

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: P322033

Luminaire Tested: **GAN-SA9A-827-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA9A-827-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21787 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G4

Input Watts (W): 290
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: 24 FT



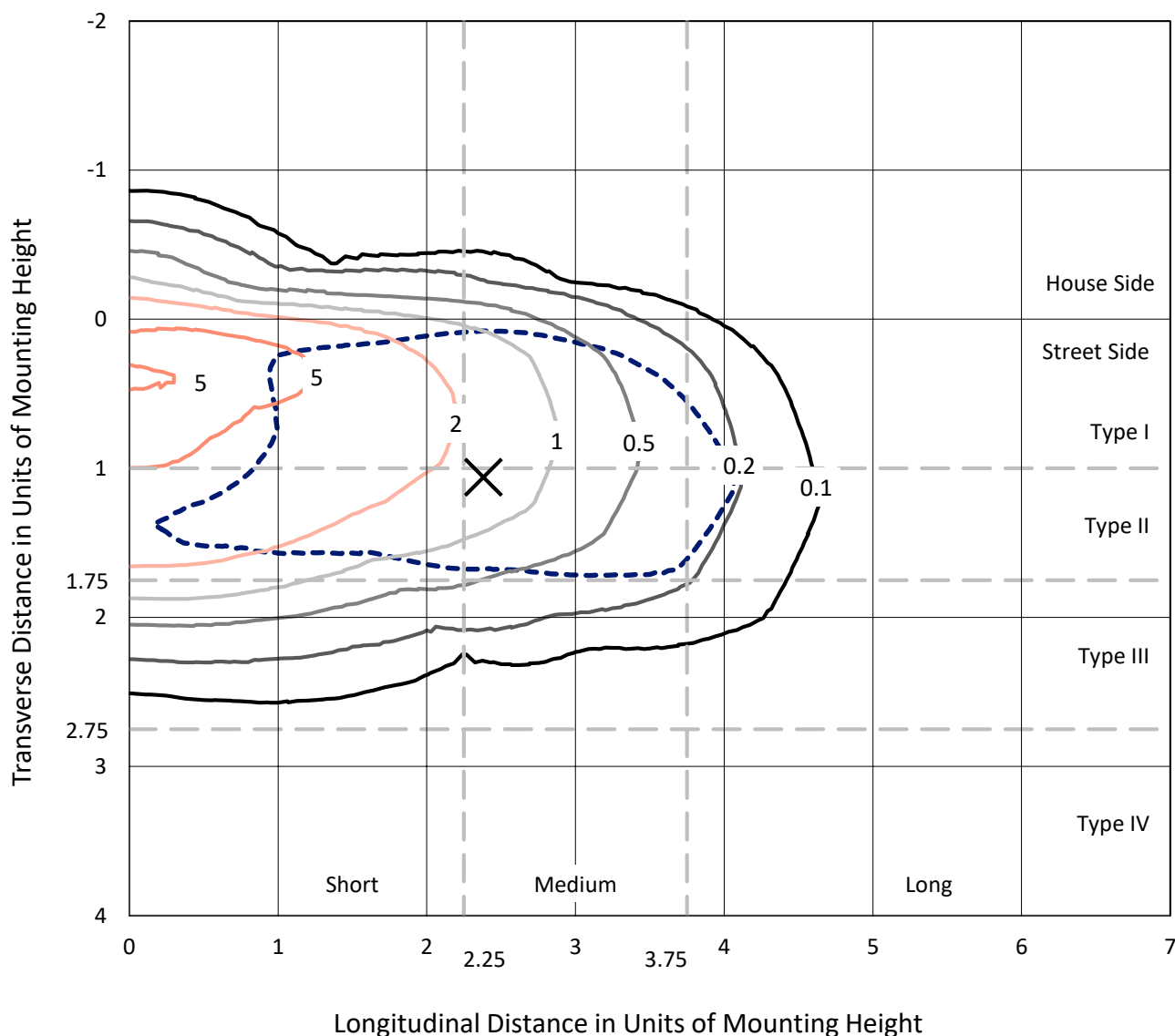
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

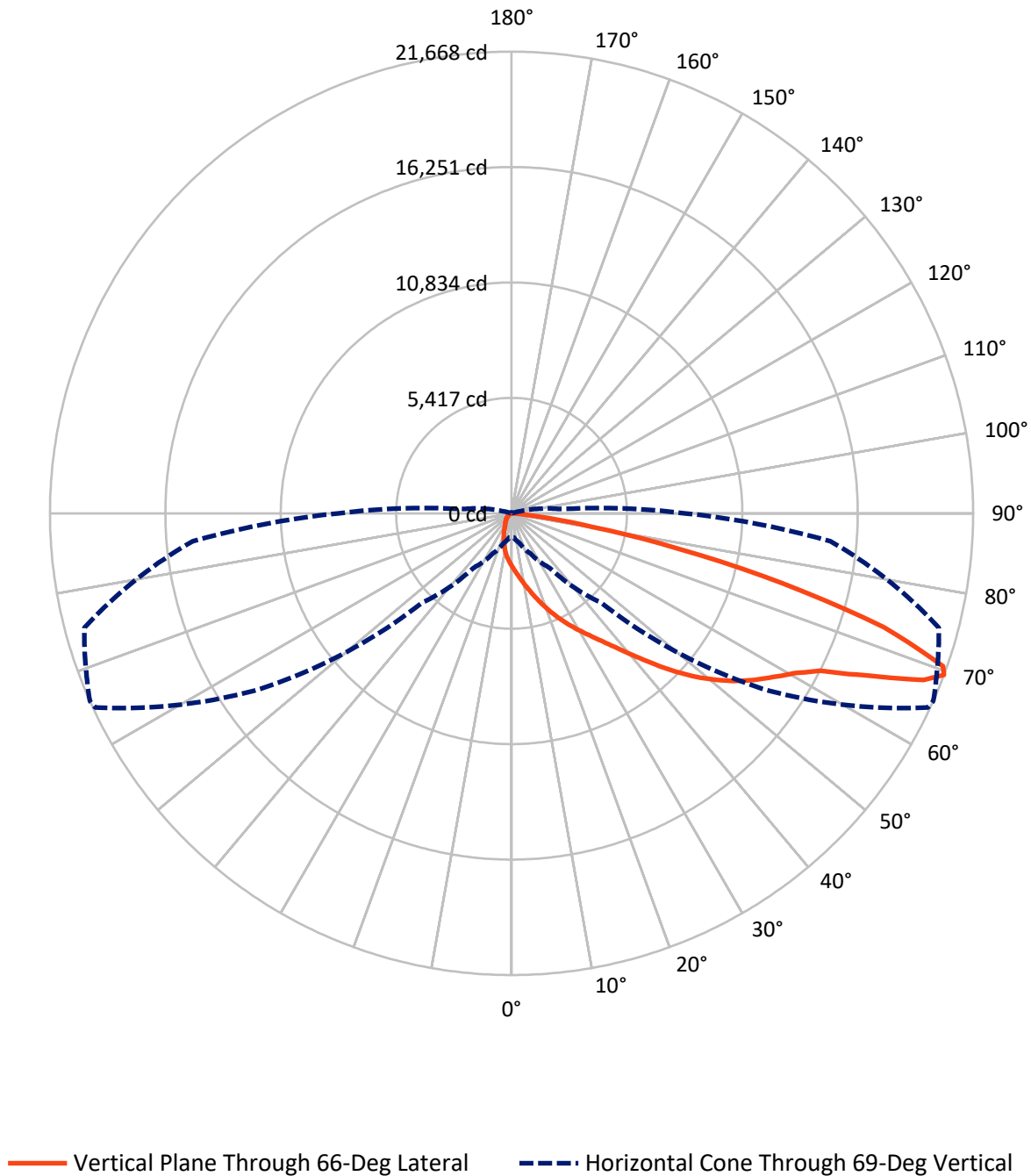
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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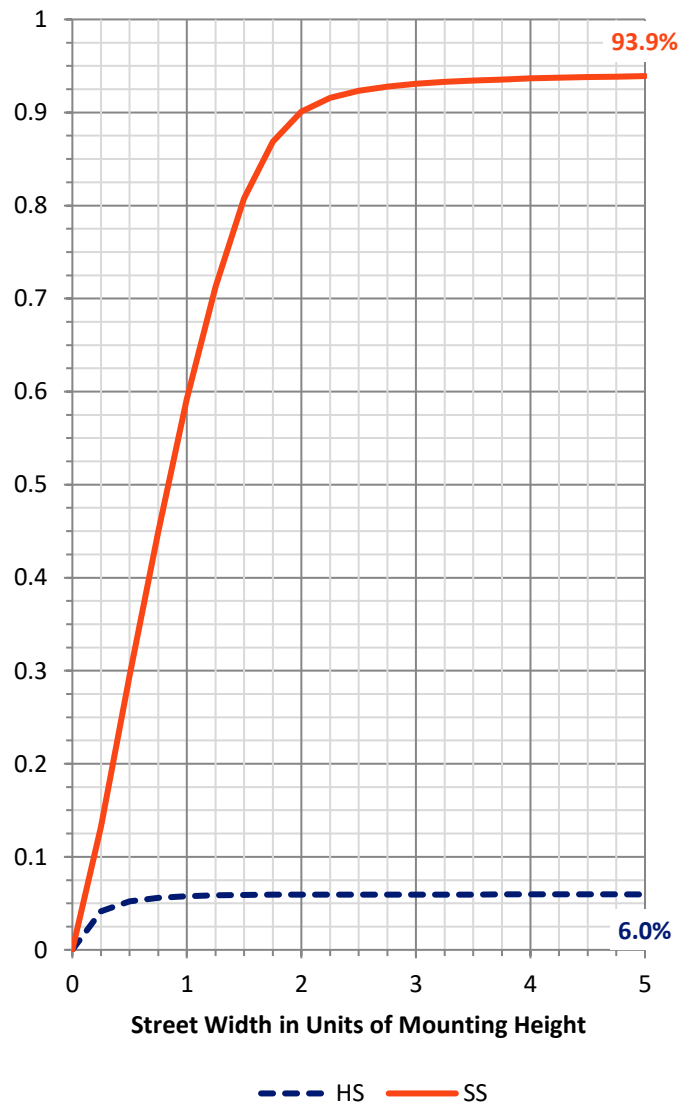
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1306.9	0.0	1306.9
	% Fixture	6.0	0.0	6.0
Street Side	Lumens	20480.1	0.0	20480.1
	% Fixture	94.0	0.0	94.0
Total	Lumens	21787.0	0.0	21787.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.7	1.1
10°-20°	713.3	3.3
20°-30°	1242.1	5.7
30°-40°	2179.3	10.0
40°-50°	3647.8	16.7
50°-60°	5361.9	24.6
60°-70°	5505.3	25.3
70°-80°	2717.8	12.5
80°-90°	179.7	0.8
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°	21787.0	100.0
0°-180°	21787.0	100.0

Coefficient of Utilization



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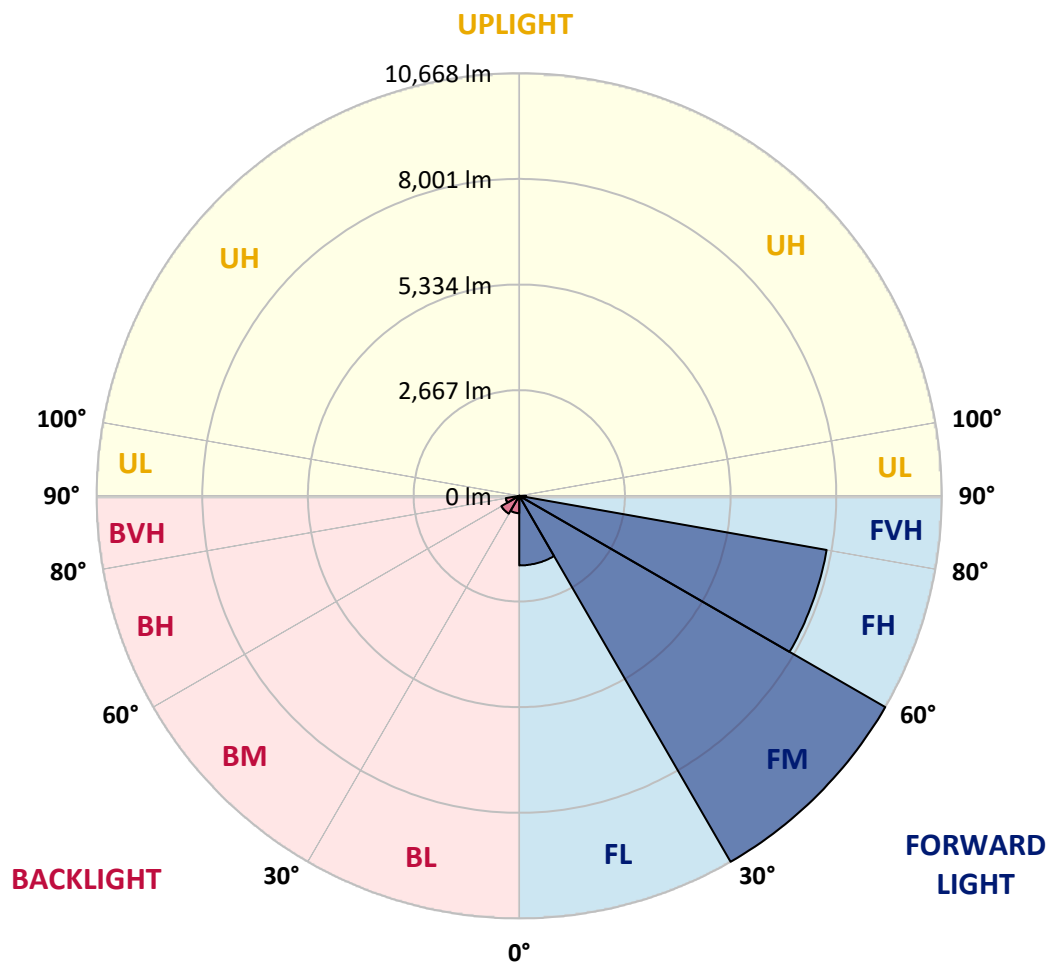
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1758.0	8.1			
FM	(30°-60°)	10668.0	49.0			
FH	(60°-80°)	7878.8	36.2			G4/12000
FVH	(80°-90°)	175.4	0.8			G2/225
BL	(0°-30°)	437.1	2.0	B1/500		
BM	(30°-60°)	521.1	2.4	B1/1000		
BH	(60°-80°)	344.4	1.6	B1/500		G1/500
BVH	(80°-90°)	4.3	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-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4
2.5°	2918.2	2905.8	2900.6	2877.8	2838.5	2808.5	2750.6	2683.3	2670.9	2605.7	2526.0
5°	3296.9	3286.6	3279.3	3247.3	3206.9	3131.4	3025.8	2900.6	2876.8	2752.6	2593.3
7.5°	3560.8	3579.4	3579.4	3558.7	3508.0	3451.1	3321.8	3151.0	3121.0	2930.6	2683.3
10°	3715.0	3737.8	3755.4	3773.0	3765.7	3742.9	3620.8	3428.4	3392.1	3139.6	2787.8
12.5°	3729.5	3752.3	3801.9	3875.4	3946.8	3998.5	3922.0	3735.7	3694.3	3381.8	2912.0
15°	3648.8	3672.6	3749.2	3892.0	4064.8	4215.9	4240.7	4076.2	4033.7	3670.5	3067.2
17.5°	3508.0	3523.6	3633.3	3830.9	4102.0	4379.4	4529.4	4441.5	4402.1	4000.6	3240.0
20°	3403.5	3414.9	3511.1	3723.3	4079.3	4481.8	4802.6	4829.5	4788.1	4354.5	3427.3
22.5°	3582.5	3603.2	3606.4	3706.7	4017.2	4532.5	5042.7	5211.4	5180.3	4730.2	3611.5
25°	4072.0	4095.8	4017.2	3955.1	4070.0	4555.3	5248.6	5602.5	5577.7	5134.8	3796.8
27.5°	4718.8	4743.6	4642.2	4457.0	4346.2	4641.2	5431.8	5999.9	5998.9	5563.2	3996.5
30°	5354.2	5379.0	5275.5	5090.3	4835.7	4884.4	5590.1	6415.9	6422.1	6005.1	4208.6
32.5°	6020.6	6051.6	5945.0	5707.0	5441.1	5304.5	5812.6	6834.0	6869.1	6517.3	4447.7
35°	6778.1	6782.2	6632.2	6382.8	6076.5	5866.4	6169.6	7302.7	7386.6	7151.6	4750.9
37.5°	7521.1	7551.1	7427.9	7034.7	6753.2	6515.2	6700.5	7888.4	8007.4	7926.7	5147.2
40°	8071.6	8134.7	8117.1	7692.9	7425.9	7256.2	7359.6	8584.9	8736.0	8829.1	5647.0
42.5°	8417.2	8464.8	8545.5	8289.9	8047.8	8075.7	8137.8	9396.2	9582.4	9857.7	6221.3
45°	8813.6	8836.3	8903.6	8790.8	8627.3	8908.8	8963.6	10309.9	10505.5	10963.9	6858.8
47.5°	9297.9	9351.7	9370.3	9266.8	9192.3	9645.6	9759.4	11140.9	11415.1	12148.8	7533.5
50°	9914.6	9929.1	9961.2	9893.9	9819.4	10278.9	10473.4	12013.2	12262.6	13337.8	8198.9
52.5°	10517.9	10569.7	10681.4	10639.0	10609.0	10818.0	11109.8	12799.7	13078.1	14329.2	8863.2
55°	10691.8	10736.3	11122.3	11386.1	11630.4	11482.4	11718.3	13504.4	13805.5	15215.0	9502.8
57.5°	9997.4	10087.4	10755.9	11443.0	12456.1	12515.1	12554.4	14227.8	14497.8	15893.8	10168.1
60°	8242.3	8259.9	9356.8	10535.5	12319.5	13416.5	13775.5	15004.9	15231.5	16526.1	10965.0
62.5°	5242.4	5421.4	6624.9	8288.9	10874.9	13286.1	15252.2	16180.5	16263.2	17284.6	12107.4
65°	2497.0	2612.9	3480.1	5121.3	7877.1	11616.9	16271.5	18307.0	18344.3	18788.2	13633.8
67.5°	1382.5	1438.4	1851.3	2756.8	4605.0	8215.4	15859.7	20825.8	20861.0	20323.9	14972.8
69°	1081.4	1129.0	1453.9	2077.9	3122.1	5904.7	14351.9	21563.6	21668.1	20763.7	15020.4
70°	917.9	964.5	1252.1	1755.1	2510.5	4562.5	12774.9	21380.4	21491.2	20722.3	14665.5
72.5°	561.9	588.8	834.1	1235.6	1682.6	2295.2	7878.1	18081.4	18268.7	19008.6	12604.1
75°	378.7	393.2	521.5	852.7	1203.5	1181.8	4092.7	12744.9	13150.5	14786.6	9309.2
77.5°	271.1	284.6	349.8	551.6	843.4	780.3	1853.4	7920.5	8007.4	8868.4	5076.8
80°	154.2	166.6	247.3	328.0	572.3	520.5	736.8	3783.3	3826.8	3803.0	1695.0
82.5°	80.7	91.1	135.6	216.3	367.4	340.5	306.3	1266.6	1272.8	1058.6	371.5
85°	15.5	18.6	67.3	148.0	189.4	148.0	125.2	297.0	303.2	268.0	92.1
87.5°	0.0	1.0	26.9	33.1	37.3	38.3	40.4	57.9	62.1	83.8	24.8
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°	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4	2479.4
2.5°	2490.8	2453.6	2382.2	2299.4	2235.2	2172.1	2122.4	2070.7	2052.0	2042.7	2041.7
5°	2515.6	2437.0	2285.9	2130.7	2003.4	1883.4	1797.5	1715.7	1677.4	1659.9	1652.6
7.5°	2557.0	2430.8	2187.6	1950.6	1767.5	1617.4	1498.4	1409.4	1364.9	1346.3	1339.1
10°	2605.7	2422.5	2072.7	1760.2	1526.4	1371.1	1253.2	1165.2	1116.6	1095.9	1085.5
12.5°	2662.6	2408.0	1940.3	1567.8	1320.4	1165.2	1022.4	913.7	857.9	834.1	822.7
15°	2733.0	2393.5	1801.6	1386.7	1139.3	950.0	793.7	720.2	708.9	704.7	705.7
17.5°	2802.3	2370.8	1650.5	1207.6	948.9	742.0	662.3	658.1	660.2	660.2	660.2
20°	2864.4	2319.0	1486.0	1054.5	767.8	626.1	609.5	602.3	597.1	593.0	587.8
22.5°	2913.0	2249.7	1327.7	902.4	627.1	573.3	547.4	524.7	506.0	493.6	487.4
25°	2946.1	2157.6	1182.8	756.5	564.0	521.5	475.0	436.7	407.7	390.1	382.9
27.5°	2971.0	2058.3	1053.4	633.3	520.5	461.5	400.5	354.9	324.9	309.4	303.2
30°	2988.6	1945.5	939.6	556.7	471.9	398.4	333.2	288.7	267.0	258.7	254.6
32.5°	3005.1	1820.2	832.0	520.5	426.3	340.5	279.4	245.3	231.8	221.5	218.3
35°	3046.5	1704.3	729.5	482.2	379.8	290.8	240.1	215.2	201.8	195.6	193.5
37.5°	3144.8	1618.5	631.2	442.9	333.2	251.5	210.1	192.5	180.1	173.8	171.8
40°	3303.1	1575.0	548.5	400.5	287.7	221.5	190.4	173.8	160.4	151.1	149.0
42.5°	3536.0	1581.2	490.5	358.0	251.5	197.7	171.8	152.1	137.6	129.4	127.3
45°	3818.5	1626.7	450.1	316.7	221.5	179.0	151.1	130.4	116.9	109.7	107.6
47.5°	4124.8	1700.2	417.0	279.4	197.7	161.4	130.4	108.7	97.3	91.1	90.0
50°	4447.7	1771.6	382.9	243.2	177.0	143.8	109.7	90.0	80.7	75.5	73.5
52.5°	4774.7	1854.4	351.8	210.1	159.4	123.1	91.1	73.5	66.2	62.1	60.0
55°	5126.5	1916.5	321.8	184.2	141.8	104.5	75.5	61.1	54.8	49.7	48.6
57.5°	5540.4	2012.7	290.8	159.4	121.1	86.9	62.1	48.6	43.5	38.3	37.3
60°	6099.2	2125.5	257.7	140.7	99.3	71.4	50.7	39.3	33.1	29.0	27.9
62.5°	6836.0	2250.7	216.3	123.1	80.7	57.9	40.4	31.0	23.8	18.6	18.6
65°	7770.5	2454.6	177.0	103.5	66.2	47.6	31.0	22.8	13.5	8.3	8.3
67.5°	8315.8	2489.8	142.8	84.9	53.8	40.4	25.9	15.5	4.1	1.0	0.0
69°	8140.9	2285.9	121.1	72.4	46.6	38.3	23.8	11.4	2.1	0.0	0.0
70°	7811.9	2090.3	106.6	64.2	42.4	36.2	22.8	8.3	2.1	0.0	0.0
72.5°	6455.2	1488.1	80.7	47.6	31.0	32.1	20.7	5.2	2.1	0.0	0.0
75°	4702.2	904.4	57.9	33.1	19.7	23.8	14.5	2.1	1.0	0.0	0.0
77.5°	2616.0	426.3	36.2	18.6	12.4	14.5	7.2	0.0	0.0	0.0	0.0
80°	849.6	115.9	16.6	10.3	7.2	8.3	3.1	0.0	0.0	0.0	0.0
82.5°	157.3	33.1	9.3	5.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0
85°	34.1	13.5	5.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.4	4.1	1.0	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)