

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: P191412

Luminaire Tested: **GAN-AF-04-LED-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191412
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-04-LED-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25589.1 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

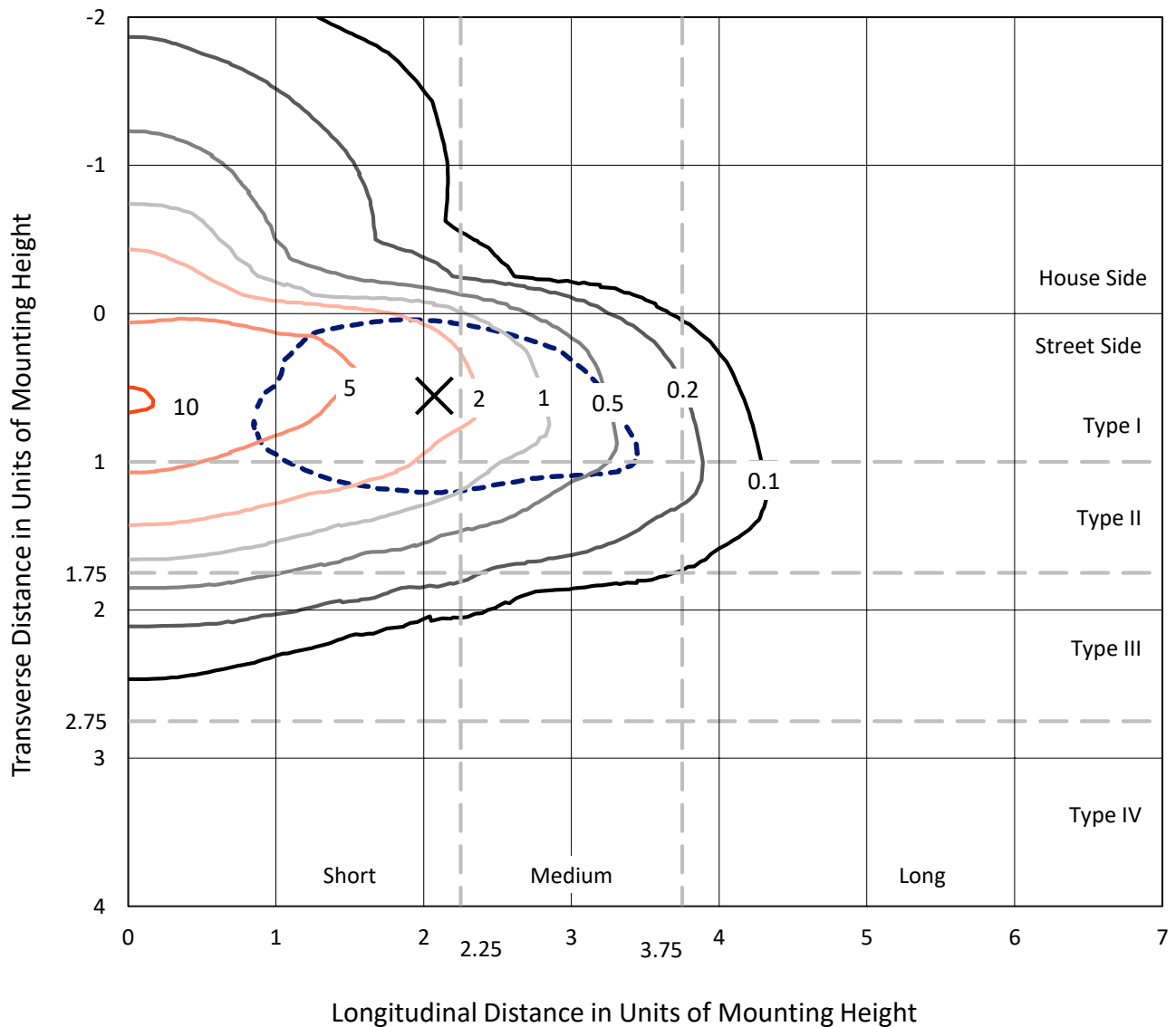
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

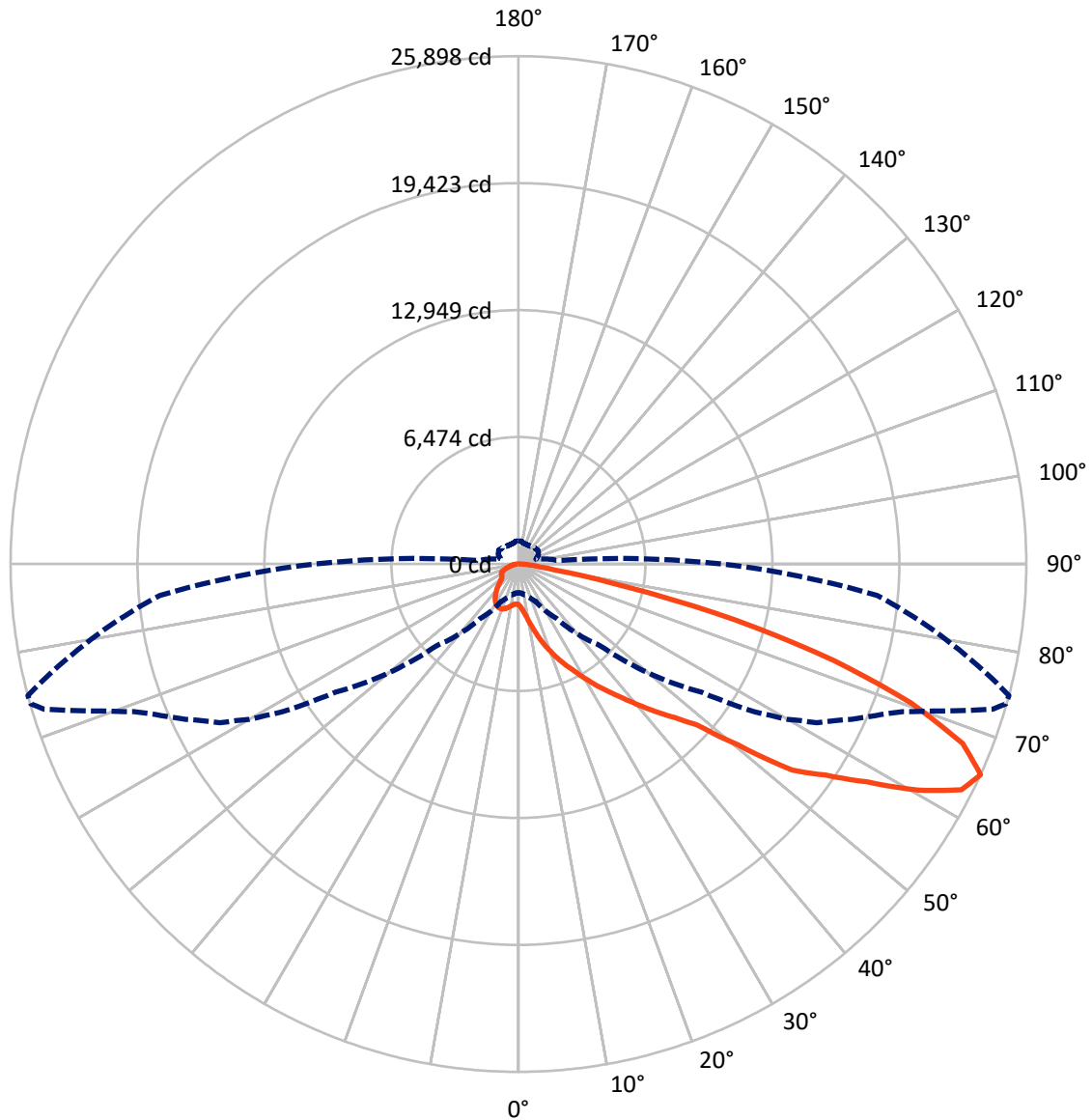
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3945.2	0.0	3945.2
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	21643.9	0.0	21643.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	25589.1	0.0	25589.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	1.0
10°-20°	1004.3	3.9
20°-30°	2060.6	8.1
30°-40°	3466.8	13.5
40°-50°	4790.2	18.7
50°-60°	5979.5	23.4
60°-70°	5380.9	21.0
70°-80°	2255.6	8.8
80°-90°	394.1	1.5
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°	25589.1	100.0
0°-180°	25589.1	100.0



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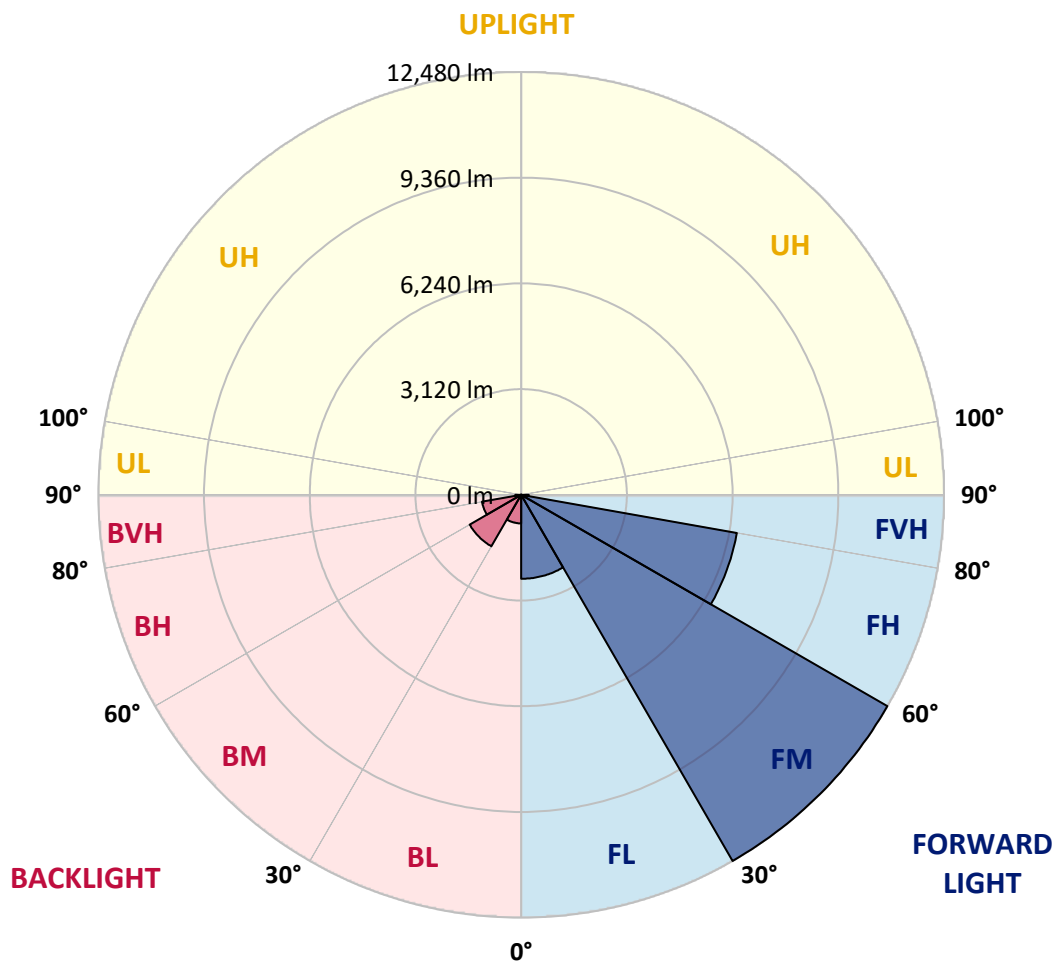
CATALOG NUMBER: GAN-AF-04-LED-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2478.2	9.7			
FM (30°-60°)	12480.4	48.8			
FH (60°-80°)	6463.7	25.3			G3/7500
FVH (80°-90°)	221.5	0.9			G2/225
BL (0°-30°)	843.7	3.3	B2/1000		
BM (30°-60°)	1756.1	6.9	B2/2500		
BH (60°-80°)	1172.9	4.6	B3/2500		G3/2500
BVH (80°-90°)	172.6	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	2640.3	2611.3	2618.5	2570.2	2510.8	2433.3	2347.3	2346.0	2347.3	2338.8	2307.3
5°	3661.4	3626.3	3613.0	3503.9	3344.1	3116.4	2869.3	2842.7	2831.7	2803.9	2739.7
7.5°	4406.3	4386.9	4366.4	4283.9	4138.7	3884.2	3552.4	3495.5	3441.0	3427.7	3355.0
10°	4887.1	4882.2	4838.7	4816.9	4726.0	4505.6	4182.2	4127.7	4068.4	4047.8	3971.5
12.5°	5267.5	5266.3	5245.7	5251.7	5173.0	5013.1	4734.5	4684.9	4641.2	4578.3	4523.8
15°	5530.3	5531.5	5561.8	5595.6	5583.6	5475.8	5214.2	5192.4	5154.9	5111.2	5047.0
17.5°	5745.8	5752.0	5783.5	5845.1	5911.8	5903.3	5696.2	5678.0	5645.4	5586.0	5552.1
20°	6232.7	6255.8	6195.2	6195.2	6202.5	6235.2	6135.9	6121.3	6075.3	6043.8	6017.2
22.5°	7055.2	7081.8	6944.9	6805.7	6668.8	6569.5	6470.2	6488.3	6456.9	6435.1	6419.3
25°	8123.5	8144.0	7922.3	7687.4	7408.8	7045.5	6799.6	6788.7	6771.7	6758.4	6751.2
27.5°	9128.7	9137.2	8927.6	8583.7	8260.3	7738.2	7133.9	7120.6	7100.0	7074.5	7052.7
30°	9988.6	9986.3	9770.6	9442.4	9096.0	8518.3	7641.3	7600.2	7539.7	7470.6	7417.3
32.5°	10733.5	10729.9	10493.7	10153.4	9790.0	9291.0	8336.5	8251.8	8157.3	8022.9	7941.8
35°	11319.8	11317.3	11094.4	10739.6	10322.9	10018.9	9133.5	9029.4	8909.5	8729.0	8604.2
37.5°	11541.3	11541.3	11416.6	11174.4	10806.1	10597.9	10018.9	9893.0	9764.6	9559.9	9419.4
40°	11411.8	11414.2	11440.9	11396.1	11216.8	11056.9	10844.9	10769.8	10659.7	10475.5	10328.9
42.5°	10977.0	10990.3	11167.1	11383.9	11473.5	11448.1	11577.8	11543.8	11466.3	11324.6	11208.3
45°	10425.9	10467.0	10660.9	11070.3	11545.0	11786.0	12191.8	12195.4	12180.9	12104.6	12015.0
47.5°	9668.9	9727.0	9982.6	10536.1	11377.9	12114.3	12815.5	12848.3	12878.5	12828.8	12787.7
50°	8663.6	8732.6	9115.4	9849.4	11037.5	12454.6	13994.1	14141.8	14279.9	14262.9	14290.7
52.5°	7586.8	7668.0	8136.8	8954.3	10452.5	12533.3	14747.4	14988.4	15229.5	15426.9	15636.4
55°	6615.5	6571.8	7040.7	7901.8	9490.8	12178.4	15424.5	15715.1	15984.0	16226.3	16475.7
57.5°	5298.9	5370.4	5840.3	6691.8	8217.9	11176.9	15890.7	16315.9	16702.2	17103.1	17456.9
60°	3873.4	3944.8	4454.7	5319.5	6836.0	9658.0	15534.6	16179.0	16798.0	17412.0	17891.6
62.5°	2338.8	2392.1	2841.5	3665.0	5271.1	7857.0	13948.0	14793.4	15704.2	16438.2	17173.4
65°	1455.9	1486.1	1652.1	2105.0	3385.3	5865.8	11396.1	12317.8	13298.8	14230.2	14994.5
67.5°	1191.8	1202.7	1233.0	1329.8	1859.2	3824.9	8481.9	9298.3	10183.7	11084.8	11935.0
70°	1071.8	1064.6	1064.6	1070.7	1191.8	2056.6	5553.3	6085.0	6822.6	7606.3	8383.8
72.5°	967.7	960.4	947.2	928.9	972.6	1254.8	2870.5	3271.4	3803.1	4499.6	5244.5
75°	869.6	859.9	844.2	821.2	851.5	947.2	1378.3	1546.7	1805.9	2176.5	2592.0
77.5°	767.9	755.8	741.2	724.2	763.0	736.4	807.8	868.4	967.7	1086.5	1242.7
80°	652.8	641.9	637.1	628.6	674.6	560.8	570.5	608.0	666.1	730.4	803.0
82.5°	511.2	511.2	530.5	534.1	585.0	403.3	426.4	459.0	489.3	523.2	557.1
85°	336.8	339.1	404.6	429.9	461.5	271.3	319.8	330.6	354.9	374.3	388.8
87.5°	105.4	113.9	247.0	273.7	265.3	153.9	196.2	201.0	218.0	231.3	243.5
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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CATALOG NUMBER: GAN-AF-04-LED-U-T2R

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	2307.3	2292.7	2279.4	2278.2	2268.6	2255.2	2260.1	2239.4	2240.7	2229.8	2217.7
5°	2713.1	2703.4	2655.0	2641.6	2605.3	2582.2	2578.7	2530.2	2524.1	2496.2	2465.9
7.5°	3296.9	3265.4	3197.5	3164.8	3103.0	3057.0	3035.2	2971.1	2939.6	2866.9	2834.2
10°	3908.5	3868.5	3784.9	3738.9	3679.6	3605.7	3565.7	3472.5	3436.1	3369.5	3289.6
12.5°	4475.3	4435.3	4349.4	4314.2	4235.5	4156.8	4113.2	4007.8	3960.6	3854.0	3791.1
15°	4999.8	4959.8	4884.7	4848.4	4769.6	4705.5	4647.4	4543.1	4487.5	4388.2	4305.8
17.5°	5508.5	5466.0	5400.7	5367.9	5291.6	5226.3	5163.2	5065.1	5008.3	4908.9	4835.1
20°	5980.8	5949.4	5902.1	5858.5	5782.2	5722.9	5647.7	5563.0	5480.7	5407.9	5337.7
22.5°	6392.6	6380.6	6329.6	6310.3	6244.9	6194.0	6128.6	6045.0	5985.7	5893.6	5828.3
25°	6747.5	6743.9	6719.7	6713.6	6667.6	6619.1	6604.6	6535.5	6481.0	6399.9	6332.1
27.5°	7052.7	7056.3	7050.3	7067.3	7055.2	7033.4	7034.5	7011.5	6980.1	6912.3	6852.8
30°	7391.8	7372.5	7383.4	7407.6	7414.9	7417.3	7457.3	7470.6	7468.2	7423.3	7394.3
32.5°	7871.5	7825.5	7783.1	7779.4	7803.7	7813.4	7881.2	7916.3	7946.6	7957.5	7962.3
35°	8483.1	8391.1	8302.7	8255.4	8214.3	8225.1	8273.6	8330.5	8397.1	8443.1	8497.7
37.5°	9253.4	9140.8	8984.6	8873.2	8845.3	8784.7	8816.2	8861.0	8926.5	8997.9	9092.4
40°	10187.3	10016.5	9840.9	9693.1	9613.2	9501.8	9500.6	9492.1	9532.1	9598.7	9731.8
42.5°	11086.0	10934.6	10748.0	10593.1	10488.8	10339.9	10309.6	10230.8	10249.0	10307.2	10436.8
45°	11927.7	11803.0	11689.2	11509.9	11421.5	11260.4	11209.5	11116.3	11064.1	11090.8	11220.4
47.5°	12742.9	12662.9	12544.2	12427.9	12360.1	12216.0	12150.6	12084.0	12017.4	12015.0	12150.6
50°	14332.0	14289.6	14149.0	14027.9	14060.7	13883.8	13894.7	13715.4	13796.6	13806.3	14090.9
52.5°	15825.4	15973.1	16077.3	16204.5	16286.8	16302.6	16357.1	16438.2	16536.3	16730.1	16994.2
55°	16680.4	16865.8	16973.5	17070.5	17230.3	17264.2	17355.1	17462.9	17548.8	17766.9	17990.9
57.5°	17696.6	18040.6	18207.7	18361.6	18577.2	18659.5	18810.9	18928.4	19039.9	19297.9	19569.2
60°	18322.8	18741.9	19082.2	19325.7	19595.7	19789.6	20018.4	20202.6	20464.2	20773.1	21177.5
62.5°	17825.0	18440.3	18892.1	19309.9	19676.9	20047.6	20375.7	20719.8	21117.0	21584.6	22211.9
65°	15842.3	16468.5	17242.4	17676.1	18161.7	18733.4	19232.4	19789.6	20330.9	21011.6	21939.4
67.5°	12753.7	13481.7	14351.3	14788.6	15346.9	15985.2	16544.8	17225.5	17857.8	18682.6	19829.5
70°	9192.8	10134.0	10865.6	11322.1	11973.7	12631.5	13171.6	13963.8	14487.0	15332.4	16518.1
72.5°	5821.0	6563.5	7459.7	8035.0	8614.0	9280.1	9832.4	10515.5	11003.6	11774.0	12848.3
75°	3129.7	3677.2	4464.5	5010.7	5630.8	6200.1	6846.8	7304.7	7665.6	8274.9	9146.9
77.5°	1466.7	1799.8	2198.3	2618.5	3038.9	3477.3	3903.7	4274.3	4429.3	4778.1	5292.8
80°	890.2	998.0	1114.3	1243.9	1419.5	1561.2	1748.9	1884.6	1894.3	2004.5	2162.0
82.5°	594.6	634.6	669.8	702.5	747.3	782.5	822.4	869.6	889.0	914.4	965.4
85°	405.7	425.1	432.4	453.0	448.2	460.2	476.0	491.7	500.2	499.0	522.0
87.5°	249.5	259.2	264.0	268.9	265.3	260.4	267.7	276.2	278.5	271.3	273.7
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	2220.1	2209.2	2198.3	2191.1	2188.6	2124.5	2096.5	2078.4	2039.7	2008.2	1982.7
5°	2449.0	2426.0	2407.8	2386.0	2374.0	2211.6	2152.3	2111.1	2043.2	2003.3	1966.9
7.5°	2817.2	2753.1	2715.5	2673.1	2636.8	2343.7	2245.6	2181.3	2086.9	2033.6	1992.4
10°	3235.1	3168.5	3109.2	3043.7	2986.8	2519.2	2376.3	2277.0	2152.3	2083.2	2028.7
12.5°	3701.3	3636.0	3560.9	3477.3	3404.7	2742.1	2543.5	2401.8	2231.0	2139.0	2062.7
15°	4252.5	4137.4	4046.6	3949.7	3864.9	3008.6	2738.4	2542.2	2314.5	2189.8	2088.0
17.5°	4764.8	4643.7	4520.1	4435.3	4337.2	3307.7	2934.7	2685.2	2383.6	2222.6	2093.0
20°	5265.0	5133.0	5026.4	4912.5	4809.6	3617.8	3144.2	2811.2	2428.4	2223.7	2062.7
22.5°	5705.9	5623.6	5504.8	5381.3	5277.1	3927.8	3340.4	2917.8	2445.4	2195.9	2009.4
25°	6207.4	6120.1	5974.7	5870.6	5754.3	4244.0	3533.1	3000.1	2435.6	2143.8	1927.0
27.5°	6742.7	6645.8	6496.8	6387.8	6247.3	4572.2	3709.8	3059.4	2399.3	2059.0	1816.8
30°	7301.0	7212.6	7066.0	6955.9	6814.1	4919.9	3907.3	3099.4	2326.7	1941.6	1688.4
32.5°	7900.6	7826.7	7681.3	7566.3	7414.9	5296.5	4091.4	3111.5	2216.4	1802.2	1552.7
35°	8469.8	8419.0	8296.6	8188.8	8031.4	5652.6	4286.4	3105.5	2085.7	1649.6	1429.2
37.5°	9110.5	9080.2	9019.7	8882.8	8690.3	6135.9	4520.1	3080.0	1925.8	1498.2	1334.7
40°	9793.6	9796.1	9730.6	9637.4	9458.1	6722.1	4798.8	3030.4	1751.4	1365.0	1248.7
42.5°	10516.8	10554.3	10522.8	10456.2	10284.1	7313.2	5131.8	2969.8	1581.8	1235.4	1163.9
45°	11345.1	11391.2	11439.7	11341.6	11174.4	8093.2	5570.3	2891.1	1398.9	1127.6	1105.8
47.5°	12300.8	12373.5	12417.1	12418.3	12251.2	9059.7	6282.5	2843.9	1236.6	1055.0	1078.0
50°	14317.4	14340.4	14443.3	14622.7	14494.3	11296.8	7526.3	2814.8	1126.4	1010.2	1057.3
52.5°	17223.0	17476.2	17654.2	17642.1	17467.7	12717.4	8211.8	2664.6	1061.0	993.2	1047.7
55°	18406.4	18722.5	19051.9	19139.1	19003.5	13929.8	8859.8	2514.4	1029.5	1005.3	1051.3
57.5°	19983.3	20516.3	20968.0	21158.2	20962.0	15481.3	9712.5	2435.6	1019.8	1038.0	1074.3
60°	21825.6	22484.5	23077.9	23419.4	23419.4	17264.2	10596.6	2403.0	1006.5	1086.5	1113.1
62.5°	23008.9	23976.6	24872.9	25373.2	25358.5	18505.7	10989.0	2291.5	976.2	1120.3	1166.4
65°	23013.7	24164.3	25306.5	25868.5	25897.5	18353.1	10341.1	2023.9	920.5	1125.1	1219.7
67.5°	21095.2	22322.1	23653.3	24281.9	24427.1	16894.9	8951.8	1664.1	829.6	1076.8	1239.0
70°	17816.5	19014.4	20373.4	20991.1	21249.0	14402.2	7210.2	1282.7	713.4	970.2	1199.1
72.5°	14036.4	15211.3	16157.2	16608.9	16810.0	11008.5	5250.5	968.9	585.0	817.5	1091.3
75°	9937.8	10819.5	11322.1	11422.7	11454.2	6636.1	3190.3	720.7	482.0	635.9	921.7
77.5°	5609.0	5986.9	5945.7	5990.5	5617.4	2561.7	1389.3	516.0	397.3	483.2	714.6
80°	2189.8	2257.7	2120.8	2078.4	1906.4	953.2	612.8	359.8	317.3	365.8	500.2
82.5°	965.4	996.8	967.7	975.0	932.6	491.7	367.0	260.4	242.2	267.7	331.8
85°	531.7	541.4	539.0	554.7	531.7	196.2	174.4	159.9	169.6	181.7	213.2
87.5°	259.2	261.6	253.2	266.5	258.0	99.3	86.0	90.8	99.3	101.8	101.8
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):

	135°	145°	155°	165°	175°	180°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	1964.6	1954.9	1956.1	1953.6	1948.8	1948.8
5°	1947.6	1937.9	1937.9	1935.4	1929.4	1930.6
7.5°	1964.6	1948.8	1942.8	1934.3	1925.8	1925.8
10°	1983.9	1956.1	1939.1	1924.6	1913.6	1913.6
12.5°	1998.4	1954.9	1927.0	1907.6	1896.8	1896.8
15°	2003.3	1946.4	1907.6	1884.6	1874.9	1873.7
17.5°	1987.6	1913.6	1866.5	1839.8	1827.7	1824.0
20°	1939.1	1854.3	1797.4	1767.1	1750.2	1744.1
22.5°	1866.5	1769.5	1702.9	1671.4	1649.6	1646.0
25°	1764.7	1660.6	1595.1	1564.8	1552.7	1549.2
27.5°	1646.0	1549.2	1493.4	1474.0	1463.1	1461.9
30°	1533.4	1451.0	1409.8	1395.3	1382.0	1379.6
32.5°	1427.9	1375.9	1360.1	1339.6	1308.0	1304.5
35°	1352.9	1348.0	1337.1	1291.2	1252.4	1241.5
37.5°	1306.8	1351.7	1296.0	1205.1	1177.3	1174.9
40°	1280.2	1314.2	1218.4	1186.9	1189.4	1186.9
42.5°	1219.7	1254.8	1220.9	1206.4	1216.0	1218.4
45°	1159.1	1197.9	1239.0	1229.4	1252.4	1252.4
47.5°	1125.1	1183.3	1237.9	1237.9	1271.7	1283.9
50°	1086.5	1171.2	1218.4	1235.4	1262.0	1252.4
52.5°	1084.0	1150.6	1190.6	1220.9	1233.0	1222.1
55°	1087.6	1133.6	1162.8	1196.6	1211.2	1212.4
57.5°	1092.5	1124.0	1143.4	1159.1	1202.7	1202.7
60°	1104.6	1115.5	1126.4	1134.9	1191.8	1193.1
62.5°	1124.0	1107.0	1104.6	1113.1	1185.7	1180.9
65°	1154.3	1094.9	1076.8	1085.2	1179.7	1165.1
67.5°	1195.4	1076.8	1041.6	1047.7	1174.9	1143.4
70°	1233.0	1047.7	998.0	992.0	1128.8	1073.1
72.5°	1236.6	1013.7	937.4	919.3	981.0	927.8
75°	1176.1	990.7	870.8	817.5	810.3	803.0
77.5°	1059.8	977.4	793.3	709.7	695.2	700.1
80°	886.6	927.8	700.1	600.8	679.4	671.0
82.5°	662.6	818.8	594.6	531.7	530.5	468.7
85°	368.2	638.3	484.5	398.4	277.3	268.9
87.5°	102.9	354.9	339.1	225.3	153.9	159.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)