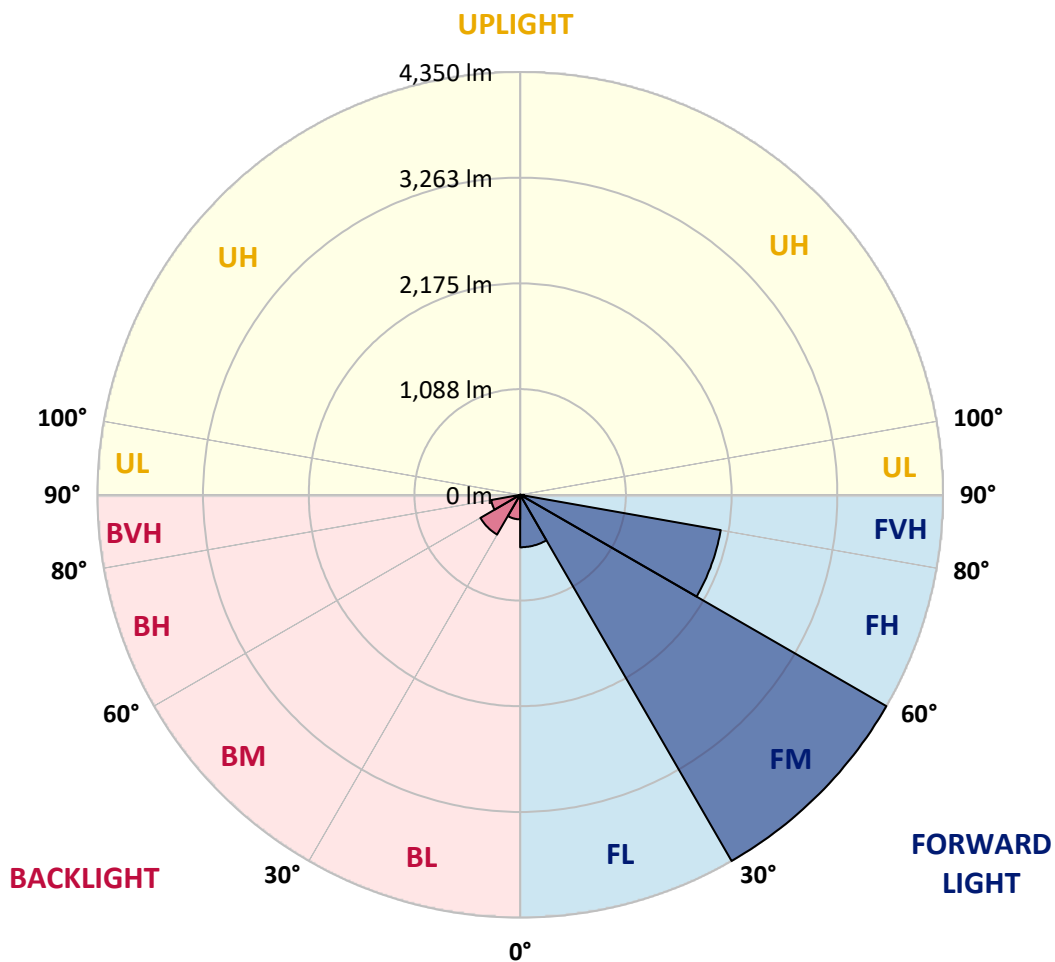
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	539.9	6.7			
FM	(30°-60°)	4350.0	54.0			
FH	(60°-80°)	2095.5	26.0			G2/5000
FVH	(80°-90°)	38.8	0.5			G1/100
BL	(0°-30°)	252.0	3.1	B1/500		
BM	(30°-60°)	472.8	5.9	B1/1000		
BH	(60°-80°)	303.2	3.8	B1/500		G1/500
BVH	(80°-90°)	1.8	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°	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2
2.5°	996.0	994.0	992.0	990.0	990.0	988.0	986.1	982.0	978.2	974.2	972.1
5°	1013.7	1011.9	1009.9	1011.9	1009.9	1009.9	1007.9	1003.9	1000.0	994.0	988.0
7.5°	1027.7	1025.7	1023.7	1025.7	1027.7	1029.5	1031.7	1027.7	1025.7	1017.7	1011.9
10°	1045.4	1043.6	1041.5	1045.4	1045.4	1055.4	1057.3	1055.4	1053.4	1047.5	1037.5
12.5°	1071.1	1073.1	1073.1	1077.2	1081.1	1093.0	1096.9	1091.0	1091.0	1083.0	1071.1
15°	1118.7	1118.7	1118.7	1122.7	1124.7	1140.5	1144.4	1138.5	1142.5	1128.6	1116.8
17.5°	1164.3	1166.2	1170.2	1178.0	1178.0	1192.1	1199.9	1199.9	1207.9	1190.0	1174.2
20°	1209.7	1211.8	1217.7	1235.4	1235.4	1253.3	1267.1	1273.2	1281.1	1263.2	1235.4
22.5°	1259.3	1259.3	1269.1	1297.0	1291.0	1326.5	1352.4	1362.3	1370.2	1346.4	1302.8
25°	1334.5	1326.5	1334.5	1360.3	1356.4	1405.8	1453.4	1463.2	1473.1	1445.5	1380.1
27.5°	1477.2	1465.2	1437.5	1439.4	1439.4	1496.8	1564.2	1578.1	1584.0	1560.3	1479.1
30°	1762.2	1762.2	1659.3	1590.0	1544.5	1595.8	1690.9	1714.8	1722.6	1686.9	1580.1
32.5°	2259.1	2259.1	2069.2	1892.9	1720.7	1720.7	1829.6	1873.1	1881.1	1839.5	1714.8
35°	2892.8	2888.9	2603.7	2362.2	2025.6	1898.8	1991.9	2065.2	2088.9	2033.6	1889.0
37.5°	3566.0	3540.3	3233.4	2956.2	2494.9	2184.0	2211.6	2308.7	2330.6	2285.0	2114.7
40°	4112.5	4082.8	3835.4	3603.6	3100.7	2639.4	2528.5	2617.7	2643.4	2580.0	2383.9
42.5°	4607.5	4534.3	4364.0	4197.7	3797.7	3427.5	2950.3	2985.8	3013.6	2946.4	2686.9
45°	4965.9	4853.1	4766.0	4714.5	4502.6	4292.7	3496.7	3425.4	3435.4	3352.1	3017.5
47.5°	4975.8	4896.7	4904.6	5039.2	5126.3	5118.4	4207.5	3954.1	3916.5	3777.9	3370.0
50°	4500.6	4546.1	4690.7	5074.9	5546.0	5831.2	5053.1	4579.7	4466.9	4217.5	3720.5
52.5°	3708.7	3779.9	4051.1	4698.7	5607.4	6300.4	5930.3	5294.6	5092.6	4653.1	3989.7
55°	2904.7	2908.6	3193.7	3853.1	5197.6	6385.6	6631.1	6080.6	5771.8	4983.7	4168.0
57.5°	1997.8	2106.7	2469.1	2912.7	4272.9	5962.0	6894.4	6690.5	6292.5	5187.7	4292.7
60°	1308.8	1314.7	1736.5	2249.4	2908.6	4851.0	6734.1	7013.2	6714.3	5308.4	4377.8
62°	922.6	932.6	1193.9	1837.5	2191.9	3476.9	6379.7	7080.6	6951.9	5379.7	4466.9
62.5°	855.4	863.4	1083.0	1734.4	2059.3	3118.6	6252.9	7064.7	6987.6	5403.5	4498.6
65°	627.6	627.6	708.9	1192.1	1508.8	1685.0	5298.6	6750.0	6939.9	5593.6	4617.4
67.5°	485.2	489.0	516.7	734.6	1138.5	1021.7	3381.8	6041.0	6445.0	5874.7	4684.8
70°	417.8	415.8	435.6	487.2	821.7	679.2	1489.0	4714.5	5397.6	5803.5	4623.3
72.5°	308.8	310.9	356.4	427.8	572.2	441.5	673.2	2502.8	3500.7	4542.2	3962.1
75°	197.9	200.1	251.4	336.7	411.9	289.1	388.1	746.5	1433.5	2518.6	2423.5
77.5°	132.7	136.6	164.3	235.6	360.4	180.2	243.5	312.8	431.6	944.5	869.2
80°	89.1	89.1	104.9	158.5	227.7	150.5	130.7	207.9	223.8	293.0	146.6
82.5°	59.4	59.4	69.3	104.9	148.5	134.7	79.2	112.8	130.7	146.6	51.6
85°	35.7	35.7	47.5	65.3	97.0	75.3	51.6	63.4	67.4	93.1	27.7
87.5°	21.7	19.9	31.7	45.5	51.6	45.5	33.6	33.6	35.7	51.6	13.8
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°	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2	970.2
2.5°	968.3	966.2	964.3	960.3	954.4	950.3	946.5	942.5	938.5	938.5	944.5
5°	986.1	980.1	972.1	964.3	952.5	944.5	938.5	930.6	926.6	926.6	928.7
7.5°	1007.9	1001.9	988.0	974.2	956.3	942.5	928.7	910.8	897.0	890.9	897.0
10°	1031.7	1023.7	1003.9	982.0	962.4	926.6	881.1	825.7	778.1	756.4	766.3
12.5°	1061.3	1051.3	1027.7	997.9	952.5	865.2	752.4	623.8	542.5	504.8	512.8
15°	1104.8	1091.0	1057.3	1011.9	910.8	722.6	538.5	390.0	314.9	283.1	287.1
17.5°	1156.4	1138.5	1093.0	1007.9	804.0	520.7	320.8	227.7	196.0	188.1	188.1
20°	1211.8	1188.0	1128.6	978.2	641.5	326.8	200.1	174.2	162.4	156.5	156.5
22.5°	1269.1	1237.5	1158.4	908.8	457.3	203.9	164.3	146.6	132.7	126.8	126.8
25°	1338.6	1297.0	1188.0	788.1	291.1	164.3	140.6	122.8	109.0	101.0	102.9
27.5°	1419.7	1366.2	1213.8	637.5	188.1	142.7	116.8	99.1	87.1	83.2	83.2
30°	1504.8	1441.5	1219.7	477.2	152.4	122.8	97.0	81.1	73.2	69.3	69.3
32.5°	1621.6	1538.4	1201.9	316.8	128.6	102.9	81.1	67.4	61.4	59.4	59.4
35°	1776.0	1665.2	1160.3	196.0	109.0	85.1	67.4	59.4	53.4	51.6	51.6
37.5°	1972.0	1841.4	1086.9	134.7	93.1	69.3	57.4	51.6	47.5	45.5	45.5
40°	2233.5	2055.2	992.0	116.8	79.2	59.4	49.4	45.5	41.6	41.6	41.6
42.5°	2510.7	2314.7	869.2	102.9	67.4	51.6	43.6	39.5	37.5	35.7	35.7
45°	2813.6	2580.0	716.8	91.1	57.4	45.5	39.5	33.6	31.7	31.7	31.7
47.5°	3114.6	2853.2	550.4	79.2	49.4	39.5	33.6	29.7	27.7	25.7	25.7
50°	3423.5	3100.7	403.9	69.3	43.6	35.7	29.7	25.7	21.7	19.9	19.9
52.5°	3647.2	3249.2	295.1	59.4	37.5	29.7	23.7	19.9	15.8	13.8	13.8
55°	3811.6	3340.3	215.9	49.4	33.6	25.7	19.9	15.8	11.9	11.9	9.9
57.5°	3940.2	3383.8	162.4	43.6	29.7	21.7	15.8	11.9	9.9	7.9	7.9
60°	4039.3	3385.8	120.8	35.7	25.7	17.8	11.9	7.9	6.0	6.0	6.0
62°	4169.9	3411.7	99.1	29.7	23.7	15.8	9.9	6.0	4.0	1.9	1.9
62.5°	4207.5	3421.5	95.0	29.7	21.7	13.8	7.9	6.0	4.0	1.9	1.9
65°	4381.8	3439.3	73.2	23.7	17.8	11.9	6.0	4.0	0.0	0.0	0.0
67.5°	4540.3	3411.7	53.4	17.8	13.8	7.9	6.0	1.9	0.0	0.0	0.0
70°	4524.4	3221.5	37.5	11.9	9.9	6.0	4.0	0.0	0.0	0.0	0.0
72.5°	3728.3	2411.7	25.7	9.9	6.0	4.0	1.9	0.0	0.0	0.0	0.0
75°	2251.3	1055.4	17.8	6.0	6.0	4.0	1.9	0.0	0.0	0.0	0.0
77.5°	738.5	382.1	11.9	4.0	4.0	1.9	1.9	0.0	0.0	0.0	0.0
80°	120.8	63.4	6.0	4.0	4.0	1.9	1.9	0.0	0.0	0.0	0.0
82.5°	37.5	15.8	4.0	4.0	1.9	1.9	0.0	0.0	0.0	0.0	0.0
85°	13.8	6.0	4.0	4.0	1.9	1.9	0.0	0.0	0.0	0.0	0.0
87.5°	6.0	4.0	4.0	4.0	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)