

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: P236975

Luminaire Tested: **ARCH-L-AF72-220-D-U-T2R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P236975  
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-L-AF72-220-D-U-T2R-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 945mA 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: 21265.1 lumens  
Efficiency: N/A  
Efficacy: 95.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G3

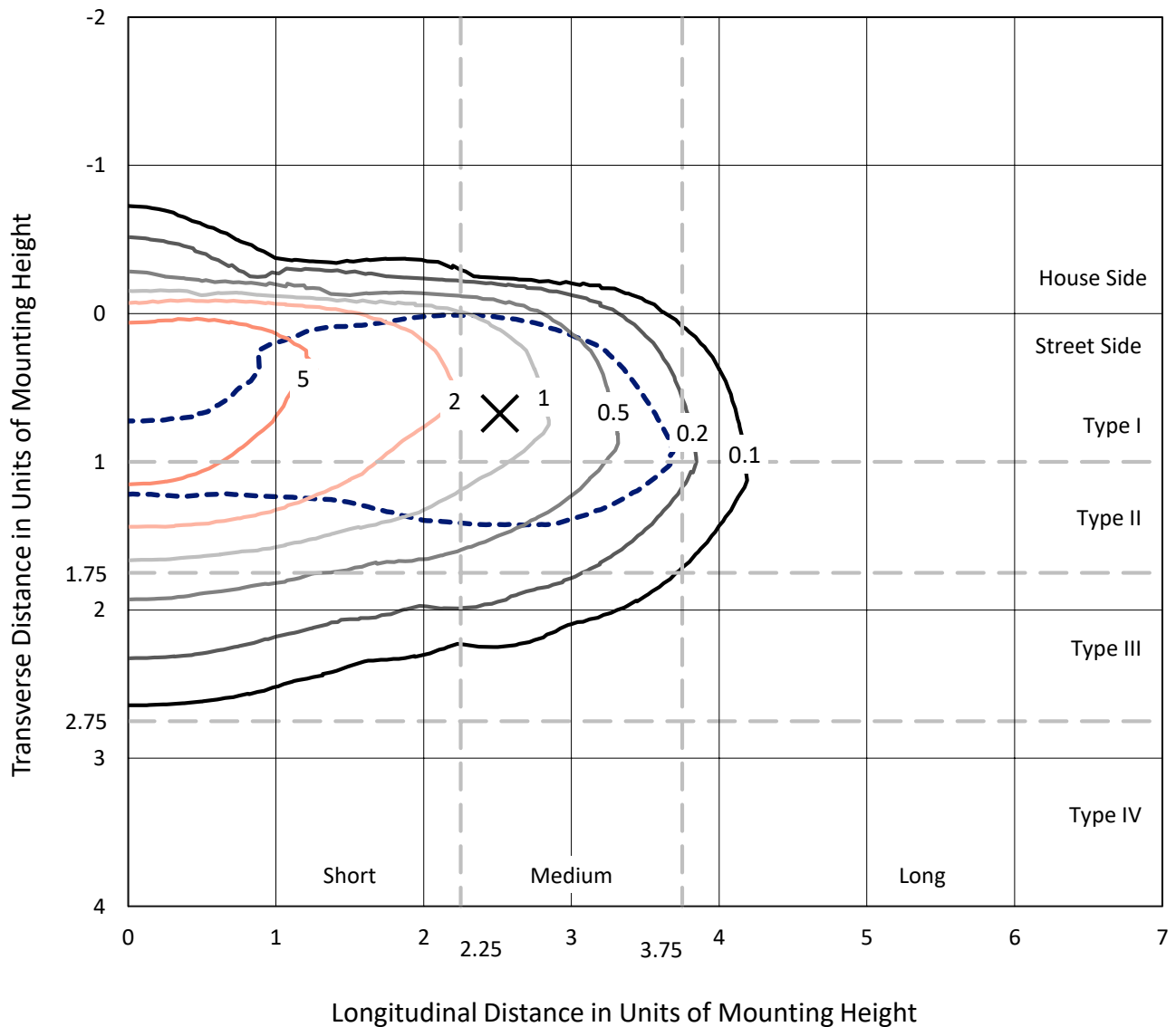
Input Watts (W): 222  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

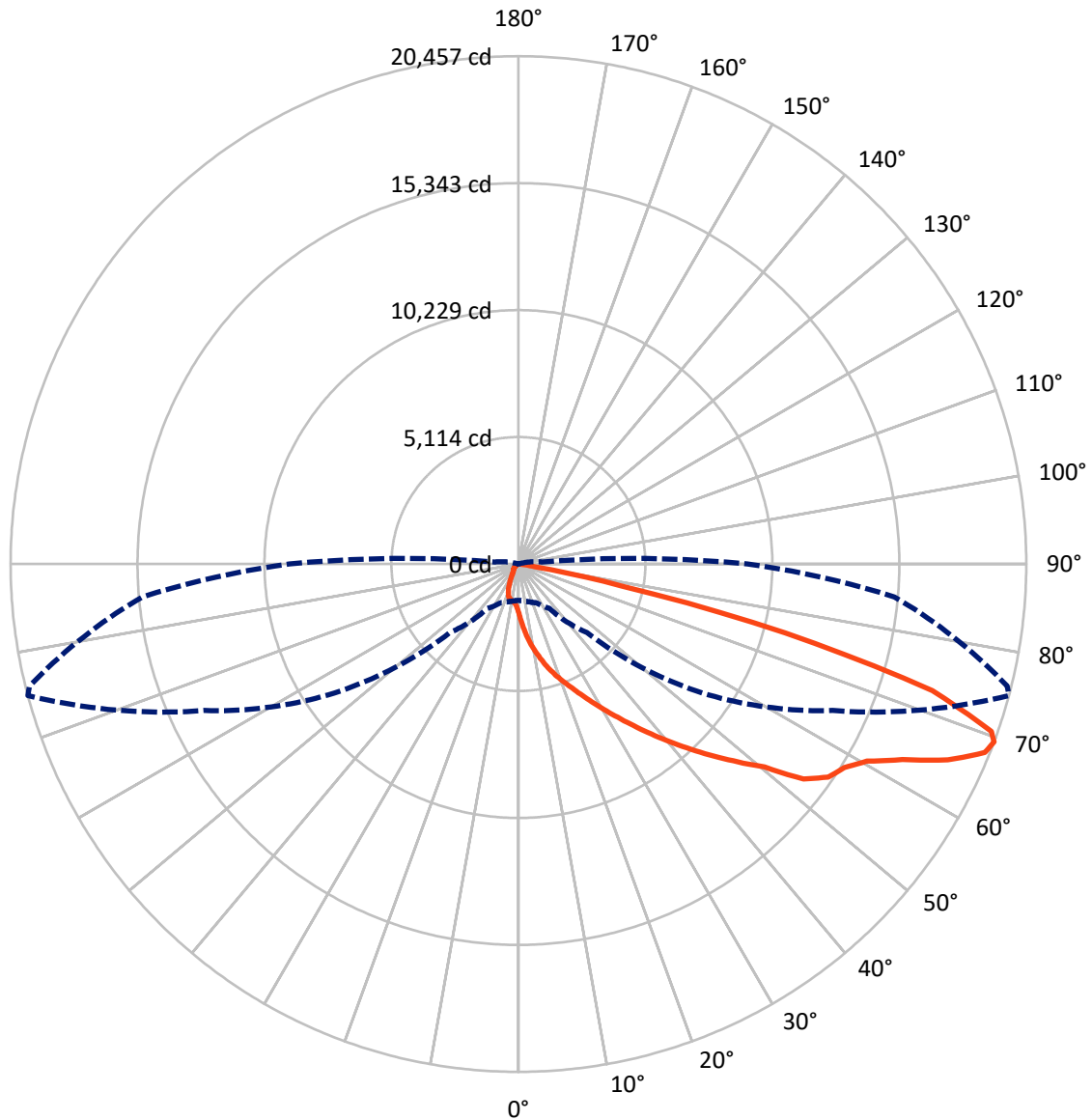
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical



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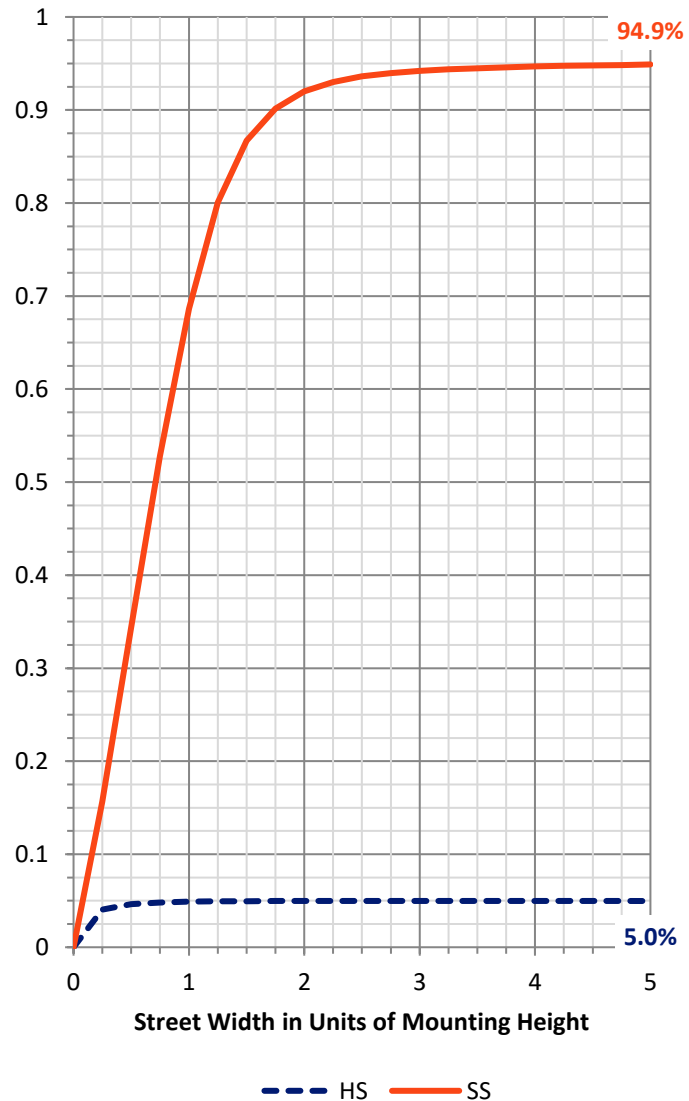
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1061.0	0.0	1061.0
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	20204.1	0.0	20204.1
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	21265.1	0.0	21265.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.7	1.1
10°-20°	824.9	3.9
20°-30°	1574.7	7.4
30°-40°	2824.8	13.3
40°-50°	4327.8	20.4
50°-60°	5029.9	23.7
60°-70°	4454.1	20.9
70°-80°	1921.2	9.0
80°-90°	77.0	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°	21265.1	100.0
0°-180°	21265.1	100.0

**Coefficient of Utilization**



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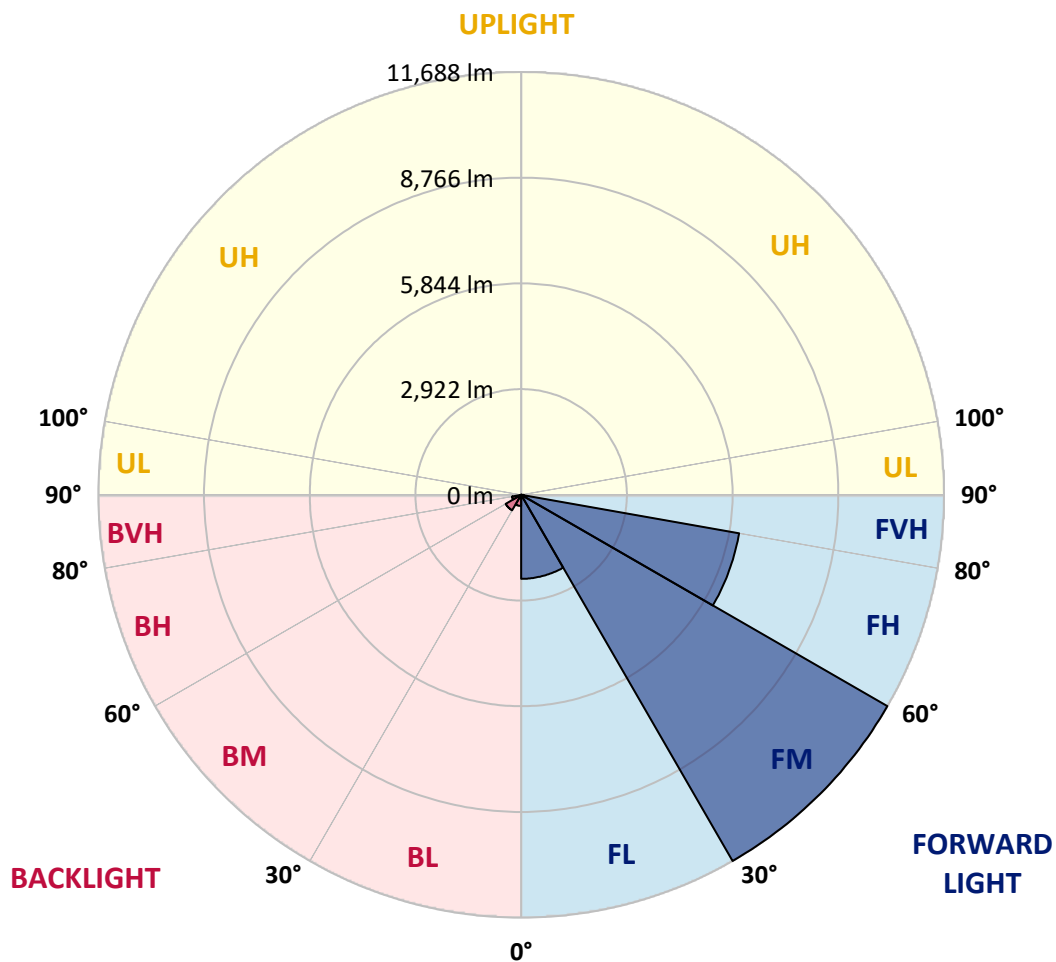
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2322.2	10.9			
FM	(30°-60°)	11687.8	55.0			
FH	(60°-80°)	6118.2	28.8			G3/7500
FVH	(80°-90°)	75.8	0.4			G1/100
BL	(0°-30°)	308.1	1.4	B1/500		
BM	(30°-60°)	494.7	2.3	B1/1000		
BH	(60°-80°)	257.1	1.2	B1/500		G1/500
BVH	(80°-90°)	1.1	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-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7
2.5°	3259.6	3227.4	3195.3	3158.6	3075.9	2933.6	2754.6	2561.8	2323.0	2281.7	2088.9
5°	3957.4	3943.7	3911.6	3861.0	3769.2	3613.1	3411.1	3126.4	2727.1	2658.1	2249.6
7.5°	4448.6	4439.5	4411.9	4352.2	4269.6	4113.5	3902.4	3594.8	3131.0	3053.0	2451.6
10°	4889.4	4884.8	4861.9	4806.7	4724.1	4554.3	4329.3	4007.9	3516.7	3429.4	2685.8
12.5°	5288.8	5293.4	5284.3	5256.6	5197.0	5036.3	4779.2	4430.3	3888.5	3792.2	2965.7
15°	5522.9	5536.7	5573.4	5628.6	5646.9	5518.3	5252.0	4866.4	4269.6	4186.9	3287.2
17.5°	5444.9	5458.7	5573.4	5761.7	5940.7	5959.1	5720.3	5279.7	4646.0	4563.4	3604.0
20°	5256.6	5275.1	5394.4	5651.5	6000.4	6243.7	6147.3	5729.5	5004.2	4903.2	3907.0
22.5°	5467.9	5467.9	5504.6	5660.7	5977.4	6358.5	6487.0	6179.4	5371.4	5247.5	4210.0
25°	6193.3	6179.4	6101.4	6037.1	6138.1	6477.8	6744.1	6638.5	5803.0	5660.7	4531.3
27.5°	7111.5	7175.7	7028.8	6794.6	6565.1	6712.0	6973.7	7093.0	6280.4	6133.5	4861.9
30°	8139.8	8167.3	7992.9	7680.7	7276.7	7134.4	7244.5	7483.3	6799.2	6638.5	5206.2
32.5°	9067.1	9044.2	8897.3	8571.3	8071.0	7763.4	7593.5	7795.5	7363.9	7180.3	5559.6
35°	9889.0	9907.3	9728.3	9351.8	8860.6	8534.6	8130.6	8148.9	7997.4	7786.3	5968.3
37.5°	10628.2	10595.9	10426.1	10049.7	9604.3	9250.9	8823.9	8516.3	8690.7	8470.3	6427.4
40°	11229.5	11197.4	11018.3	10651.1	10233.3	9944.0	9608.9	9007.5	9420.7	9168.2	6918.6
42.5°	11707.0	11670.2	11518.7	11165.2	10761.2	10504.2	10343.5	9613.5	10201.2	9948.6	7469.5
45°	11941.1	11909.0	11817.1	11550.9	11197.4	10972.5	11050.4	10311.3	11036.7	10825.5	8075.5
47.5°	11665.6	11651.9	11757.5	11711.6	11509.5	11390.3	11661.0	11073.4	11913.6	11707.0	8773.3
50°	10830.1	10853.1	11160.7	11541.7	11638.1	11780.4	12161.5	11876.9	12854.7	12634.4	9576.8
52.5°	8768.7	8924.8	9852.2	10770.4	11482.0	12019.2	12749.1	13024.6	14388.1	14172.4	10830.1
55°	6546.7	6611.0	7621.0	9191.1	10853.1	12000.8	13185.3	13699.5	15145.6	14925.3	11160.7
57.5°	5192.4	5215.3	5715.7	7318.0	9558.5	11587.6	13414.9	13942.8	15476.2	15292.5	11651.9
60°	4076.8	4104.3	4467.0	5568.8	7735.8	10472.0	13084.3	14154.0	16123.5	15976.5	12510.4
62.5°	3172.4	3199.9	3420.2	4067.6	5803.0	8755.0	12418.6	14493.7	17353.8	17285.0	13915.2
65°	2456.2	2465.3	2616.8	2919.8	4099.8	6895.6	11606.0	14810.5	19015.8	18956.1	15053.8
67.5°	1813.4	1827.2	1932.8	2121.0	2768.3	4953.6	10274.6	14567.1	20269.2	20094.7	15467.0
69°	1464.6	1478.3	1570.1	1721.6	2185.3	3902.4	9058.0	13965.7	20457.4	20292.1	15205.3
70°	1253.3	1262.5	1354.4	1482.9	1863.9	3314.7	8093.9	13447.0	20209.4	20048.8	14608.5
72.5°	803.4	849.4	941.1	1023.8	1235.0	2194.5	5463.3	11151.5	17436.5	17161.0	11440.7
75°	445.3	459.1	624.4	725.4	821.7	1427.8	3039.2	6955.3	11091.8	10898.9	6119.8
77.5°	367.2	376.4	440.7	551.0	551.0	798.8	1147.8	2740.8	4219.1	3805.9	1657.4
80°	257.1	266.3	335.1	362.6	394.9	449.9	371.8	601.4	651.9	578.5	248.0
82.5°	179.0	188.2	229.6	298.4	316.8	211.1	137.7	179.0	188.2	188.2	96.4
85°	32.1	45.9	169.9	248.0	188.2	64.2	78.1	64.2	59.6	64.2	22.9
87.5°	0.0	0.0	105.6	119.4	101.0	27.5	32.1	22.9	13.8	18.4	9.2
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°	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7
2.5°	1992.5	1896.0	1730.8	1611.5	1510.4	1432.3	1400.2	1349.8	1313.1	1331.4	1308.5
5°	2047.5	1877.7	1611.5	1441.5	1322.2	1221.2	1138.5	1074.3	1023.8	1014.6	1005.5
7.5°	2134.8	1891.4	1542.6	1331.4	1152.4	996.3	867.7	771.3	697.9	697.9	670.2
10°	2254.2	1928.2	1501.3	1221.2	954.9	743.8	615.2	523.3	486.6	482.0	472.9
12.5°	2419.5	1997.1	1469.2	1078.9	743.8	541.8	463.7	431.6	417.8	413.2	408.6
15°	2644.4	2098.1	1432.3	904.4	564.7	445.3	413.2	385.7	371.8	367.2	362.6
17.5°	2860.2	2189.9	1354.4	725.4	459.1	404.0	367.2	344.3	325.9	321.4	321.4
20°	3062.2	2268.0	1221.2	564.7	413.2	362.6	325.9	298.4	280.1	275.5	275.5
22.5°	3273.3	2332.2	1055.9	459.1	376.4	321.4	284.7	257.1	238.8	234.2	229.6
25°	3498.3	2378.2	867.7	408.6	339.7	284.7	243.4	220.3	206.6	202.0	197.4
27.5°	3741.6	2396.5	688.7	371.8	298.4	248.0	211.1	188.2	179.0	174.4	174.4
30°	3962.0	2378.2	532.5	330.5	261.7	215.7	183.6	165.3	156.1	151.5	151.5
32.5°	4191.5	2332.2	427.0	293.8	229.6	183.6	156.1	142.3	137.7	133.2	133.2
35°	4434.9	2272.5	367.2	261.7	197.4	160.7	137.7	128.6	124.0	119.4	119.4
37.5°	4719.5	2199.0	335.1	234.2	174.4	142.3	119.4	114.8	110.2	110.2	110.2
40°	5040.9	2107.3	312.2	211.1	156.1	124.0	105.6	101.0	96.4	96.4	96.4
42.5°	5380.6	2001.7	289.2	188.2	137.7	105.6	91.9	91.9	87.3	87.3	82.7
45°	5761.7	1896.0	266.3	165.3	119.4	91.9	78.1	73.4	73.4	68.8	68.8
47.5°	6211.6	1799.7	243.4	146.9	105.6	78.1	68.8	64.2	59.6	55.1	55.1
50°	6845.2	1790.5	215.7	128.6	96.4	64.2	55.1	50.5	45.9	41.3	41.3
52.5°	7474.1	1707.8	183.6	105.6	78.1	55.1	41.3	36.7	32.1	32.1	27.5
55°	7616.4	1570.1	160.7	91.9	59.6	41.3	32.1	22.9	22.9	18.4	18.4
57.5°	7928.6	1505.9	137.7	73.4	45.9	32.1	18.4	13.8	13.8	13.8	13.8
60°	8543.8	1487.5	119.4	64.2	32.1	22.9	13.8	9.2	9.2	4.6	4.6
62.5°	9393.1	1469.2	101.0	55.1	22.9	13.8	9.2	4.6	0.0	0.0	0.0
65°	9861.5	1345.2	82.7	41.3	18.4	13.8	4.6	0.0	0.0	0.0	0.0
67.5°	9737.5	1111.0	73.4	27.5	13.8	9.2	4.6	0.0	0.0	0.0	0.0
69°	9218.6	936.5	59.6	22.9	13.8	9.2	4.6	0.0	0.0	0.0	0.0
70°	8594.3	808.0	55.1	18.4	9.2	4.6	4.6	0.0	0.0	0.0	0.0
72.5°	6101.4	422.4	36.7	13.8	9.2	4.6	0.0	0.0	0.0	0.0	0.0
75°	2851.0	188.2	22.9	9.2	4.6	4.6	0.0	0.0	0.0	0.0	0.0
77.5°	629.0	87.3	13.8	9.2	4.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	119.4	32.1	9.2	4.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	41.3	13.8	4.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.8	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.6	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)