

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: P265811

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265811  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-100-D-U-T3-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8696.9 lumens  
Efficiency: N/A  
Efficacy: 86.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Semi-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

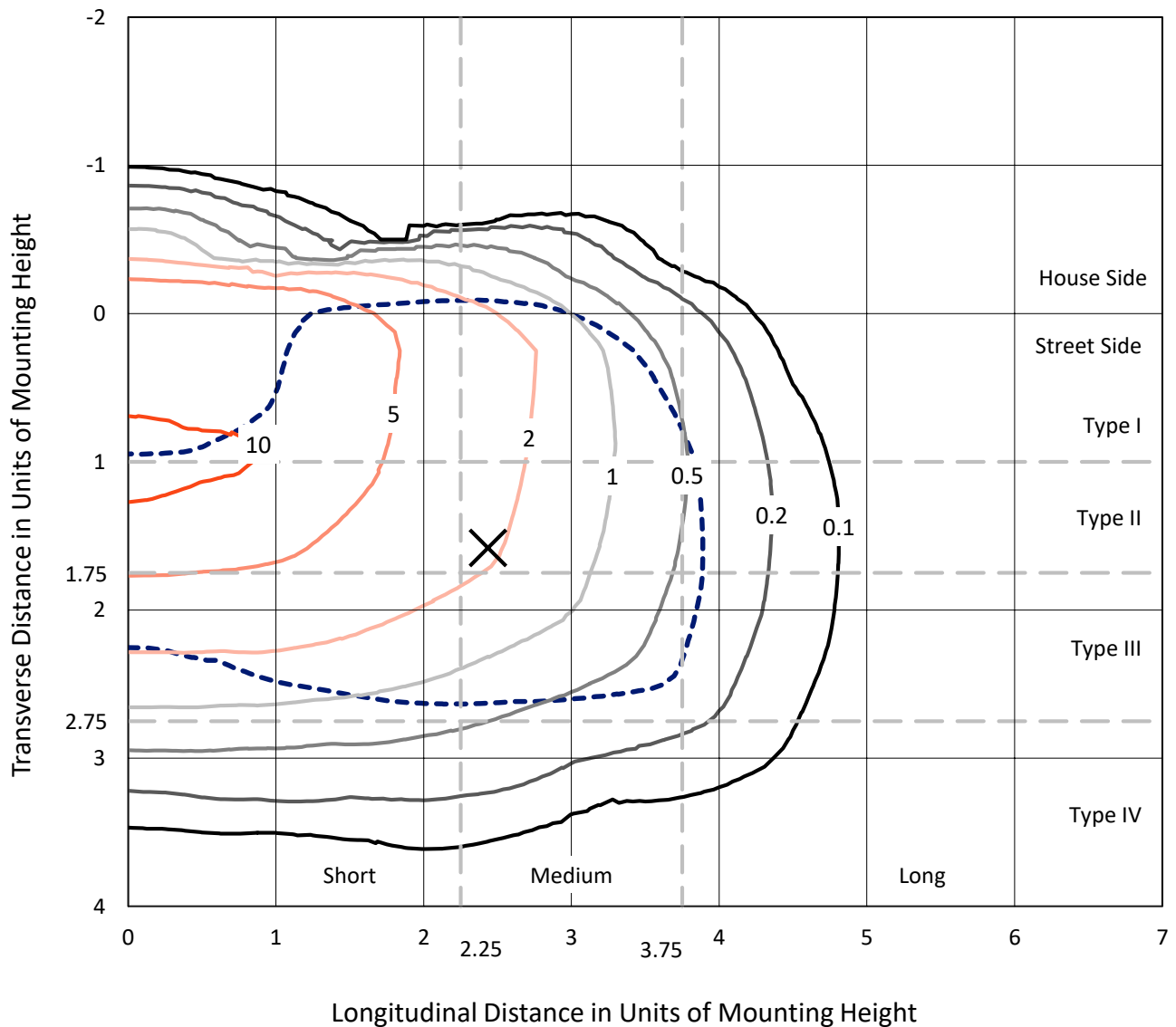


REPORT NUMBER: P265811

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

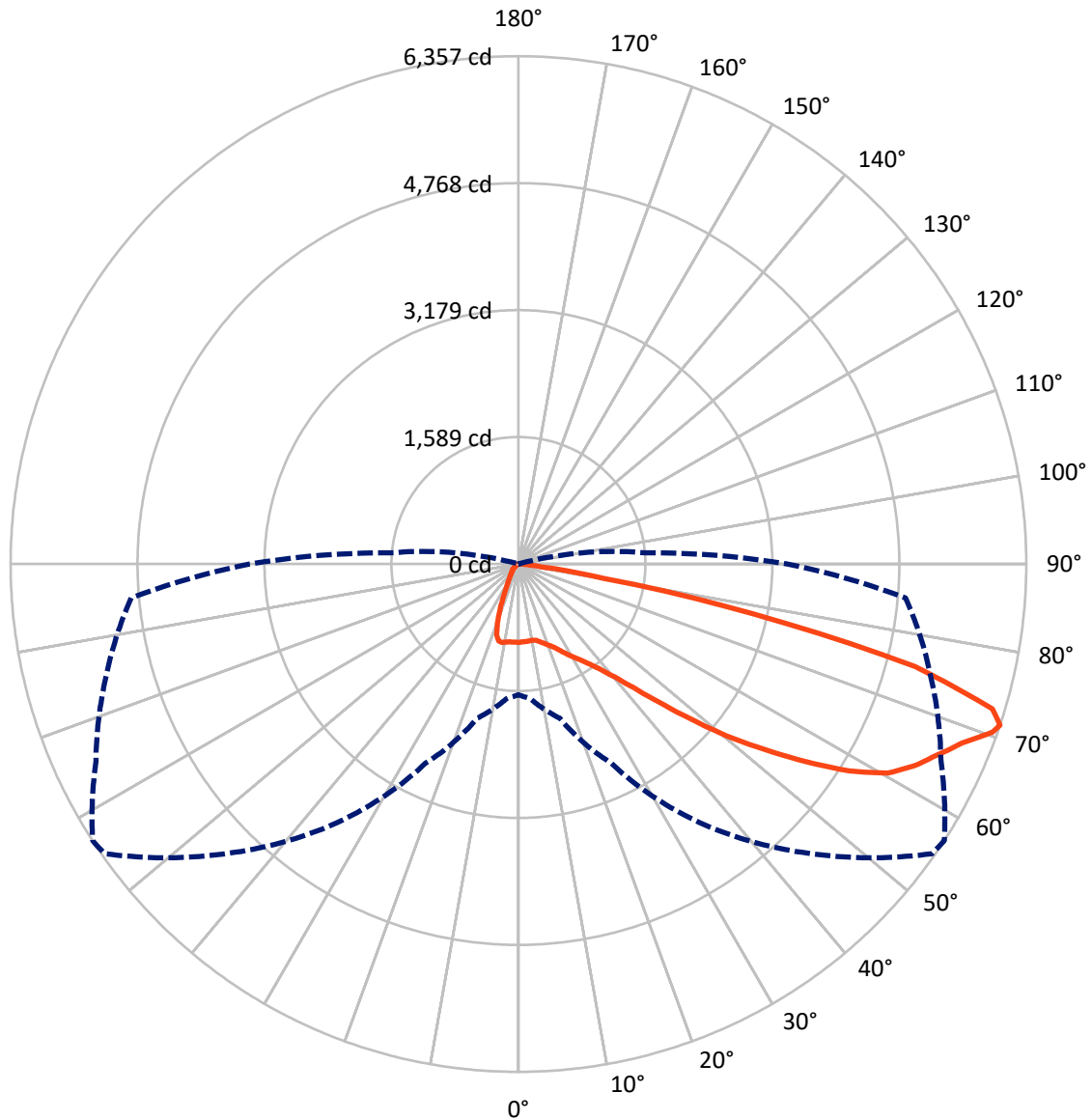


Based on 10 foot mounting height. Maximum calculated value = 12.2 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P265811

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7027-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P265811

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7027-HSS

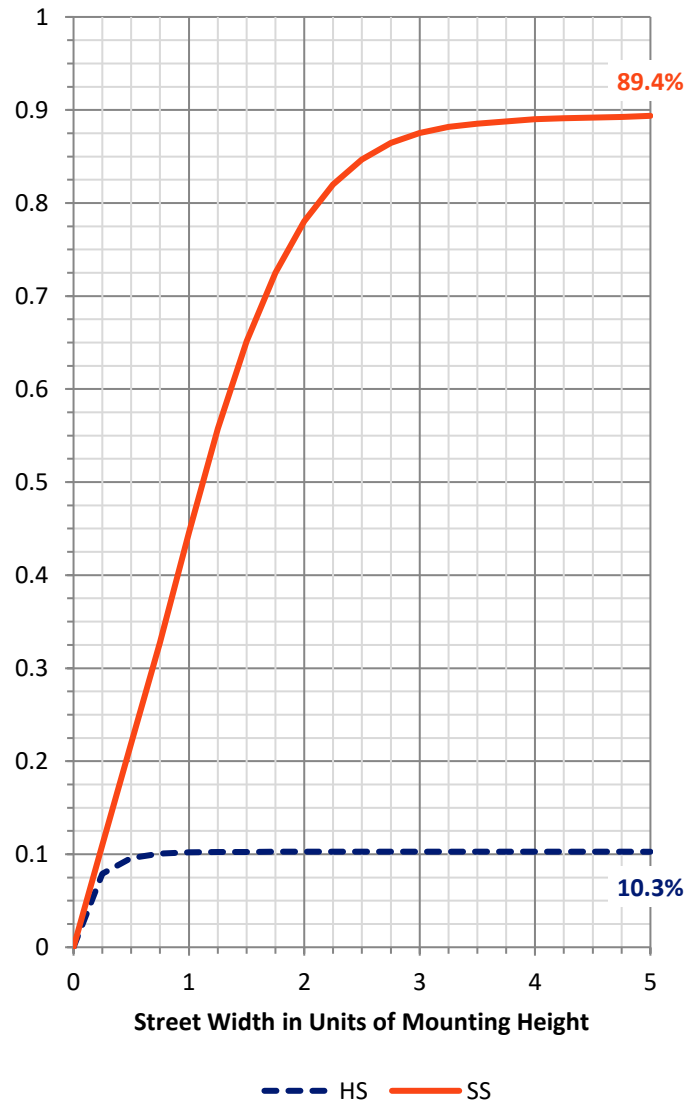
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	901.3	0.0	901.3
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	7795.6	0.0	7795.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	8696.9	0.0	8696.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.3	1.1
10°-20°	246.8	2.8
20°-30°	385.0	4.4
30°-40°	650.7	7.5
40°-50°	1263.9	14.5
50°-60°	2122.5	24.4
60°-70°	2533.0	29.1
70°-80°	1334.9	15.3
80°-90°	67.8	0.8
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°	8696.9	100.0
0°-180°	8696.9	100.0



REPORT NUMBER: P265811

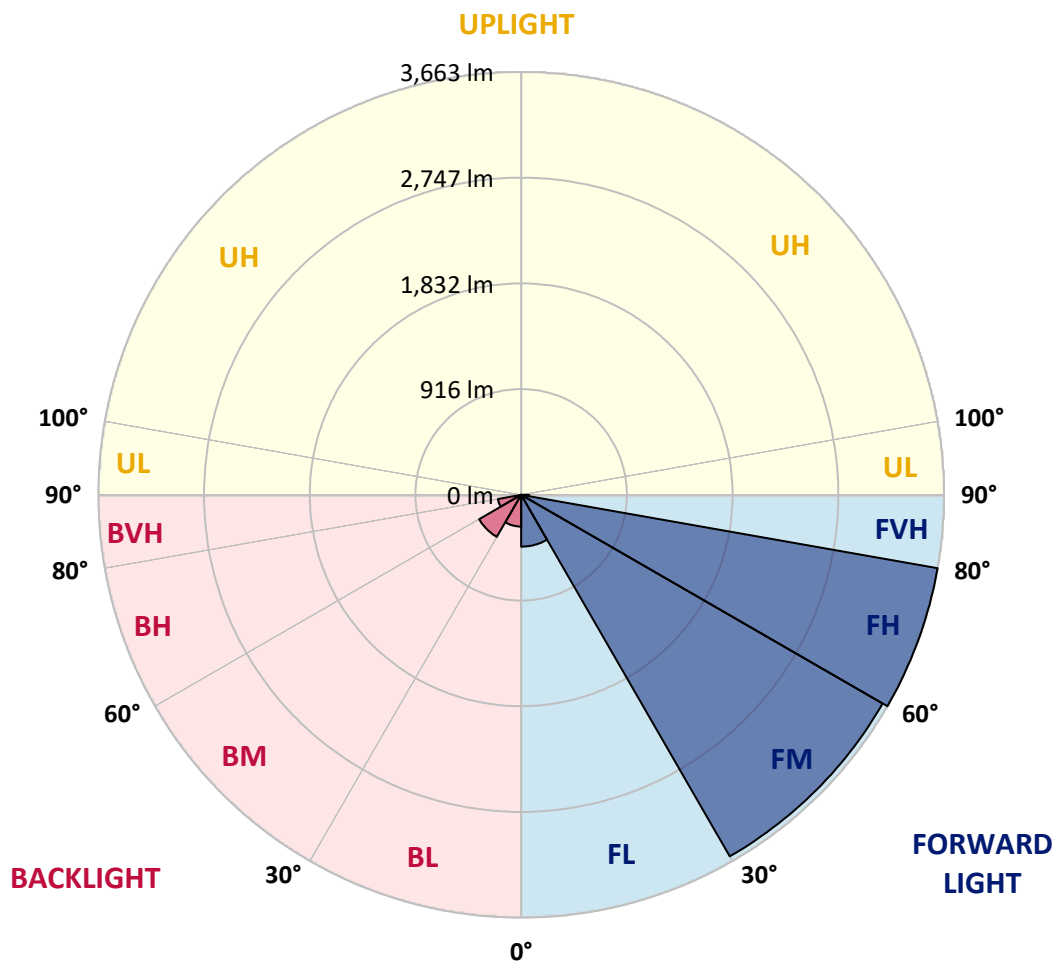
CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7027-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	449.0	5.2			
FM	(30°-60°)	3616.3	41.6			
FH	(60°-80°)	3663.2	42.1			G2/5000
FVH	(80°-90°)	67.2	0.8			G1/100
BL	(0°-30°)	275.1	3.2	B1/500		
BM	(30°-60°)	420.8	4.8	B1/1000		
BH	(60°-80°)	204.7	2.4	B1/500		G1/500
BVH	(80°-90°)	0.6	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 III Medium





REPORT NUMBER: P265811

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8
2.5°	968.7	968.7	968.7	970.7	972.8	972.8	976.7	974.8	974.8	974.8	978.9
5°	942.3	944.4	946.5	950.4	958.5	964.6	974.8	974.8	976.7	980.9	982.8
7.5°	905.9	907.8	913.9	922.1	938.3	952.6	968.7	972.8	978.9	988.9	993.0
10°	883.7	887.6	895.7	905.9	924.0	942.3	962.7	968.7	987.0	1005.2	1015.4
12.5°	877.6	879.5	887.6	903.9	926.2	948.4	974.8	980.9	1007.2	1035.6	1051.7
15°	887.6	889.6	893.8	912.0	938.3	966.7	1001.2	1009.2	1041.7	1074.1	1094.3
17.5°	905.9	905.9	910.0	926.2	954.4	987.0	1031.6	1043.7	1080.1	1116.7	1139.0
20°	918.1	918.1	924.0	940.3	972.8	1015.4	1067.9	1084.3	1124.8	1165.3	1185.6
22.5°	930.1	932.3	938.3	956.5	993.0	1051.7	1112.6	1128.8	1175.4	1217.9	1238.3
25°	964.6	962.7	964.6	980.9	1023.3	1096.4	1173.4	1193.7	1242.3	1288.9	1298.9
27.5°	1059.9	1055.9	1029.5	1019.3	1051.7	1143.0	1250.4	1270.7	1327.3	1374.0	1374.0
30°	1278.7	1270.7	1205.9	1122.7	1096.4	1185.6	1323.4	1351.7	1424.7	1465.1	1453.1
32.5°	1556.5	1538.2	1455.1	1313.2	1207.9	1242.3	1400.4	1432.7	1526.0	1560.4	1534.1
35°	1860.4	1858.4	1755.0	1572.7	1422.6	1359.9	1499.7	1538.2	1655.7	1686.1	1643.5
37.5°	2182.6	2190.6	2121.7	1870.5	1694.3	1552.4	1631.4	1676.0	1819.8	1856.3	1815.8
40°	2541.3	2539.2	2513.0	2215.0	2020.5	1826.0	1821.9	1862.4	2036.6	2093.4	2036.6
42.5°	2995.3	2991.1	2896.0	2628.4	2415.6	2182.6	2099.5	2113.7	2308.3	2401.4	2318.3
45°	3457.2	3428.9	3319.4	3088.6	2900.0	2624.4	2466.3	2466.3	2632.6	2760.2	2630.4
47.5°	3714.8	3686.4	3641.6	3514.1	3457.2	3149.3	2916.2	2887.8	3017.5	3147.2	2964.9
50°	4053.2	4053.2	3941.7	3893.1	3990.4	3773.5	3412.8	3384.4	3447.2	3550.6	3311.4
52.5°	4320.7	4272.0	4193.0	4235.5	4513.2	4413.8	3909.2	3854.4	3903.1	3929.5	3613.3
55°	4432.1	4385.4	4379.3	4535.5	4965.1	4827.3	4418.0	4369.3	4365.3	4235.5	3876.8
57.5°	4454.3	4413.8	4490.8	4764.4	5404.8	5165.8	4924.6	4888.0	4774.6	4450.4	4146.3
60°	4266.0	4286.2	4472.7	4890.2	5664.3	5459.5	5352.1	5313.7	5052.2	4632.6	4446.3
62.5°	3878.8	3927.5	4276.0	4902.2	5569.0	5579.2	5589.3	5562.9	5267.0	4798.8	4748.3
65°	3420.8	3434.9	3854.4	4734.1	5402.9	5542.6	5763.5	5761.5	5431.2	4985.4	5088.7
67.5°	2818.9	2843.2	3206.1	4166.6	5070.5	5526.5	5992.6	5986.5	5617.6	5198.1	5291.3
70°	2097.5	2127.8	2421.7	3240.5	4328.8	5323.7	6292.4	6296.5	5814.2	5360.2	5151.5
71°	1635.5	1690.2	1998.2	2752.0	3949.8	5119.1	6320.8	6357.3	5836.5	5338.0	4863.8
72.5°	802.5	867.4	1254.5	1937.4	3250.5	4661.0	6134.3	6205.3	5696.6	5060.3	4158.6
75°	208.8	221.0	375.0	792.3	1742.8	3088.6	4946.8	5127.2	4657.1	3852.6	2541.3
77.5°	131.7	135.7	176.2	307.9	652.6	1173.4	2906.0	2995.3	2660.9	1951.6	895.7
80°	93.2	95.2	111.5	198.6	381.1	342.6	1045.6	1084.3	962.7	516.7	160.1
82.5°	56.8	56.8	81.0	127.6	235.0	186.5	275.6	293.8	259.4	143.9	52.7
85°	32.3	34.5	50.7	87.1	111.5	91.2	103.3	109.5	111.5	95.2	22.3
87.5°	26.3	28.3	44.6	72.9	60.7	44.6	44.6	46.6	48.7	56.8	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265811

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8	982.8
2.5°	978.9	978.9	980.9	978.9	978.9	978.9	980.9	980.9	980.9	984.9	987.0
5°	982.8	982.8	982.8	980.9	978.9	978.9	982.8	984.9	984.9	991.0	991.0
7.5°	993.0	993.0	988.9	984.9	980.9	974.8	976.7	978.9	976.7	978.9	978.9
10°	1015.4	1015.4	1009.2	1001.2	988.9	970.7	946.5	916.0	887.6	877.6	873.4
12.5°	1051.7	1049.8	1037.6	1023.3	997.1	934.2	843.1	735.6	646.5	622.2	614.0
15°	1092.2	1088.2	1074.1	1049.8	978.9	812.6	622.2	484.4	399.2	378.9	375.0
17.5°	1134.9	1128.8	1108.5	1059.9	895.7	603.9	401.3	303.9	257.4	253.3	255.4
20°	1179.5	1171.4	1143.0	1039.6	723.5	403.2	259.4	235.0	231.0	231.0	233.1
22.5°	1230.0	1220.0	1181.5	966.7	526.9	267.5	222.9	221.0	218.8	216.9	216.9
25°	1288.9	1276.8	1217.9	835.0	362.7	218.8	212.8	206.7	202.7	198.6	196.5
27.5°	1359.9	1343.7	1246.4	672.8	249.3	204.6	200.6	190.5	182.4	174.4	174.4
30°	1430.7	1410.5	1238.3	506.6	202.7	190.5	182.4	170.1	158.1	149.9	148.0
32.5°	1505.6	1485.4	1185.6	340.5	184.4	174.4	164.1	146.0	131.7	121.6	119.6
35°	1617.2	1601.0	1082.2	224.9	166.1	154.0	139.9	121.6	103.3	93.2	91.2
37.5°	1783.3	1763.2	954.4	172.2	146.0	127.6	115.5	95.2	77.1	66.8	64.9
40°	2006.4	1945.5	802.5	152.1	127.6	105.5	89.2	68.9	54.6	48.7	48.7
42.5°	2265.6	2121.7	638.3	137.8	113.5	87.1	64.9	46.6	38.4	36.6	36.6
45°	2541.3	2285.9	474.2	127.6	99.4	68.9	46.6	32.3	28.3	26.3	26.3
47.5°	2825.0	2419.8	330.3	115.5	83.2	52.7	32.3	24.3	20.2	18.2	18.2
50°	3090.4	2506.9	233.1	103.3	71.0	38.4	24.3	18.2	14.3	14.3	14.3
52.5°	3275.0	2498.7	168.3	89.2	54.6	26.3	16.2	12.1	12.1	12.1	12.1
55°	3437.1	2468.4	131.7	77.1	42.6	18.2	12.1	10.2	10.2	8.2	8.2
57.5°	3574.9	2419.8	111.5	62.8	30.5	14.3	8.2	8.2	6.1	6.1	6.1
60°	3692.5	2358.9	93.2	52.7	20.2	10.2	6.1	4.0	4.0	2.1	4.0
62.5°	3852.6	2320.4	81.0	40.6	14.3	6.1	4.0	2.1	2.1	0.0	0.0
65°	3970.0	2247.5	68.9	28.3	8.2	4.0	2.1	2.1	0.0	0.0	0.0
67.5°	3974.1	2115.7	50.7	16.2	6.1	4.0	2.1	0.0	0.0	0.0	0.0
70°	3653.9	1803.6	32.3	8.2	4.0	2.1	2.1	0.0	0.0	0.0	0.0
71°	3360.0	1596.9	26.3	6.1	4.0	2.1	0.0	0.0	0.0	0.0	0.0
72.5°	2768.2	1173.4	20.2	6.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0
75°	1526.0	425.5	10.2	4.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	488.4	129.6	6.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	83.2	20.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	28.3	8.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.0	2.1	0.0	0.0	0.0	0.0	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)