

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: P231104

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231104
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-AF48-70-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 470mA 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: 8108 lumens
Efficiency: N/A
Efficacy: 111.1 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): 73
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

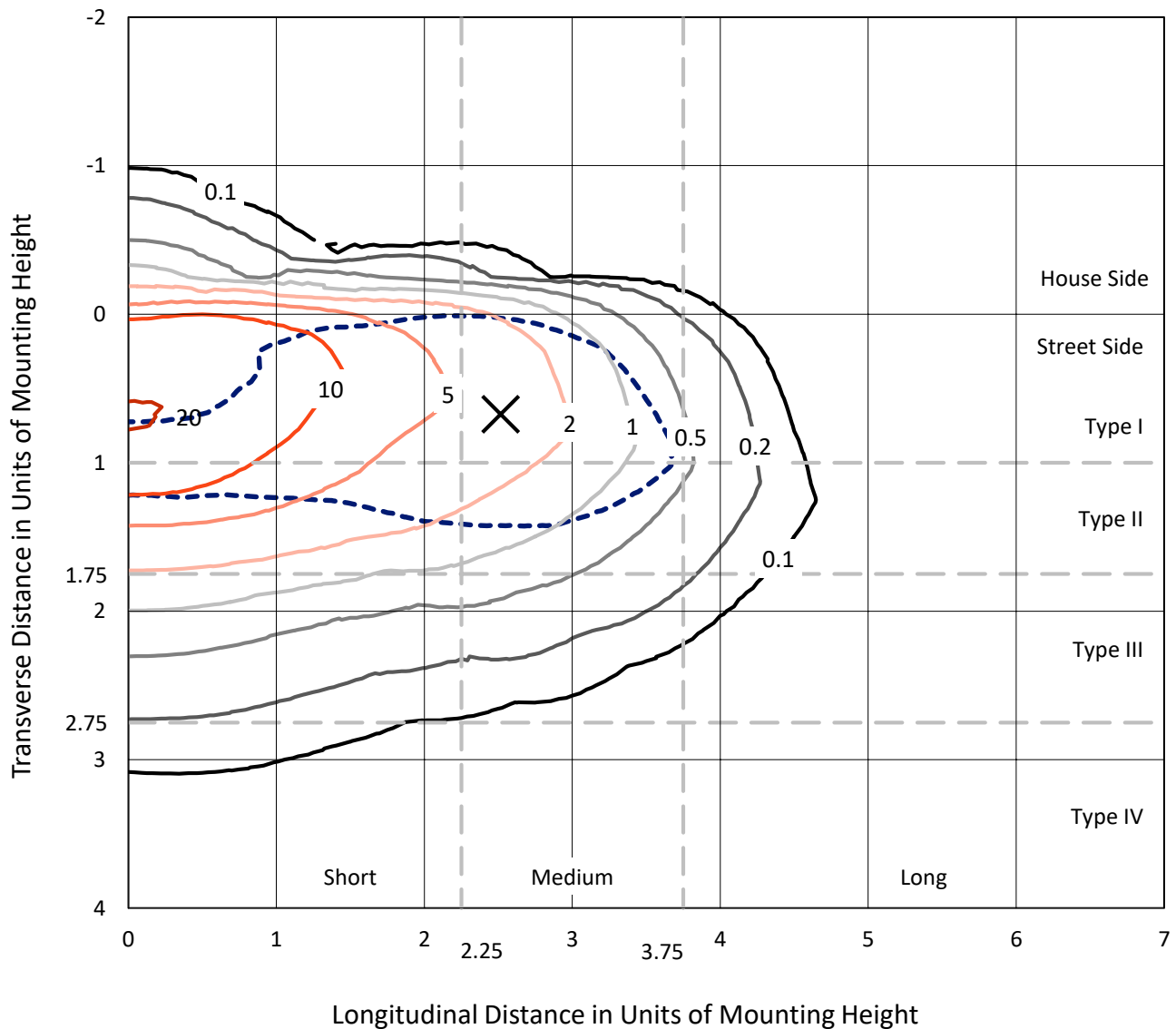


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

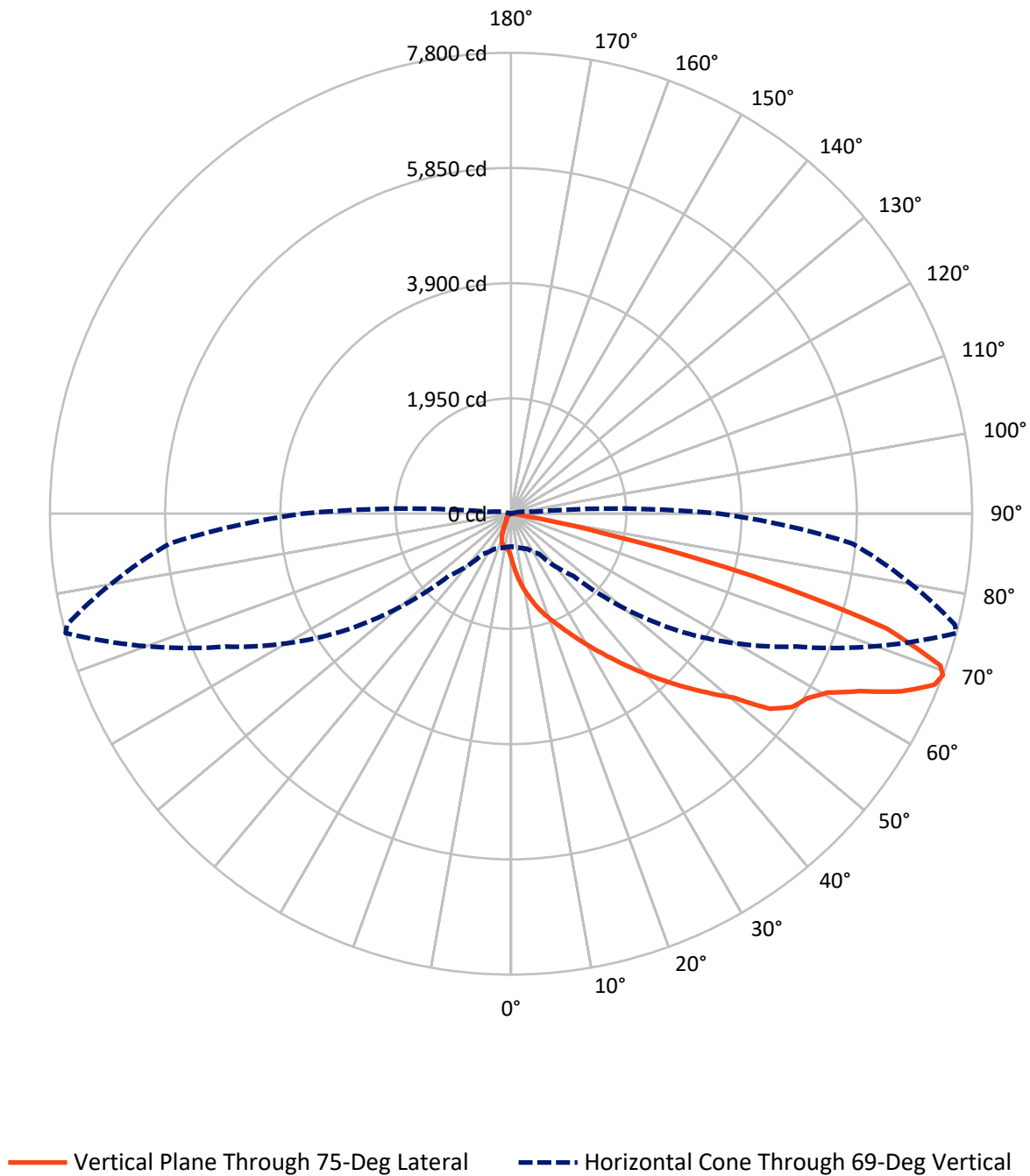


Based on 10 foot mounting height. Maximum calculated value = 20.7 fc
Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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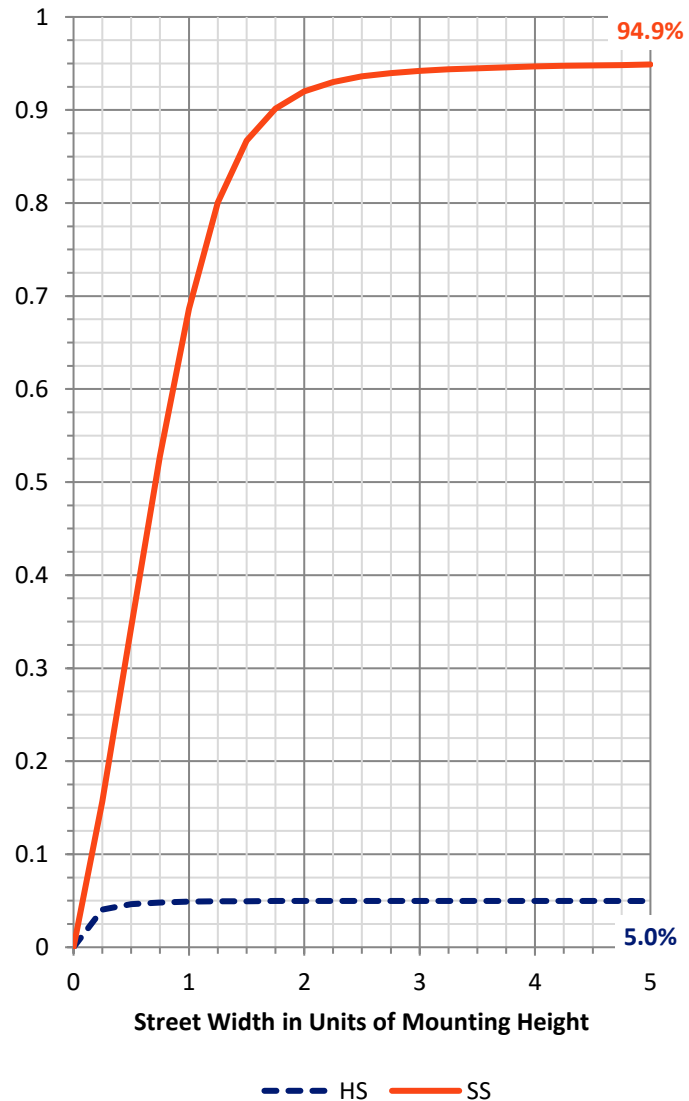
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	404.6	0.0	404.6
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	7703.5	0.0	7703.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	8108.0	0.0	8108.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	1.1
10°-20°	314.5	3.9
20°-30°	600.4	7.4
30°-40°	1077.0	13.3
40°-50°	1650.1	20.4
50°-60°	1917.8	23.7
60°-70°	1698.3	20.9
70°-80°	732.5	9.0
80°-90°	29.4	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°	8108.0	100.0
0°-180°	8108.0	100.0

Coefficient of Utilization



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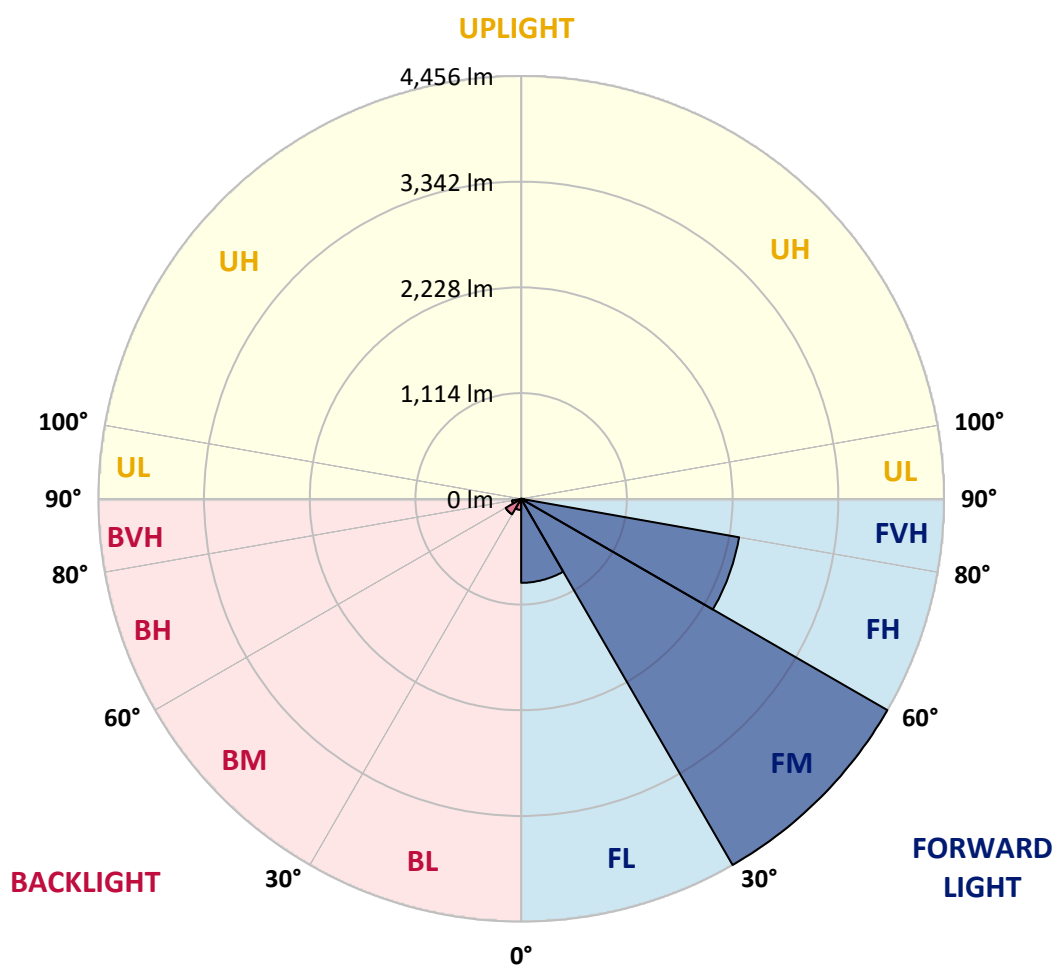
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	885.4	10.9			
FM	(30°-60°)	4456.4	55.0			
FH	(60°-80°)	2332.8	28.8			G2/5000
FVH	(80°-90°)	28.9	0.4			G1/100
BL	(0°-30°)	117.5	1.4	B1/500		
BM	(30°-60°)	188.6	2.3	B0/220		
BH	(60°-80°)	98.0	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	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°	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4
2.5°	1242.8	1230.6	1218.3	1204.3	1172.8	1118.5	1050.3	976.8	885.7	870.0	796.5
5°	1508.9	1503.6	1491.4	1472.1	1437.1	1377.6	1300.6	1192.1	1039.8	1013.5	857.7
7.5°	1696.2	1692.7	1682.2	1659.4	1627.9	1568.4	1487.9	1370.6	1193.8	1164.1	934.7
10°	1864.2	1862.5	1853.7	1832.7	1801.2	1736.5	1650.7	1528.1	1340.8	1307.6	1024.0
12.5°	2016.5	2018.3	2014.8	2004.3	1981.5	1920.2	1822.2	1689.2	1482.6	1445.9	1130.8
15°	2105.8	2111.0	2125.1	2146.1	2153.1	2104.0	2002.5	1855.5	1627.9	1596.4	1253.3
17.5°	2076.0	2081.3	2125.1	2196.8	2265.1	2272.1	2181.1	2013.0	1771.5	1740.0	1374.1
20°	2004.3	2011.3	2056.8	2154.8	2287.8	2380.6	2343.9	2184.6	1908.0	1869.5	1489.6
22.5°	2084.8	2084.8	2098.8	2158.3	2279.1	2424.4	2473.4	2356.1	2048.0	2000.8	1605.2
25°	2361.4	2356.1	2326.4	2301.8	2340.4	2469.9	2571.4	2531.2	2212.6	2158.3	1727.7
27.5°	2711.5	2736.0	2679.9	2590.7	2503.2	2559.2	2658.9	2704.5	2394.6	2338.6	1853.7
30°	3103.6	3114.1	3047.5	2928.5	2774.5	2720.2	2762.2	2853.2	2592.4	2531.2	1985.0
32.5°	3457.1	3448.4	3392.4	3268.1	3077.3	2960.0	2895.3	2972.3	2807.7	2737.7	2119.8
35°	3770.5	3777.5	3709.2	3565.7	3378.4	3254.1	3100.1	3107.1	3049.3	2968.8	2275.6
37.5°	4052.3	4040.1	3975.3	3831.7	3662.0	3527.2	3364.4	3247.1	3313.6	3229.6	2450.6
40°	4281.6	4269.4	4201.1	4061.1	3901.8	3791.5	3663.7	3434.4	3591.9	3495.7	2637.9
42.5°	4463.7	4449.7	4391.9	4257.1	4103.1	4005.0	3943.8	3665.5	3889.5	3793.2	2848.0
45°	4552.9	4540.7	4505.7	4404.1	4269.4	4183.6	4213.3	3931.5	4208.1	4127.6	3079.1
47.5°	4447.9	4442.7	4482.9	4465.4	4388.4	4342.9	4446.2	4222.1	4542.4	4463.7	3345.1
50°	4129.3	4138.1	4255.4	4400.6	4437.4	4491.7	4637.0	4528.4	4901.3	4817.3	3651.5
52.5°	3343.4	3402.9	3756.5	4106.6	4377.9	4582.7	4861.0	4966.0	5485.9	5403.7	4129.3
55°	2496.1	2520.7	2905.8	3504.4	4138.1	4575.7	5027.3	5223.4	5774.8	5690.7	4255.4
57.5°	1979.8	1988.5	2179.3	2790.2	3644.4	4418.2	5114.8	5316.1	5900.8	5830.8	4442.7
60°	1554.4	1564.9	1703.2	2123.3	2949.5	3992.8	4988.8	5396.7	6147.6	6091.6	4770.0
62.5°	1209.6	1220.1	1304.1	1550.9	2212.6	3338.1	4735.0	5526.2	6616.7	6590.5	5305.6
65°	936.5	940.0	997.8	1113.3	1563.2	2629.2	4425.2	5647.0	7250.4	7227.6	5739.7
67.5°	691.4	696.7	736.9	808.7	1055.5	1888.7	3917.5	5554.2	7728.3	7661.7	5897.3
69°	558.4	563.6	598.7	656.4	833.2	1487.9	3453.6	5324.9	7800.0	7737.0	5797.5
70°	477.9	481.4	516.4	565.4	710.7	1263.8	3086.1	5127.1	7705.5	7644.2	5569.9
72.5°	306.3	323.8	358.8	390.4	470.9	836.7	2083.0	4251.9	6648.2	6543.2	4362.1
75°	169.8	175.0	238.1	276.6	313.3	544.4	1158.8	2651.9	4229.1	4155.6	2333.4
77.5°	140.0	143.5	168.0	210.1	210.1	304.6	437.6	1045.0	1608.7	1451.1	631.9
80°	98.0	101.5	127.8	138.3	150.5	171.5	141.8	229.3	248.6	220.6	94.5
82.5°	68.3	71.8	87.5	113.8	120.8	80.5	52.5	68.3	71.8	71.8	36.8
85°	12.3	17.5	64.8	94.5	71.8	24.5	29.8	24.5	22.8	24.5	8.8
87.5°	0.0	0.0	40.3	45.5	38.5	10.5	12.3	8.8	5.3	7.0	3.5
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°	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4
2.5°	759.7	722.9	659.9	614.4	575.9	546.1	533.9	514.6	500.6	507.6	498.9
5°	780.7	715.9	614.4	549.6	504.1	465.6	434.1	409.6	390.4	386.9	383.3
7.5°	814.0	721.2	588.2	507.6	439.4	379.8	330.8	294.1	266.1	266.1	255.6
10°	859.5	735.2	572.4	465.6	364.1	283.6	234.6	199.6	185.5	183.8	180.3
12.5°	922.5	761.4	560.1	411.4	283.6	206.6	176.8	164.5	159.3	157.5	155.8
15°	1008.3	800.0	546.1	344.8	215.3	169.8	157.5	147.0	141.8	140.0	138.3
17.5°	1090.5	835.0	516.4	276.6	175.0	154.0	140.0	131.3	124.3	122.5	122.5
20°	1167.6	864.7	465.6	215.3	157.5	138.3	124.3	113.8	106.8	105.0	105.0
22.5°	1248.1	889.2	402.6	175.0	143.5	122.5	108.5	98.0	91.0	89.3	87.5
25°	1333.8	906.7	330.8	155.8	129.5	108.5	92.8	84.0	78.8	77.0	75.3
27.5°	1426.6	913.7	262.6	141.8	113.8	94.5	80.5	71.8	68.3	66.5	66.5
30°	1510.6	906.7	203.1	126.0	99.8	82.3	70.0	63.0	59.5	57.8	57.8
32.5°	1598.2	889.2	162.8	112.0	87.5	70.0	59.5	54.3	52.5	50.8	50.8
35°	1690.9	866.5	140.0	99.8	75.3	61.3	52.5	49.0	47.3	45.5	45.5
37.5°	1799.5	838.5	127.8	89.3	66.5	54.3	45.5	43.8	42.0	42.0	42.0
40°	1922.0	803.5	119.0	80.5	59.5	47.3	40.3	38.5	36.8	36.8	36.8
42.5°	2051.5	763.2	110.3	71.8	52.5	40.3	35.0	35.0	33.3	33.3	31.5
45°	2196.8	722.9	101.5	63.0	45.5	35.0	29.8	28.0	28.0	26.3	26.3
47.5°	2368.4	686.2	92.8	56.0	40.3	29.8	26.3	24.5	22.8	21.0	21.0
50°	2609.9	682.7	82.3	49.0	36.8	24.5	21.0	19.3	17.5	15.8	15.8
52.5°	2849.7	651.2	70.0	40.3	29.8	21.0	15.8	14.0	12.3	12.3	10.5
55°	2904.0	598.7	61.3	35.0	22.8	15.8	12.3	8.8	8.8	7.0	7.0
57.5°	3023.0	574.1	52.5	28.0	17.5	12.3	7.0	5.3	5.3	5.3	5.3
60°	3257.6	567.1	45.5	24.5	12.3	8.8	5.3	3.5	3.5	1.8	1.8
62.5°	3581.4	560.1	38.5	21.0	8.8	5.3	3.5	1.8	0.0	0.0	0.0
65°	3760.0	512.9	31.5	15.8	7.0	5.3	1.8	0.0	0.0	0.0	0.0
67.5°	3712.7	423.6	28.0	10.5	5.3	3.5	1.8	0.0	0.0	0.0	0.0
69°	3514.9	357.1	22.8	8.8	5.3	3.5	1.8	0.0	0.0	0.0	0.0
70°	3276.9	308.1	21.0	7.0	3.5	1.8	1.8	0.0	0.0	0.0	0.0
72.5°	2326.4	161.0	14.0	5.3	3.5	1.8	0.0	0.0	0.0	0.0	0.0
75°	1087.0	71.8	8.8	3.5	1.8	1.8	0.0	0.0	0.0	0.0	0.0
77.5°	239.8	33.3	5.3	3.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	45.5	12.3	3.5	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.8	5.3	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	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)