

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: McGRAW-EDISON

Report Number: P301717

Luminaire Tested: **GLNA-AF-07-LED-E1-T2R-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301717
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-T2R-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27850.3 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

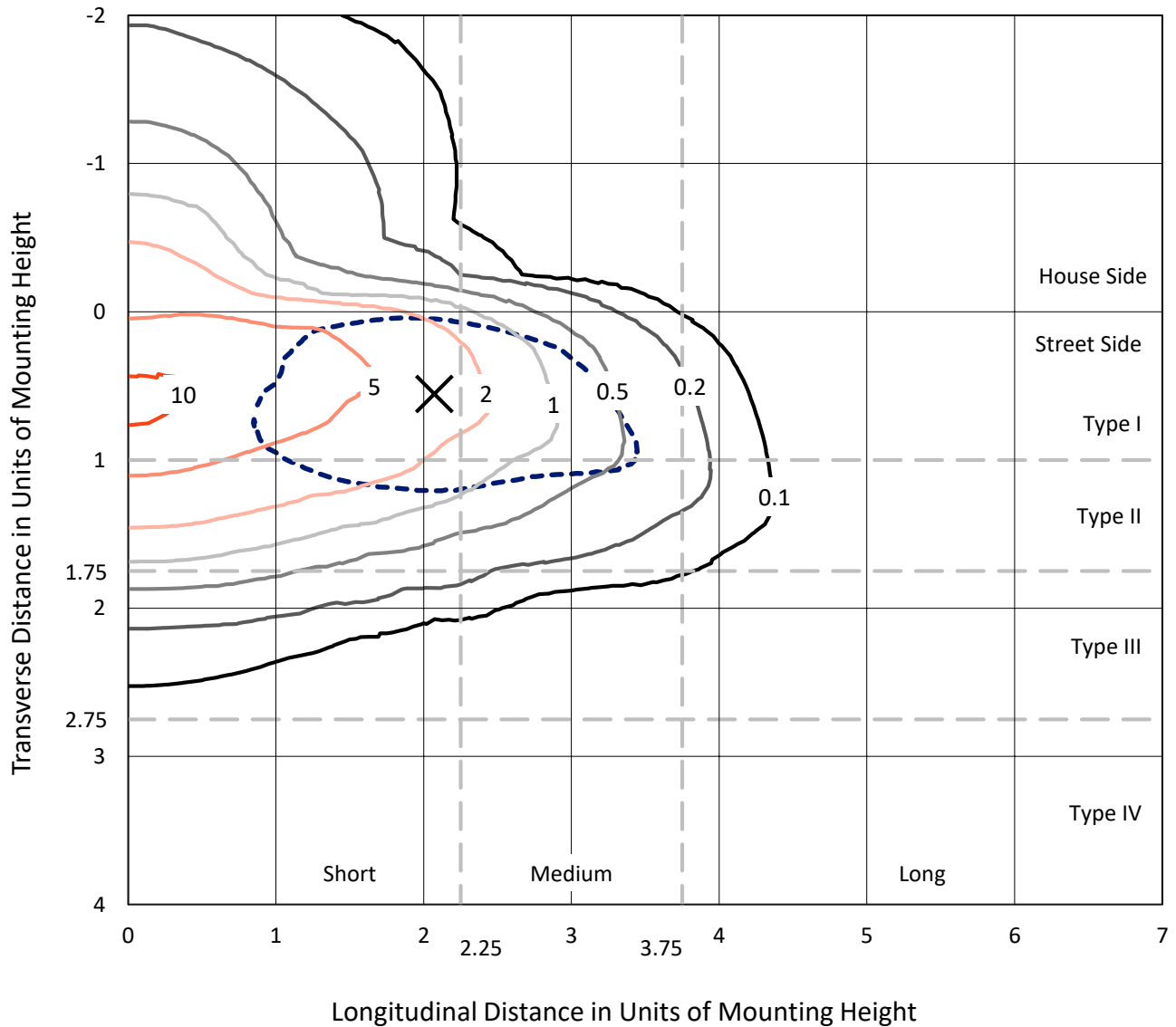
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

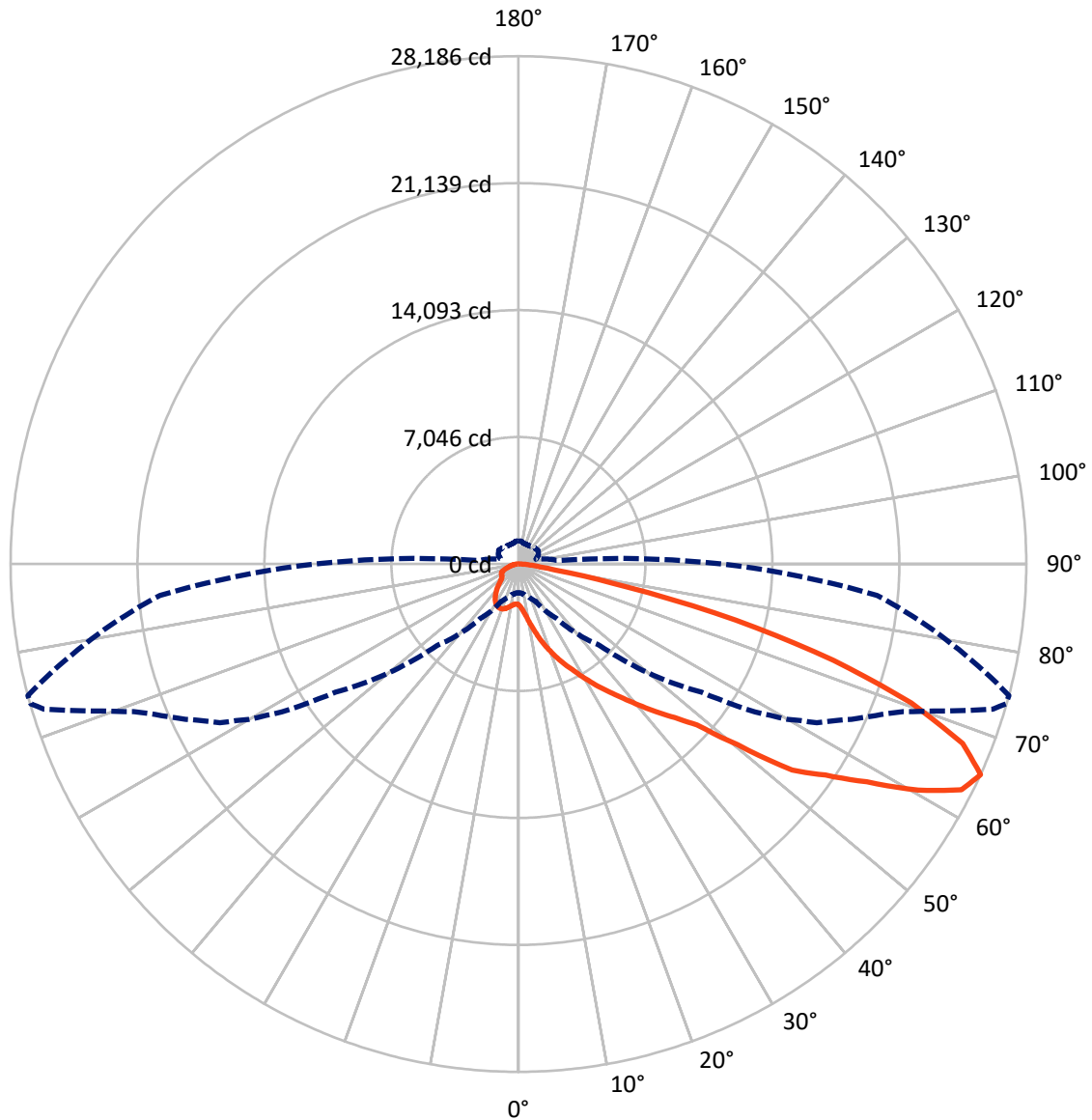
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 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	4293.9	0.0	4293.9
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	23556.5	0.0	23556.5
	% Fixture	84.6	0.0	84.6
Total	Lumens	27850.3	0.0	27850.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.8	1.0
10°-20°	1093.1	3.9
20°-30°	2242.7	8.1
30°-40°	3773.2	13.5
40°-50°	5213.4	18.7
50°-60°	6507.9	23.4
60°-70°	5856.4	21.0
70°-80°	2455.0	8.8
80°-90°	428.9	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°	27850.3	100.0
0°-180°	27850.3	100.0

Coefficient of Utilization



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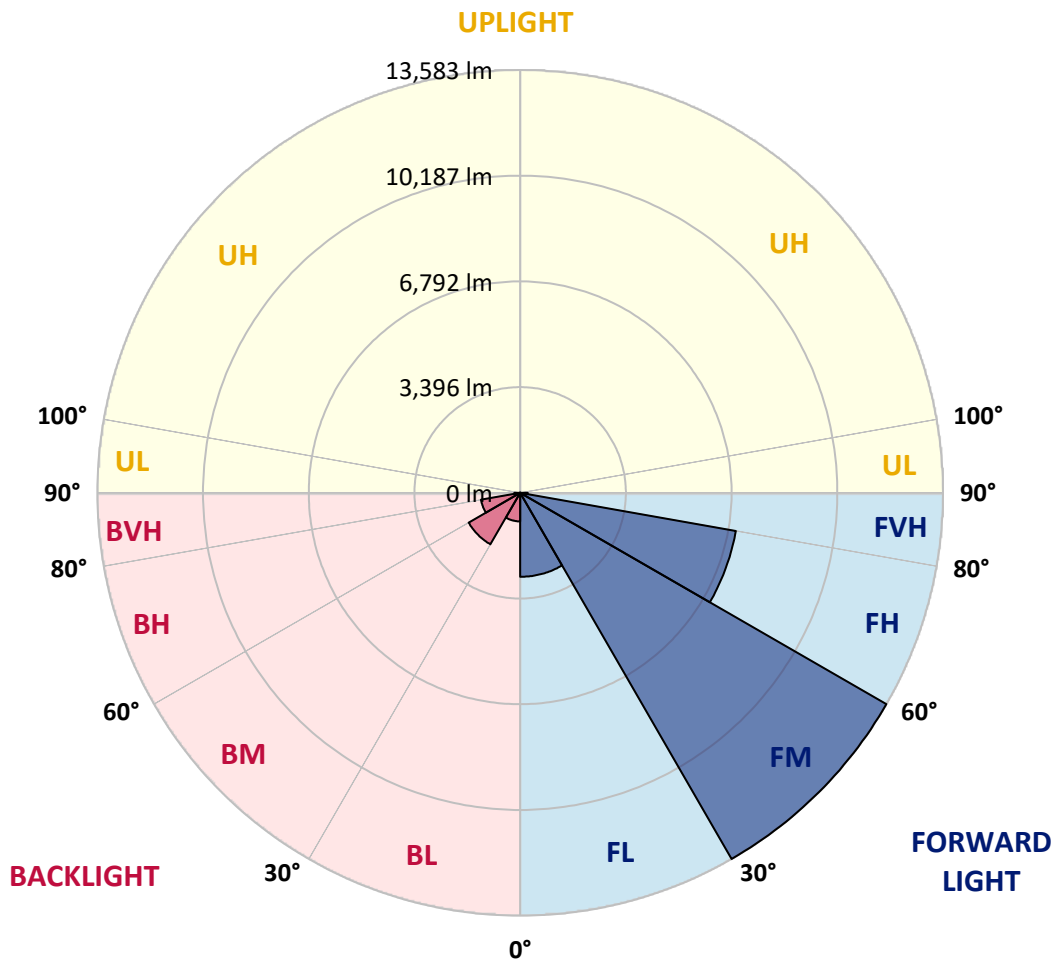
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2697.2	9.7			
FM (30°-60°)	13583.3	48.8			
FH (60°-80°)	7034.9	25.3			G3/7500
FVH (80°-90°)	241.1	0.9			G3/500
BL (0°-30°)	918.3	3.3	B2/1000		
BM (30°-60°)	1911.2	6.9	B2/2500		
BH (60°-80°)	1276.5	4.6	B3/2500		G3/2500
BVH (80°-90°)	187.8	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°	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4
2.5°	2873.8	2842.1	2849.9	2797.2	2732.6	2648.2	2554.7	2553.5	2554.7	2545.3	2511.3
5°	3984.8	3946.8	3932.4	3813.5	3639.5	3391.9	3122.9	3094.0	3081.8	3051.7	2981.7
7.5°	4795.8	4774.7	4752.0	4662.4	4504.5	4227.6	3866.3	3804.5	3745.0	3730.6	3651.6
10°	5319.0	5313.5	5266.2	5242.4	5143.8	4903.7	4551.8	4492.3	4427.8	4405.5	4322.2
12.5°	5732.7	5731.6	5709.3	5715.9	5629.9	5456.3	5152.8	5098.9	5051.5	4982.7	4923.7
15°	6019.0	6020.2	6053.4	6090.2	6076.9	5959.5	5674.9	5651.0	5610.3	5563.0	5493.0
17.5°	6253.6	6260.3	6294.3	6361.5	6434.3	6424.9	6199.6	6179.7	6144.1	6079.6	6042.8
20°	6783.5	6808.5	6742.8	6742.8	6750.6	6786.2	6677.9	6662.3	6612.2	6577.8	6548.8
22.5°	7678.6	7707.5	7558.5	7407.2	7258.2	7149.9	7042.0	7061.5	7027.5	7003.6	6986.4
25°	8841.2	8863.8	8622.6	8366.8	8063.4	7668.0	7400.5	7388.4	7370.0	7355.6	7347.8
27.5°	9935.3	9944.7	9716.7	9342.1	8990.2	8422.0	7764.2	7749.8	7727.5	7699.7	7675.8
30°	10871.5	10868.7	10634.1	10276.7	9899.7	9270.9	8316.8	8271.8	8205.7	8130.6	8072.8
32.5°	11682.1	11678.2	11420.9	11050.6	10655.2	10112.1	9073.4	8981.2	8878.3	8731.7	8643.7
35°	12319.9	12317.6	12074.7	11688.8	11235.1	10904.3	9940.8	9827.4	9696.8	9500.5	9364.8
37.5°	12561.2	12561.2	12425.5	12161.9	11761.1	11534.3	10904.3	10767.1	10627.5	10404.6	10251.7
40°	12420.0	12422.8	12451.7	12403.2	12208.1	12034.1	11803.3	11721.6	11601.6	11401.3	11241.8
42.5°	11946.9	11961.3	12154.1	12389.9	12487.3	12459.9	12600.7	12563.9	12479.5	12325.4	12198.7
45°	11347.0	11392.0	11602.7	12048.5	12565.1	12827.5	13269.0	13272.9	13257.2	13174.3	13076.6
47.5°	10523.4	10586.4	10864.8	11467.0	12383.3	13184.9	13947.8	13983.4	14016.7	13962.7	13917.7
50°	9429.3	9504.4	9920.8	10719.7	12012.9	13555.2	15230.5	15391.6	15541.7	15523.4	15553.5
52.5°	8257.3	8345.7	8855.6	9745.7	11376.3	13640.9	16050.5	16312.9	16575.3	16790.0	17017.9
55°	7199.9	7152.6	7662.9	8599.9	10329.5	13254.5	16787.6	17104.0	17396.5	17660.0	17931.8
57.5°	5767.1	5845.0	6356.5	7283.2	8944.0	12164.3	17294.8	17757.8	18178.2	18614.6	18999.4
60°	4215.5	4293.3	4848.2	5789.4	7440.0	10511.3	16907.3	17608.8	18282.2	18950.5	19472.5
62.5°	2545.3	2603.6	3092.4	3989.1	5737.0	8551.4	15180.4	16100.5	17091.8	17890.8	18690.8
65°	1584.5	1617.4	1798.0	2291.1	3684.4	6384.2	12403.2	13406.2	14473.8	15487.8	16319.5
67.5°	1297.1	1308.8	1342.1	1447.3	2023.3	4163.1	9231.4	10119.9	11083.4	12064.2	12989.8
70°	1166.5	1158.7	1158.7	1165.3	1297.1	2238.3	6044.0	6622.8	7425.6	8278.4	9124.7
72.5°	1053.1	1045.3	1030.8	1011.2	1058.6	1365.5	3124.1	3560.5	4139.2	4897.1	5707.7
75°	946.3	935.8	919.0	893.9	926.8	1030.8	1500.1	1683.5	1965.4	2369.0	2821.0
77.5°	835.7	822.4	806.7	788.3	830.6	801.6	879.1	945.2	1053.1	1182.5	1352.6
80°	710.5	698.8	693.3	684.3	734.4	610.4	621.0	661.7	725.0	795.0	874.0
82.5°	556.5	556.5	577.2	581.5	636.6	439.1	464.2	499.8	532.6	569.4	606.5
85°	366.4	369.1	440.3	468.1	502.1	295.2	348.0	359.8	386.4	407.5	423.1
87.5°	114.6	124.0	269.0	298.0	288.6	167.4	213.5	219.0	237.4	251.8	265.1
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4
2.5°	2511.3	2495.3	2480.8	2479.6	2469.1	2454.6	2459.7	2437.4	2438.6	2426.8	2413.5
5°	2952.8	2942.2	2889.4	2875.0	2835.5	2810.4	2806.5	2753.7	2747.1	2717.0	2683.7
7.5°	3588.2	3553.8	3479.9	3444.3	3377.1	3327.0	3303.6	3233.6	3199.1	3120.2	3084.6
10°	4253.8	4210.4	4119.3	4069.2	4004.7	3924.1	3880.7	3779.5	3739.6	3667.2	3580.4
12.5°	4870.9	4827.5	4733.6	4695.3	4609.7	4524.0	4476.7	4362.1	4310.5	4194.4	4125.9
15°	5441.4	5398.0	5316.3	5276.8	5191.1	5121.1	5057.8	4944.8	4884.2	4775.8	4686.3
17.5°	5995.1	5949.0	5877.8	5842.2	5759.3	5688.2	5619.7	5512.6	5450.8	5342.9	5262.3
20°	6509.4	6474.9	6423.7	6376.0	6293.1	6228.6	6146.9	6054.6	5965.0	5885.6	5809.4
22.5°	6957.5	6944.2	6889.1	6867.9	6796.8	6741.2	6670.1	6579.4	6514.4	6414.3	6343.2
25°	7343.8	7339.9	7313.3	7306.7	7256.6	7203.9	7188.2	7113.1	7053.7	6965.3	6891.8
27.5°	7675.8	7679.8	7673.5	7691.9	7678.6	7654.7	7656.3	7631.3	7596.9	7522.9	7458.4
30°	8045.0	8023.9	8036.0	8062.2	8070.0	8072.8	8116.2	8130.6	8128.3	8079.4	8047.7
32.5°	8567.0	8517.0	8470.8	8466.9	8493.1	8503.7	8577.6	8615.9	8648.8	8660.5	8666.0
35°	9232.6	9132.5	9036.3	8985.1	8940.1	8951.8	9004.6	9066.8	9139.1	9189.2	9248.6
37.5°	10071.0	9948.6	9778.5	9657.3	9626.8	9561.1	9595.1	9644.0	9715.2	9793.0	9895.8
40°	11087.3	10901.6	10710.4	10549.6	10462.8	10341.2	10340.0	10330.7	10374.5	10446.8	10591.9
42.5°	12065.7	11900.7	11697.8	11529.2	11415.8	11253.5	11220.7	11135.0	11154.6	11217.9	11359.1
45°	12981.6	12845.9	12721.9	12527.2	12430.6	12255.4	12199.9	12098.6	12041.9	12070.8	12212.0
47.5°	13868.8	13782.0	13652.6	13526.3	13452.4	13295.6	13224.4	13151.7	13079.3	13076.6	13224.4
50°	15598.4	15552.3	15399.4	15267.6	15303.2	15110.8	15122.5	14927.4	15015.8	15026.3	15336.0
52.5°	17223.6	17384.7	17498.1	17636.2	17726.1	17743.3	17802.4	17890.8	17997.5	18208.3	18495.7
55°	18154.3	18356.1	18473.4	18579.0	18753.0	18789.8	18888.7	19006.0	19099.5	19336.8	19580.9
57.5°	19260.6	19634.8	19816.7	19984.0	20218.6	20308.2	20473.2	20601.1	20722.3	21003.1	21298.3
60°	19941.8	20398.1	20768.5	21033.2	21327.3	21538.4	21787.5	21987.7	22272.4	22608.7	23049.0
62.5°	19400.2	20069.7	20561.6	21016.4	21415.6	21819.2	22176.2	22550.8	22983.0	23491.7	24174.9
65°	17242.4	17923.6	18765.9	19237.9	19766.6	20388.8	20931.9	21538.4	22127.3	22868.4	23878.1
67.5°	13881.0	14672.8	15619.6	16095.5	16703.1	17397.6	18006.9	18747.5	19435.8	20333.2	21581.8
70°	10005.3	11029.5	11825.6	12322.6	13032.0	13747.6	14335.8	15197.6	15767.0	16687.1	17978.0
72.5°	6335.3	7143.2	8118.9	8745.0	9374.9	10100.3	10701.4	11444.7	11975.8	12814.2	13983.4
75°	3406.4	4002.0	4858.7	5453.5	6128.5	6747.9	7451.8	7950.0	8343.0	9006.2	9955.3
77.5°	1596.3	1958.8	2392.4	2849.9	3307.5	3784.5	4248.7	4651.9	4820.8	5200.5	5760.5
80°	969.0	1086.3	1212.6	1353.8	1545.0	1699.1	1903.6	2051.0	2061.6	2181.6	2352.9
82.5°	647.2	690.6	728.9	764.5	813.4	851.7	895.1	946.3	967.4	995.2	1050.7
85°	441.5	462.6	470.4	493.1	487.6	500.9	518.1	535.3	544.3	543.2	568.2
87.5°	271.4	281.9	287.4	292.5	288.6	283.5	291.3	300.7	303.1	295.2	298.0
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°	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4
2.5°	2416.3	2404.5	2392.4	2384.6	2381.9	2312.3	2281.8	2262.2	2220.0	2185.6	2157.8
5°	2665.4	2640.3	2620.8	2596.9	2583.6	2406.9	2342.4	2297.8	2223.9	2180.5	2140.6
7.5°	3066.2	2996.2	2955.5	2909.4	2869.9	2550.8	2444.0	2374.0	2271.2	2213.3	2168.4
10°	3521.0	3448.6	3383.7	3312.6	3250.8	2742.0	2586.4	2478.1	2342.4	2267.3	2207.8
12.5°	4028.6	3957.4	3875.7	3784.5	3705.6	2984.5	2768.2	2614.1	2428.0	2327.9	2245.0
15°	4628.4	4502.9	4404.0	4298.8	4206.5	3274.6	2980.6	2767.0	2519.1	2383.4	2272.8
17.5°	5185.7	5053.9	4919.8	4827.5	4720.7	3600.0	3194.1	2922.3	2594.2	2419.0	2277.8
20°	5730.4	5586.5	5470.7	5346.8	5234.5	3937.4	3422.0	3059.5	2643.1	2420.2	2245.0
22.5°	6210.2	6120.3	5991.2	5856.7	5743.3	4274.9	3635.6	3175.7	2661.5	2390.1	2186.7
25°	6755.7	6661.1	6502.7	6389.3	6263.0	4619.0	3845.2	3265.2	2650.9	2333.4	2097.2
27.5°	7338.4	7233.2	7070.9	6952.4	6799.5	4976.1	4037.6	3329.8	2611.4	2241.1	1977.1
30°	7946.1	7849.9	7690.3	7570.7	7416.2	5354.6	4252.6	3373.2	2532.4	2113.2	1837.5
32.5°	8598.7	8518.2	8360.2	8235.0	8070.0	5764.4	4452.8	3386.5	2412.4	1961.5	1690.1
35°	9218.1	9163.0	9029.6	8912.3	8741.1	6151.9	4665.2	3379.8	2270.0	1795.3	1555.6
37.5°	9915.8	9882.5	9816.8	9667.8	9458.2	6677.9	4919.8	3352.0	2096.0	1630.7	1452.7
40°	10659.1	10661.9	10590.7	10489.0	10293.9	7316.1	5222.8	3298.1	1906.0	1485.6	1358.9
42.5°	11445.9	11487.0	11452.6	11380.2	11192.9	7959.4	5585.3	3232.4	1721.8	1344.4	1267.0
45°	12347.7	12397.7	12450.5	12343.8	12161.9	8808.3	6062.4	3146.7	1522.3	1227.1	1203.6
47.5°	13387.9	13466.8	13514.2	13515.7	13333.9	9860.2	6837.4	3095.1	1346.0	1148.1	1173.1
50°	15582.4	15607.8	15719.7	15914.8	15775.2	12294.9	8191.2	3063.5	1225.9	1099.2	1150.8
52.5°	18744.8	19020.5	19214.4	19201.1	19011.1	13841.1	8937.4	2900.0	1154.8	1080.9	1140.3
55°	20032.9	20377.0	20735.6	20830.2	20682.8	15160.9	9642.8	2736.5	1120.3	1094.1	1144.2
57.5°	21749.2	22329.1	22821.1	23027.9	22814.4	16849.4	10570.8	2650.9	1109.8	1129.7	1169.2
60°	23754.1	24471.3	25117.3	25488.8	25488.8	18789.8	11533.1	2615.3	1095.3	1182.5	1211.5
62.5°	25042.2	26095.3	27071.0	27615.3	27599.3	20140.8	11960.1	2494.1	1062.5	1219.3	1269.3
65°	25047.3	26299.8	27542.6	28154.5	28185.8	19975.0	11255.1	2202.8	1001.9	1224.8	1327.6
67.5°	22959.5	24294.5	25743.3	26427.7	26585.7	18387.8	9742.9	1811.3	902.9	1172.0	1348.7
70°	19390.8	20694.6	22173.5	22846.1	23126.9	15674.7	7847.1	1396.0	776.6	1055.8	1304.9
72.5°	15276.6	16555.3	17585.0	18076.5	18295.5	11981.3	5714.4	1054.7	636.6	889.6	1187.6
75°	10815.9	11775.6	12322.6	12432.1	12466.2	7222.6	3472.1	784.4	524.8	692.2	1003.0
77.5°	6104.6	6516.0	6471.0	6519.9	6114.0	2788.2	1512.2	561.5	432.5	526.0	777.8
80°	2383.4	2457.3	2308.3	2262.2	2074.9	1037.4	667.1	391.4	345.3	398.1	544.3
82.5°	1050.7	1084.8	1053.1	1061.3	1015.2	535.3	399.3	283.5	263.6	291.3	361.3
85°	578.7	589.3	586.6	603.8	578.7	213.5	189.7	174.0	184.6	197.9	231.9
87.5°	281.9	284.7	275.7	290.2	280.8	107.9	93.5	98.9	107.9	110.7	110.7
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):

	135°	145°	155°	165°	175°	180°
0°	2263.4	2263.4	2263.4	2263.4	2263.4	2263.4
2.5°	2138.2	2127.7	2128.9	2126.1	2121.0	2121.0
5°	2119.9	2109.3	2109.3	2106.6	2099.9	2101.1
7.5°	2138.2	2121.0	2114.4	2105.0	2096.0	2096.0
10°	2159.4	2128.9	2110.5	2094.8	2082.7	2082.7
12.5°	2175.0	2127.7	2097.2	2076.1	2064.3	2064.3
15°	2180.5	2118.3	2076.1	2051.0	2040.5	2039.3
17.5°	2163.3	2082.7	2031.5	2002.5	1989.3	1985.3
20°	2110.5	2018.2	1956.4	1923.2	1904.8	1898.1
22.5°	2031.5	1925.9	1853.6	1819.1	1795.3	1791.4
25°	1920.8	1807.4	1736.2	1703.0	1690.1	1685.8
27.5°	1791.4	1685.8	1625.2	1604.1	1592.3	1591.2
30°	1669.0	1579.0	1534.5	1518.4	1504.0	1501.6
32.5°	1554.0	1497.3	1480.5	1457.8	1423.8	1419.9
35°	1472.3	1467.2	1455.5	1405.0	1363.2	1351.1
37.5°	1422.2	1471.1	1410.5	1311.6	1281.5	1278.7
40°	1393.3	1430.4	1326.0	1292.0	1294.4	1292.0
42.5°	1327.6	1365.5	1328.8	1313.1	1323.3	1326.0
45°	1261.5	1303.7	1348.7	1338.2	1363.2	1363.2
47.5°	1224.8	1287.7	1347.2	1347.2	1384.3	1397.2
50°	1182.5	1274.8	1326.0	1344.4	1373.7	1363.2
52.5°	1179.8	1252.1	1295.9	1328.8	1342.1	1329.9
55°	1183.7	1233.8	1265.4	1302.6	1318.2	1319.4
57.5°	1189.2	1223.2	1244.3	1261.5	1308.8	1308.8
60°	1202.1	1214.2	1225.9	1235.3	1297.1	1298.3
62.5°	1223.2	1204.8	1202.1	1211.5	1290.5	1285.4
65°	1256.4	1191.5	1172.0	1181.0	1283.8	1268.2
67.5°	1301.0	1172.0	1133.6	1140.3	1278.7	1244.3
70°	1342.1	1140.3	1086.3	1079.7	1228.7	1168.1
72.5°	1346.0	1103.5	1020.2	1000.7	1067.9	1009.7
75°	1279.9	1078.1	947.9	889.6	881.8	874.0
77.5°	1153.6	1063.6	863.4	772.3	756.7	761.8
80°	965.1	1009.7	761.8	653.8	739.5	730.5
82.5°	721.1	891.2	647.2	578.7	577.2	510.3
85°	400.8	694.9	527.1	433.7	301.9	292.5
87.5°	112.2	386.4	369.1	245.2	167.4	174.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)