

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: P231112

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231112
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-AF48-150-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 970mA 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: 14540 lumens
Efficiency: N/A
Efficacy: 96.3 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): 151
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



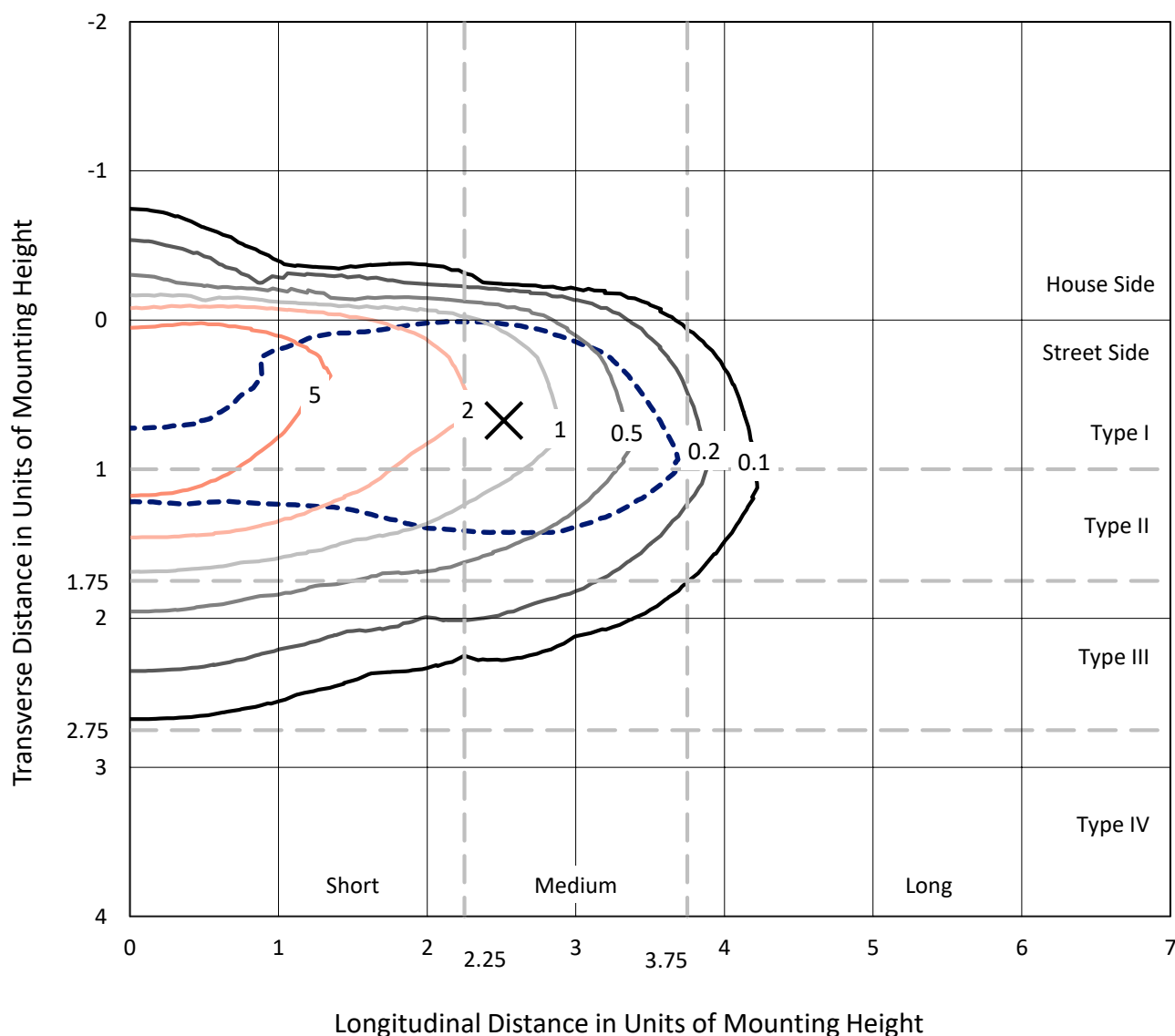
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

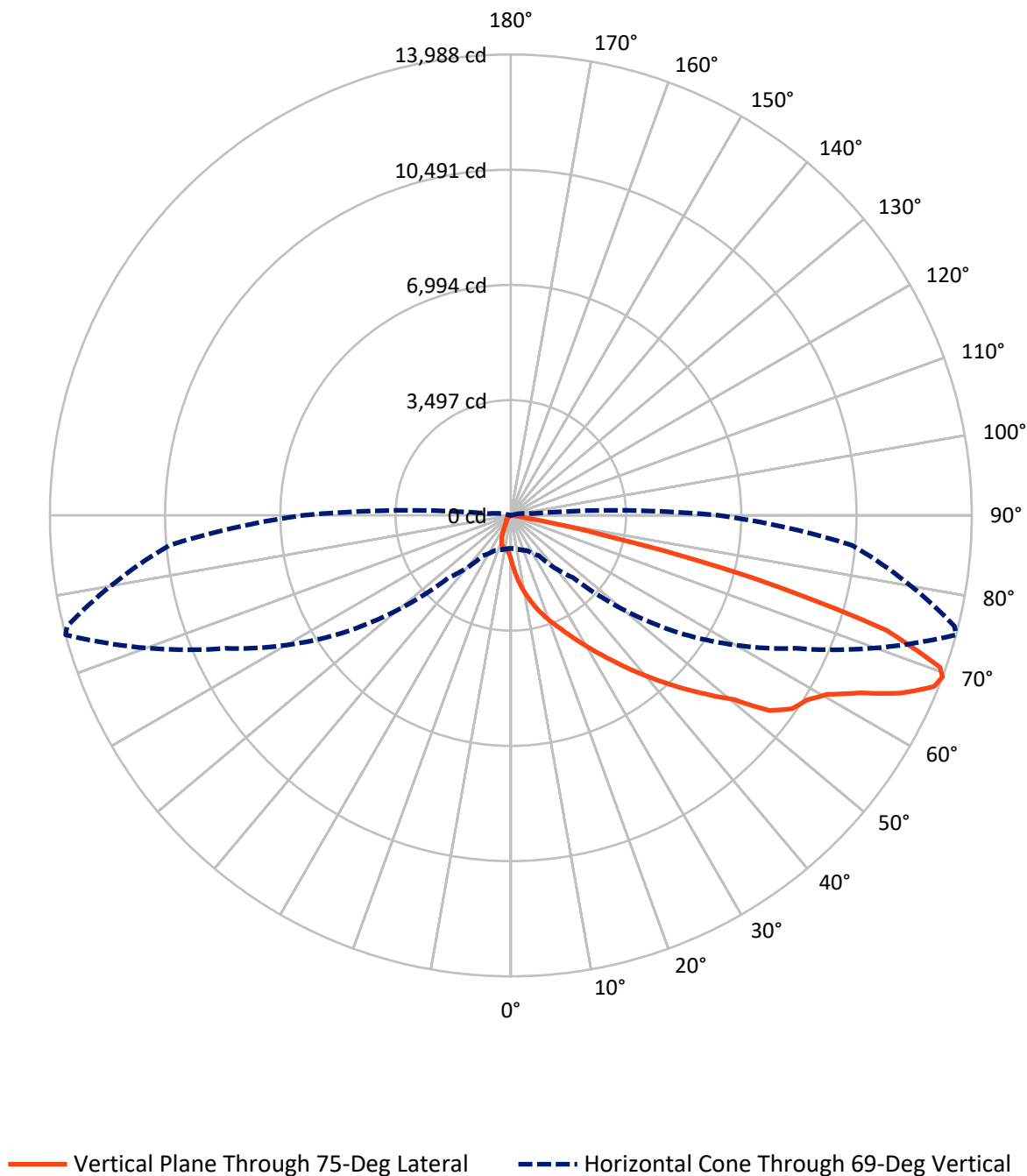


Based on 20 foot mounting height. Maximum calculated value = 9.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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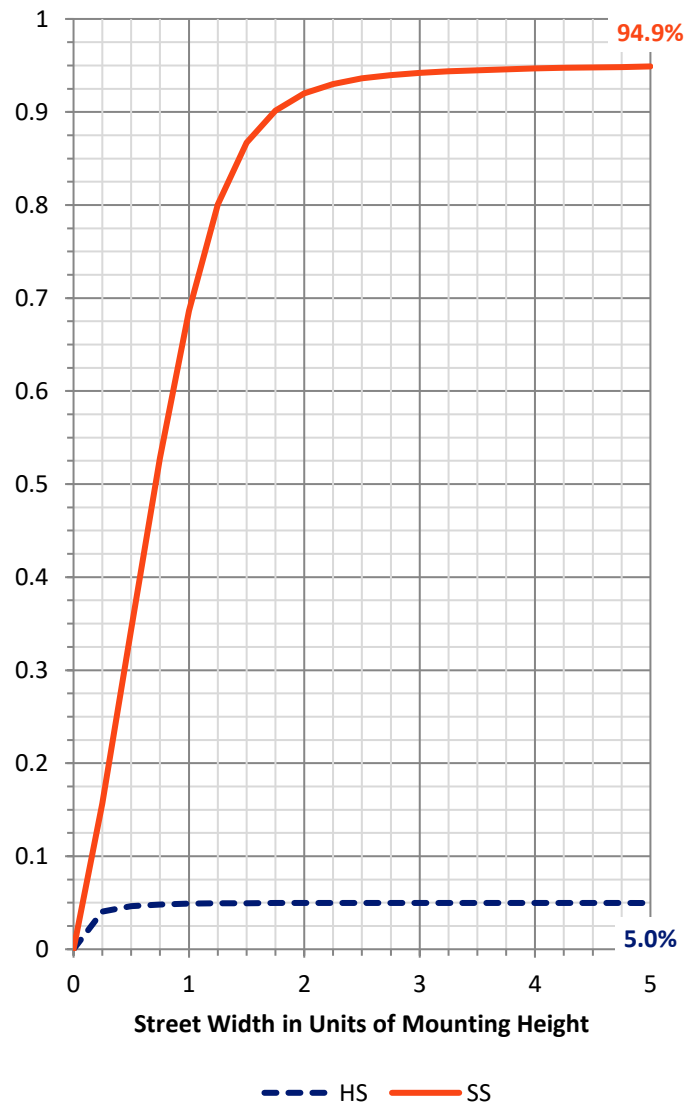
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	725.4	0.0	725.4
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	13814.6	0.0	13814.6
	% Fixture	95.0	0.0	95.0
Total	Lumens	14540.0	0.0	14540.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.8	1.1
10°-20°	564.0	3.9
20°-30°	1076.7	7.4
30°-40°	1931.4	13.3
40°-50°	2959.1	20.4
50°-60°	3439.2	23.7
60°-70°	3045.5	20.9
70°-80°	1313.6	9.0
80°-90°	52.6	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°	14540.0	100.0
0°-180°	14540.0	100.0

Coefficient of Utilization



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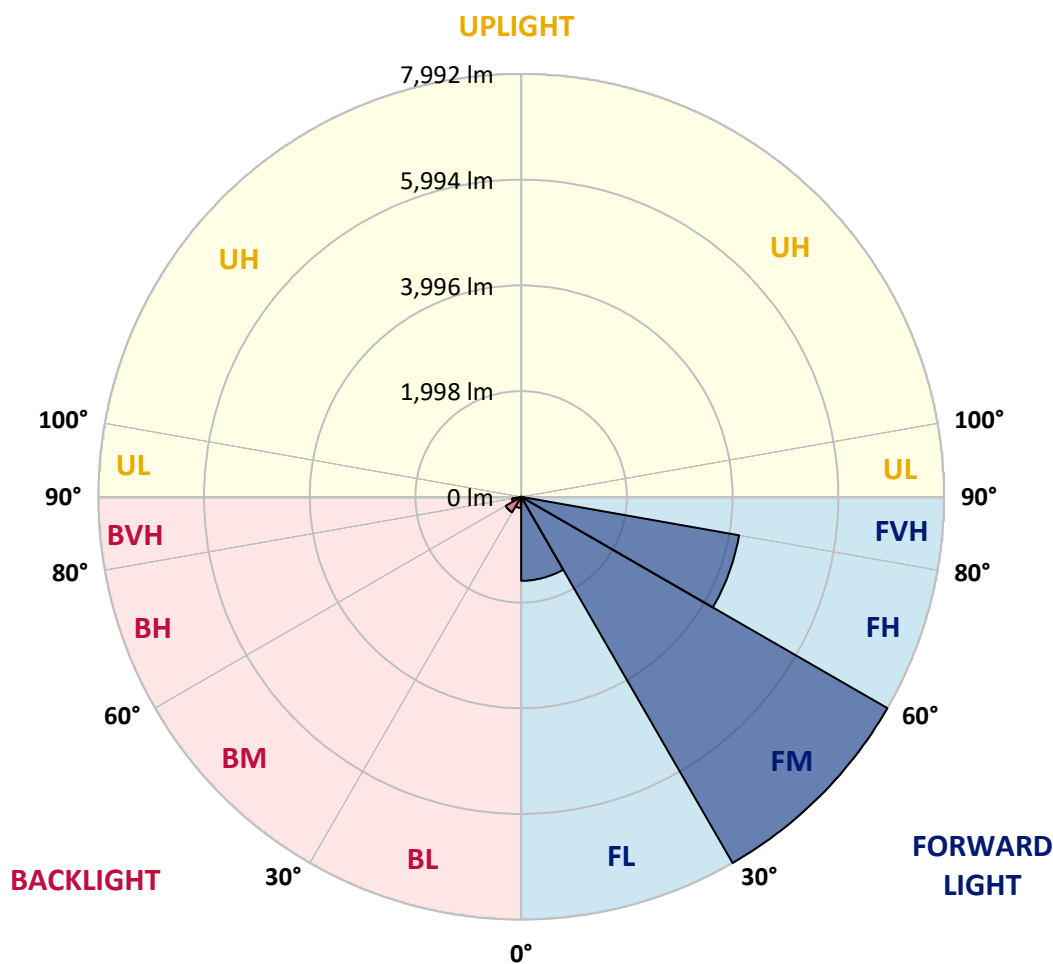
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1587.8	10.9			
FM	(30°-60°)	7991.6	55.0			
FH	(60°-80°)	4183.4	28.8			G2/5000
FVH	(80°-90°)	51.9	0.4			G1/100
BL	(0°-30°)	210.7	1.4	B1/500		
BM	(30°-60°)	338.2	2.3	B1/1000		
BH	(60°-80°)	175.8	1.2	B1/500		G1/500
BVH	(80°-90°)	0.8	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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9
2.5°	2228.7	2206.8	2184.8	2159.7	2103.2	2005.9	1883.4	1751.6	1588.4	1560.1	1428.3
5°	2705.9	2696.5	2674.5	2640.0	2577.2	2470.5	2332.3	2137.7	1864.6	1817.5	1538.1
7.5°	3041.8	3035.5	3016.7	2975.8	2919.3	2812.6	2668.2	2457.9	2140.8	2087.5	1676.3
10°	3343.1	3340.0	3324.3	3286.6	3230.1	3114.0	2960.1	2740.4	2404.5	2344.9	1836.4
12.5°	3616.2	3619.4	3613.1	3594.2	3553.4	3443.6	3267.8	3029.2	2658.8	2592.9	2027.8
15°	3776.3	3785.7	3810.8	3848.5	3861.1	3773.2	3591.1	3327.4	2919.3	2862.8	2247.6
17.5°	3722.9	3732.4	3810.8	3939.5	4062.0	4074.5	3911.3	3609.9	3176.7	3120.2	2464.2
20°	3594.2	3606.8	3688.4	3864.2	4102.8	4269.1	4203.2	3917.6	3421.6	3352.5	2671.4
22.5°	3738.6	3738.6	3763.8	3870.5	4087.1	4347.6	4435.5	4225.2	3672.7	3588.0	2878.5
25°	4234.6	4225.2	4171.8	4127.9	4196.9	4429.2	4611.3	4539.1	3967.8	3870.5	3098.3
27.5°	4862.4	4906.4	4805.9	4645.8	4488.9	4589.3	4768.3	4849.9	4294.3	4193.8	3324.3
30°	5565.6	5584.4	5465.1	5251.7	4975.4	4878.1	4953.5	5116.7	4649.0	4539.1	3559.7
32.5°	6199.7	6184.0	6083.5	5860.7	5518.5	5308.2	5192.0	5330.2	5035.1	4909.5	3801.4
35°	6761.6	6774.1	6651.7	6394.3	6058.4	5835.5	5559.3	5571.9	5468.3	5323.9	4080.8
37.5°	7267.0	7245.0	7128.8	6871.4	6566.9	6325.2	6033.3	5823.0	5942.3	5791.6	4394.7
40°	7678.2	7656.2	7533.8	7282.7	6997.0	6799.2	6570.1	6158.9	6441.4	6268.7	4730.6
42.5°	8004.6	7979.5	7875.9	7634.2	7358.0	7182.2	7072.3	6573.2	6975.0	6802.4	5107.3
45°	8164.7	8142.8	8080.0	7897.9	7656.2	7502.4	7555.8	7050.4	7546.3	7401.9	5521.6
47.5°	7976.4	7967.0	8039.2	8007.8	7869.7	7788.0	7973.3	7571.5	8145.9	8004.6	5998.8
50°	7405.1	7420.8	7631.1	7891.6	7957.6	8054.9	8315.4	8120.8	8789.4	8638.7	6548.1
52.5°	5995.6	6102.4	6736.5	7364.3	7850.8	8218.1	8717.2	8905.6	9837.9	9690.3	7405.1
55°	4476.3	4520.3	5210.9	6284.4	7420.8	8205.5	9015.4	9367.0	10355.8	10205.1	7631.1
57.5°	3550.3	3566.0	3908.1	5003.7	6535.6	7923.0	9172.4	9533.4	10581.8	10456.3	7967.0
60°	2787.5	2806.3	3054.3	3807.7	5289.3	7160.2	8946.4	9677.8	11024.4	10924.0	8554.0
62.5°	2169.1	2187.9	2338.6	2781.2	3967.8	5986.2	8491.2	9910.1	11865.7	11818.6	9514.5
65°	1679.4	1685.7	1789.3	1996.5	2803.2	4714.9	7935.6	10126.7	13002.1	12961.2	10293.0
67.5°	1239.9	1249.4	1321.6	1450.3	1892.9	3387.1	7025.3	9960.3	13859.0	13739.7	10575.5
69°	1001.4	1010.8	1073.6	1177.2	1494.2	2668.2	6193.4	9549.1	13987.7	13874.7	10396.6
70°	857.0	863.2	926.0	1013.9	1274.5	2266.4	5534.2	9194.4	13818.2	13708.3	9988.5
72.5°	549.3	580.7	643.5	700.0	844.4	1500.5	3735.5	7624.8	11922.2	11733.9	7822.6
75°	304.5	313.9	426.9	496.0	561.9	976.3	2078.1	4755.7	7584.0	7452.2	4184.4
77.5°	251.1	257.4	301.4	376.7	376.7	546.2	784.8	1874.0	2884.8	2602.3	1133.2
80°	175.8	182.1	229.2	248.0	270.0	307.6	254.3	411.2	445.7	395.5	169.5
82.5°	122.4	128.7	157.0	204.0	216.6	144.4	94.2	122.4	128.7	128.7	65.9
85°	22.0	31.4	116.1	169.5	128.7	43.9	53.4	43.9	40.8	43.9	15.7
87.5°	0.0	0.0	72.2	81.6	69.1	18.8	22.0	15.7	9.4	12.6	6.3
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°	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9	1352.9
2.5°	1362.4	1296.4	1183.4	1101.8	1032.8	979.4	957.4	922.9	897.8	910.3	894.6
5°	1400.0	1283.9	1101.8	985.7	904.1	835.0	778.5	734.5	700.0	693.7	687.5
7.5°	1459.7	1293.3	1054.7	910.3	787.9	681.2	593.3	527.4	477.1	477.1	458.3
10°	1541.3	1318.4	1026.5	835.0	652.9	508.5	420.6	357.9	332.7	329.6	323.3
12.5°	1654.3	1365.5	1004.5	737.7	508.5	370.4	317.0	295.1	285.7	282.5	279.4
15°	1808.1	1434.6	979.4	618.4	386.1	304.5	282.5	263.7	254.3	251.1	248.0
17.5°	1955.6	1497.3	926.0	496.0	313.9	276.2	251.1	235.4	222.9	219.7	219.7
20°	2093.8	1550.7	835.0	386.1	282.5	248.0	222.9	204.0	191.5	188.3	188.3
22.5°	2238.2	1594.7	722.0	313.9	257.4	219.7	194.6	175.8	163.2	160.1	157.0
25°	2392.0	1626.0	593.3	279.4	232.3	194.6	166.4	150.7	141.3	138.1	135.0
27.5°	2558.3	1638.6	470.9	254.3	204.0	169.5	144.4	128.7	122.4	119.3	119.3
30°	2709.0	1626.0	364.1	226.0	178.9	147.5	125.6	113.0	106.7	103.6	103.6
32.5°	2866.0	1594.7	291.9	200.9	157.0	125.6	106.7	97.3	94.2	91.0	91.0
35°	3032.3	1553.8	251.1	178.9	135.0	109.9	94.2	87.9	84.8	81.6	81.6
37.5°	3227.0	1503.6	229.2	160.1	119.3	97.3	81.6	78.5	75.3	75.3	75.3
40°	3446.7	1440.8	213.5	144.4	106.7	84.8	72.2	69.1	65.9	65.9	65.9
42.5°	3679.0	1368.6	197.8	128.7	94.2	72.2	62.8	62.8	59.6	59.6	56.5
45°	3939.5	1296.4	182.1	113.0	81.6	62.8	53.4	50.2	50.2	47.1	47.1
47.5°	4247.2	1230.5	166.4	100.5	72.2	53.4	47.1	43.9	40.8	37.7	37.7
50°	4680.4	1224.2	147.5	87.9	65.9	43.9	37.7	34.5	31.4	28.3	28.3
52.5°	5110.4	1167.7	125.6	72.2	53.4	37.7	28.3	25.1	22.0	22.0	18.8
55°	5207.7	1073.6	109.9	62.8	40.8	28.3	22.0	15.7	15.7	12.6	12.6
57.5°	5421.2	1029.6	94.2	50.2	31.4	22.0	12.6	9.4	9.4	9.4	9.4
60°	5841.8	1017.1	81.6	43.9	22.0	15.7	9.4	6.3	6.3	3.1	3.1
62.5°	6422.5	1004.5	69.1	37.7	15.7	9.4	6.3	3.1	0.0	0.0	0.0
65°	6742.7	919.7	56.5	28.3	12.6	9.4	3.1	0.0	0.0	0.0	0.0
67.5°	6658.0	759.7	50.2	18.8	9.4	6.3	3.1	0.0	0.0	0.0	0.0
69°	6303.3	640.4	40.8	15.7	9.4	6.3	3.1	0.0	0.0	0.0	0.0
70°	5876.3	552.5	37.7	12.6	6.3	3.1	3.1	0.0	0.0	0.0	0.0
72.5°	4171.8	288.8	25.1	9.4	6.3	3.1	0.0	0.0	0.0	0.0	0.0
75°	1949.4	128.7	15.7	6.3	3.1	3.1	0.0	0.0	0.0	0.0	0.0
77.5°	430.1	59.6	9.4	6.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	81.6	22.0	6.3	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	28.3	9.4	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	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)