

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: P231310

Luminaire Tested: **ARCH-M-AF48-50-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231310
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-50-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6708 lumens
Efficiency: N/A
Efficacy: 139.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 48
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



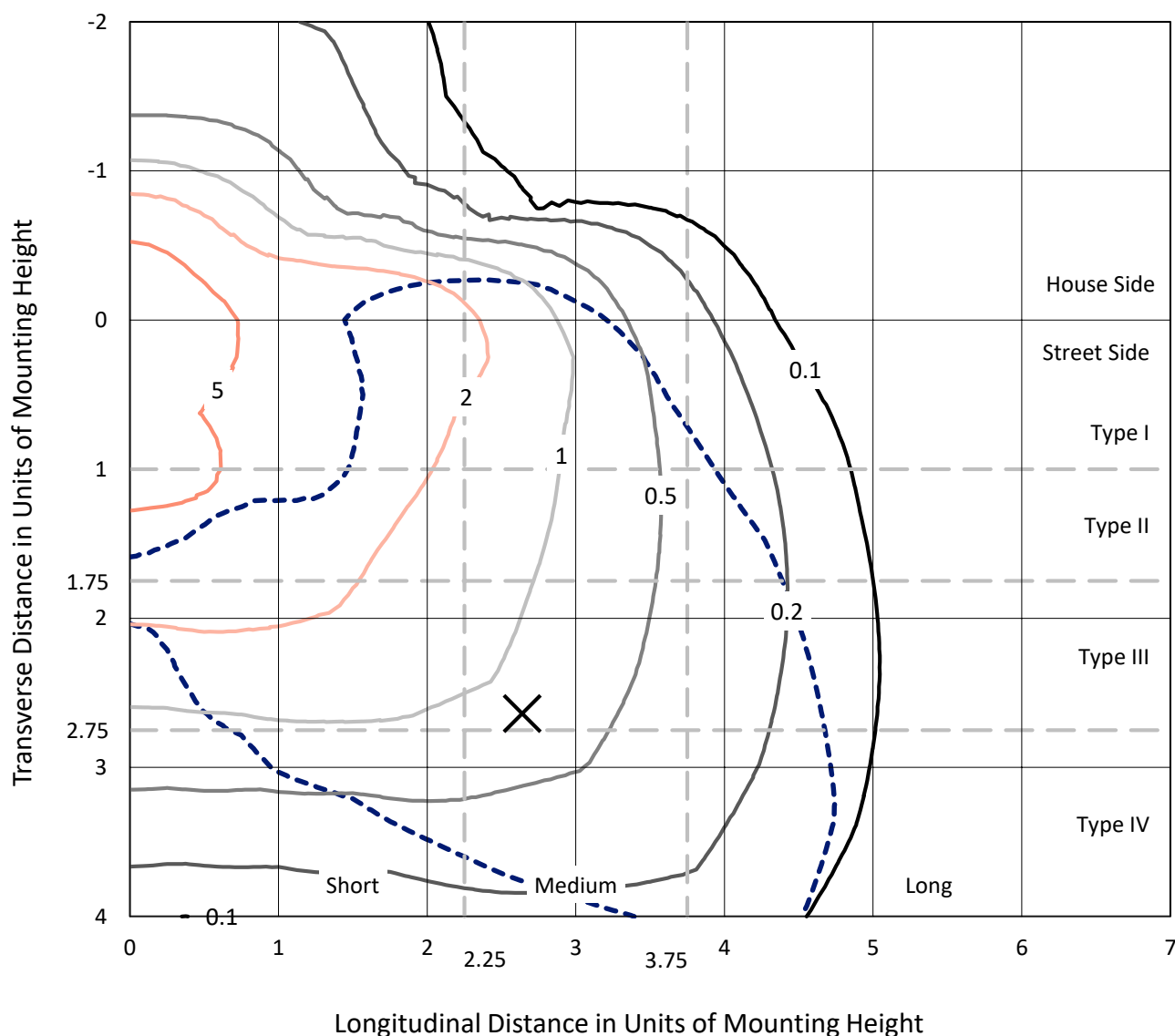
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

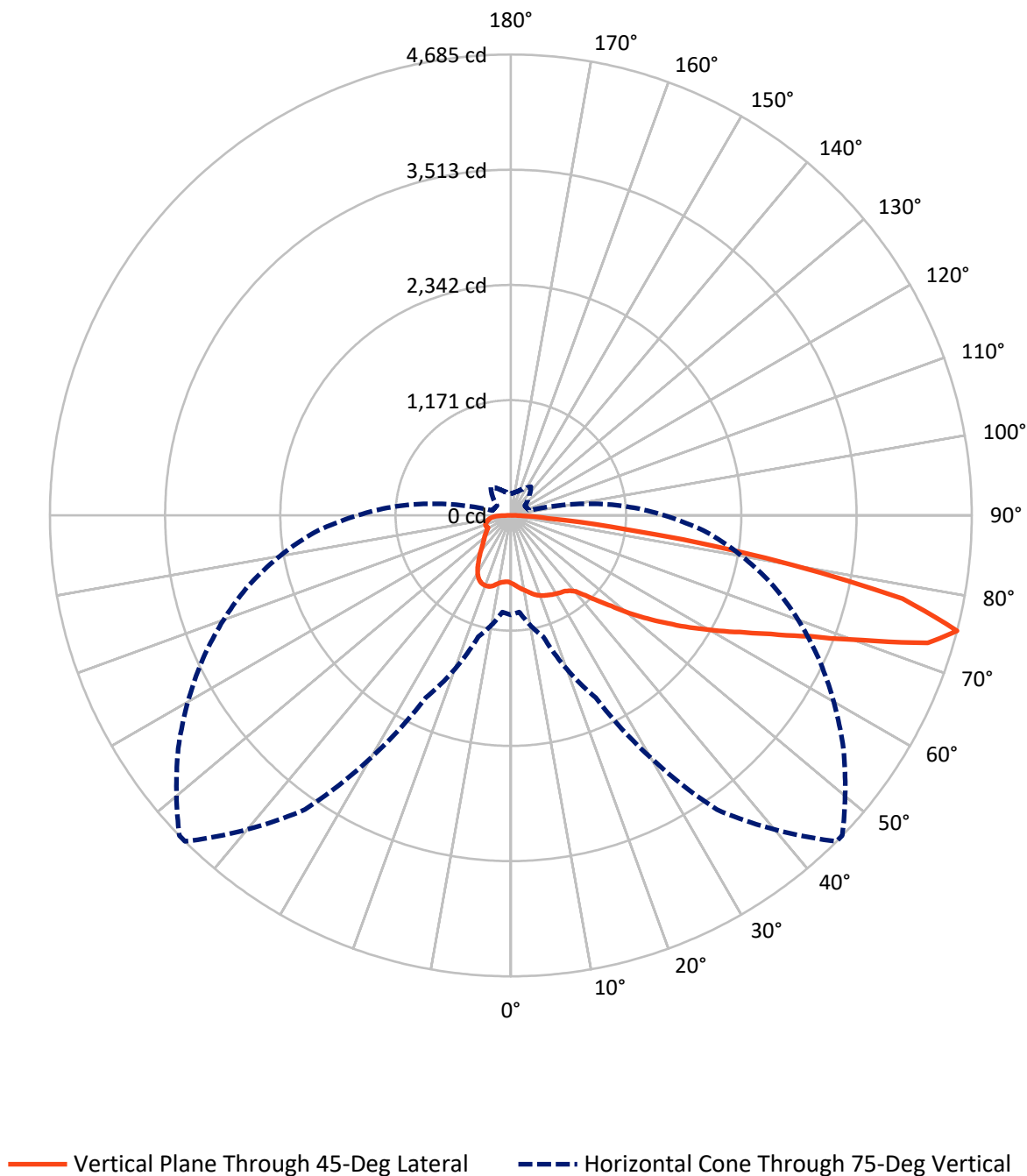


Based on 10 foot mounting height. Maximum calculated value = 8 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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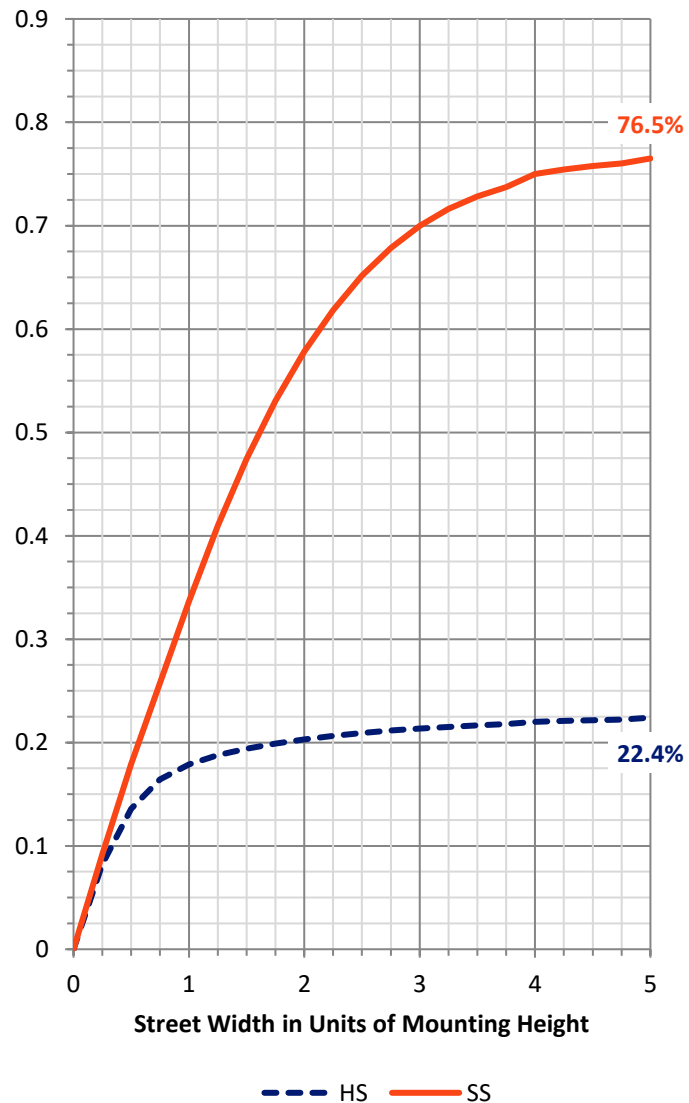
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1554.0	0.0	1554.0
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	5154.0	0.0	5154.0
	% Fixture	76.8	0.0	76.8
Total	Lumens	6708.0	0.0	6708.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	1.0
10°-20°	220.8	3.3
20°-30°	379.0	5.6
30°-40°	530.0	7.9
40°-50°	777.5	11.6
50°-60°	1211.1	18.1
60°-70°	1742.7	26.0
70°-80°	1518.1	22.6
80°-90°	260.7	3.9
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°	6708.0	100.0
0°-180°	6708.0	100.0

Coefficient of Utilization



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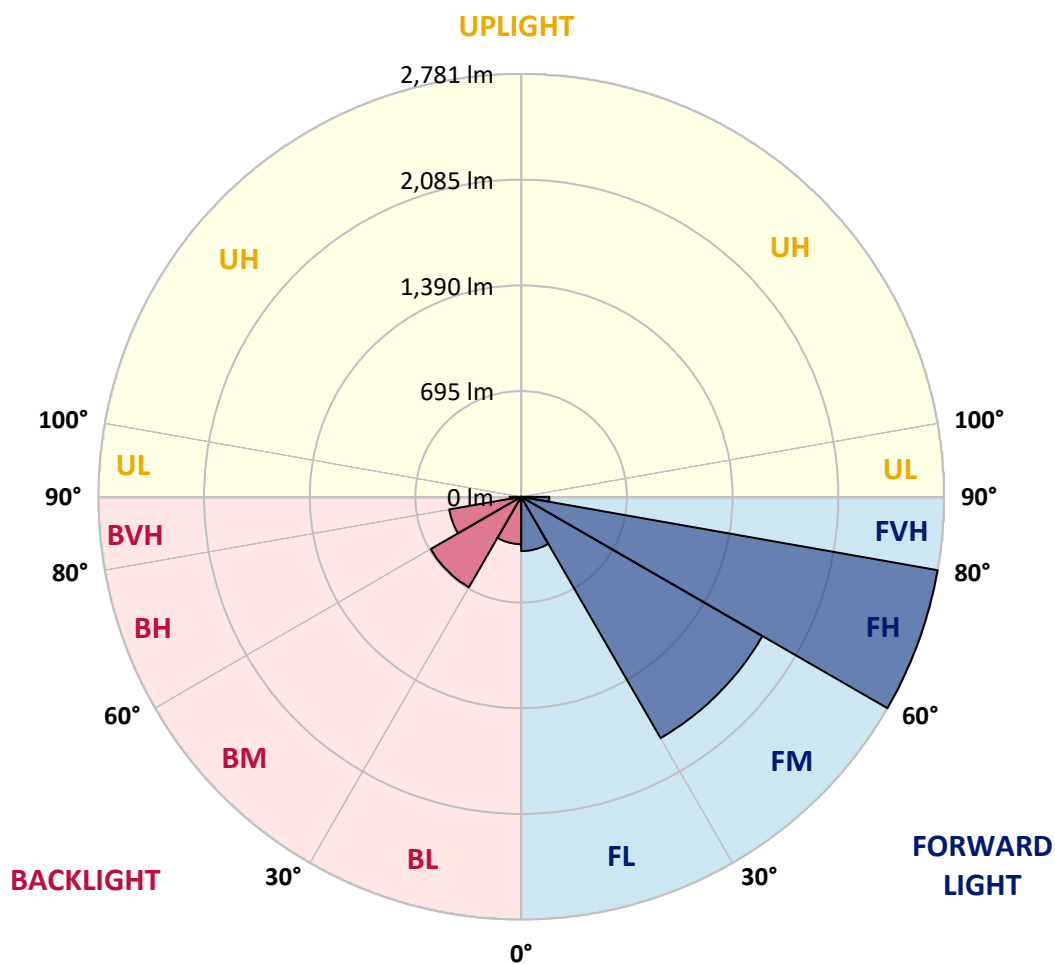
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	356.7	5.3			
FM	(30°-60°)	1831.8	27.3			
FH	(60°-80°)	2780.5	41.5			G2/5000
FVH	(80°-90°)	185.0	2.8			G2/225
BL	(0°-30°)	311.2	4.6	B1/500		
BM	(30°-60°)	686.8	10.2	B1/1000		
BH	(60°-80°)	480.2	7.2	B1/500		G1/500
BVH	(80°-90°)	75.7	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7
2.5°	721.6	716.4	716.4	712.5	712.5	705.9	703.3	702.0	695.5	691.6	687.7
5°	763.3	756.8	755.5	746.4	742.5	728.1	726.8	717.7	705.9	694.2	685.1
7.5°	801.2	797.3	790.7	781.6	769.9	751.6	750.3	735.9	716.4	700.7	687.7
10°	828.6	826.0	816.8	805.1	792.1	773.8	772.5	756.8	733.3	715.1	696.8
12.5°	861.2	857.3	845.6	829.9	815.5	798.6	797.3	784.2	758.1	734.6	711.2
15°	892.5	887.3	873.0	857.3	841.6	827.3	827.3	812.9	785.5	758.1	730.7
17.5°	908.2	905.6	891.2	874.3	861.2	850.8	849.5	836.4	809.0	780.3	750.3
20°	913.4	914.7	901.7	883.4	874.3	869.0	867.7	858.6	828.6	801.2	772.5
22.5°	912.1	916.0	905.6	886.0	883.4	883.4	883.4	873.0	849.5	822.1	793.4
25°	917.3	922.5	914.7	891.2	891.2	896.4	896.4	891.2	870.3	846.9	818.2
27.5°	935.6	939.5	933.0	900.4	901.7	909.5	908.2	909.5	896.4	874.3	845.6
30°	957.8	963.0	955.2	914.7	913.4	921.2	921.2	927.8	918.6	895.1	871.7
32.5°	1017.8	1016.5	991.7	930.4	926.5	934.3	934.3	940.8	935.6	917.3	895.1
35°	1196.6	1177.0	1122.2	981.3	942.1	946.0	946.0	957.8	960.4	946.0	926.5
37.5°	1379.2	1372.7	1331.0	1117.0	999.5	970.8	969.5	986.5	998.2	986.5	973.4
40°	1563.2	1558.0	1548.9	1298.3	1119.6	1015.2	1011.3	1025.6	1046.5	1038.7	1030.8
42.5°	1734.2	1731.6	1740.7	1477.1	1272.2	1110.4	1098.7	1081.7	1111.7	1109.1	1109.1
45°	1868.6	1875.1	1880.3	1644.1	1438.0	1233.1	1218.7	1161.3	1201.8	1212.2	1220.1
47.5°	1944.3	1949.5	1967.7	1807.2	1603.7	1375.3	1364.9	1270.9	1324.4	1355.8	1377.9
50°	2052.6	2038.2	2053.9	1966.4	1803.3	1560.6	1531.9	1418.4	1486.2	1541.0	1593.2
52.5°	2156.9	2133.5	2146.5	2150.4	2030.4	1742.0	1712.0	1591.9	1676.8	1762.9	1855.5
55°	2250.9	2249.6	2262.6	2329.2	2249.6	1936.4	1902.5	1783.8	1906.4	1999.1	2155.6
57.5°	2326.6	2339.6	2397.0	2536.7	2502.7	2147.8	2110.0	2006.9	2151.7	2244.4	2504.0
60°	2415.3	2436.2	2531.4	2712.8	2733.7	2369.6	2330.5	2256.1	2403.6	2497.5	2907.2
62.5°	2445.3	2475.3	2671.1	2898.1	2975.1	2612.3	2577.1	2527.5	2668.5	2753.3	3309.1
65°	2245.7	2303.1	2748.1	2993.4	3234.8	2904.6	2874.6	2831.6	2932.0	2988.1	3581.9
67.5°	2190.9	2217.0	2598.0	3130.4	3478.8	3280.4	3250.4	3176.0	3178.7	3155.2	3670.6
70°	2113.9	2142.6	2444.0	3233.5	3828.5	3794.6	3758.0	3538.8	3404.4	3262.2	3495.7
72.5°	1800.7	1791.6	2106.1	2955.5	3996.8	4431.3	4388.3	3929.0	3571.4	3169.5	2950.3
75°	1011.3	985.2	1277.5	2044.7	3649.7	4684.5	4683.2	4126.0	3454.0	2761.1	2008.2
77.5°	293.6	285.8	421.5	857.3	2457.1	4069.9	4119.5	3721.5	2882.5	1983.4	1102.6
80°	138.3	140.9	181.4	283.2	1049.1	2626.7	2768.9	2450.5	1722.4	914.7	455.4
82.5°	87.4	88.7	124.0	182.7	443.7	1192.6	1310.1	1102.6	682.4	395.4	200.9
85°	54.8	54.8	82.2	120.0	264.9	381.0	413.6	375.8	292.3	215.3	109.6
87.5°	30.0	30.0	49.6	69.2	144.8	122.7	126.6	150.1	182.7	131.8	54.8
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°	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7	687.7
2.5°	686.4	683.8	679.8	678.5	677.2	675.9	677.2	679.8	677.2	677.2	678.5
5°	682.4	679.8	674.6	674.6	675.9	677.2	683.8	687.7	689.0	689.0	689.0
7.5°	682.4	678.5	674.6	675.9	678.5	683.8	694.2	700.7	705.9	707.2	707.2
10°	689.0	683.8	681.1	683.8	691.6	695.5	705.9	716.4	722.9	725.5	725.5
12.5°	700.7	695.5	695.5	700.7	711.2	716.4	725.5	733.3	741.2	745.1	745.1
15°	720.3	713.8	715.1	724.2	735.9	741.2	747.7	750.3	756.8	762.0	762.0
17.5°	738.6	732.0	734.6	745.1	752.9	755.5	759.4	758.1	760.7	764.7	766.0
20°	759.4	752.9	754.2	760.7	762.0	759.4	759.4	755.5	754.2	760.7	763.3
22.5°	780.3	773.8	772.5	768.6	762.0	755.5	751.6	747.7	745.1	751.6	754.2
25°	805.1	796.0	789.4	772.5	755.5	743.8	738.6	735.9	734.6	741.2	743.8
27.5°	832.5	823.4	803.8	767.3	739.9	720.3	716.4	716.4	719.0	722.9	725.5
30°	858.6	849.5	814.2	755.5	712.5	683.8	679.8	683.8	690.3	694.2	698.1
32.5°	884.7	875.6	820.8	737.3	672.0	635.5	632.9	639.4	649.8	652.4	655.0
35°	919.9	910.8	828.6	711.2	621.1	582.0	579.4	583.3	592.4	596.3	600.2
37.5°	969.5	964.3	840.3	682.4	574.1	531.1	523.3	520.6	525.9	524.6	529.8
40°	1034.8	1038.7	861.2	644.6	528.5	484.1	467.1	459.3	454.1	443.7	448.9
42.5°	1130.0	1132.6	884.7	601.5	489.3	439.7	417.6	403.2	392.8	375.8	378.4
45°	1269.6	1247.5	912.1	555.9	454.1	404.5	378.4	361.4	347.1	332.7	334.0
47.5°	1454.9	1387.1	942.1	518.0	418.9	375.8	352.3	332.7	315.8	304.0	305.3
50°	1683.3	1560.6	972.1	482.8	383.6	353.6	332.7	311.9	294.9	283.2	281.9
52.5°	1984.7	1769.4	991.7	443.7	348.4	334.0	315.8	296.2	275.3	261.0	259.7
55°	2297.9	2012.1	1008.7	396.7	314.5	311.9	302.7	280.5	255.8	237.5	234.9
57.5°	2642.4	2271.8	1021.7	351.0	288.4	293.6	291.0	264.9	237.5	220.5	219.2
60°	2955.5	2540.6	980.0	310.6	264.9	275.3	277.9	255.8	241.4	245.3	246.6
62.5°	3271.3	2748.1	820.8	280.5	249.2	263.6	285.8	284.5	277.9	284.5	285.8
65°	3384.8	2791.1	582.0	255.8	233.6	268.8	310.6	307.9	277.9	266.2	263.6
67.5°	3320.9	2663.2	391.5	236.2	221.8	275.3	336.7	307.9	267.5	251.8	246.6
70°	3016.9	2348.8	287.1	216.6	211.4	274.0	351.0	306.6	262.3	245.3	238.8
72.5°	2406.2	1812.5	231.0	198.3	195.7	267.5	358.8	304.0	257.1	238.8	231.0
75°	1558.0	1127.4	194.4	180.1	172.2	257.1	354.9	296.2	250.5	227.0	221.8
77.5°	722.9	485.4	165.7	159.2	150.1	241.4	343.2	280.5	236.2	214.0	207.5
80°	336.7	229.7	139.6	138.3	134.4	228.4	327.5	262.3	219.2	200.9	190.5
82.5°	180.1	138.3	113.5	113.5	117.4	212.7	307.9	240.1	197.0	187.9	160.5
85°	95.3	79.6	82.2	88.7	100.5	187.9	281.9	216.6	172.2	143.5	139.6
87.5°	48.3	50.9	50.9	60.0	77.0	152.7	232.3	178.8	146.1	117.4	114.8
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)