

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: P231375

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5007 lumens
Efficiency: N/A
Efficacy: 104.3 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



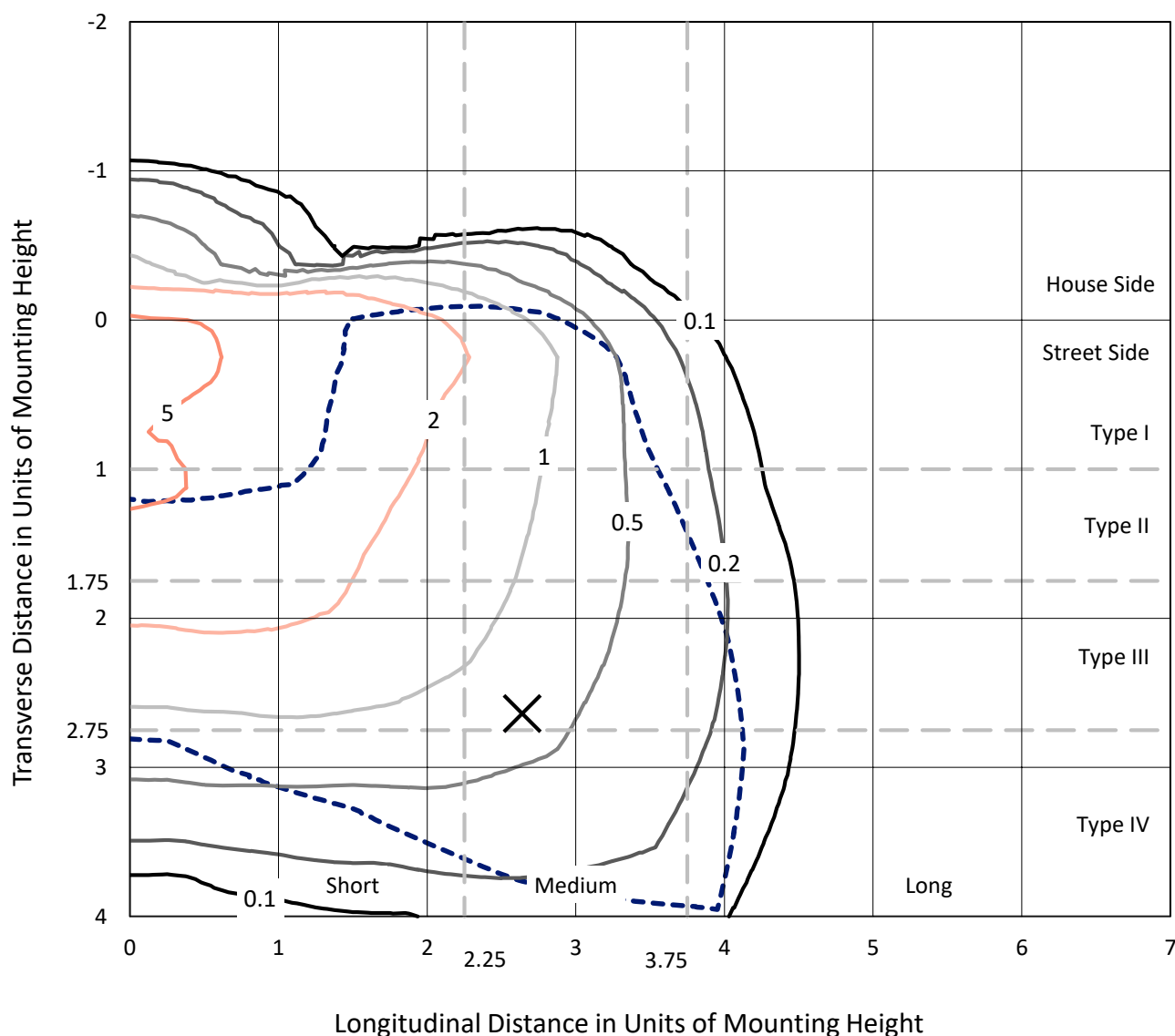
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

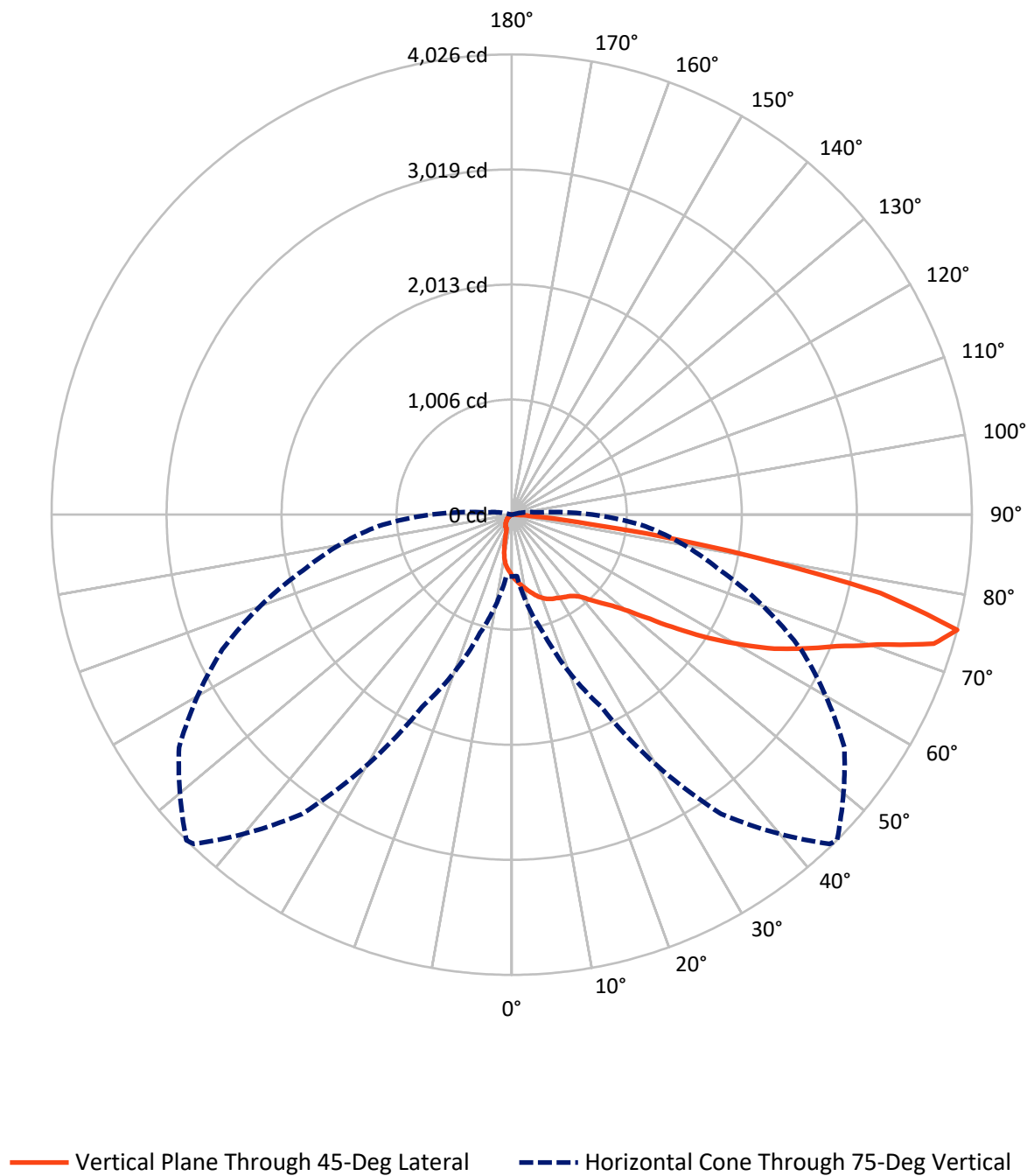


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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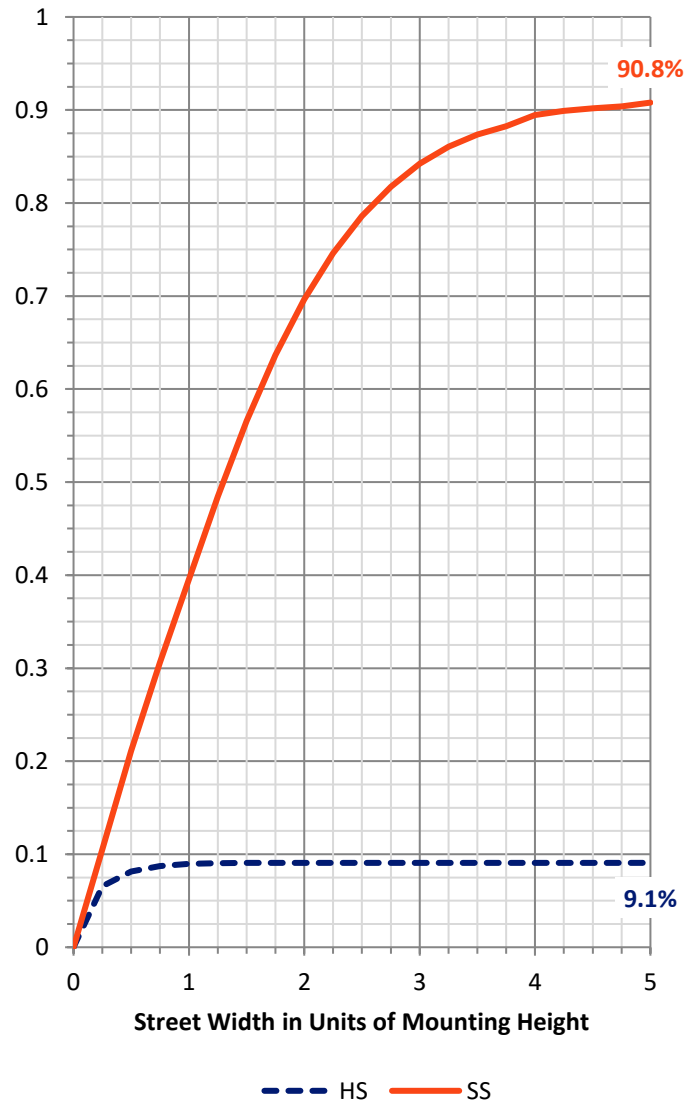
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	458.0	0.0	458.0
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4549.0	0.0	4549.0
	% Fixture	90.9	0.0	90.9
Total	Lumens	5007.0	0.0	5007.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.5	1.0
10°-20°	143.2	2.9
20°-30°	237.1	4.7
30°-40°	343.2	6.9
40°-50°	562.0	11.2
50°-60°	1001.3	20.0
60°-70°	1472.0	29.4
70°-80°	1110.5	22.2
80°-90°	87.1	1.7
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°	5007.0	100.0
0°-180°	5007.0	100.0

Coefficient of Utilization



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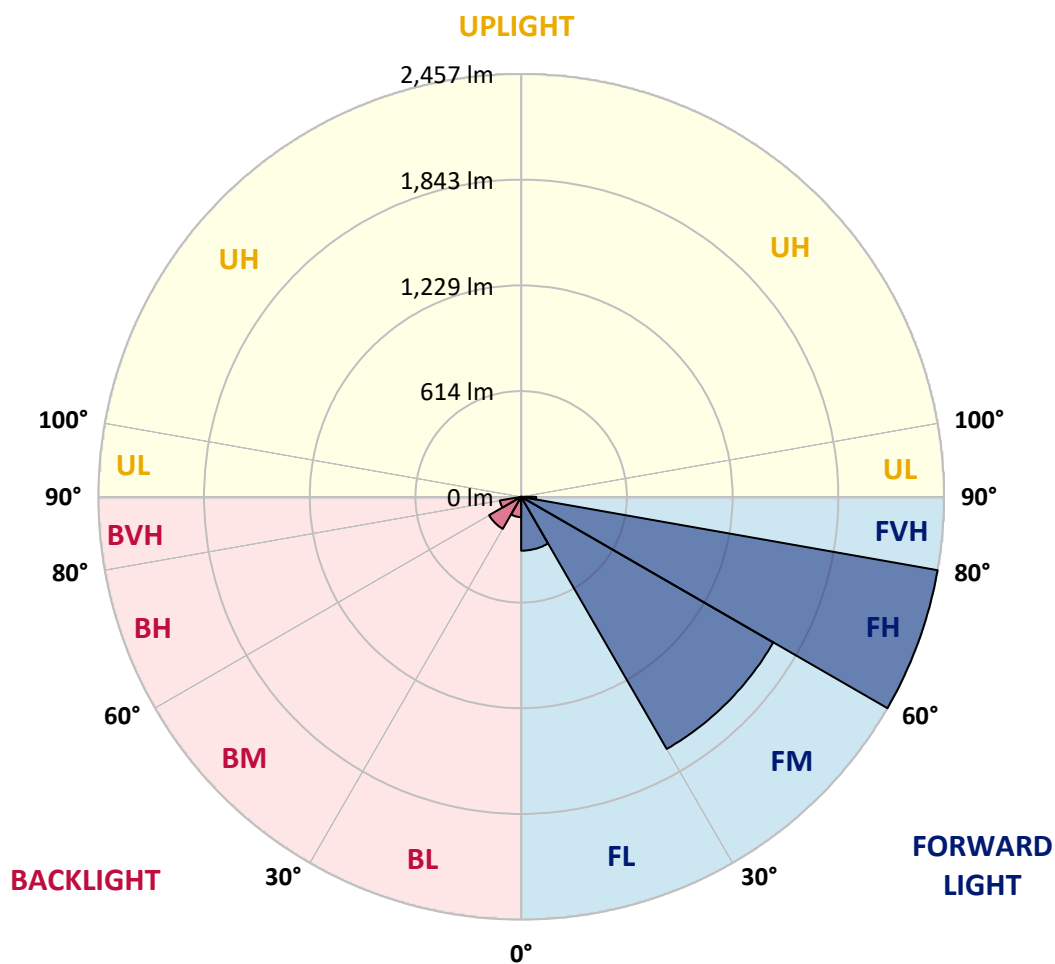
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	313.2	6.3			
FM	(30°-60°)	1691.8	33.8			
FH	(60°-80°)	2457.1	49.1			G2/5000
FVH	(80°-90°)	86.9	1.7			G1/100
BL	(0°-30°)	117.7	2.4	B1/500		
BM	(30°-60°)	214.6	4.3	B0/220		
BH	(60°-80°)	125.4	2.5	B1/500		G1/500
BVH	(80°-90°)	0.2	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5
2.5°	581.7	581.7	580.5	579.4	573.4	567.5	566.3	562.8	552.1	545.0	537.9
5°	630.3	631.5	629.1	623.2	610.2	597.1	596.0	586.5	566.3	552.1	536.7
7.5°	676.5	678.9	673.0	662.3	646.9	627.9	626.8	609.0	582.9	562.8	540.3
10°	715.6	715.6	707.3	694.3	677.7	657.6	655.2	635.0	605.4	580.5	550.9
12.5°	758.3	757.1	745.2	727.5	708.5	689.5	688.4	663.5	635.0	603.1	566.3
15°	797.4	795.0	779.6	763.0	742.9	722.7	721.5	696.7	667.0	629.1	588.8
17.5°	818.7	817.5	803.3	786.7	770.1	754.7	753.5	727.5	695.5	656.4	611.4
20°	822.2	823.4	811.6	797.4	787.9	779.6	779.6	755.9	721.5	680.1	635.0
22.5°	823.4	827.0	818.7	799.7	797.4	798.5	800.9	782.0	746.4	707.3	659.9
25°	831.7	836.5	830.5	808.0	805.7	814.0	816.3	808.0	776.0	736.9	688.4
27.5°	848.3	853.0	848.3	819.9	816.3	824.6	827.0	831.7	808.0	765.4	718.0
30°	881.5	882.7	872.0	836.5	829.4	840.0	843.6	856.6	837.6	792.6	746.4
32.5°	939.5	927.7	895.7	848.3	842.4	854.2	857.8	872.0	864.9	818.7	776.0
35°	1058.0	996.4	923.0	864.9	859.0	870.8	875.6	895.7	899.3	855.4	812.8
37.5°	1056.8	1001.1	986.9	896.9	888.6	896.9	902.8	927.7	941.9	904.0	866.1
40°	1131.5	1107.8	1107.8	957.3	930.1	941.9	947.8	972.7	997.6	968.0	928.9
42.5°	1366.1	1350.7	1334.1	1073.4	988.1	1021.3	1024.8	1040.2	1069.9	1060.4	1014.2
45°	1627.9	1613.7	1549.7	1270.1	1087.6	1093.6	1101.9	1126.7	1169.4	1187.2	1132.7
47.5°	1832.9	1818.7	1764.2	1507.1	1242.8	1190.7	1190.7	1239.3	1305.6	1350.7	1298.5
50°	1997.6	1981.0	1947.8	1759.4	1497.6	1330.5	1323.4	1380.3	1478.6	1548.5	1513.0
52.5°	2157.5	2108.9	2088.8	2020.1	1785.5	1533.1	1514.2	1554.4	1690.7	1777.2	1747.6
55°	2264.1	2257.0	2235.7	2259.4	2087.6	1779.6	1763.0	1771.3	1941.9	1999.9	1963.2
57.5°	2363.7	2362.5	2409.9	2520.1	2417.0	2061.5	2035.5	2022.4	2184.8	2170.5	2202.5
60°	2486.9	2465.6	2575.7	2733.3	2719.1	2336.4	2306.8	2280.7	2370.8	2330.5	2489.2
62.5°	2492.8	2486.9	2710.8	2937.1	3018.8	2616.0	2581.7	2488.1	2533.1	2486.9	2762.9
65°	2266.5	2296.1	2767.7	3044.9	3270.0	2861.3	2819.8	2674.1	2677.6	2646.8	3085.2
67.5°	2215.6	2231.0	2611.3	3161.0	3451.3	3108.9	3069.8	2888.5	2845.9	2848.2	3275.9
70°	2088.8	2112.5	2417.0	3152.7	3594.7	3439.4	3400.4	3203.7	3100.6	2985.7	3129.0
72.5°	1595.9	1636.2	2036.7	2764.1	3555.6	3871.9	3861.2	3603.0	3202.5	2741.6	2367.2
75°	540.3	539.1	1069.9	1856.6	3194.2	4004.6	4025.9	3553.2	2793.7	1890.9	1175.3
77.5°	116.1	117.3	220.4	752.3	2122.0	3215.5	3297.3	2680.0	1802.1	842.4	268.9
80°	56.9	58.1	91.2	199.0	848.3	1803.3	1931.2	1377.9	665.9	168.2	45.0
82.5°	28.4	29.6	47.4	105.4	314.0	641.0	684.8	507.1	190.8	94.8	22.5
85°	10.7	10.7	23.7	62.8	143.4	150.5	184.8	146.9	114.9	77.0	5.9
87.5°	2.4	2.4	13.0	30.8	64.0	47.4	47.4	45.0	69.9	52.1	2.4
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°	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5	535.5
2.5°	534.3	529.6	521.3	513.0	507.1	500.0	496.4	492.9	491.7	490.5	492.9
5°	528.4	521.3	505.9	492.9	481.0	471.5	464.4	457.3	453.8	451.4	452.6
7.5°	528.4	517.8	495.2	475.1	456.1	436.0	415.9	400.5	388.6	381.5	382.7
10°	534.3	520.1	490.5	463.3	427.7	385.1	341.2	308.0	285.5	272.5	272.5
12.5°	547.4	528.4	491.7	449.0	388.6	314.0	247.6	207.3	190.8	181.3	182.5
15°	565.1	542.6	497.6	430.1	334.1	233.4	173.0	146.9	146.9	149.3	150.5
17.5°	585.3	560.4	502.4	401.6	264.2	167.1	136.3	133.9	137.4	143.4	143.4
20°	605.4	578.2	504.7	356.6	197.9	132.7	129.1	129.1	131.5	137.4	138.6
22.5°	630.3	600.7	502.4	300.9	148.1	125.6	124.4	124.4	124.4	131.5	131.5
25°	656.4	626.8	492.9	241.7	125.6	120.8	119.7	118.5	118.5	124.4	125.6
27.5°	686.0	654.0	470.4	184.8	118.5	116.1	114.9	112.6	112.6	117.3	117.3
30°	715.6	684.8	436.0	139.8	112.6	111.4	109.0	106.6	104.3	109.0	109.0
32.5°	747.6	716.8	391.0	111.4	104.3	104.3	103.1	99.5	97.2	99.5	100.7
35°	790.3	753.5	340.0	97.2	93.6	93.6	93.6	92.4	87.7	90.0	90.0
37.5°	847.1	804.5	280.8	90.0	85.3	82.9	82.9	82.9	79.4	80.6	80.6
40°	919.4	863.7	223.9	84.1	79.4	73.5	71.1	72.3	69.9	69.9	68.7
42.5°	1017.7	927.7	168.2	79.4	74.6	66.3	61.6	60.4	58.1	56.9	56.9
45°	1158.7	1005.9	120.8	74.6	71.1	58.1	53.3	49.8	43.8	40.3	40.3
47.5°	1341.2	1094.7	90.0	69.9	67.5	50.9	45.0	37.9	29.6	27.3	27.3
50°	1563.9	1194.3	75.8	62.8	61.6	45.0	35.5	24.9	16.6	14.2	15.4
52.5°	1780.7	1287.9	67.5	55.7	54.5	39.1	26.1	13.0	7.1	7.1	7.1
55°	1963.2	1354.2	61.6	49.8	47.4	30.8	14.2	5.9	3.6	3.6	3.6
57.5°	2127.9	1392.1	55.7	43.8	37.9	21.3	5.9	2.4	2.4	1.2	1.2
60°	2278.4	1414.6	48.6	37.9	29.6	11.8	2.4	1.2	1.2	0.0	0.0
62.5°	2426.5	1431.2	41.5	30.8	22.5	4.7	1.2	1.2	0.0	0.0	0.0
65°	2539.0	1425.3	33.2	24.9	14.2	2.4	1.2	0.0	0.0	0.0	0.0
67.5°	2535.5	1344.7	24.9	19.0	7.1	1.2	0.0	0.0	0.0	0.0	0.0
70°	2267.7	1132.7	16.6	11.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1608.9	726.3	10.7	7.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	708.5	220.4	5.9	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	138.6	50.9	3.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	33.2	5.9	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.2	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)