

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: P231113

Luminaire Tested: **ARCH-M-AF48-160-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231113
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-AF48-160-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 1030mA 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: 15130 lumens
Efficiency: N/A
Efficacy: 94.0 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): 161
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



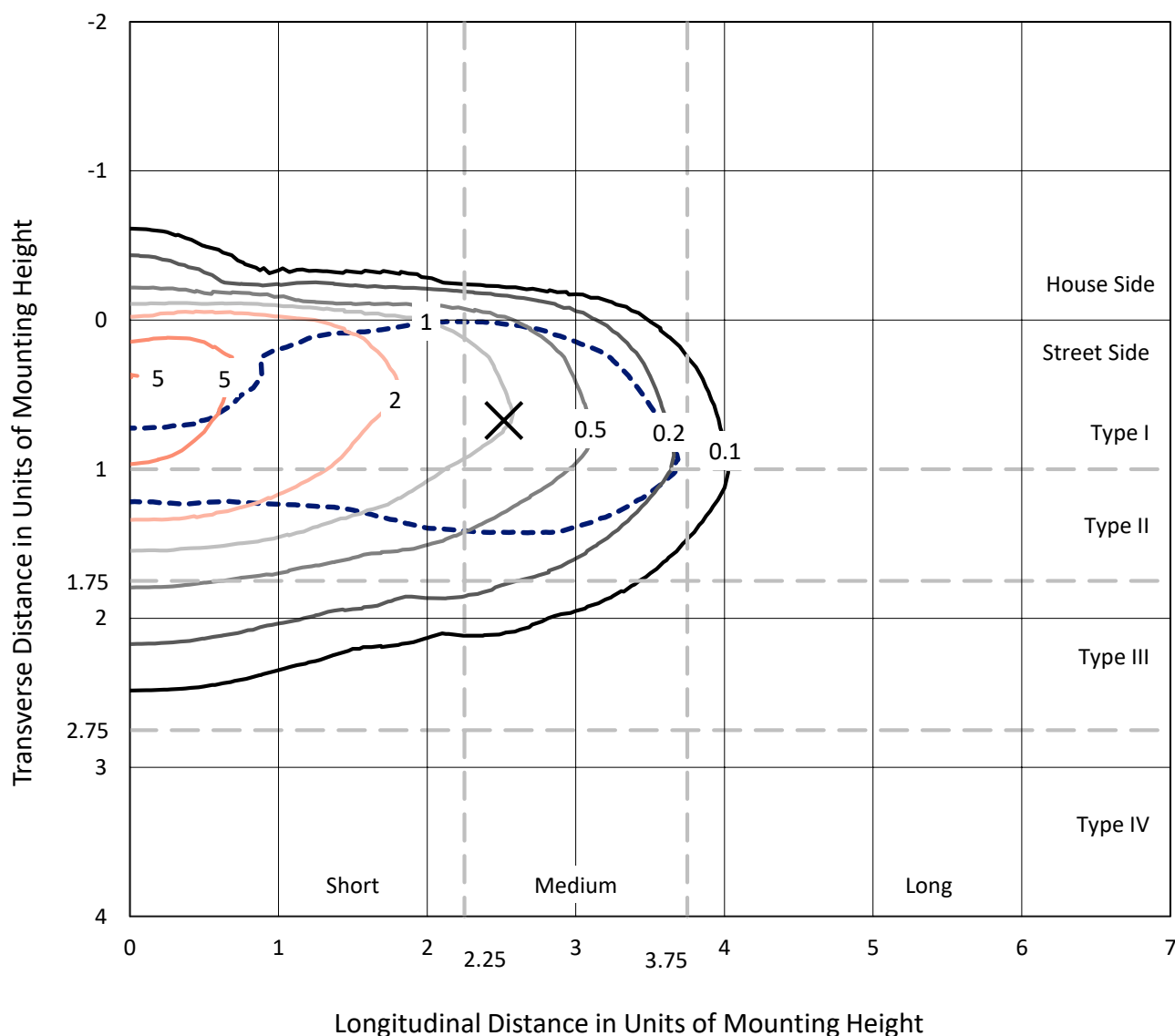
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

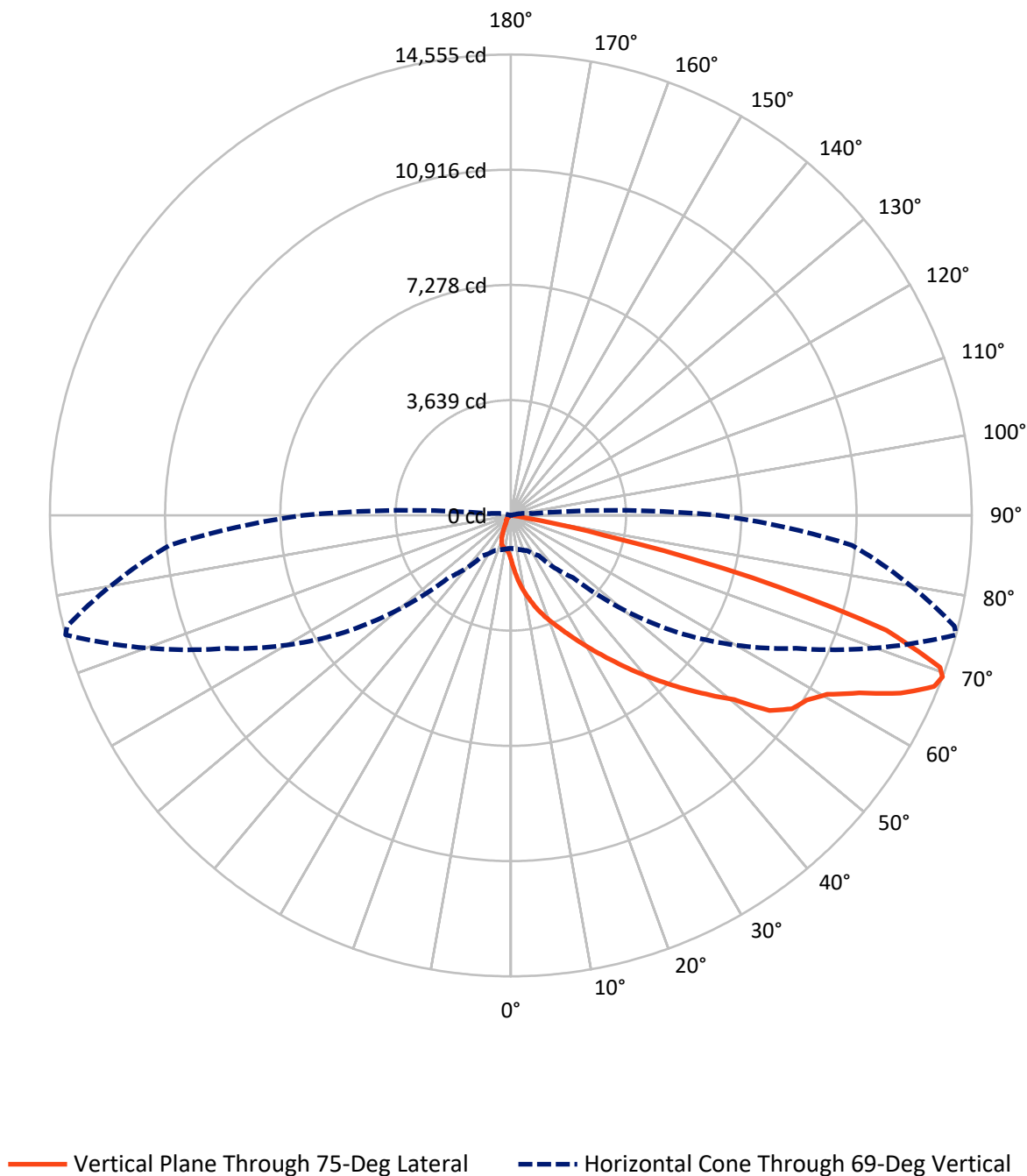


Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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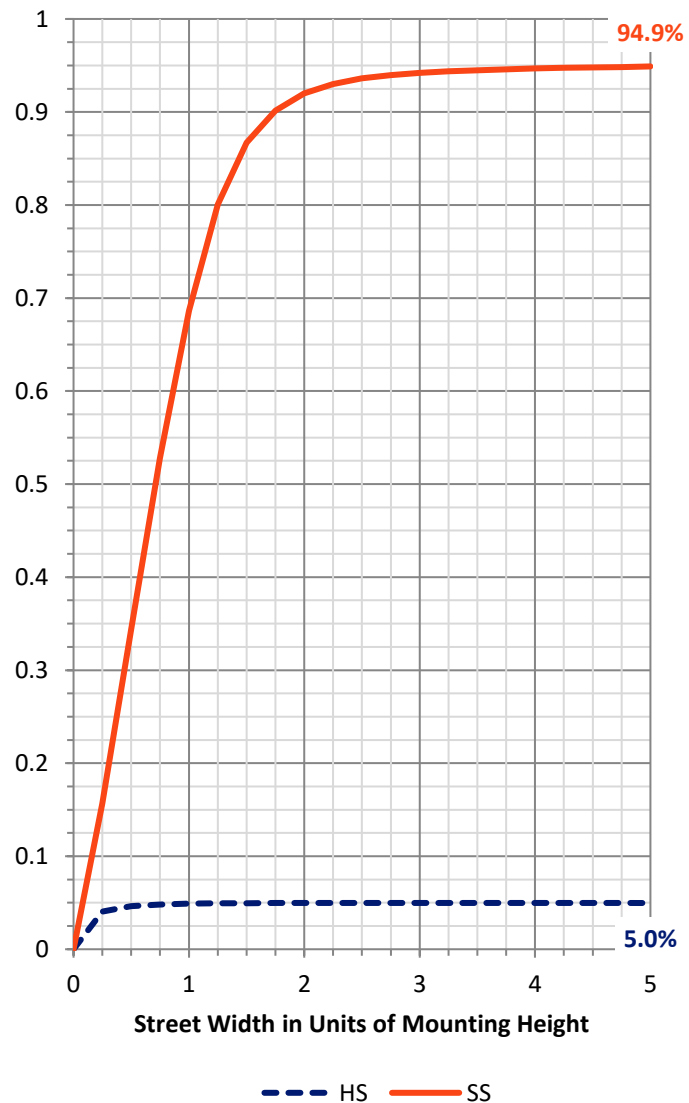
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	754.9	0.0	754.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	14375.1	0.0	14375.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	15130.0	0.0	15130.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.2	1.1
10°-20°	586.9	3.9
20°-30°	1120.4	7.4
30°-40°	2009.8	13.3
40°-50°	3079.2	20.4
50°-60°	3578.8	23.7
60°-70°	3169.1	20.9
70°-80°	1366.9	9.0
80°-90°	54.8	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°	15130.0	100.0
0°-180°	15130.0	100.0

Coefficient of Utilization



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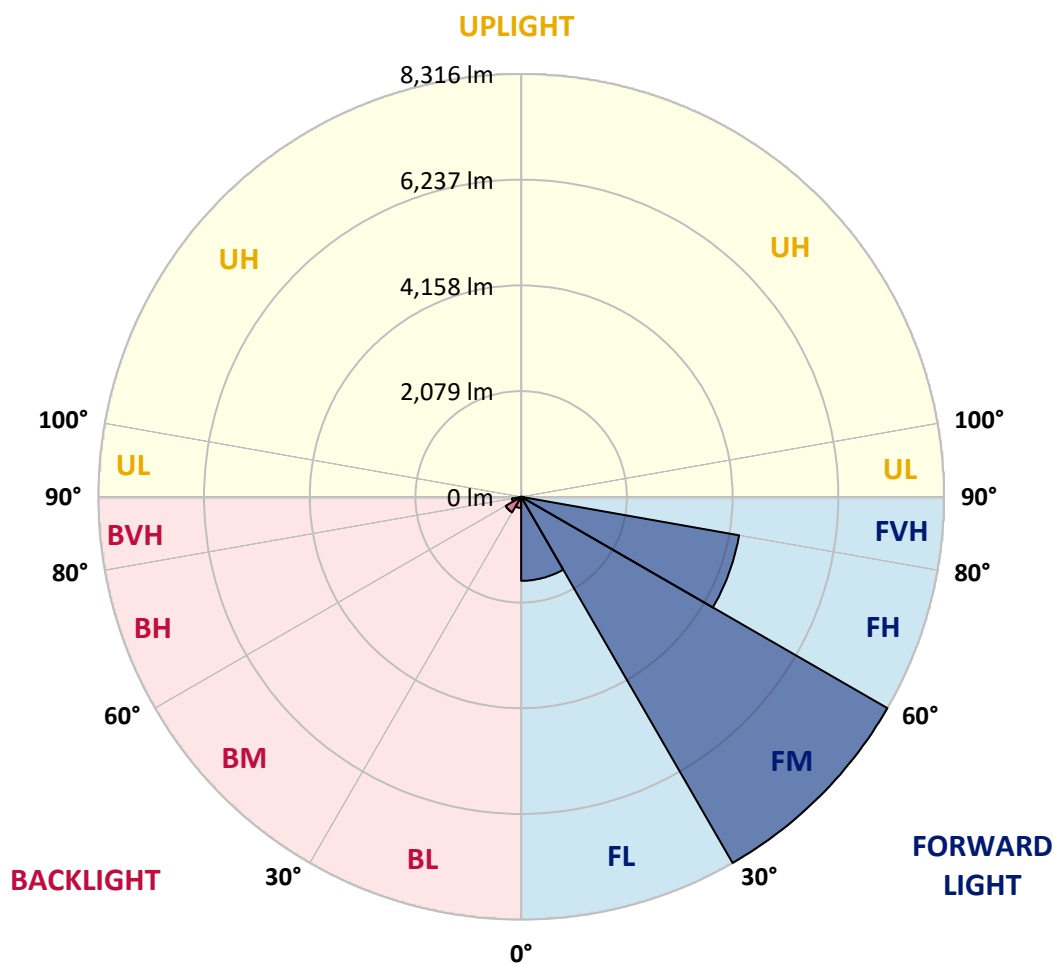
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1652.2	10.9			
FM	(30°-60°)	8315.8	55.0			
FH	(60°-80°)	4353.1	28.8			G2/5000
FVH	(80°-90°)	54.0	0.4			G1/100
BL	(0°-30°)	219.2	1.4	B1/500		
BM	(30°-60°)	352.0	2.3	B1/1000		
BH	(60°-80°)	182.9	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°	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8
2.5°	2319.2	2296.3	2273.5	2247.3	2188.5	2087.3	1959.9	1822.7	1652.8	1623.4	1486.2
5°	2815.7	2805.9	2783.0	2747.1	2681.8	2570.7	2427.0	2224.5	1940.3	1891.3	1600.6
7.5°	3165.2	3158.7	3139.1	3096.6	3037.8	2926.7	2776.5	2557.6	2227.7	2172.2	1744.3
10°	3478.8	3475.5	3459.2	3420.0	3361.2	3240.3	3080.3	2851.6	2502.1	2440.0	1910.9
12.5°	3763.0	3766.2	3759.7	3740.1	3697.6	3583.3	3400.4	3152.1	2766.7	2698.1	2110.1
15°	3929.5	3939.3	3965.5	4004.7	4017.7	3926.3	3736.8	3462.4	3037.8	2979.0	2338.8
17.5°	3874.0	3883.8	3965.5	4099.4	4226.8	4239.9	4070.0	3756.4	3305.6	3246.9	2564.2
20°	3740.1	3753.2	3838.1	4021.0	4269.3	4442.4	4373.8	4076.5	3560.4	3488.6	2779.8
22.5°	3890.3	3890.3	3916.5	4027.5	4252.9	4524.0	4615.5	4396.6	3821.7	3733.6	2995.3
25°	4406.4	4396.6	4341.1	4295.4	4367.2	4609.0	4798.4	4723.3	4128.8	4027.5	3224.0
27.5°	5059.7	5105.5	5000.9	4834.3	4671.0	4775.6	4961.7	5046.7	4468.5	4364.0	3459.2
30°	5791.4	5811.0	5686.9	5464.8	5177.3	5076.1	5154.5	5324.3	4837.6	4723.3	3704.2
32.5°	6451.2	6434.9	6330.4	6098.5	5742.4	5523.6	5402.7	5546.4	5239.4	5108.7	3955.7
35°	7035.9	7049.0	6921.6	6653.8	6304.3	6072.3	5784.9	5798.0	5690.2	5539.9	4246.4
37.5°	7561.8	7539.0	7418.1	7150.3	6833.4	6581.9	6278.1	6059.3	6183.4	6026.6	4573.0
40°	7989.7	7966.9	7839.5	7578.2	7280.9	7075.1	6836.7	6408.8	6702.8	6523.1	4922.5
42.5°	8329.5	8303.3	8195.5	7944.0	7656.6	7473.6	7359.3	6840.0	7258.1	7078.4	5314.5
45°	8496.0	8473.2	8407.8	8218.4	7966.9	7806.8	7862.4	7336.5	7852.6	7702.3	5745.7
47.5°	8300.1	8290.3	8365.4	8332.7	8189.0	8104.1	8296.8	7878.7	8476.4	8329.5	6242.2
50°	7705.6	7721.9	7940.7	8211.9	8280.5	8381.7	8652.8	8450.3	9146.1	8989.3	6813.8
52.5°	6238.9	6350.0	7009.8	7663.1	8169.4	8551.6	9070.9	9266.9	10237.1	10083.5	7705.6
55°	4658.0	4703.7	5422.3	6539.4	7721.9	8538.5	9381.3	9747.1	10776.0	10619.2	7940.7
57.5°	3694.4	3710.7	4066.7	5206.7	6800.8	8244.5	9544.6	9920.2	11011.2	10880.6	8290.3
60°	2900.6	2920.2	3178.3	3962.2	5504.0	7450.8	9309.4	10070.5	11471.8	11367.3	8901.1
62.5°	2257.1	2276.7	2433.5	2894.1	4128.8	6229.1	8835.8	10312.2	12347.2	12298.2	9900.6
65°	1747.6	1754.1	1861.9	2077.5	2916.9	4906.2	8257.6	10537.6	13529.6	13487.2	10710.7
67.5°	1290.2	1300.0	1375.2	1509.1	1969.7	3524.5	7310.3	10364.5	14421.4	14297.3	11004.7
69°	1042.0	1051.8	1117.1	1224.9	1554.8	2776.5	6444.7	9936.5	14555.3	14437.7	10818.5
70°	891.7	898.3	963.6	1055.1	1326.2	2358.4	5758.8	9567.4	14378.9	14264.6	10393.9
72.5°	571.6	604.3	669.6	728.4	878.7	1561.4	3887.1	7934.2	12406.0	12210.0	8140.0
75°	316.8	326.6	444.2	516.1	584.7	1015.9	2162.4	4948.7	7891.7	7754.6	4354.2
77.5°	261.3	267.8	313.6	392.0	392.0	568.4	816.6	1950.1	3001.9	2707.9	1179.2
80°	182.9	189.5	238.5	258.0	280.9	320.1	264.6	427.9	463.8	411.6	176.4
82.5°	127.4	133.9	163.3	212.3	225.4	150.3	98.0	127.4	133.9	133.9	68.6
85°	22.9	32.7	120.9	176.4	133.9	45.7	55.5	45.7	42.5	45.7	16.3
87.5°	0.0	0.0	75.1	84.9	71.9	19.6	22.9	16.3	9.8	13.1	6.5
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°	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8	1407.8
2.5°	1417.6	1349.0	1231.5	1146.5	1074.7	1019.1	996.3	960.3	934.2	947.3	930.9
5°	1456.8	1336.0	1146.5	1025.7	940.7	868.9	810.1	764.3	728.4	721.9	715.4
7.5°	1518.9	1345.8	1097.5	947.3	819.9	708.8	617.4	548.8	496.5	496.5	476.9
10°	1603.8	1371.9	1068.1	868.9	679.4	529.2	437.7	372.4	346.2	343.0	336.4
12.5°	1721.4	1420.9	1045.3	767.6	529.2	385.4	329.9	307.0	297.2	294.0	290.7
15°	1881.5	1492.8	1019.1	643.5	401.8	316.8	294.0	274.4	264.6	261.3	258.0
17.5°	2035.0	1558.1	963.6	516.1	326.6	287.4	261.3	245.0	231.9	228.7	228.7
20°	2178.7	1613.6	868.9	401.8	294.0	258.0	231.9	212.3	199.3	196.0	196.0
22.5°	2329.0	1659.4	751.3	326.6	267.8	228.7	202.5	182.9	169.9	166.6	163.3
25°	2489.0	1692.0	617.4	290.7	241.7	202.5	173.1	156.8	147.0	143.7	140.5
27.5°	2662.2	1705.1	490.0	264.6	212.3	176.4	150.3	133.9	127.4	124.1	124.1
30°	2818.9	1692.0	378.9	235.2	186.2	153.5	130.7	117.6	111.1	107.8	107.8
32.5°	2982.3	1659.4	303.8	209.1	163.3	130.7	111.1	101.3	98.0	94.7	94.7
35°	3155.4	1616.9	261.3	186.2	140.5	114.3	98.0	91.5	88.2	84.9	84.9
37.5°	3357.9	1564.6	238.5	166.6	124.1	101.3	84.9	81.7	78.4	78.4	78.4
40°	3586.6	1499.3	222.1	150.3	111.1	88.2	75.1	71.9	68.6	68.6	68.6
42.5°	3828.3	1424.2	205.8	133.9	98.0	75.1	65.3	65.3	62.1	62.1	58.8
45°	4099.4	1349.0	189.5	117.6	84.9	65.3	55.5	52.3	52.3	49.0	49.0
47.5°	4419.5	1280.4	173.1	104.5	75.1	55.5	49.0	45.7	42.5	39.2	39.2
50°	4870.3	1273.9	153.5	91.5	68.6	45.7	39.2	35.9	32.7	29.4	29.4
52.5°	5317.8	1215.1	130.7	75.1	55.5	39.2	29.4	26.1	22.9	22.9	19.6
55°	5419.0	1117.1	114.3	65.3	42.5	29.4	22.9	16.3	16.3	13.1	13.1
57.5°	5641.2	1071.4	98.0	52.3	32.7	22.9	13.1	9.8	9.8	9.8	9.8
60°	6078.9	1058.3	84.9	45.7	22.9	16.3	9.8	6.5	6.5	3.3	3.3
62.5°	6683.2	1045.3	71.9	39.2	16.3	9.8	6.5	3.3	0.0	0.0	0.0
65°	7016.3	957.1	58.8	29.4	13.1	9.8	3.3	0.0	0.0	0.0	0.0
67.5°	6928.1	790.5	52.3	19.6	9.8	6.5	3.3	0.0	0.0	0.0	0.0
69°	6559.0	666.4	42.5	16.3	9.8	6.5	3.3	0.0	0.0	0.0	0.0
70°	6114.8	574.9	39.2	13.1	6.5	3.3	3.3	0.0	0.0	0.0	0.0
72.5°	4341.1	300.5	26.1	9.8	6.5	3.3	0.0	0.0	0.0	0.0	0.0
75°	2028.5	133.9	16.3	6.5	3.3	3.3	0.0	0.0	0.0	0.0	0.0
77.5°	447.5	62.1	9.8	6.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	84.9	22.9	6.5	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	29.4	9.8	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.8	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	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)