

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: P231111

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13854 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 141
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



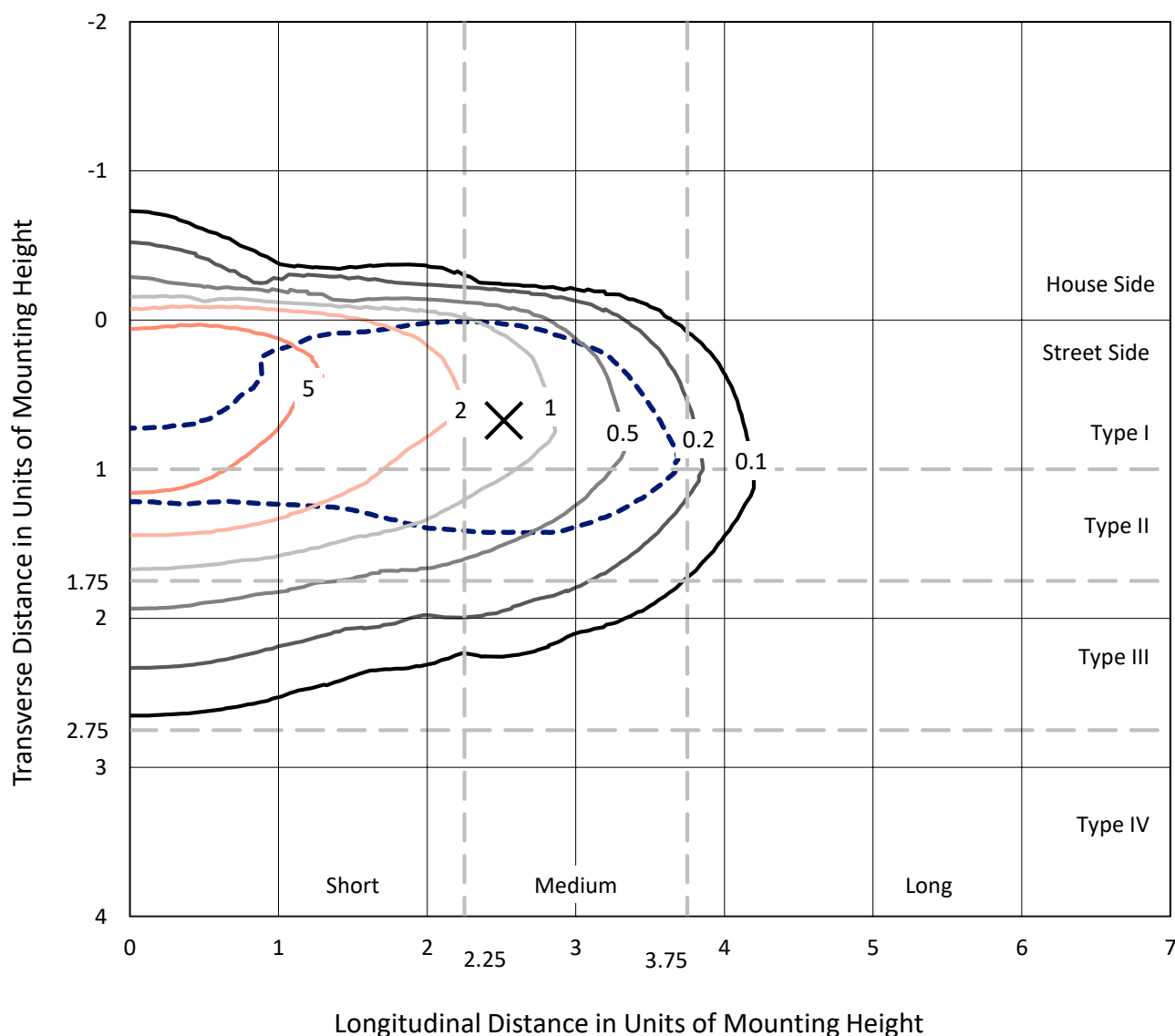
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

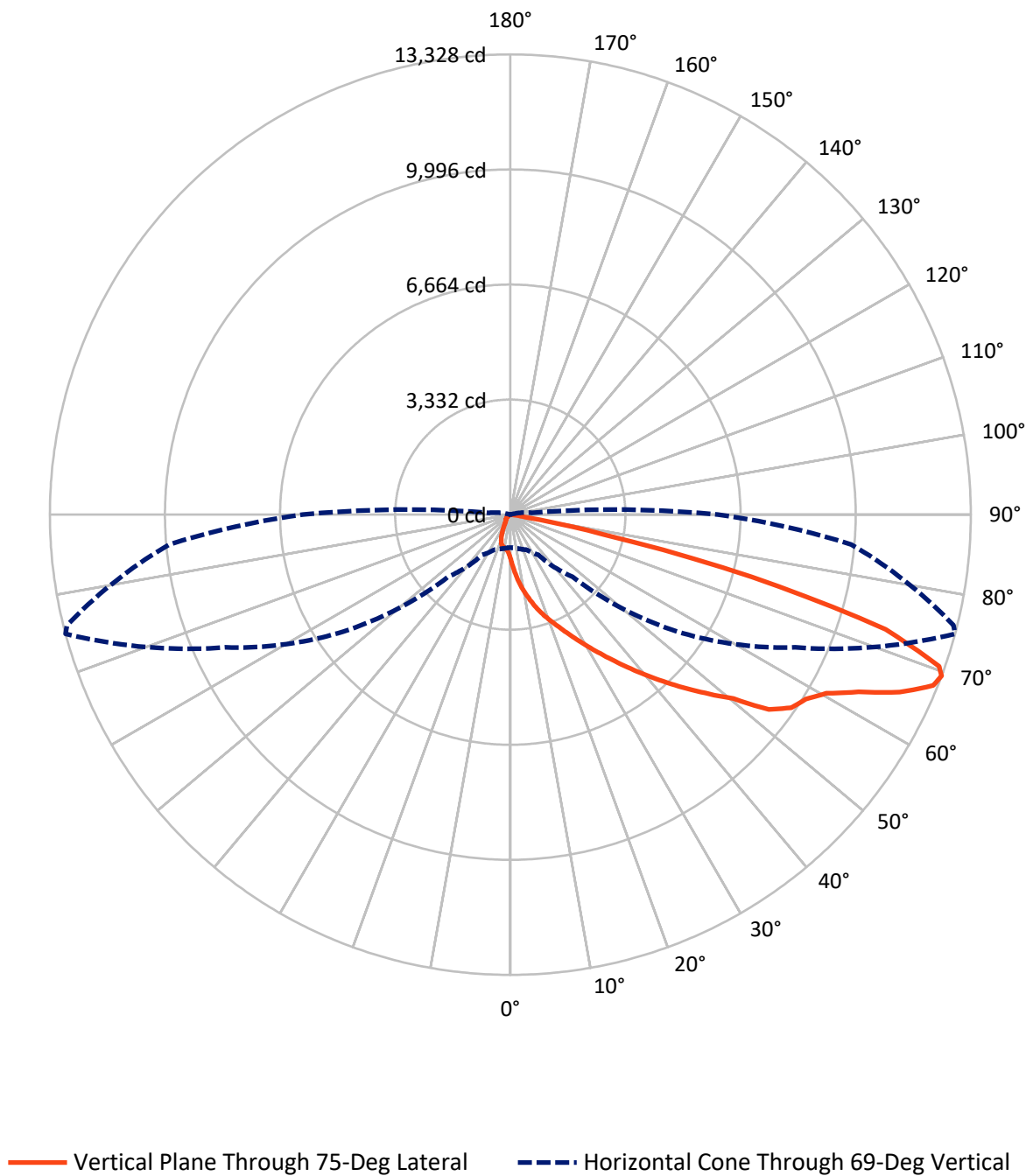


Based on 20 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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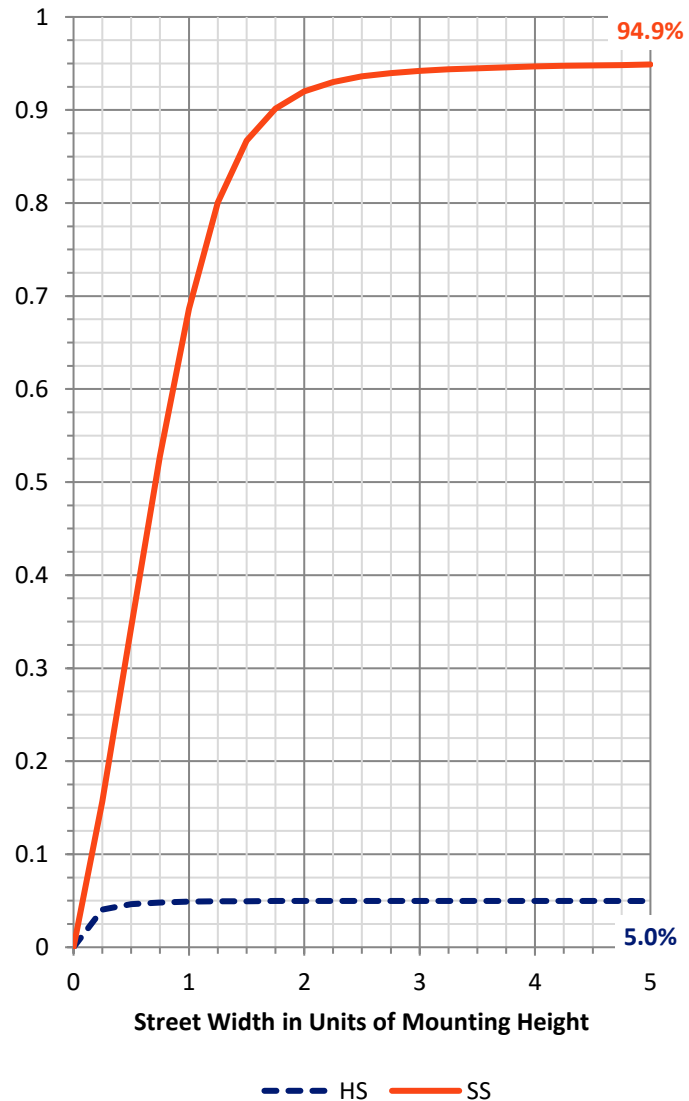
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	691.2	0.0	691.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	13162.8	0.0	13162.8
	% Fixture	95.0	0.0	95.0
Total	Lumens	13854.0	0.0	13854.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.3	1.1
10°-20°	537.4	3.9
20°-30°	1025.9	7.4
30°-40°	1840.3	13.3
40°-50°	2819.5	20.4
50°-60°	3277.0	23.7
60°-70°	2901.8	20.9
70°-80°	1251.7	9.0
80°-90°	50.1	0.4
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°	13854.0	100.0
0°-180°	13854.0	100.0

Coefficient of Utilization



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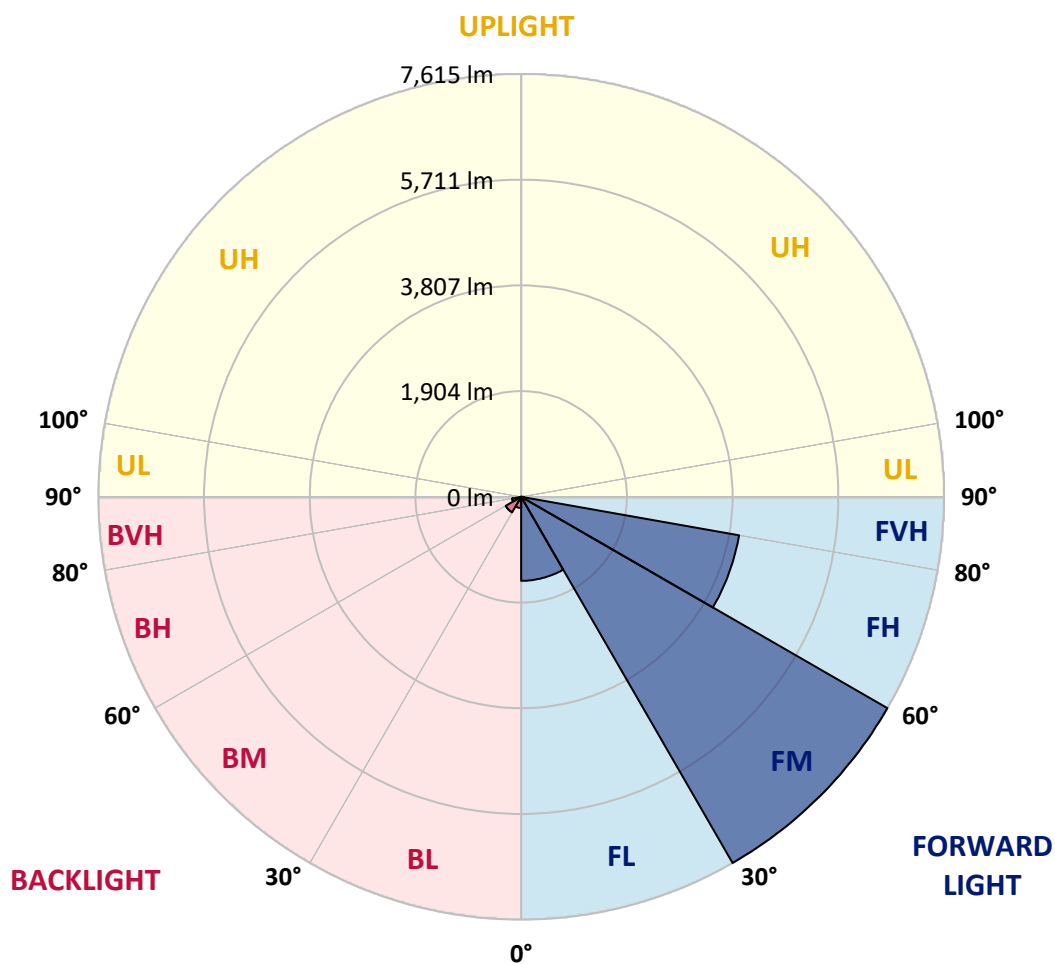
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1512.9	10.9			
FM	(30°-60°)	7614.5	55.0			
FH	(60°-80°)	3986.0	28.8			G2/5000
FVH	(80°-90°)	49.4	0.4			G1/100
BL	(0°-30°)	200.8	1.4	B1/500		
BM	(30°-60°)	322.3	2.3	B1/1000		
BH	(60°-80°)	167.5	1.2	B1/500		G1/500
BVH	(80°-90°)	0.7	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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1
2.5°	2123.6	2102.7	2081.7	2057.8	2004.0	1911.2	1794.6	1669.0	1513.4	1486.5	1360.9
5°	2578.2	2569.2	2548.3	2515.4	2455.6	2353.9	2222.3	2036.9	1776.6	1731.8	1465.6
7.5°	2898.3	2892.3	2874.3	2835.4	2781.6	2679.9	2542.3	2341.9	2039.8	1989.0	1597.2
10°	3185.4	3182.4	3167.4	3131.5	3077.7	2967.0	2820.5	2611.1	2291.1	2234.3	1749.7
12.5°	3445.6	3448.6	3442.6	3424.7	3385.8	3281.1	3113.6	2886.3	2533.4	2470.5	1932.2
15°	3598.1	3607.1	3631.0	3666.9	3678.9	3595.2	3421.7	3170.4	2781.6	2727.8	2141.5
17.5°	3547.3	3556.3	3631.0	3753.7	3870.3	3882.3	3726.8	3439.6	3026.9	2973.0	2347.9
20°	3424.7	3436.6	3514.4	3681.9	3909.2	4067.7	4004.9	3732.7	3260.2	3194.4	2545.3
22.5°	3562.2	3562.2	3586.2	3687.9	3894.2	4142.5	4226.2	4025.9	3499.4	3418.7	2742.7
25°	4034.8	4025.9	3975.0	3933.1	3998.9	4220.3	4393.7	4324.9	3780.6	3687.9	2952.1
27.5°	4633.0	4674.9	4579.2	4426.6	4277.1	4372.8	4543.3	4621.1	4091.7	3995.9	3167.4
30°	5303.0	5320.9	5207.3	5003.9	4740.7	4648.0	4719.8	4875.3	4429.6	4324.9	3391.8
32.5°	5907.2	5892.2	5796.5	5584.1	5258.1	5057.7	4947.1	5078.7	4797.5	4677.9	3622.1
35°	6442.6	6454.5	6337.9	6092.6	5772.6	5560.2	5297.0	5309.0	5210.3	5072.7	3888.3
37.5°	6924.1	6903.2	6792.5	6547.2	6257.1	6026.8	5748.7	5548.3	5661.9	5518.3	4187.4
40°	7315.9	7295.0	7178.3	6939.1	6666.9	6478.4	6260.1	5868.3	6137.5	5973.0	4507.4
42.5°	7627.0	7603.1	7504.4	7274.0	7010.8	6843.3	6738.7	6263.1	6645.9	6481.4	4866.3
45°	7779.5	7758.6	7698.8	7525.3	7295.0	7148.4	7199.3	6717.7	7190.3	7052.7	5261.1
47.5°	7600.1	7591.1	7659.9	7630.0	7498.4	7420.6	7597.1	7214.2	7761.6	7627.0	5715.8
50°	7055.7	7070.7	7271.1	7519.3	7582.1	7674.8	7923.1	7737.6	8374.7	8231.2	6239.2
52.5°	5712.8	5814.5	6418.6	7016.8	7480.4	7830.4	8305.9	8485.4	9373.7	9233.1	7055.7
55°	4265.1	4307.0	4965.0	5987.9	7070.7	7818.4	8590.1	8925.1	9867.2	9723.7	7271.1
57.5°	3382.8	3397.7	3723.8	4767.6	6227.2	7549.2	8739.6	9083.6	10082.6	9962.9	7591.1
60°	2656.0	2673.9	2910.2	3628.1	5039.8	6822.4	8524.3	9221.2	10504.3	10408.6	8150.4
62.5°	2066.8	2084.7	2228.3	2650.0	3780.6	5703.8	8090.6	9442.5	11305.9	11261.0	9065.6
65°	1600.2	1606.2	1704.9	1902.3	2670.9	4492.4	7561.2	9648.9	12388.6	12349.7	9807.4
67.5°	1181.4	1190.4	1259.2	1381.8	1803.6	3227.3	6693.8	9490.4	13205.1	13091.5	10076.6
69°	954.1	963.1	1022.9	1121.6	1423.7	2542.3	5901.2	9098.5	13327.8	13220.1	9906.1
70°	816.5	822.5	882.3	966.1	1214.3	2159.5	5273.1	8760.6	13166.3	13061.6	9517.3
72.5°	523.4	553.3	613.1	667.0	804.6	1429.7	3559.3	7265.1	11359.7	11180.3	7453.5
75°	290.1	299.1	406.8	472.6	535.4	930.2	1980.0	4531.3	7226.2	7100.6	3987.0
77.5°	239.3	245.3	287.1	358.9	358.9	520.4	747.7	1785.6	2748.7	2479.5	1079.7
80°	167.5	173.5	218.3	236.3	257.2	293.1	242.3	391.8	424.7	376.9	161.5
82.5°	116.6	122.6	149.5	194.4	206.4	137.6	89.7	116.6	122.6	122.6	62.8
85°	20.9	29.9	110.7	161.5	122.6	41.9	50.8	41.9	38.9	41.9	15.0
87.5°	0.0	0.0	68.8	77.8	65.8	17.9	20.9	15.0	9.0	12.0	6.0
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°	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1	1289.1
2.5°	1298.1	1235.3	1127.6	1049.8	984.0	933.2	912.2	879.3	855.4	867.4	852.4
5°	1334.0	1223.3	1049.8	939.2	861.4	795.6	741.8	699.9	667.0	661.0	655.0
7.5°	1390.8	1232.3	1005.0	867.4	750.7	649.0	565.3	502.5	454.6	454.6	436.7
10°	1468.6	1256.2	978.0	795.6	622.1	484.5	400.8	341.0	317.0	314.1	308.1
12.5°	1576.2	1301.1	957.1	702.9	484.5	352.9	302.1	281.2	272.2	269.2	266.2
15°	1722.8	1366.9	933.2	589.2	367.9	290.1	269.2	251.2	242.3	239.3	236.3
17.5°	1863.4	1426.7	882.3	472.6	299.1	263.2	239.3	224.3	212.4	209.4	209.4
20°	1995.0	1477.5	795.6	367.9	269.2	236.3	212.4	194.4	182.4	179.5	179.5
22.5°	2132.6	1519.4	687.9	299.1	245.3	209.4	185.4	167.5	155.5	152.5	149.5
25°	2279.1	1549.3	565.3	266.2	221.3	185.4	158.5	143.6	134.6	131.6	128.6
27.5°	2437.6	1561.3	448.6	242.3	194.4	161.5	137.6	122.6	116.6	113.7	113.7
30°	2581.2	1549.3	347.0	215.4	170.5	140.6	119.6	107.7	101.7	98.7	98.7
32.5°	2730.8	1519.4	278.2	191.4	149.5	119.6	101.7	92.7	89.7	86.7	86.7
35°	2889.3	1480.5	239.3	170.5	128.6	104.7	89.7	83.7	80.8	77.8	77.8
37.5°	3074.7	1432.7	218.3	152.5	113.7	92.7	77.8	74.8	71.8	71.8	71.8
40°	3284.1	1372.9	203.4	137.6	101.7	80.8	68.8	65.8	62.8	62.8	62.8
42.5°	3505.4	1304.1	188.4	122.6	89.7	68.8	59.8	59.8	56.8	56.8	53.8
45°	3753.7	1235.3	173.5	107.7	77.8	59.8	50.8	47.9	47.9	44.9	44.9
47.5°	4046.8	1172.5	158.5	95.7	68.8	50.8	44.9	41.9	38.9	35.9	35.9
50°	4459.5	1166.5	140.6	83.7	62.8	41.9	35.9	32.9	29.9	26.9	26.9
52.5°	4869.3	1112.6	119.6	68.8	50.8	35.9	26.9	23.9	20.9	20.9	17.9
55°	4962.0	1022.9	104.7	59.8	38.9	26.9	20.9	15.0	15.0	12.0	12.0
57.5°	5165.4	981.0	89.7	47.9	29.9	20.9	12.0	9.0	9.0	9.0	9.0
60°	5566.2	969.1	77.8	41.9	20.9	15.0	9.0	6.0	6.0	3.0	3.0
62.5°	6119.5	957.1	65.8	35.9	15.0	9.0	6.0	3.0	0.0	0.0	0.0
65°	6424.6	876.4	53.8	26.9	12.0	9.0	3.0	0.0	0.0	0.0	0.0
67.5°	6343.9	723.8	47.9	17.9	9.0	6.0	3.0	0.0	0.0	0.0	0.0
69°	6005.9	610.2	38.9	15.0	9.0	6.0	3.0	0.0	0.0	0.0	0.0
70°	5599.1	526.4	35.9	12.0	6.0	3.0	3.0	0.0	0.0	0.0	0.0
72.5°	3975.0	275.2	23.9	9.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0
75°	1857.4	122.6	15.0	6.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0
77.5°	409.8	56.8	9.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	77.8	20.9	6.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	26.9	9.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	0.0	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)