

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: P321388

Luminaire Tested: **GAN-SA4A-827-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321388
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4A-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11155 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

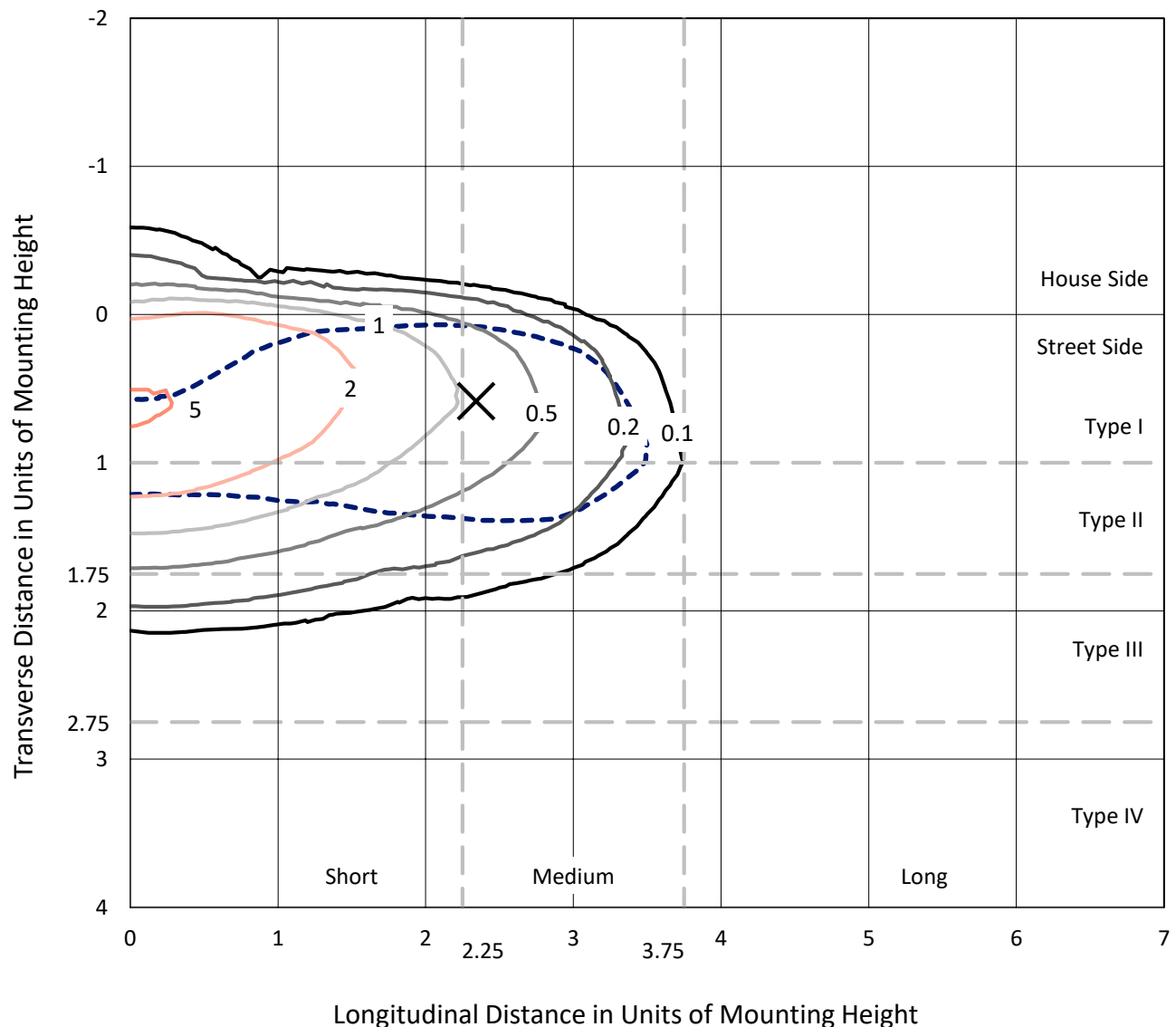
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

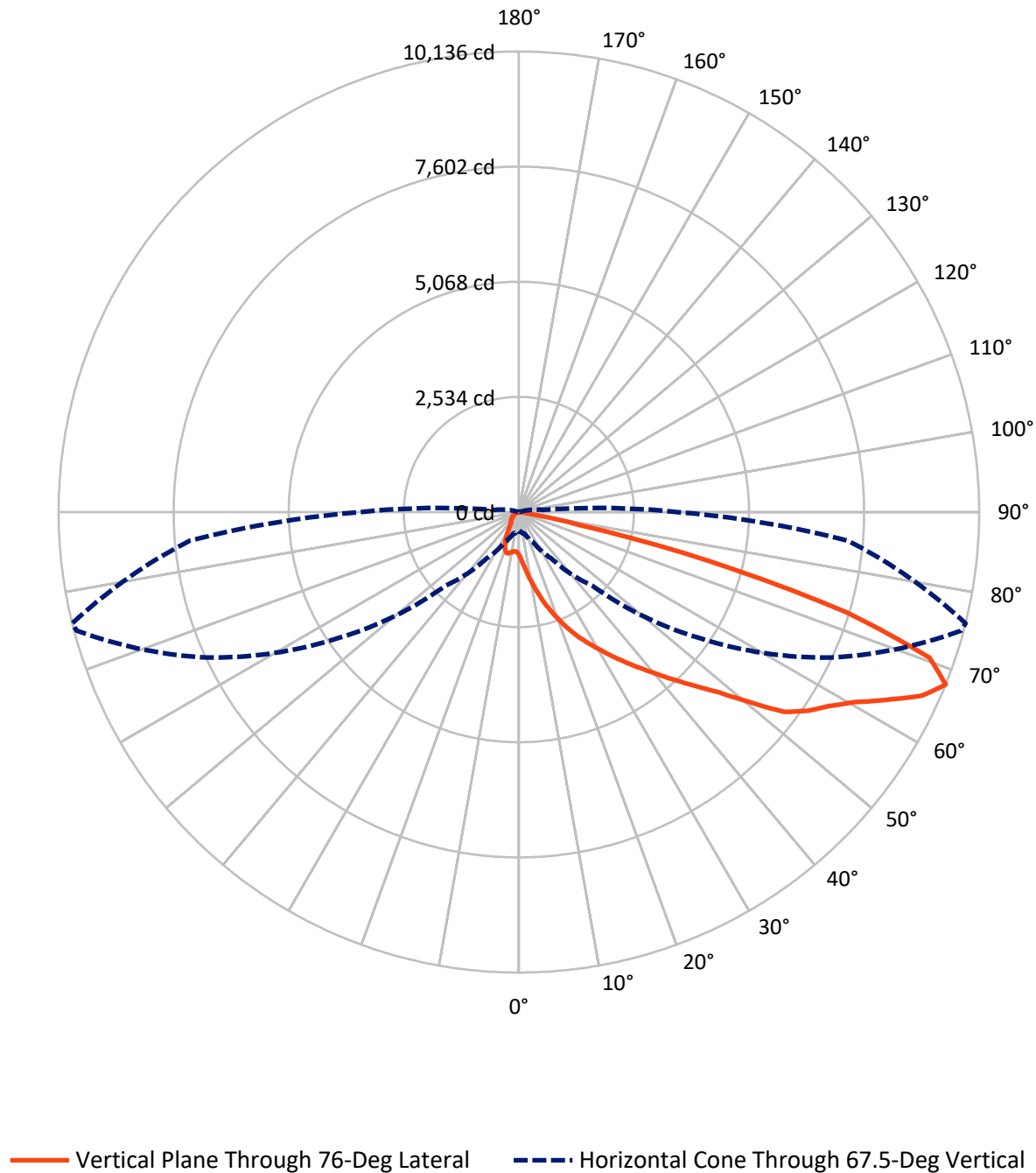
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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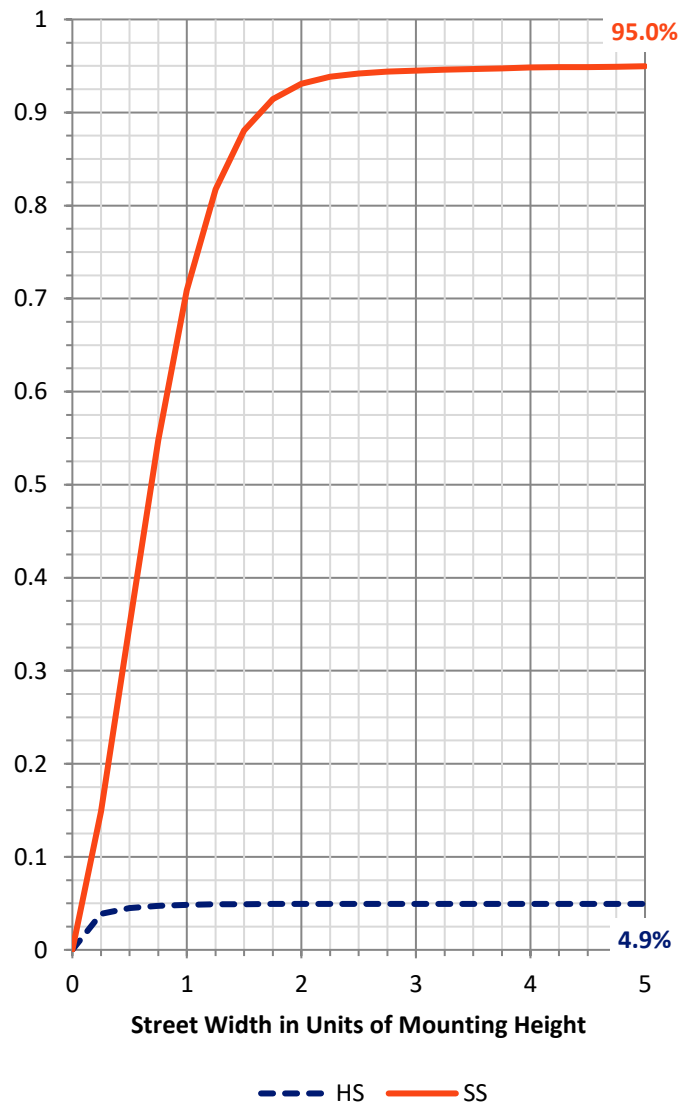
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	553.9	0.0	553.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	10601.1	0.0	10601.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	11155.0	0.0	11155.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.7	1.1
10°-20°	466.4	4.2
20°-30°	949.1	8.5
30°-40°	1647.3	14.8
40°-50°	2327.4	20.9
50°-60°	2639.4	23.7
60°-70°	2189.1	19.6
70°-80°	793.0	7.1
80°-90°	25.7	0.2
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°	11155.0	100.0
0°-180°	11155.0	100.0

Coefficient of Utilization



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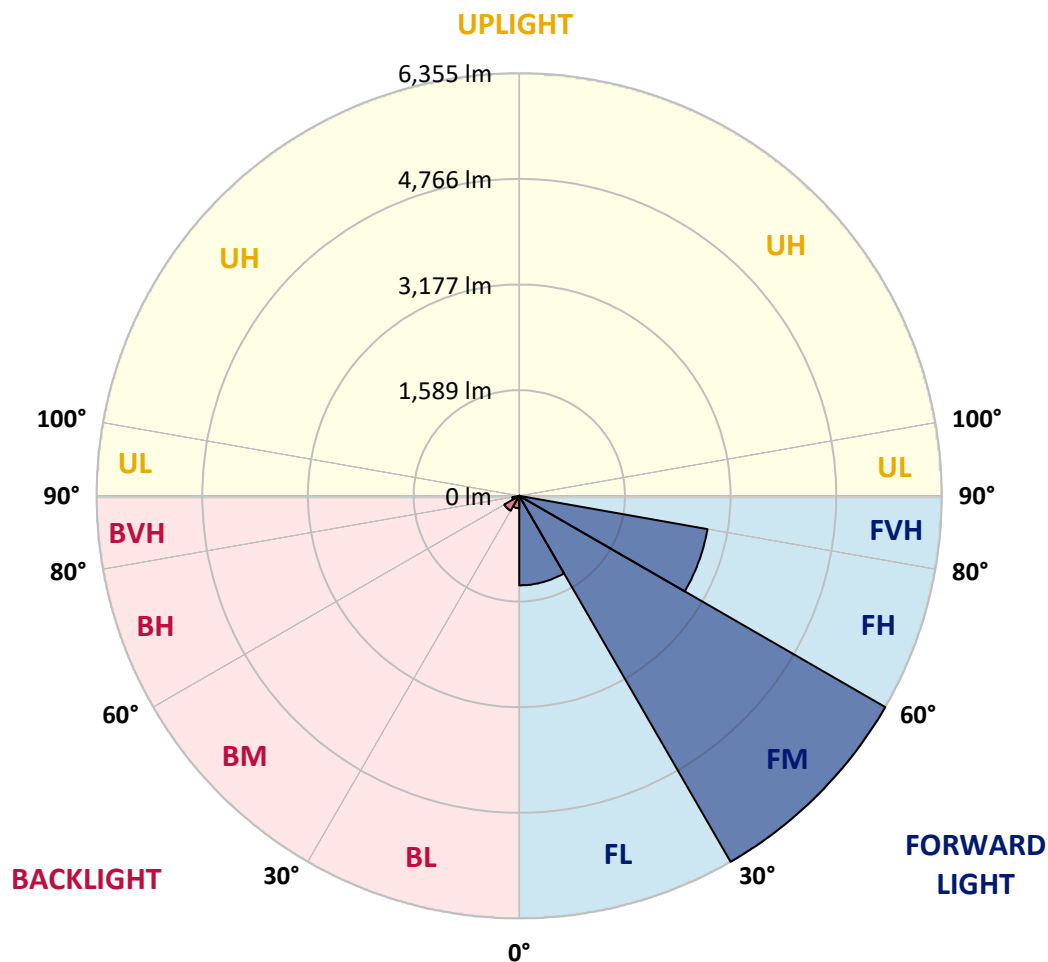
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1346.4	12.1			
FM	(30°-60°)	6354.8	57.0			
FH	(60°-80°)	2875.0	25.8			G2/5000
FVH	(80°-90°)	24.9	0.2			G1/100
BL	(0°-30°)	186.8	1.7	B1/500		
BM	(30°-60°)	259.3	2.3	B1/1000		
BH	(60°-80°)	107.1	1.0	B0/110		G0/110
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°	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3
2.5°	1412.6	1380.8	1388.1	1367.6	1330.4	1254.2	1189.2	1127.6	1055.8	1053.3	994.2
5°	1904.8	1877.9	1874.4	1832.9	1765.5	1635.9	1509.8	1366.1	1205.8	1194.1	1068.5
7.5°	2351.5	2330.0	2322.2	2272.8	2147.2	2021.1	1856.9	1645.7	1395.0	1373.5	1168.7
10°	2694.6	2684.3	2686.3	2651.1	2543.6	2426.3	2210.7	1941.4	1609.5	1576.3	1288.9
12.5°	2954.6	2957.1	2974.7	2953.2	2893.1	2806.1	2575.8	2256.7	1847.1	1801.6	1426.2
15°	3145.8	3158.0	3190.2	3217.1	3212.7	3137.4	2926.3	2576.8	2099.3	2048.9	1579.2
17.5°	3269.4	3283.1	3330.0	3389.6	3444.4	3426.8	3264.5	2885.7	2354.4	2296.3	1743.0
20°	3377.9	3394.0	3444.4	3523.1	3625.2	3647.2	3540.7	3185.3	2609.1	2538.2	1912.1
22.5°	3613.0	3612.5	3643.3	3689.3	3786.5	3843.2	3775.8	3463.5	2860.8	2787.0	2084.6
25°	4038.3	4022.1	4011.4	3975.2	3996.7	4031.9	3994.3	3723.5	3114.0	3039.2	2259.6
27.5°	4543.6	4553.4	4466.4	4369.2	4293.9	4257.7	4196.1	3964.4	3357.4	3275.3	2430.7
30°	5076.9	5079.8	4977.2	4853.0	4687.3	4550.0	4443.4	4194.7	3607.6	3518.2	2596.9
32.5°	5557.9	5538.8	5437.1	5268.0	5058.8	4904.4	4682.9	4451.8	3872.6	3786.0	2781.6
35°	5939.1	5916.6	5793.0	5639.0	5422.0	5266.5	5000.2	4708.4	4151.2	4066.6	2966.9
37.5°	6217.7	6191.3	6064.2	5905.9	5718.7	5628.2	5368.2	4987.5	4455.2	4364.3	3161.9
40°	6314.5	6291.5	6211.8	6096.0	5945.5	5924.9	5758.7	5308.6	4786.1	4689.3	3382.8
42.5°	6256.8	6234.3	6206.0	6166.9	6104.3	6123.9	6127.3	5674.7	5153.6	5058.3	3626.7
45°	6028.1	6008.0	6037.3	6094.5	6172.2	6269.0	6463.6	6068.1	5564.2	5462.5	3908.7
47.5°	5691.3	5676.6	5757.8	5900.5	6127.8	6394.6	6771.0	6481.6	6025.1	5930.8	4260.6
50°	5212.3	5209.8	5372.1	5632.6	5982.1	6455.2	7088.7	6951.8	6665.4	6566.2	4749.9
52.5°	4466.4	4471.3	4790.5	5207.4	5726.5	6414.2	7293.0	7556.0	7410.3	7307.2	5173.7
55°	3756.2	3785.6	4011.9	4613.1	5334.5	6261.7	7363.4	7838.0	7821.4	7723.6	5409.3
57.5°	3060.7	3114.0	3332.0	3893.6	4762.1	5910.3	7324.8	7960.2	8127.3	8052.6	5720.1
60°	2307.0	2331.5	2582.7	3107.6	4027.5	5269.0	7044.7	8026.7	8545.7	8493.9	6171.3
62.5°	1467.8	1528.9	1751.8	2258.1	3136.0	4378.4	6572.5	8025.7	9069.2	9097.6	6753.4
65°	773.2	844.6	962.9	1399.4	2155.0	3383.8	5862.4	7950.4	9711.5	9751.0	7208.4
67.5°	416.9	437.5	500.0	726.3	1249.8	2292.4	4818.8	7578.9	10083.4	10135.7	7272.0
70°	305.0	316.2	339.7	401.8	629.1	1331.4	3516.2	6736.8	9603.9	9584.4	6461.1
72.5°	234.1	251.7	269.3	294.2	361.7	710.7	2189.2	5275.3	7663.0	7534.0	4829.6
75°	184.8	187.7	212.6	235.1	271.3	404.7	972.2	3072.4	4677.1	4371.6	2504.5
77.5°	147.6	149.6	164.2	183.8	218.0	265.9	301.1	1208.7	1493.2	1332.4	543.5
80°	87.5	92.4	122.2	141.7	180.8	167.6	110.0	262.5	233.1	211.2	91.4
82.5°	48.9	52.8	68.9	111.9	126.1	80.2	54.7	70.9	54.7	53.3	25.9
85°	0.0	2.4	44.5	69.4	51.3	17.6	23.0	23.5	16.1	15.2	10.3
87.5°	0.0	0.0	13.7	13.2	2.0	2.9	5.4	7.8	6.4	6.4	5.4
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°	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3	946.3
2.5°	964.8	938.4	888.6	839.7	798.7	764.9	734.6	722.4	712.6	711.2	703.3
5°	1007.9	954.6	859.3	781.1	728.8	691.6	659.8	640.3	625.1	619.3	613.9
7.5°	1072.9	992.2	855.4	765.4	702.9	640.3	581.6	518.1	478.5	463.4	454.6
10°	1152.0	1042.1	870.0	761.0	651.5	519.6	422.3	341.7	308.9	298.2	295.2
12.5°	1244.4	1104.1	895.4	733.7	542.1	369.0	291.3	263.9	256.6	253.2	253.2
15°	1350.5	1172.1	913.5	654.5	400.8	279.1	252.2	239.5	231.7	227.3	227.8
17.5°	1459.0	1238.6	904.7	539.6	295.7	248.3	228.3	214.6	203.8	199.4	198.4
20°	1568.5	1300.1	855.8	401.8	250.3	225.3	202.8	187.7	176.9	172.5	171.6
22.5°	1681.9	1352.4	769.8	294.7	224.8	199.9	177.9	162.8	152.5	148.6	146.6
25°	1792.3	1395.0	649.6	238.5	200.9	176.0	154.9	140.8	131.5	127.6	127.1
27.5°	1895.5	1421.8	510.3	210.7	179.9	154.5	135.4	122.7	114.9	111.9	111.4
30°	1988.3	1424.3	377.3	190.1	161.3	135.9	118.3	107.0	100.2	97.3	96.3
32.5°	2082.2	1403.8	274.7	171.6	144.2	119.7	102.6	93.8	89.0	86.5	86.5
35°	2170.6	1356.3	214.1	155.4	127.6	104.1	90.4	84.1	81.1	78.7	78.7
37.5°	2257.2	1288.4	181.8	141.3	111.9	90.9	79.7	75.8	73.3	70.9	70.9
40°	2345.1	1202.9	165.2	128.1	99.2	80.6	70.9	67.5	65.0	63.1	62.6
42.5°	2453.2	1104.1	154.5	115.8	88.0	71.4	62.6	58.7	56.7	54.7	53.8
45°	2578.3	1019.1	145.7	103.6	78.7	63.5	54.3	50.3	47.4	45.0	44.5
47.5°	2758.6	957.5	133.9	90.4	69.9	55.2	46.9	42.5	38.1	35.7	35.2
50°	2988.9	906.7	118.8	78.7	61.1	46.9	39.1	33.7	29.8	27.4	27.4
52.5°	3103.2	840.2	105.1	68.4	51.3	39.6	31.8	25.4	23.5	21.0	21.0
55°	3149.2	789.4	91.4	58.2	42.5	32.7	24.9	19.6	18.1	16.6	16.1
57.5°	3278.2	774.7	79.7	49.4	35.2	25.9	19.1	14.7	13.7	11.7	11.7
60°	3485.9	782.0	68.9	42.0	28.3	20.0	14.2	11.2	10.3	8.3	8.3
62.5°	3710.3	772.8	58.2	36.2	22.0	14.7	9.8	8.3	8.3	4.9	4.4
65°	3753.3	688.2	49.9	29.8	17.1	10.8	6.4	5.4	7.3	1.0	0.0
67.5°	3483.5	533.7	43.0	23.0	12.7	8.3	4.9	2.4	6.4	0.0	0.0
70°	2785.5	339.2	34.7	16.6	9.8	6.8	3.9	1.0	4.9	0.0	0.0
72.5°	1969.8	197.0	27.4	11.7	8.3	5.4	2.9	0.0	2.9	0.0	0.0
75°	996.1	105.1	17.1	8.8	6.4	3.9	2.0	0.0	0.5	0.0	0.0
77.5°	215.5	48.9	10.8	6.4	4.4	2.4	1.0	0.0	0.0	0.0	0.0
80°	46.9	21.5	6.8	3.9	2.4	1.5	0.0	0.0	0.0	0.0	0.0
82.5°	17.1	11.2	3.4	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.3	5.9	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	2.0	0.5	0.5	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)