

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: P320139

Luminaire Tested: **GAN-SA5D-827-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320139
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA5D-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27089 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

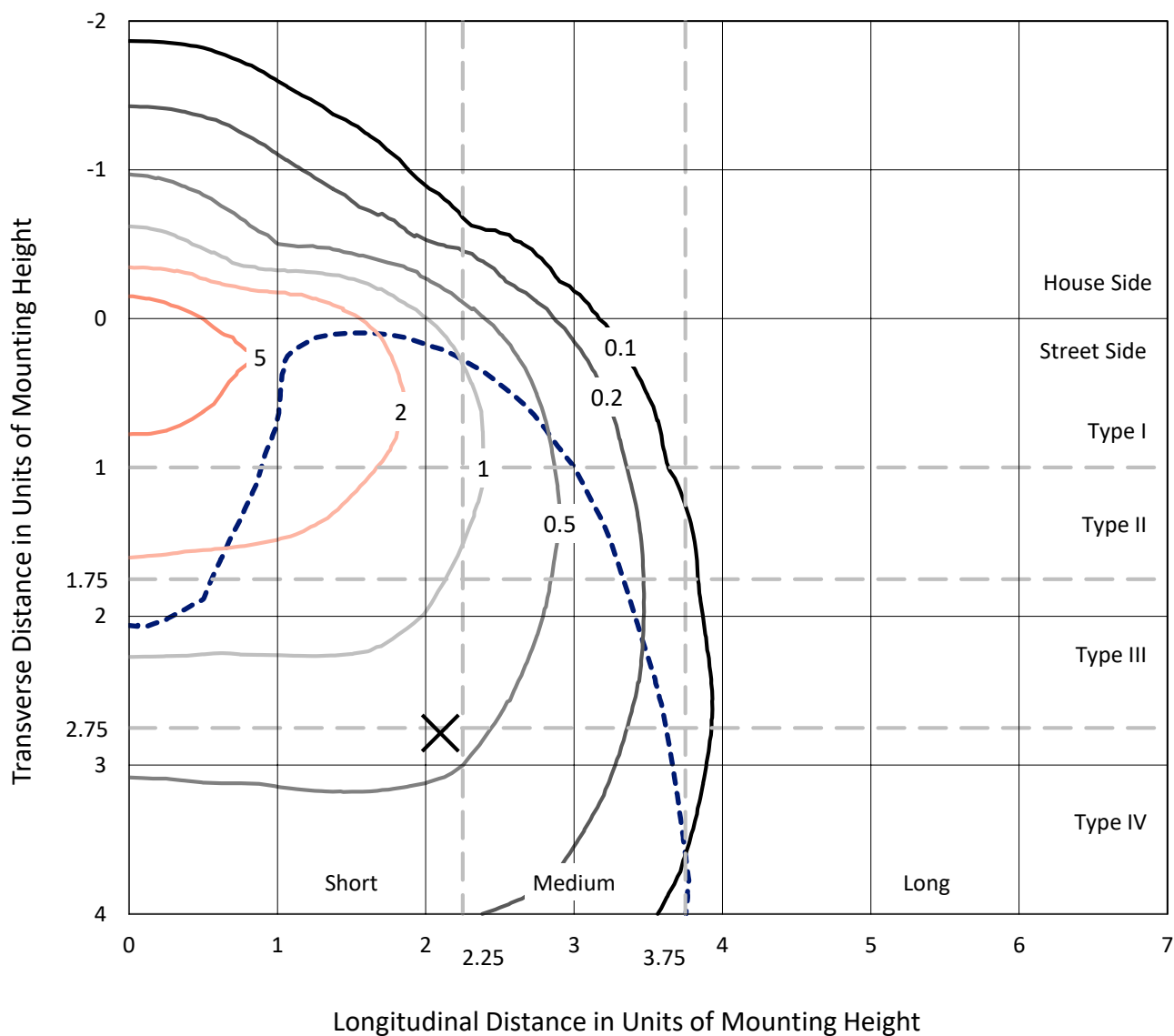
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

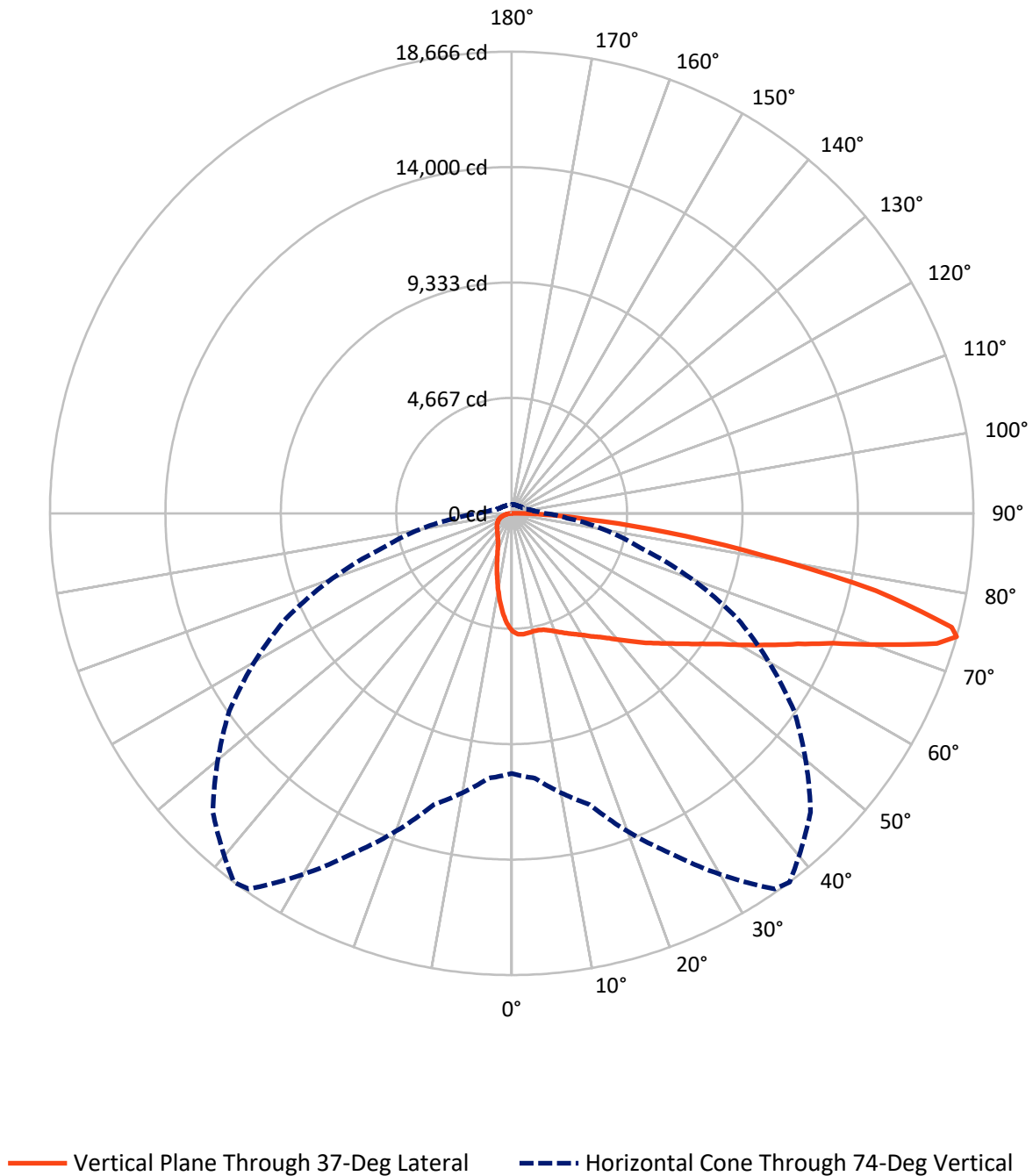
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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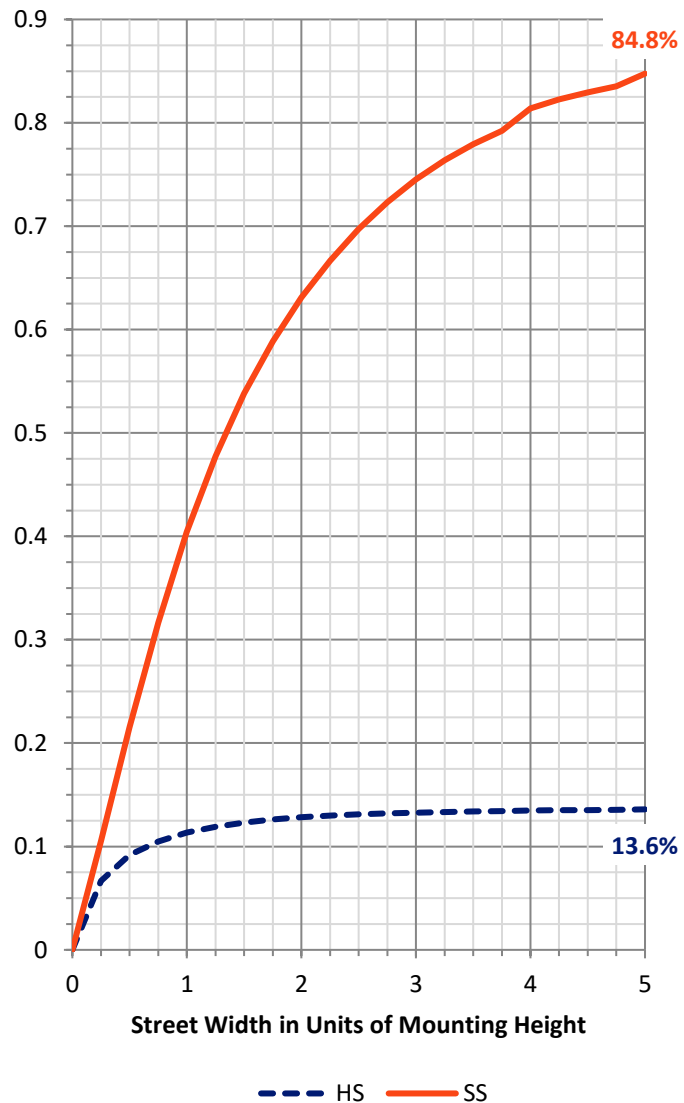
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3727.3	0.0	3727.3
	% Fixture	13.8	0.0	13.8
Street Side	Lumens	23361.7	0.0	23361.7
	% Fixture	86.2	0.0	86.2
Total	Lumens	27089.0	0.0	27089.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.3	1.6
10°-20°	1077.4	4.0
20°-30°	1660.0	6.1
30°-40°	2413.9	8.9
40°-50°	3552.9	13.1
50°-60°	4989.4	18.4
60°-70°	6315.0	23.3
70°-80°	5560.6	20.5
80°-90°	1099.4	4.1
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°	27089.0	100.0
0°-180°	27089.0	100.0

Coefficient of Utilization



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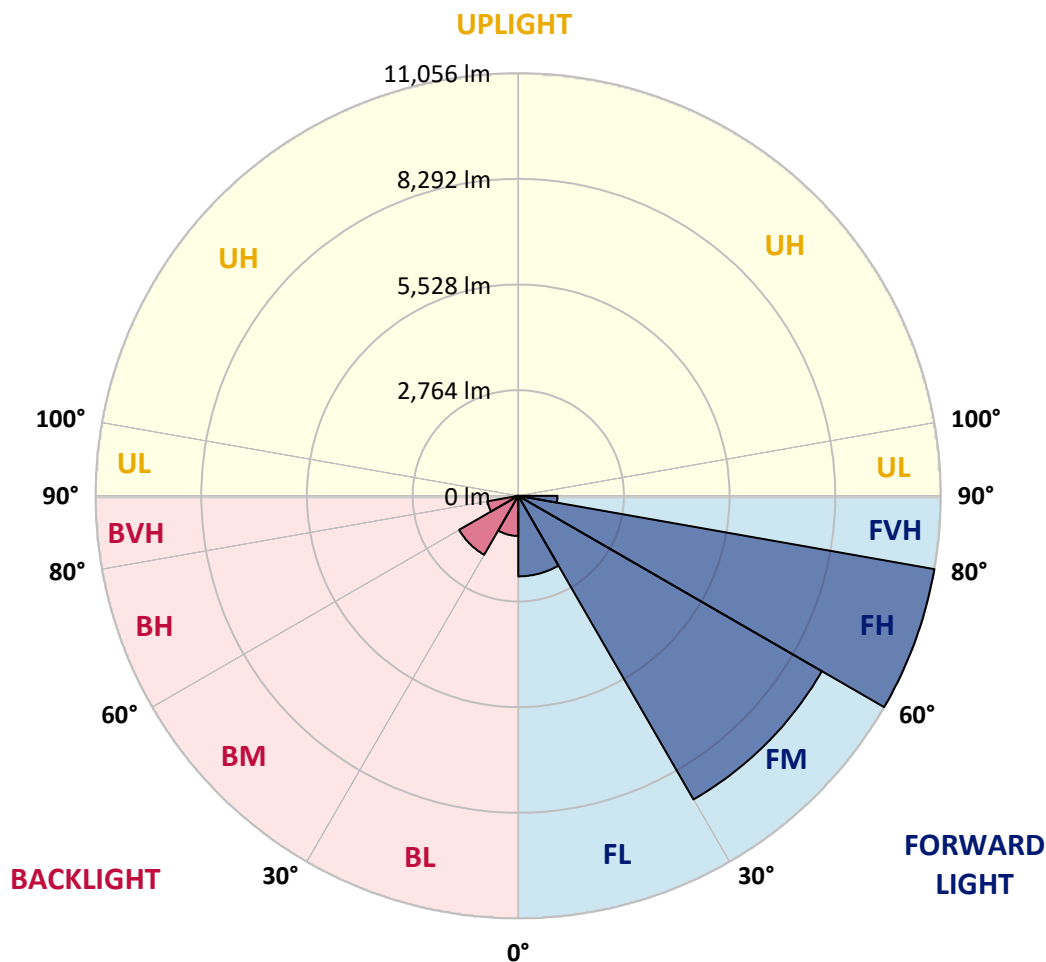
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2107.8	7.8			
FM	(30°-60°)	9172.5	33.9			
FH	(60°-80°)	11056.3	40.8			G4/12000
FVH	(80°-90°)	1025.0	3.8			G5
BL	(0°-30°)	1049.9	3.9	B3/2500		
BM	(30°-60°)	1783.6	6.6	B2/2500		
BH	(60°-80°)	819.3	3.0	B2/1000		G2/1000
BVH	(80°-90°)	74.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0
2.5°	4936.1	4937.1	4936.1	4928.5	4910.4	4895.1	4882.7	4864.6	4824.5	4794.0	4748.2
5°	4982.9	4977.2	4973.4	4959.0	4930.4	4913.2	4889.4	4855.0	4789.2	4728.1	4653.7
7.5°	4961.0	4954.3	4945.7	4928.5	4896.1	4881.8	4848.4	4803.5	4724.3	4644.2	4537.3
10°	4893.2	4891.3	4887.5	4883.7	4856.0	4844.5	4814.0	4766.3	4688.1	4590.7	4465.7
12.5°	4817.8	4822.6	4837.9	4857.9	4845.5	4839.8	4820.7	4788.2	4708.1	4603.1	4452.4
15°	4770.1	4783.5	4824.5	4877.0	4887.5	4885.6	4880.8	4859.8	4774.9	4658.5	4482.9
17.5°	4753.9	4775.8	4854.1	4940.9	4971.5	4978.1	4980.0	4943.8	4849.3	4726.2	4514.4
20°	4783.5	4811.1	4925.7	5044.9	5093.6	5097.4	5088.8	5025.8	4919.9	4784.4	4531.6
22.5°	4873.2	4898.0	5041.1	5175.7	5231.0	5236.7	5211.0	5115.5	4994.4	4853.1	4555.4
25°	5045.9	5076.4	5219.5	5354.1	5382.7	5383.7	5346.5	5228.1	5091.7	4949.5	4606.9
27.5°	5271.1	5301.6	5430.4	5562.1	5546.8	5538.3	5487.7	5369.4	5218.6	5082.1	4698.5
30°	5522.0	5555.4	5677.6	5771.1	5734.8	5717.6	5676.6	5523.9	5395.1	5263.4	4838.8
32.5°	5781.6	5812.1	5919.0	5982.9	5937.1	5929.5	5867.5	5728.1	5625.1	5540.2	5065.9
35°	6047.8	6069.8	6174.7	6211.0	6149.9	6148.0	6130.8	6003.0	5938.1	5978.1	5396.1
37.5°	6319.8	6325.5	6415.2	6417.1	6399.0	6406.6	6424.7	6344.6	6362.7	6487.7	5825.5
40°	6562.1	6577.4	6642.3	6662.3	6693.8	6720.5	6811.2	6758.7	6899.0	7120.3	6359.8
42.5°	6741.5	6771.1	6875.1	6926.6	7028.7	7070.7	7198.6	7247.3	7529.7	7861.8	6995.3
45°	6893.2	6939.0	7106.0	7211.9	7384.7	7458.1	7641.3	7804.5	8242.5	8666.2	7664.2
47.5°	7057.4	7115.6	7324.5	7526.8	7761.6	7844.6	8177.6	8421.9	9003.0	9475.3	8295.0
50°	7298.8	7343.6	7547.8	7865.6	8158.5	8265.4	8726.3	9076.5	9775.9	10246.3	8841.7
52.5°	7635.6	7618.4	7791.2	8236.8	8629.9	8761.6	9312.2	9773.1	10559.3	10943.9	9303.6
55°	7974.4	7945.7	8066.9	8625.1	9179.5	9317.9	9957.2	10472.5	11304.6	11571.7	9657.6
57.5°	8351.3	8296.9	8399.0	9063.1	9805.5	9970.6	10679.6	11215.8	12037.4	12079.4	9882.8
60°	8739.6	8666.2	8780.7	9606.1	10600.4	10795.0	11525.0	11941.0	12728.3	12485.9	9955.3
62.5°	9079.3	9027.8	9204.3	10212.0	11496.4	11710.1	12355.2	12712.0	13409.6	12654.8	9693.9
65°	9376.1	9384.7	9690.0	10893.3	12495.4	12723.5	13307.5	13662.4	13945.8	12554.6	9082.2
67.5°	9730.1	9778.8	10299.8	11790.3	13753.1	14003.1	14693.0	14698.7	14245.5	11966.8	7878.0
70°	10246.3	10346.5	11138.5	13034.6	15541.3	15884.8	16417.2	15307.5	13824.6	10373.3	6198.6
72.5°	10704.4	10891.4	12030.7	14458.2	17720.7	17981.2	17425.9	14956.3	12066.0	7774.0	3861.7
74°	10518.3	10750.2	12192.9	15159.6	18541.3	18666.3	17085.2	13931.5	10060.3	5383.7	2244.3
75°	10117.5	10369.4	11956.3	15152.9	18437.3	18367.7	16262.7	12760.7	8285.4	3671.8	1493.3
77.5°	8165.2	8431.4	10074.6	12986.8	15117.6	15051.8	12492.6	8560.3	3628.9	1204.2	758.6
80°	4747.2	4950.5	6253.9	8247.3	10193.9	10313.1	8215.8	4235.8	1427.5	676.5	514.3
82.5°	2108.8	2249.1	3021.0	4210.0	6151.8	6305.4	4302.5	2219.5	881.7	411.3	309.2
85°	1383.6	1487.6	1834.0	2004.8	2929.4	3034.4	2105.9	1728.1	582.1	226.1	227.1
87.5°	995.2	1095.4	1362.6	1189.9	1344.5	1272.9	1146.0	1599.3	233.8	128.8	76.3
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°	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0	4773.0
2.5°	4728.1	4712.9	4678.5	4613.6	4577.4	4546.8	4496.3	4466.7	4453.3	4452.4	4458.1
5°	4610.8	4575.5	4486.7	4377.9	4291.1	4211.9	4113.6	4054.5	4012.5	3987.7	3994.3
7.5°	4474.3	4419.0	4279.6	4106.0	3966.7	3813.0	3661.3	3570.7	3500.1	3447.6	3457.1
10°	4380.8	4304.5	4101.2	3851.2	3619.3	3396.0	3187.1	3062.1	2962.8	2886.5	2892.2
12.5°	4349.3	4246.3	3964.8	3630.8	3305.4	3000.0	2727.1	2535.3	2433.2	2346.4	2353.1
15°	4354.1	4215.7	3850.3	3432.3	3022.9	2638.4	2307.3	2083.0	1944.7	1884.6	1885.5
17.5°	4357.9	4180.4	3730.0	3219.5	2743.4	2300.6	1940.9	1713.8	1583.0	1527.7	1528.7
20°	4345.5	4123.2	3581.2	2975.2	2451.4	1990.5	1642.2	1449.5	1350.2	1307.3	1307.3
22.5°	4329.3	4055.4	3413.2	2730.0	2163.2	1721.4	1428.5	1281.5	1224.3	1195.6	1194.7
25°	4336.9	4004.8	3241.5	2478.1	1897.9	1506.7	1286.3	1189.0	1150.8	1132.7	1131.7
27.5°	4377.9	3981.0	3083.1	2227.1	1666.1	1345.4	1190.9	1122.2	1097.3	1085.9	1085.9
30°	4452.4	3981.0	2918.0	2013.4	1473.3	1226.2	1117.4	1070.6	1053.5	1045.8	1045.8
32.5°	4582.1	4002.9	2758.6	1801.6	1319.7	1132.7	1056.3	1024.8	1011.5	1007.6	1007.6
35°	4805.4	4077.4	2603.1	1601.2	1195.6	1056.3	998.1	980.0	970.4	969.5	972.3
37.5°	5119.4	4229.1	2457.1	1453.3	1107.8	994.3	949.4	935.1	929.4	934.2	938.0
40°	5514.4	4435.2	2324.5	1319.7	1041.0	944.7	904.6	895.1	892.2	898.9	904.6
42.5°	5991.5	4713.8	2215.7	1223.3	989.5	902.7	866.4	855.0	852.1	859.7	867.4
45°	6507.7	5013.4	2139.3	1151.7	949.4	871.2	833.0	820.6	814.9	818.7	827.3
47.5°	6977.2	5296.8	2108.8	1101.2	911.3	844.5	803.4	788.2	778.6	776.7	783.4
50°	7373.2	5507.7	2123.1	1070.6	880.7	814.9	774.8	757.6	743.3	734.7	739.5
52.5°	7661.4	5640.4	2136.5	1057.3	856.9	782.5	743.3	727.1	708.0	693.7	693.7
55°	7870.4	5670.9	2106.9	1046.8	838.8	747.1	708.0	692.8	673.7	657.5	655.5
57.5°	7952.4	5585.0	1997.2	1031.5	826.3	713.8	670.8	659.4	643.1	624.1	623.1
60°	7841.7	5319.7	1785.3	999.1	810.1	686.1	633.6	626.0	618.3	600.2	599.2
62.5°	7397.1	4737.7	1511.5	933.2	777.7	656.5	599.2	603.1	604.0	591.6	589.7
65°	6590.8	3938.0	1244.3	847.3	729.0	621.2	563.9	582.1	592.6	590.7	587.8
67.5°	5419.0	3064.9	1054.4	756.7	665.1	572.5	525.8	546.8	555.4	562.0	560.1
70°	4022.0	2161.3	872.2	661.3	587.8	515.3	476.2	486.6	480.9	488.6	491.4
72.5°	2242.4	1296.8	710.9	565.8	507.6	448.5	420.8	418.9	406.5	406.5	406.5
74°	1345.4	951.4	625.0	506.7	459.0	404.6	380.7	372.1	360.7	361.6	360.7
75°	1082.1	817.8	573.5	467.6	424.6	378.8	355.0	343.5	334.9	334.9	334.0
77.5°	683.2	621.2	461.8	372.1	339.7	312.0	295.8	280.5	280.5	279.6	278.6
80°	516.2	494.3	359.7	281.5	260.5	239.5	229.0	222.3	222.3	225.2	224.2
82.5°	354.0	372.1	252.9	196.6	186.1	170.8	168.9	169.9	167.0	163.2	162.2
85°	258.6	279.6	170.8	124.0	113.6	104.0	111.6	115.5	110.7	102.1	98.3
87.5°	99.2	183.2	91.6	51.5	47.7	41.0	47.7	49.6	53.4	42.0	42.9
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)