

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: P321708

Luminaire Tested: **GAN-SA4A-827-U-T3R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321708
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4A-827-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10628 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

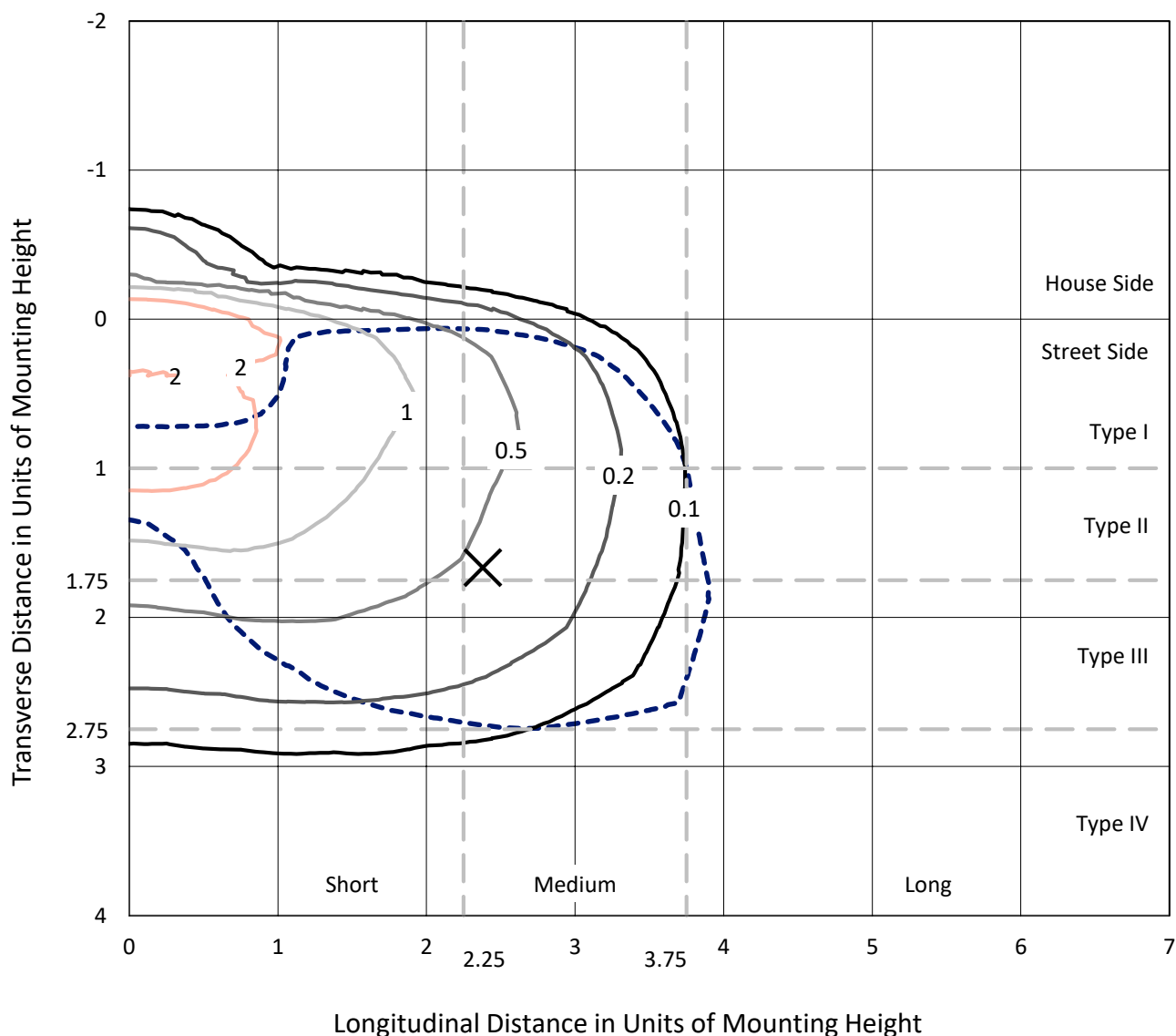
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

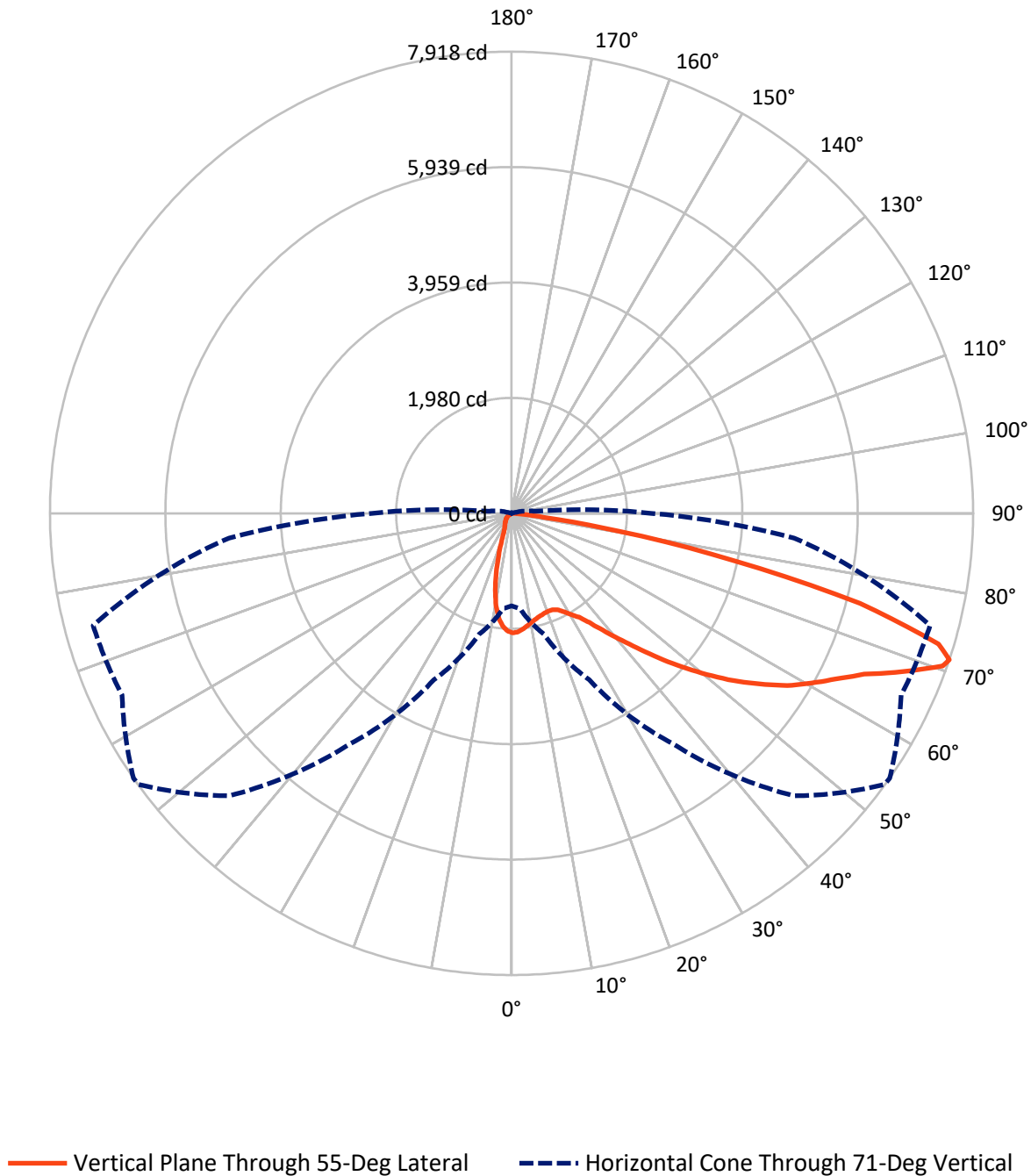
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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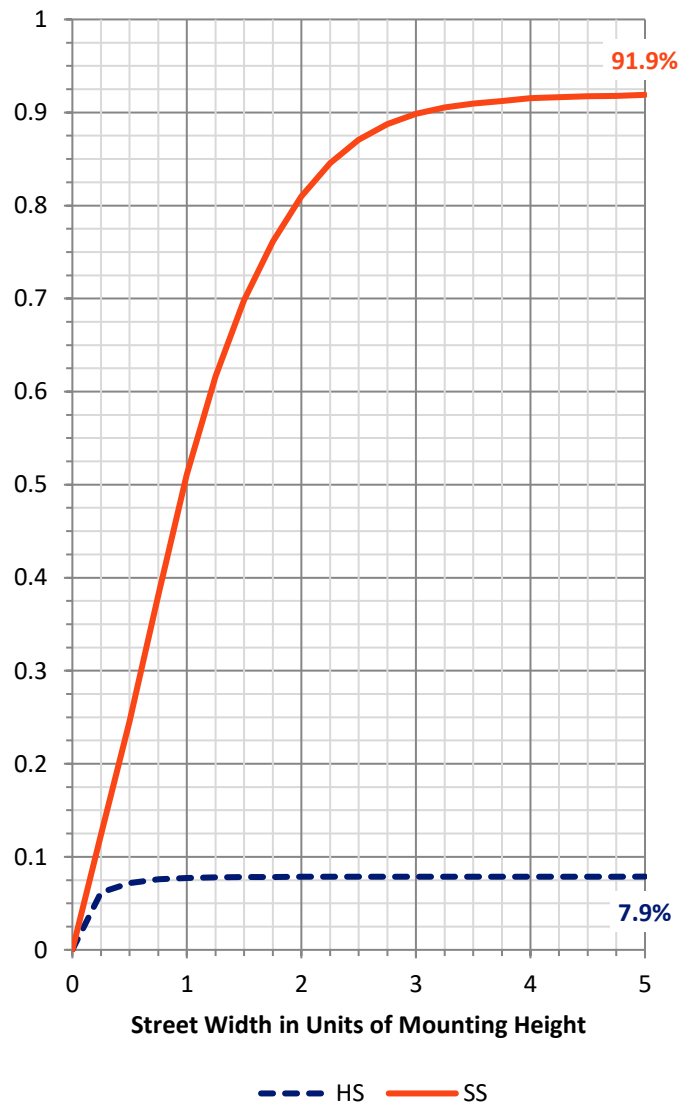
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	841.4	0.0	841.4
	% Fixture	7.9	0.0	7.9
Street Side	Lumens	9786.6	0.0	9786.6
	% Fixture	92.1	0.0	92.1
Total	Lumens	10628.0	0.0	10628.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.8	1.6
10°-20°	394.5	3.7
20°-30°	634.0	6.0
30°-40°	1077.2	10.1
40°-50°	1672.0	15.7
50°-60°	2248.0	21.2
60°-70°	2750.0	25.9
70°-80°	1607.9	15.1
80°-90°	69.5	0.7
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°	10628.0	100.0
0°-180°	10628.0	100.0

Coefficient of Utilization



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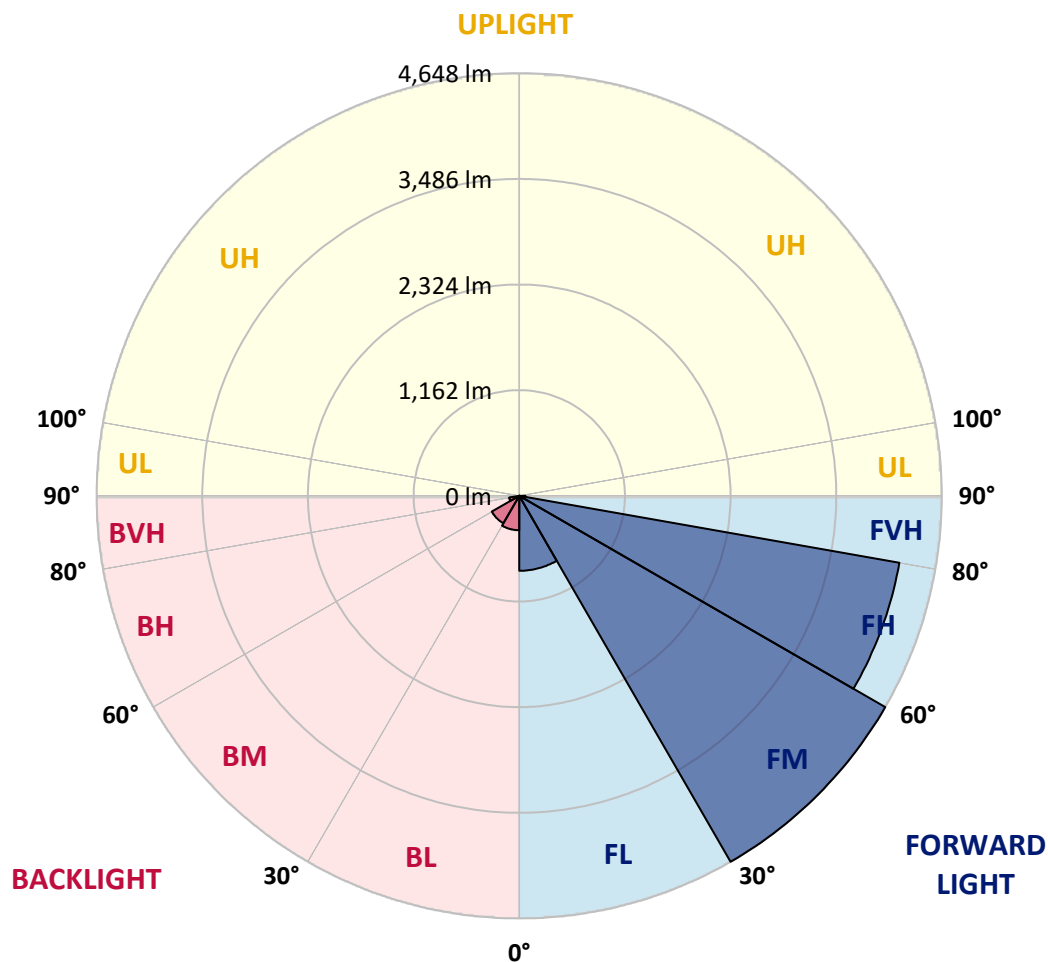
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	824.6	7.8			
FM	(30°-60°)	4648.4	43.7			
FH	(60°-80°)	4245.2	39.9			G2/5000
FVH	(80°-90°)	68.4	0.6			G1/100
BL	(0°-30°)	378.7	3.6	B1/500		
BM	(30°-60°)	348.9	3.3	B1/1000		
BH	(60°-80°)	112.7	1.1	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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6
2.5°	1989.5	1991.9	2000.5	2004.3	2013.4	2028.7	2036.3	2036.8	2049.2	2053.9	2057.8
5°	1848.7	1863.1	1877.4	1892.6	1920.3	1957.1	1993.3	1996.7	2036.8	2066.4	2082.1
7.5°	1727.5	1740.4	1757.6	1781.9	1821.1	1878.8	1939.4	1946.6	2022.4	2089.7	2125.0
10°	1603.0	1613.5	1638.3	1674.1	1728.0	1805.3	1886.9	1898.8	2009.6	2121.2	2183.3
12.5°	1469.8	1476.0	1506.1	1557.6	1636.9	1735.2	1842.5	1858.3	2001.4	2157.5	2252.0
15°	1368.7	1371.5	1400.2	1453.6	1544.3	1672.2	1808.2	1827.3	2003.4	2200.9	2326.9
17.5°	1342.9	1344.3	1359.6	1396.3	1476.5	1615.9	1781.0	1804.4	2009.1	2243.4	2402.3
20°	1447.4	1437.4	1421.6	1415.9	1450.3	1582.0	1764.7	1791.0	2016.7	2281.1	2470.1
22.5°	1734.2	1704.6	1639.2	1551.9	1498.9	1584.4	1769.0	1795.3	2041.1	2327.4	2548.3
25°	2159.9	2118.8	2007.7	1835.9	1670.7	1653.1	1804.8	1831.6	2088.3	2382.7	2623.3
27.5°	2644.3	2603.7	2467.7	2222.4	1940.8	1789.1	1886.9	1911.7	2158.5	2431.9	2680.5
30°	3108.1	3096.7	2936.3	2657.6	2280.6	2009.6	1992.9	2013.9	2210.5	2461.5	2725.9
32.5°	3501.3	3483.2	3354.4	3083.3	2669.6	2274.4	2117.4	2123.6	2249.6	2499.7	2785.0
35°	3865.9	3843.5	3730.4	3474.1	3068.5	2598.0	2309.3	2300.2	2335.0	2576.5	2870.9
37.5°	4184.2	4204.8	4079.3	3835.4	3426.4	2934.4	2567.9	2540.7	2468.6	2701.5	2995.5
40°	4450.5	4450.5	4385.1	4181.9	3813.0	3282.3	2860.4	2824.6	2669.6	2894.3	3153.5
42.5°	4546.4	4567.0	4591.3	4476.3	4158.9	3644.0	3186.4	3149.2	2952.5	3167.8	3352.9
45°	4552.2	4584.6	4709.2	4708.7	4471.5	4003.4	3553.8	3536.2	3315.2	3519.0	3600.1
47.5°	4471.5	4512.1	4717.3	4833.7	4719.2	4337.9	3955.7	3933.7	3741.4	3949.4	3858.8
50°	4347.0	4391.8	4630.4	4882.9	4887.7	4629.0	4378.9	4346.0	4210.5	4441.5	4126.0
52.5°	4124.1	4211.0	4552.7	4894.3	4998.4	4880.5	4781.7	4767.4	4735.4	4915.3	4338.9
55°	3647.4	3743.8	4357.5	4898.2	5101.0	5103.4	5159.2	5163.0	5227.4	5358.2	4497.3
57.5°	3422.1	3476.5	4016.7	4916.3	5253.2	5356.3	5543.8	5573.4	5673.2	5778.6	4678.2
60°	3280.4	3344.8	3848.8	4891.5	5492.3	5688.0	5900.3	5910.3	6017.2	6212.4	4923.0
62.5°	3167.3	3230.8	3742.8	4796.0	5761.0	6086.9	6248.7	6249.6	6329.8	6729.2	5201.2
65°	2888.1	2941.6	3528.5	4688.7	5938.5	6481.6	6653.4	6647.2	6712.5	7274.2	5524.3
67.5°	2484.4	2525.4	3090.9	4281.6	5871.7	6840.4	7264.2	7243.7	7164.5	7745.2	5651.2
70°	1920.8	1935.6	2436.2	3568.2	5245.6	6978.3	7854.5	7844.0	7441.7	7660.8	5185.9
71°	1587.7	1636.4	2147.0	3149.2	4826.1	6850.9	7911.8	7918.0	7372.1	7430.7	4865.7
72.5°	922.0	963.5	1556.2	2418.5	4097.4	6319.3	7615.0	7659.8	7046.6	6758.8	4156.1
75°	197.6	211.4	577.0	1170.6	2253.9	4429.1	6010.6	6170.4	5743.3	4598.0	2504.9
77.5°	137.4	148.4	247.2	531.1	744.9	2188.5	3733.7	3914.1	3431.2	1728.0	801.7
80°	108.8	121.2	192.8	262.5	201.4	705.8	1749.0	1859.2	1144.4	385.6	135.1
82.5°	60.6	72.1	150.3	141.7	77.3	134.1	489.6	553.6	229.1	77.8	32.0
85°	17.7	21.5	96.9	103.1	32.9	25.8	83.5	103.6	43.4	20.5	14.3
87.5°	0.0	0.0	46.8	39.6	9.5	3.8	7.6	8.6	8.6	8.6	9.5
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°	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6	2049.6
2.5°	2057.8	2061.1	2049.2	2033.4	2016.7	1996.2	1974.7	1958.0	1957.5	1949.4	1941.3
5°	2083.1	2081.1	2048.2	1998.1	1938.9	1877.4	1818.7	1752.3	1730.4	1703.2	1694.1
7.5°	2129.8	2116.5	2046.8	1937.0	1807.2	1678.4	1545.2	1411.1	1353.9	1302.3	1293.3
10°	2188.5	2163.2	2037.7	1845.4	1607.3	1369.6	1168.7	986.4	906.2	844.7	841.8
12.5°	2249.6	2210.9	2012.4	1707.0	1345.3	1011.2	779.8	600.3	533.5	490.6	494.4
15°	2313.5	2255.8	1958.0	1520.4	1047.0	686.2	479.1	373.7	346.9	336.0	338.8
17.5°	2378.9	2286.8	1882.1	1295.6	752.6	442.9	331.7	302.1	302.1	304.5	305.4
20°	2435.7	2303.5	1770.5	1043.7	510.1	322.6	290.1	285.9	288.2	292.1	292.5
22.5°	2492.0	2304.5	1624.9	788.4	357.0	282.5	276.3	274.4	275.8	280.1	280.6
25°	2537.8	2293.0	1442.6	560.7	284.9	266.3	263.4	262.5	263.4	268.7	268.7
27.5°	2556.5	2251.5	1220.2	394.2	255.3	248.2	247.2	248.2	249.6	253.4	253.9
30°	2558.4	2179.0	977.8	285.4	231.5	223.8	225.7	229.1	227.6	226.7	227.6
32.5°	2563.1	2095.0	741.6	234.8	211.4	199.5	197.1	197.1	191.4	188.0	186.1
35°	2578.9	1996.2	537.8	210.9	190.9	177.0	168.0	157.5	146.5	140.8	139.3
37.5°	2603.7	1892.6	385.1	195.2	172.8	157.0	139.8	121.2	105.5	101.2	101.2
40°	2649.0	1785.7	284.9	182.8	158.4	138.9	113.1	88.8	74.4	72.1	72.1
42.5°	2720.6	1673.1	227.2	171.8	146.0	120.3	86.4	64.4	53.9	52.5	52.0
45°	2795.1	1549.0	198.5	161.3	132.7	98.8	63.9	47.7	41.5	40.1	40.1
47.5°	2869.5	1416.9	184.7	151.3	119.8	76.8	47.7	37.7	34.8	34.8	35.3
50°	2932.5	1278.9	174.7	140.3	103.1	58.2	37.7	32.0	31.0	32.9	33.4
52.5°	2948.2	1143.4	162.3	126.5	82.6	44.4	31.0	28.2	28.2	28.2	28.2
55°	2938.7	1038.4	146.0	109.3	61.1	35.3	26.7	24.8	24.3	24.3	24.3
57.5°	2971.2	976.4	116.9	84.9	43.9	28.6	23.4	22.0	21.0	20.5	20.5
60°	3036.5	935.8	83.5	61.1	32.9	23.9	20.0	18.6	17.2	16.2	16.2
62.5°	3123.4	900.5	62.0	45.3	25.3	19.1	16.7	15.3	13.4	12.4	12.4
65°	3190.2	837.5	47.2	33.9	19.1	15.3	12.9	12.4	9.5	8.6	8.1
67.5°	3088.1	699.1	38.2	24.8	14.3	11.9	10.0	9.5	5.7	4.8	4.8
70°	2648.6	486.8	30.5	18.1	10.5	9.5	8.1	6.2	4.3	3.8	3.8
71°	2401.8	406.6	27.7	15.3	9.1	9.1	7.6	5.2	3.8	3.3	3.3
72.5°	1995.2	288.7	23.4	11.9	8.1	9.5	8.1	4.8	3.8	3.3	2.9
75°	1158.2	120.7	16.2	8.1	6.2	11.5	10.5	4.3	2.9	2.4	2.4
77.5°	348.4	44.4	9.1	5.2	4.8	10.0	11.9	3.8	1.4	0.5	0.5
80°	63.5	19.1	5.7	3.3	3.3	6.2	9.1	1.9	0.0	0.0	0.0
82.5°	22.4	9.5	3.3	1.9	1.4	2.9	4.3	0.0	0.0	0.0	0.0
85°	12.9	6.7	1.9	1.0	0.0	0.5	1.0	0.0	0.0	0.0	0.0
87.5°	8.6	1.9	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)