

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: P301710

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301710
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-06-LED-E1-T2R-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21153.1 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

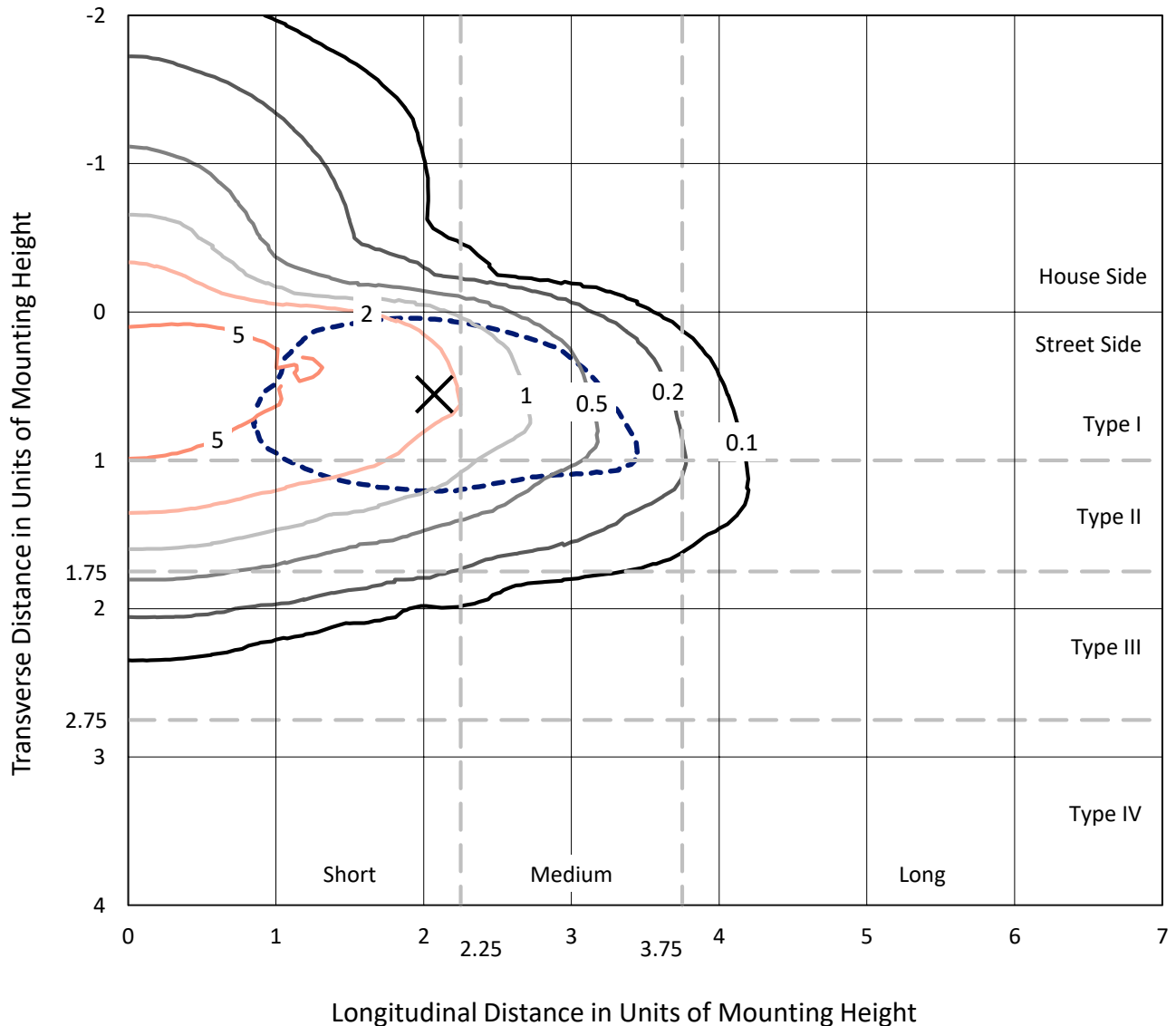
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

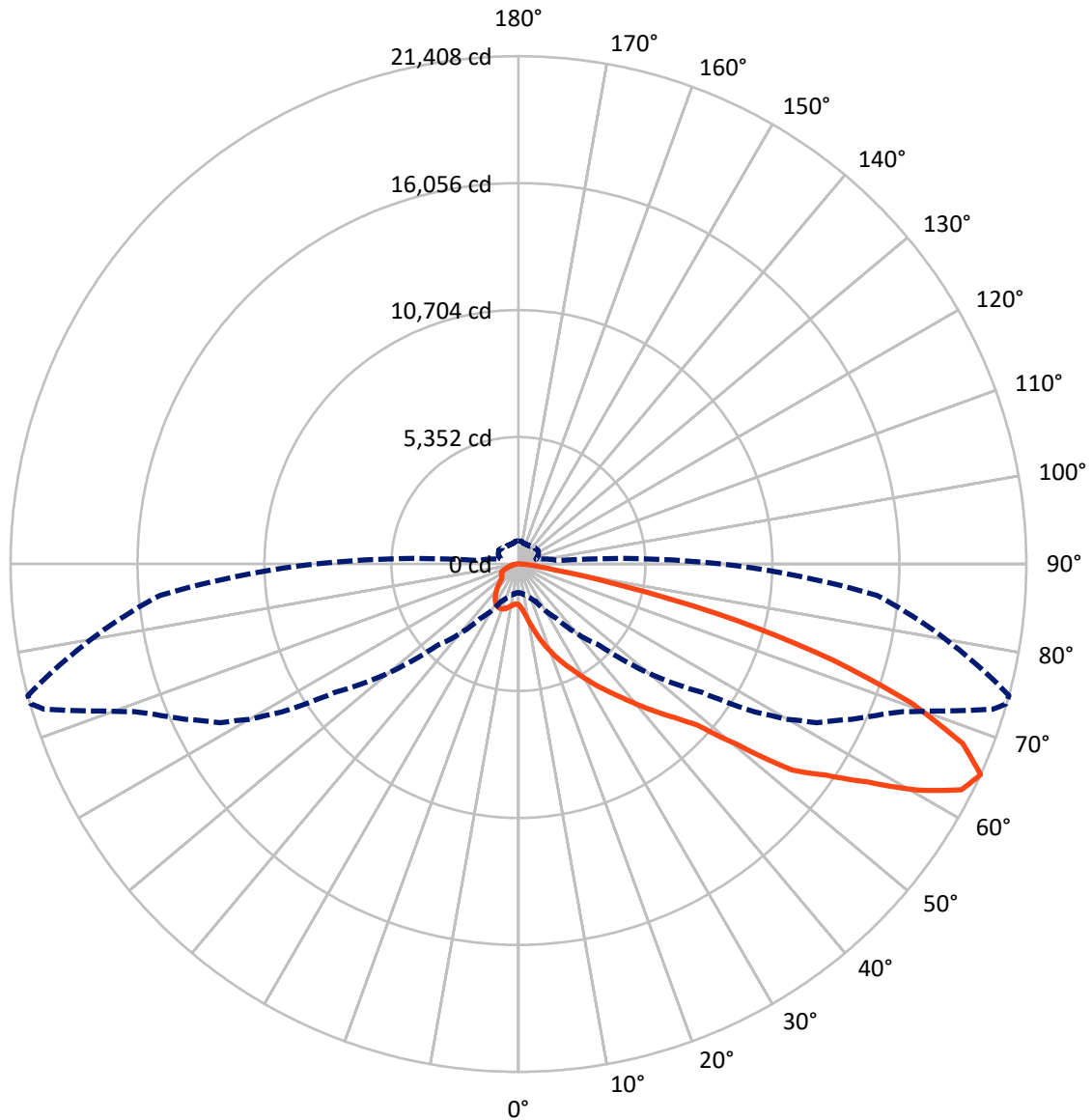
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 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	3261.3	0.0	3261.3
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	17891.8	0.0	17891.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	21153.1	0.0	21153.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.5	1.0
10°-20°	830.2	3.9
20°-30°	1703.4	8.1
30°-40°	2865.8	13.5
40°-50°	3959.8	18.7
50°-60°	4942.9	23.4
60°-70°	4448.1	21.0
70°-80°	1864.6	8.8
80°-90°	325.8	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°	21153.1	100.0
0°-180°	21153.1	100.0

Coefficient of Utilization



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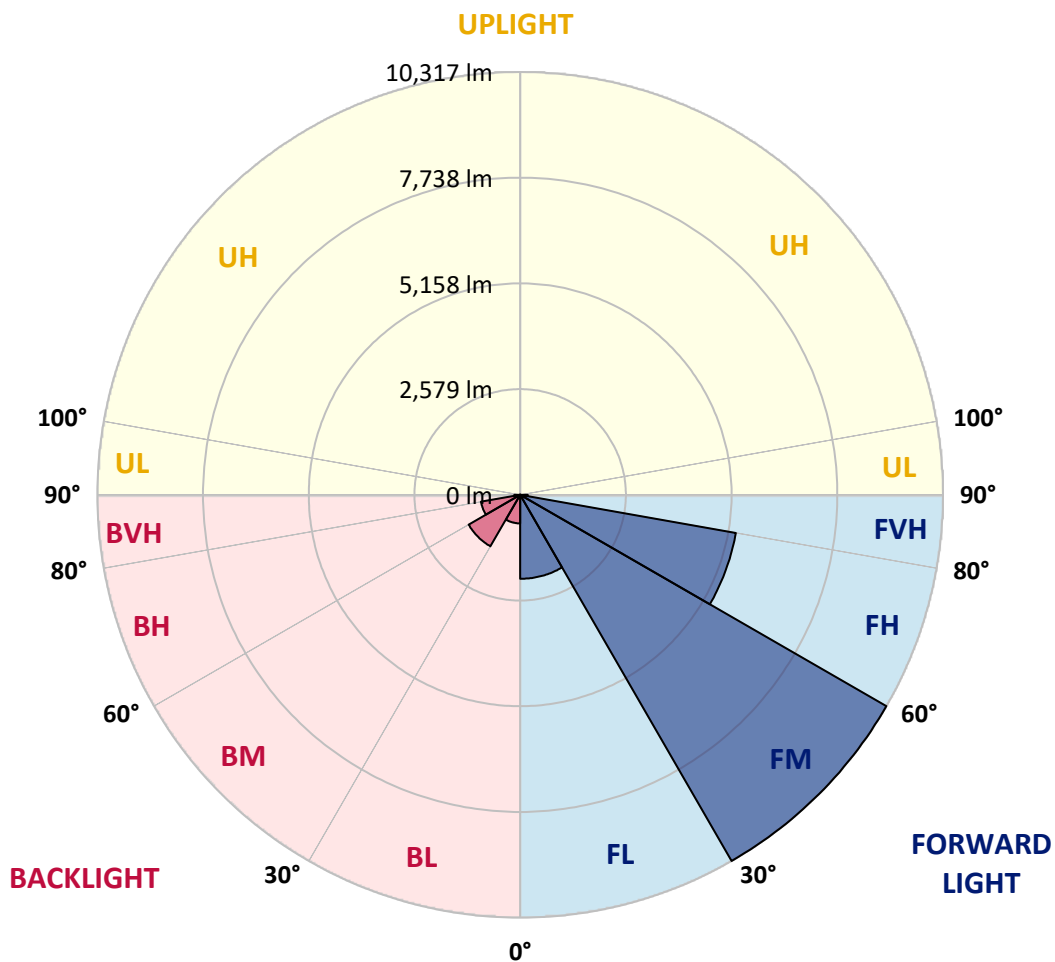
CATALOG NUMBER: GLNA-AF-06-LED-E1-T2R-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2048.6	9.7			
FM (30°-60°)	10316.9	48.8			
FH (60°-80°)	5343.2	25.3			G3/7500
FVH (80°-90°)	183.1	0.9			G2/225
BL (0°-30°)	697.5	3.3	B2/1000		
BM (30°-60°)	1451.6	6.9	B2/2500		
BH (60°-80°)	969.6	4.6	B2/1000		G2/1000
BVH (80°-90°)	142.7	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1
2.5°	2182.7	2158.7	2164.6	2124.5	2075.5	2011.4	1940.4	1939.5	1940.4	1933.2	1907.4
5°	3026.5	2997.7	2986.7	2896.4	2764.3	2576.3	2371.9	2349.9	2340.7	2317.9	2264.7
7.5°	3642.5	3626.5	3609.3	3541.3	3421.3	3211.0	2936.5	2889.6	2844.5	2833.5	2773.5
10°	4039.9	4035.8	3999.8	3981.7	3906.9	3724.5	3457.2	3412.1	3363.1	3346.1	3282.9
12.5°	4354.2	4353.3	4336.4	4341.4	4276.1	4144.2	3913.7	3872.7	3836.8	3784.5	3739.7
15°	4571.6	4572.5	4597.7	4625.6	4615.5	4526.4	4310.2	4292.1	4261.2	4225.3	4172.1
17.5°	4749.8	4754.8	4780.7	4831.8	4887.0	4879.9	4708.8	4693.7	4666.6	4617.6	4589.7
20°	5152.2	5171.3	5121.4	5121.4	5127.3	5154.3	5072.1	5060.2	5022.2	4996.0	4974.0
22.5°	5832.1	5854.1	5740.9	5626.0	5512.8	5430.5	5348.6	5363.4	5337.6	5319.5	5306.4
25°	6715.1	6732.3	6549.1	6354.8	6124.4	5824.1	5620.9	5611.7	5597.8	5586.8	5580.8
27.5°	7546.2	7553.3	7380.1	7095.6	6828.3	6396.7	5897.1	5886.2	5869.2	5848.1	5830.0
30°	8257.2	8255.1	8076.9	7805.4	7519.1	7041.5	6316.8	6282.7	6232.5	6175.4	6131.5
32.5°	8872.9	8869.9	8674.5	8393.2	8092.9	7680.4	6891.5	6821.4	6743.3	6632.0	6565.1
35°	9357.3	9355.5	9171.1	8877.9	8533.4	8282.1	7550.3	7464.2	7365.0	7215.9	7112.8
37.5°	9540.6	9540.6	9437.5	9237.3	8932.9	8760.6	8282.1	8177.9	8071.9	7902.6	7786.4
40°	9433.4	9435.4	9457.4	9420.6	9272.4	9140.2	8965.0	8902.9	8811.7	8659.6	8538.5
42.5°	9074.0	9085.0	9231.4	9410.5	9484.4	9463.7	9570.6	9542.7	9478.5	9361.5	9265.2
45°	8618.4	8652.5	8812.6	9151.2	9543.5	9742.8	10078.2	10081.1	10069.3	10006.3	9932.0
47.5°	7992.9	8040.7	8252.1	8709.5	9405.4	10014.3	10593.8	10620.8	10646.1	10605.1	10570.9
50°	7161.8	7218.8	7535.2	8142.0	9124.2	10295.6	11568.0	11690.3	11804.4	11790.4	11813.3
52.5°	6271.7	6338.8	6726.1	7402.1	8640.6	10360.6	12190.8	12390.1	12589.4	12752.5	12925.6
55°	5468.6	5432.6	5820.2	6531.9	7845.5	10067.2	12750.7	12991.0	13213.1	13413.3	13619.7
57.5°	4380.3	4439.4	4827.9	5531.8	6793.2	9239.1	13135.9	13487.6	13806.8	14138.3	14430.6
60°	3201.8	3260.9	3682.3	4397.2	5650.9	7983.6	12841.6	13374.4	13885.8	14393.4	14789.9
62.5°	1933.2	1977.5	2348.8	3029.8	4357.4	6495.0	11530.0	12228.8	12981.7	13588.5	14196.2
65°	1203.5	1228.4	1365.7	1740.2	2798.4	4849.0	9420.6	10182.4	10993.3	11763.4	12395.1
67.5°	985.2	994.1	1019.3	1099.2	1536.7	3162.0	7011.5	7686.3	8418.2	9163.1	9866.1
70°	886.0	880.0	880.0	885.1	985.2	1700.1	4590.6	5030.2	5639.9	6287.7	6930.4
72.5°	799.8	793.9	782.9	768.1	804.0	1037.2	2372.8	2704.3	3143.9	3719.5	4335.2
75°	718.8	710.7	698.0	679.0	703.9	782.9	1139.3	1278.6	1492.8	1799.3	2142.6
77.5°	634.7	624.6	612.7	598.8	630.9	608.9	667.7	717.9	799.8	898.2	1027.4
80°	539.7	530.8	526.6	519.8	557.8	463.6	471.7	502.5	550.7	603.8	663.8
82.5°	422.6	422.6	438.4	441.7	483.5	333.5	352.6	379.6	404.5	432.4	460.7
85°	278.3	280.4	334.4	355.5	381.4	224.2	264.3	273.2	293.4	309.5	321.4
87.5°	87.0	94.2	204.3	226.3	219.2	127.1	162.2	166.3	180.3	191.3	201.4
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1
2.5°	1907.4	1895.2	1884.2	1883.3	1875.3	1864.3	1868.2	1851.3	1852.2	1843.2	1833.2
5°	2242.7	2234.7	2194.6	2183.6	2153.6	2134.6	2131.6	2091.5	2086.5	2063.6	2038.4
7.5°	2725.4	2699.2	2643.1	2616.1	2565.0	2527.0	2509.1	2456.0	2429.8	2369.8	2342.8
10°	3230.9	3197.9	3128.7	3090.7	3041.7	2980.5	2947.5	2870.6	2840.3	2785.4	2719.4
12.5°	3699.6	3666.6	3595.3	3566.2	3501.2	3436.1	3400.2	3313.2	3273.9	3185.7	3133.8
15°	4132.9	4099.9	4037.9	4007.9	3942.8	3889.7	3841.5	3755.7	3709.7	3627.4	3559.4
17.5°	4553.5	4518.4	4464.4	4437.3	4374.4	4320.3	4268.3	4187.0	4140.0	4058.1	3996.9
20°	4944.0	4917.9	4879.0	4842.8	4779.8	4730.8	4668.7	4598.6	4530.6	4470.3	4412.4
22.5°	5284.4	5274.3	5232.4	5216.4	5162.3	5120.2	5066.1	4997.2	4947.9	4871.9	4817.8
25°	5577.9	5574.9	5554.7	5549.6	5511.6	5471.5	5459.7	5402.6	5357.5	5290.4	5234.5
27.5°	5830.0	5833.0	5828.2	5842.2	5832.1	5814.0	5815.2	5796.2	5770.0	5713.9	5664.9
30°	6110.4	6094.4	6103.6	6123.5	6129.4	6131.5	6164.5	6175.4	6173.7	6136.5	6112.5
32.5°	6506.9	6468.9	6433.8	6430.9	6450.8	6458.8	6514.9	6544.0	6569.0	6577.9	6582.1
35°	7012.4	6936.4	6863.3	6824.4	6790.3	6799.2	6839.3	6886.5	6941.4	6979.5	7024.6
37.5°	7649.2	7556.2	7427.1	7335.0	7311.8	7261.9	7287.8	7324.9	7378.9	7438.0	7516.2
40°	8421.1	8280.1	8134.8	8012.8	7946.8	7854.4	7853.6	7846.4	7879.7	7934.6	8044.8
42.5°	9164.3	9038.9	8884.8	8756.8	8670.6	8547.4	8522.4	8457.4	8472.2	8520.3	8627.6
45°	9859.9	9756.8	9662.6	9514.7	9441.4	9308.3	9266.1	9189.2	9146.1	9168.1	9275.3
47.5°	10533.8	10467.8	10369.5	10273.6	10217.5	10098.4	10044.3	9989.1	9934.1	9932.0	10044.3
50°	11847.5	11812.4	11696.3	11596.2	11623.2	11477.1	11486.0	11337.8	11404.9	11412.9	11648.2
52.5°	13081.8	13204.2	13290.3	13395.2	13463.5	13476.6	13521.4	13588.5	13669.6	13829.7	14048.0
55°	13788.7	13942.0	14031.1	14111.3	14243.4	14271.4	14346.5	14435.6	14506.6	14686.9	14872.2
57.5°	14629.0	14913.2	15051.3	15178.4	15356.6	15424.7	15550.0	15647.1	15739.2	15952.4	16176.7
60°	15146.4	15493.0	15774.2	15975.3	16198.7	16359.1	16548.2	16700.3	16916.5	17172.0	17506.4
62.5°	14735.0	15243.5	15617.1	15962.5	16265.8	16572.3	16843.5	17128.0	17456.2	17842.6	18361.5
65°	13096.1	13613.5	14253.2	14611.7	15013.3	15485.8	15898.4	16359.1	16806.4	17369.2	18136.1
67.5°	10543.0	11144.4	11863.5	12225.0	12686.5	13214.0	13676.7	14239.3	14762.0	15443.7	16392.0
70°	7599.3	8377.2	8981.9	9359.4	9898.2	10441.7	10888.4	11543.0	11975.5	12674.3	13654.8
72.5°	4811.9	5425.5	6166.5	6642.1	7120.5	7671.5	8128.0	8692.6	9096.0	9732.7	10620.8
75°	2587.3	3039.6	3690.4	4142.1	4654.8	5125.2	5659.8	6038.2	6336.7	6840.5	7561.3
77.5°	1212.4	1487.7	1817.1	2164.6	2512.1	2874.5	3227.0	3533.2	3661.5	3949.9	4375.3
80°	736.0	825.1	921.0	1028.3	1173.5	1290.5	1445.8	1557.8	1565.8	1657.0	1787.1
82.5°	491.6	524.5	553.6	580.7	617.8	646.9	679.9	718.8	734.8	755.9	798.1
85°	335.3	351.4	357.3	374.5	370.4	380.5	393.5	406.6	413.4	412.5	431.6
87.5°	206.1	214.1	218.3	222.2	219.2	215.3	221.3	228.4	230.2	224.2	226.3
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1
2.5°	1835.2	1826.3	1817.1	1811.2	1809.1	1756.2	1733.1	1718.2	1686.1	1660.0	1638.9
5°	2024.4	2005.4	1990.6	1972.4	1962.3	1828.1	1779.1	1745.2	1689.1	1656.1	1625.8
7.5°	2328.9	2275.7	2244.8	2209.8	2179.8	1937.4	1856.3	1803.2	1725.0	1681.1	1646.9
10°	2674.3	2619.3	2570.0	2516.0	2469.1	2082.6	1964.4	1882.2	1779.1	1722.1	1676.9
12.5°	3059.8	3005.7	2943.7	2874.5	2814.5	2266.8	2102.5	1985.5	1844.1	1768.1	1705.1
15°	3515.4	3420.1	3344.9	3265.0	3194.9	2487.2	2263.8	2101.6	1913.3	1810.3	1726.2
17.5°	3938.7	3838.6	3736.7	3666.6	3585.5	2734.3	2426.0	2219.6	1970.4	1837.3	1730.1
20°	4352.4	4243.1	4155.2	4061.0	3975.8	2990.6	2599.1	2323.8	2007.5	1838.2	1705.1
22.5°	4716.8	4648.5	4550.5	4448.3	4362.2	3246.9	2761.3	2412.0	2021.5	1815.3	1660.9
25°	5131.2	5059.3	4939.0	4852.9	4756.9	3508.3	2920.5	2480.0	2013.4	1772.3	1592.9
27.5°	5573.7	5493.8	5370.5	5280.6	5164.4	3779.5	3066.6	2529.0	1983.4	1702.2	1501.7
30°	6035.3	5962.2	5841.0	5750.1	5632.8	4067.0	3230.0	2562.0	1923.4	1605.0	1395.7
32.5°	6531.0	6469.8	6349.8	6254.7	6129.4	4378.2	3382.1	2572.1	1832.3	1489.8	1283.7
35°	7001.4	6959.6	6858.3	6769.2	6639.1	4672.6	3543.3	2567.1	1724.1	1363.6	1181.5
37.5°	7531.3	7506.1	7456.2	7343.0	7183.8	5072.1	3736.7	2546.0	1592.0	1238.5	1103.4
40°	8095.9	8098.0	8043.9	7966.7	7818.5	5556.8	3966.9	2505.0	1447.6	1128.3	1032.1
42.5°	8693.5	8724.7	8698.6	8643.6	8501.3	6045.4	4242.2	2455.1	1307.7	1021.1	962.3
45°	9378.4	9416.4	9456.5	9375.4	9237.3	6690.2	4604.6	2390.0	1156.3	932.0	914.2
47.5°	10168.5	10228.5	10264.4	10265.6	10127.5	7489.1	5193.2	2350.8	1022.3	872.0	891.0
50°	11835.3	11854.6	11939.5	12087.7	11981.7	9338.3	6221.5	2326.8	931.1	834.9	874.1
52.5°	14237.2	14446.6	14593.9	14583.8	14439.5	10512.7	6788.2	2202.6	877.1	820.9	866.1
55°	15215.6	15476.9	15749.3	15821.2	15709.2	11515.1	7324.0	2078.5	850.9	831.0	869.1
57.5°	16519.1	16959.6	17333.2	17490.4	17328.2	12797.6	8028.8	2013.4	842.9	858.1	888.1
60°	18041.9	18586.6	19077.3	19359.5	19359.5	14271.4	8759.7	1986.4	831.9	898.2	920.1
62.5°	19020.3	19820.1	20561.2	20974.6	20962.4	15297.5	9084.1	1894.3	807.0	926.1	964.1
65°	19024.1	19975.5	20919.4	21384.2	21407.9	15171.6	8548.6	1673.1	760.9	930.2	1008.4
67.5°	17438.4	18452.4	19552.8	20072.6	20192.6	13966.0	7400.0	1375.8	685.8	890.1	1024.4
70°	14727.9	15718.1	16841.4	17352.3	17565.5	11905.4	5960.1	1060.3	589.9	801.9	991.1
72.5°	11603.0	12574.2	13356.3	13729.6	13895.9	9100.1	4340.2	801.0	483.5	675.7	902.0
75°	8215.0	8943.9	9359.4	9442.6	9468.4	5485.8	2637.2	595.8	398.6	525.7	761.8
77.5°	4636.6	4949.1	4914.9	4952.1	4643.8	2117.7	1148.5	426.5	328.5	399.5	590.8
80°	1810.3	1866.4	1753.3	1718.2	1575.9	788.0	506.7	297.3	262.3	302.4	413.4
82.5°	798.1	823.9	799.8	806.1	771.0	406.6	303.2	215.3	200.2	221.3	274.4
85°	439.6	447.6	445.5	458.6	439.6	162.2	144.1	132.2	140.2	150.3	176.1
87.5°	214.1	216.2	209.4	220.4	213.3	82.0	71.0	75.1	82.0	84.1	84.1
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):

	135°	145°	155°	165°	175°	180°
0°	1719.1	1719.1	1719.1	1719.1	1719.1	1719.1
2.5°	1624.1	1616.0	1616.9	1614.8	1611.0	1611.0
5°	1610.1	1602.1	1602.1	1600.0	1594.9	1595.8
7.5°	1624.1	1611.0	1605.9	1598.8	1592.0	1592.0
10°	1640.1	1616.9	1603.0	1591.1	1581.9	1581.9
12.5°	1652.0	1616.0	1592.9	1576.8	1567.9	1567.9
15°	1656.1	1608.9	1576.8	1557.8	1549.8	1548.9
17.5°	1643.1	1581.9	1543.0	1521.0	1510.9	1507.9
20°	1603.0	1532.9	1485.9	1460.7	1446.7	1441.7
22.5°	1543.0	1462.8	1407.8	1381.7	1363.6	1360.6
25°	1458.9	1372.8	1318.7	1293.5	1283.7	1280.4
27.5°	1360.6	1280.4	1234.4	1218.3	1209.4	1208.5
30°	1267.6	1199.3	1165.5	1153.3	1142.3	1140.5
32.5°	1180.3	1137.3	1124.5	1107.3	1081.4	1078.4
35°	1118.2	1114.4	1105.5	1067.2	1035.4	1026.2
37.5°	1080.2	1117.4	1071.3	996.2	973.3	971.2
40°	1058.2	1086.5	1007.2	981.3	983.1	981.3
42.5°	1008.4	1037.2	1009.2	997.4	1005.1	1007.2
45°	958.2	990.2	1024.4	1016.4	1035.4	1035.4
47.5°	930.2	978.1	1023.2	1023.2	1051.4	1061.2
50°	898.2	968.3	1007.2	1021.1	1043.4	1035.4
52.5°	896.1	951.0	984.3	1009.2	1019.3	1010.1
55°	899.1	937.1	961.1	989.3	1001.2	1002.1
57.5°	903.2	929.0	945.1	958.2	994.1	994.1
60°	913.0	922.2	931.1	938.3	985.2	986.1
62.5°	929.0	915.1	913.0	920.1	980.1	976.3
65°	954.3	905.0	890.1	897.0	975.1	963.2
67.5°	988.2	890.1	861.0	866.1	971.2	945.1
70°	1019.3	866.1	825.1	820.0	933.2	887.2
72.5°	1022.3	838.2	774.9	760.1	811.1	766.9
75°	972.1	818.9	720.0	675.7	669.8	663.8
77.5°	876.2	807.9	655.8	586.6	574.7	578.6
80°	733.0	766.9	578.6	496.6	561.6	554.8
82.5°	547.7	676.9	491.6	439.6	438.4	387.6
85°	304.4	527.8	400.4	329.4	229.3	222.2
87.5°	85.2	293.4	280.4	186.2	127.1	132.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)