

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: P301716

Luminaire Tested: **GLNA-AF-07-LED-E1-T2R-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301716  
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-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 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: 25016 lumens  
Efficiency: N/A  
Efficacy: 110.7 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

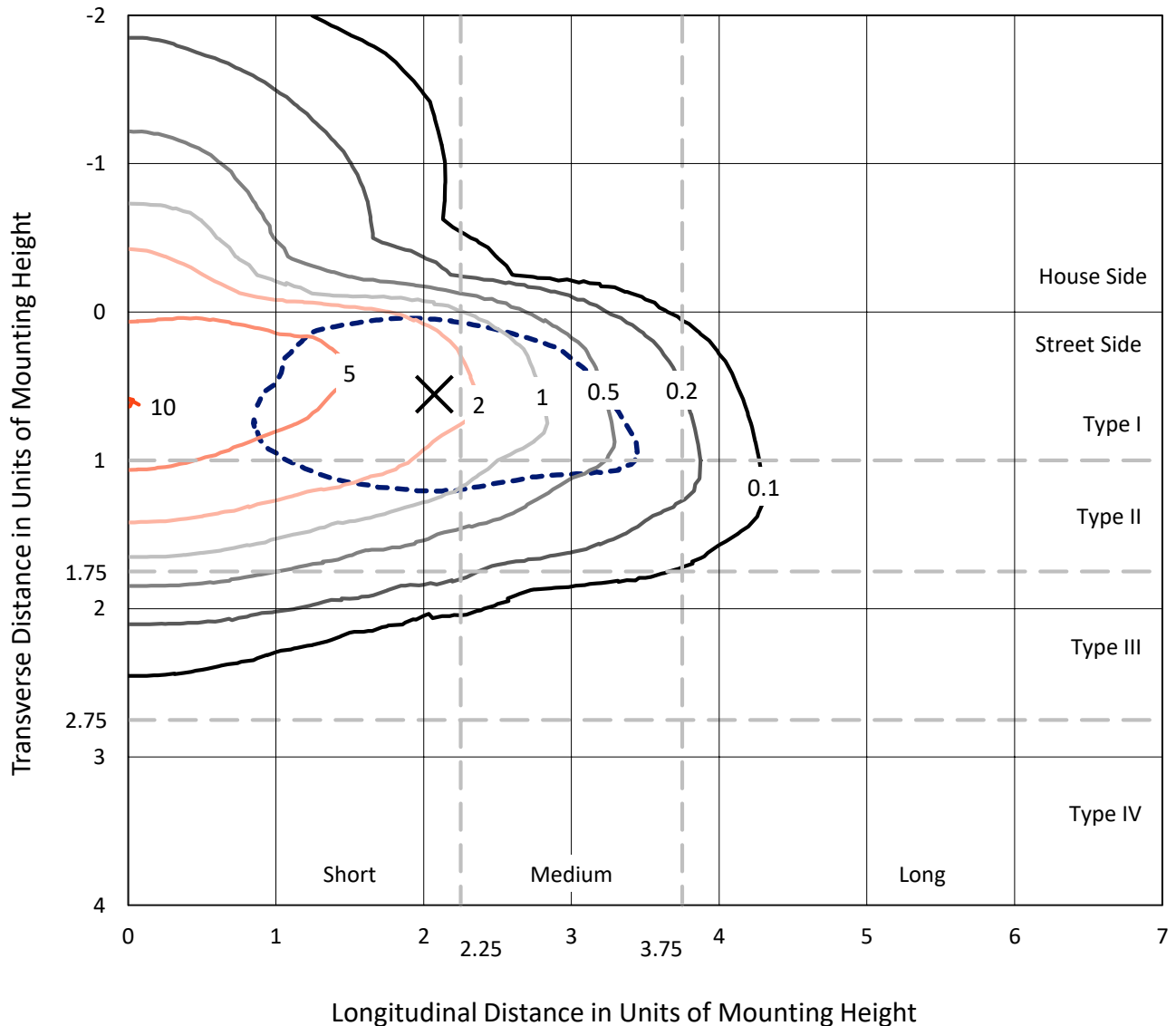
Input Watts (W): 226  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

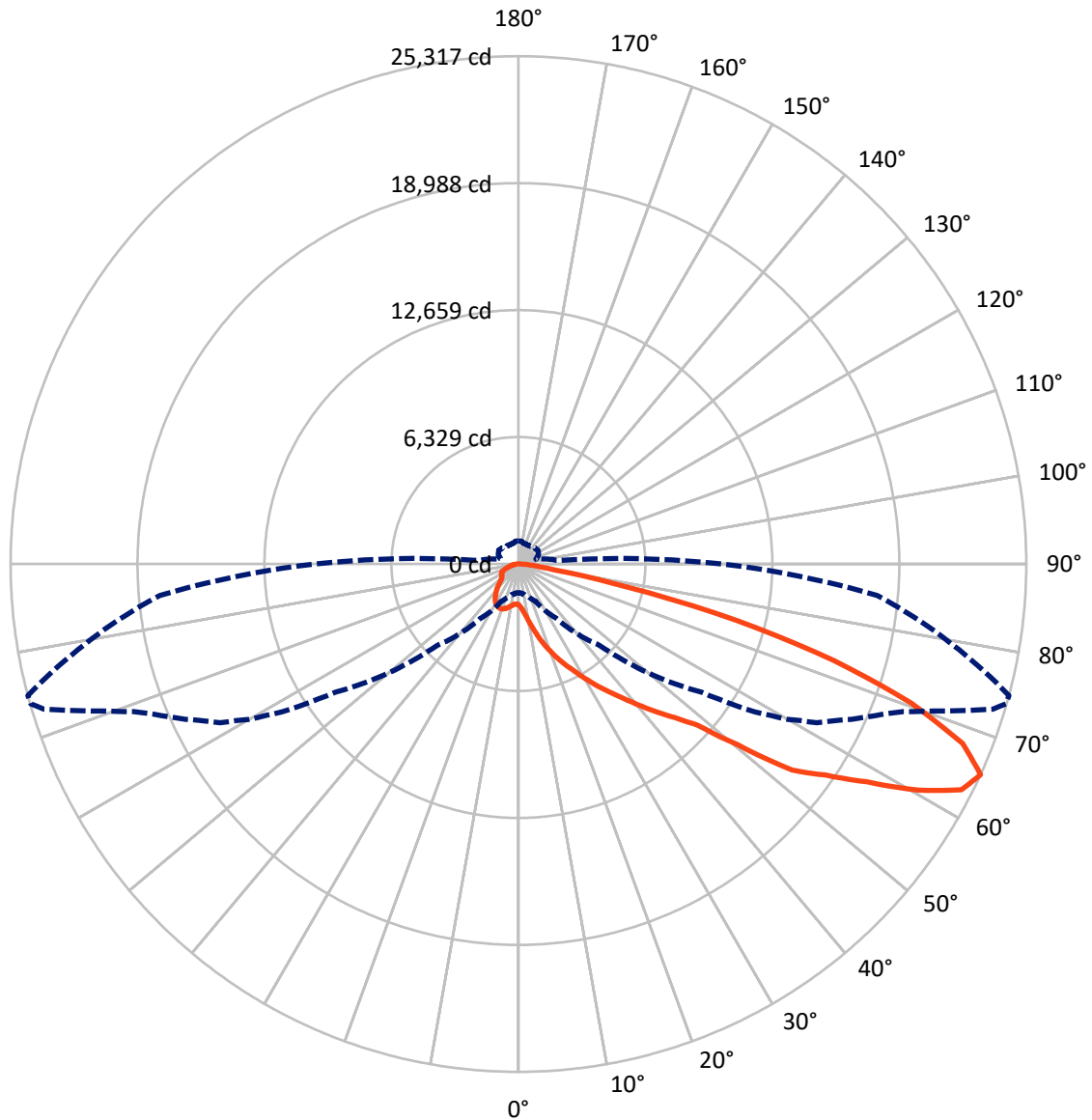
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 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
<b>House Side</b>	Lumens	3856.9	0.0	3856.9
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	21159.1	0.0	21159.1
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	25016.0	0.0	25016.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.3	1.0
10°-20°	981.8	3.9
20°-30°	2014.4	8.1
30°-40°	3389.2	13.5
40°-50°	4682.9	18.7
50°-60°	5845.6	23.4
60°-70°	5260.4	21.0
70°-80°	2205.1	8.8
80°-90°	385.2	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°	25016.0	100.0
0°-180°	25016.0	100.0



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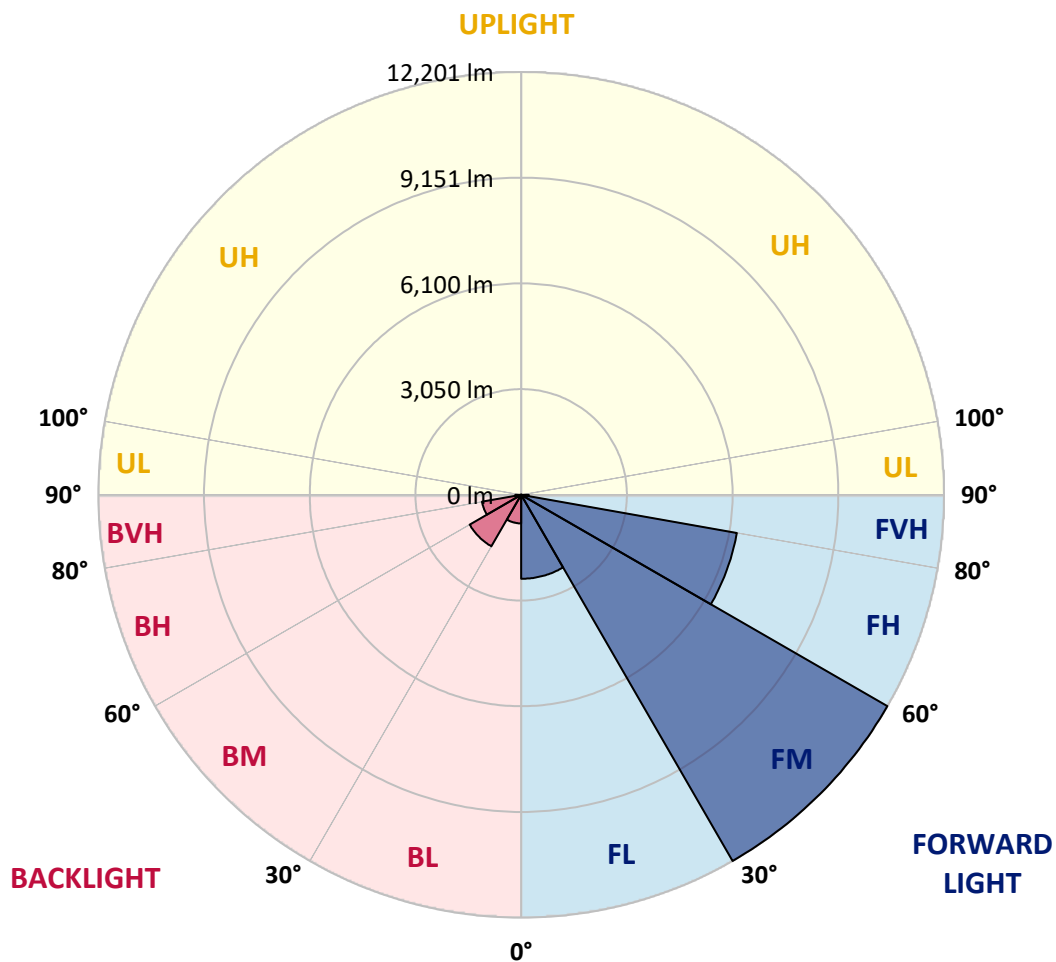
CATALOG NUMBER: GLNA-AF-07-LED-E1-T2R-7027-600

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2422.7	9.7			
FM (30°-60°)	12200.9	48.8			
FH (60°-80°)	6319.0	25.3			G3/7500
FVH (80°-90°)	216.5	0.9			G2/225
BL (0°-30°)	824.8	3.3	B2/1000		
BM (30°-60°)	1716.7	6.9	B2/2500		
BH (60°-80°)	1146.6	4.6	B3/2500		G3/2500
BVH (80°-90°)	168.7	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0
2.5°	2581.3	2552.9	2559.9	2512.5	2454.5	2378.7	2294.7	2293.7	2294.7	2286.3	2255.7
5°	3579.2	3545.2	3532.2	3425.4	3269.1	3046.7	2805.1	2779.1	2768.2	2741.1	2678.3
7.5°	4307.7	4288.8	4268.4	4187.9	4046.0	3797.4	3472.8	3417.3	3363.9	3350.9	3280.0
10°	4777.7	4772.8	4730.3	4708.8	4620.3	4404.7	4088.5	4035.2	3977.2	3957.2	3882.4
12.5°	5149.3	5148.3	5128.2	5134.2	5056.9	4901.0	4628.4	4579.9	4537.4	4475.6	4422.6
15°	5406.4	5407.5	5437.3	5470.4	5458.4	5353.0	5097.3	5075.9	5039.4	4996.9	4934.0
17.5°	5617.2	5623.1	5653.7	5714.1	5779.5	5771.0	5568.7	5550.8	5518.8	5460.9	5427.9
20°	6093.1	6115.6	6056.6	6056.6	6063.6	6095.6	5998.3	5984.2	5939.3	5908.4	5882.4
22.5°	6897.1	6923.1	6789.3	6653.4	6519.5	6422.2	6325.3	6342.9	6312.3	6290.9	6275.4
25°	7941.4	7961.8	7745.0	7515.3	7242.8	6887.6	6647.4	6636.5	6620.0	6607.0	6600.0
27.5°	8924.2	8932.6	8727.8	8391.3	8075.2	7564.9	6974.1	6961.1	6941.0	6916.1	6894.7
30°	9765.1	9762.6	9551.9	9230.8	8892.2	8327.4	7470.4	7430.0	7370.6	7303.2	7251.2
32.5°	10493.2	10489.7	10258.6	9926.0	9570.8	9083.0	8150.0	8067.1	7974.8	7843.0	7764.0
35°	11066.1	11064.0	10845.9	10499.2	10091.7	9794.6	8929.1	8827.2	8709.9	8533.6	8411.7
37.5°	11282.8	11282.8	11160.9	10924.2	10564.2	10360.4	9794.6	9671.3	9545.9	9345.7	9208.3
40°	11156.0	11158.5	11184.5	11140.9	10965.6	10809.3	10602.1	10528.7	10420.9	10241.0	10097.7
42.5°	10731.0	10744.0	10917.2	11129.0	11216.4	11191.9	11318.3	11285.3	11209.4	11071.0	10957.2
45°	10192.2	10232.6	10421.9	10822.3	11286.3	11522.0	11918.6	11922.1	11908.0	11833.6	11745.8
47.5°	9452.5	9509.0	9759.1	10300.0	11123.0	11843.1	12528.4	12560.3	12590.2	12541.7	12501.3
50°	8469.7	8537.1	8911.2	9628.8	10790.4	12175.7	13680.5	13825.2	13960.0	13943.5	13970.6
52.5°	7417.0	7496.4	7954.4	8753.8	10218.5	12252.6	14417.0	14652.7	14888.4	15081.2	15286.0
55°	6467.2	6424.7	6883.1	7724.7	9278.2	11905.6	15079.1	15363.3	15626.0	15862.8	16106.9
57.5°	5180.2	5250.1	5709.6	6542.0	8033.8	10926.3	15534.7	15950.6	16328.2	16720.2	17065.8
60°	3786.5	3856.4	4354.8	5200.2	6682.9	9441.6	15186.6	15816.7	16421.6	17021.9	17490.8
62.5°	2286.3	2338.6	2777.7	3583.1	5153.2	7681.1	13635.5	14462.0	15352.4	16070.0	16788.7
65°	1423.3	1452.8	1615.0	2058.0	3309.5	5734.5	11140.9	12041.9	13000.8	13911.6	14658.7
67.5°	1165.1	1175.6	1205.5	1300.0	1817.4	3739.4	8291.9	9090.0	9955.5	10836.4	11667.8
70°	1047.8	1040.8	1040.8	1046.7	1165.1	2010.6	5428.9	5948.8	6669.9	7435.9	8196.0
72.5°	945.9	938.9	925.9	908.3	950.8	1226.6	2806.1	3198.1	3718.0	4398.7	5126.8
75°	850.0	840.5	825.4	803.0	832.5	925.9	1347.4	1512.1	1765.4	2127.9	2533.9
77.5°	750.6	738.7	724.6	708.1	746.1	720.1	789.6	849.0	945.9	1062.2	1215.0
80°	638.2	627.7	622.8	614.7	659.6	548.3	557.8	594.3	651.2	714.1	785.0
82.5°	499.8	499.8	518.4	522.3	571.8	394.5	416.9	448.9	478.4	511.4	544.8
85°	329.1	331.6	395.5	420.4	451.0	265.2	312.6	323.1	347.0	366.0	380.1
87.5°	102.9	111.3	241.7	267.7	259.2	150.3	191.8	196.7	213.2	226.2	238.1
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°	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0
2.5°	2255.7	2241.3	2228.3	2227.3	2217.8	2204.8	2209.4	2189.3	2190.4	2179.9	2167.9
5°	2652.3	2642.8	2595.4	2582.4	2546.9	2524.4	2520.9	2473.5	2467.5	2440.5	2410.6
7.5°	3223.1	3192.2	3125.8	3093.8	3033.4	2988.4	2967.4	2904.5	2873.6	2802.6	2770.7
10°	3820.9	3781.9	3700.1	3655.1	3597.1	3524.8	3485.8	3394.8	3359.0	3294.0	3216.0
12.5°	4375.2	4336.2	4251.9	4217.4	4140.5	4063.6	4021.1	3918.2	3871.8	3767.5	3706.0
15°	4887.6	4848.6	4775.2	4739.8	4662.8	4600.0	4543.1	4441.5	4387.1	4289.8	4209.4
17.5°	5385.0	5343.6	5279.6	5247.7	5173.2	5109.3	5047.8	4951.6	4896.1	4799.1	4726.8
20°	5846.9	5816.0	5770.0	5727.1	5652.7	5594.7	5521.3	5438.4	5358.0	5286.7	5218.2
22.5°	6249.4	6237.5	6188.0	6169.0	6105.1	6055.2	5991.3	5909.8	5851.5	5761.5	5697.6
25°	6596.5	6592.9	6569.1	6563.1	6518.1	6470.7	6456.7	6389.2	6335.8	6256.5	6190.4
27.5°	6894.7	6898.2	6892.6	6909.1	6897.1	6875.7	6877.1	6854.6	6823.7	6757.3	6699.4
30°	7226.2	7207.3	7218.2	7241.7	7248.7	7251.2	7290.2	7303.2	7301.1	7257.2	7228.7
32.5°	7695.2	7650.2	7608.8	7605.2	7628.8	7638.3	7704.7	7739.1	7768.6	7779.1	7784.0
35°	8293.0	8203.1	8116.7	8070.7	8030.3	8040.8	8088.2	8144.1	8209.0	8254.0	8307.4
37.5°	9046.1	8936.1	8783.3	8674.4	8647.1	8588.0	8618.6	8662.5	8726.4	8796.3	8888.7
40°	9959.0	9792.1	9620.4	9476.0	9398.0	9288.8	9287.7	9279.3	9318.6	9383.6	9513.9
42.5°	10837.8	10689.6	10507.3	10355.9	10254.0	10108.2	10078.7	10001.8	10019.4	10076.3	10203.1
45°	11660.4	11538.5	11427.2	11252.3	11165.5	11008.1	10958.3	10867.3	10816.4	10842.4	10969.2
47.5°	12457.4	12379.4	12263.2	12149.7	12083.3	11942.5	11878.5	11813.2	11748.2	11745.8	11878.5
50°	14011.0	13969.5	13832.2	13713.8	13745.8	13573.0	13583.5	13408.2	13487.6	13497.1	13775.3
52.5°	15470.8	15615.5	15717.3	15841.3	15922.1	15937.6	15990.6	16070.0	16165.9	16355.2	16613.4
55°	16306.7	16488.0	16593.4	16688.2	16844.5	16877.5	16966.4	17071.8	17155.7	17368.9	17588.1
57.5°	17300.4	17636.6	17799.9	17950.2	18161.0	18241.4	18389.6	18504.5	18613.4	18865.6	19130.8
60°	17912.3	18322.2	18654.8	18892.6	19156.8	19346.5	19570.2	19750.0	20005.7	20307.8	20703.3
62.5°	17425.8	18027.2	18469.0	18877.5	19236.2	19598.6	19919.3	20255.8	20644.0	21100.9	21714.6
65°	15487.6	16099.5	16856.1	17280.1	17754.9	18313.8	18801.7	19346.5	19875.4	20541.1	21448.0
67.5°	12468.3	13179.6	14029.9	14457.4	15003.3	15627.1	16174.3	16839.6	17457.8	18263.9	19385.4
70°	8987.1	9907.0	10622.1	11068.6	11705.7	12348.5	12876.8	13650.9	14162.4	14988.9	16148.3
72.5°	5690.6	6416.3	7292.6	7855.0	8420.8	9072.4	9612.3	10280.0	10757.0	11510.1	12560.3
75°	3059.7	3594.7	4364.3	4898.5	5504.8	6061.2	6693.4	7140.9	7493.9	8089.6	8942.1
77.5°	1433.8	1759.4	2148.9	2559.9	2970.9	3399.4	3816.3	4178.5	4330.2	4671.3	5174.3
80°	870.4	975.8	1089.2	1216.0	1387.8	1526.2	1709.9	1842.3	1851.8	1959.6	2113.5
82.5°	581.3	620.3	654.7	686.7	730.6	765.0	804.0	850.0	869.0	893.9	943.8
85°	396.6	415.5	422.6	442.9	438.0	450.0	465.4	480.9	488.9	487.9	510.4
87.5°	243.8	253.3	258.2	262.7	259.2	254.7	261.7	270.1	272.2	265.2	267.7
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°	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0
2.5°	2170.4	2159.8	2148.9	2141.9	2139.5	2076.9	2049.5	2032.0	1994.0	1963.1	1938.2
5°	2394.1	2371.6	2354.1	2332.6	2320.7	2161.9	2104.0	2063.9	1997.6	1958.6	1922.7
7.5°	2754.1	2691.3	2654.7	2613.3	2577.8	2291.2	2195.3	2132.4	2040.1	1988.1	1947.7
10°	3162.6	3097.7	3039.4	2975.4	2919.9	2463.0	2323.2	2225.9	2104.0	2036.5	1983.2
12.5°	3618.6	3554.6	3481.2	3399.4	3328.4	2680.7	2486.5	2348.1	2180.9	2091.0	2016.5
15°	4157.4	4044.6	3955.8	3861.3	3778.4	2941.4	2677.2	2485.4	2262.7	2140.9	2041.5
17.5°	4657.9	4539.5	4419.1	4336.2	4240.3	3233.6	2869.0	2624.9	2330.2	2172.8	2046.0
20°	5147.2	5017.9	4914.0	4802.6	4701.8	3536.7	3073.8	2748.2	2374.1	2173.9	2016.5
22.5°	5578.2	5497.4	5381.5	5260.7	5158.8	3839.9	3265.6	2852.5	2390.6	2146.8	1964.2
25°	6068.2	5983.2	5840.9	5739.1	5625.6	4149.0	3453.8	2932.9	2381.1	2095.9	1883.7
27.5°	6591.5	6497.1	6351.3	6244.9	6107.5	4469.6	3626.6	2990.9	2345.6	2013.0	1775.9
30°	7137.4	7051.0	6907.7	6800.2	6661.4	4809.7	3819.8	3029.9	2274.7	1898.2	1650.5
32.5°	7723.6	7651.3	7509.4	7397.0	7248.7	5177.8	3999.7	3041.8	2166.9	1761.9	1518.1
35°	8280.0	8230.5	8110.7	8005.3	7851.5	5525.9	4190.4	3035.8	2039.0	1612.6	1397.3
37.5°	8906.6	8876.8	8817.8	8683.9	8495.7	5998.3	4419.1	3010.9	1882.7	1464.7	1304.9
40°	9574.3	9576.8	9512.9	9421.6	9246.3	6571.5	4691.3	2962.4	1712.0	1334.4	1220.6
42.5°	10281.1	10317.9	10287.0	10222.1	10053.8	7149.3	5016.9	2903.4	1546.6	1207.6	1138.0
45°	11091.0	11136.0	11183.4	11087.5	10924.2	7911.9	5445.4	2826.5	1367.4	1102.2	1081.1
47.5°	12025.4	12096.3	12138.8	12140.2	11976.9	8856.7	6141.6	2780.1	1209.0	1031.3	1053.7
50°	13996.6	14019.4	14119.9	14295.1	14169.7	11043.6	7357.6	2751.7	1101.2	987.4	1033.7
52.5°	16837.1	17084.8	17259.0	17247.0	17076.3	12432.5	8027.8	2604.9	1037.2	970.9	1024.2
55°	17994.1	18303.2	18625.3	18710.3	18577.9	13617.9	8661.5	2458.0	1006.3	982.8	1027.8
57.5°	19535.8	20056.7	20498.5	20684.4	20492.6	15134.6	9495.0	2381.1	996.8	1014.8	1050.2
60°	21336.6	21980.8	22561.1	22894.8	22894.8	16877.5	10359.4	2349.2	983.8	1062.2	1088.2
62.5°	22493.6	23439.6	24315.9	24804.9	24790.5	18091.1	10743.0	2240.3	954.3	1095.2	1140.2
65°	22498.2	23623.3	24739.5	25289.2	25317.3	17942.2	10109.7	1978.6	899.9	1100.1	1192.5
67.5°	20622.9	21822.1	23123.4	23738.1	23880.0	16516.4	8751.4	1627.0	811.0	1052.7	1211.5
70°	17417.4	18588.5	19916.9	20521.0	20773.2	14079.5	7048.5	1254.0	697.6	948.4	1172.1
72.5°	13721.9	14870.5	15795.3	16236.8	16433.5	10761.9	5132.8	947.3	571.8	799.1	1066.7
75°	9715.2	10577.2	11068.6	11166.9	11197.5	6487.6	3118.7	704.6	471.4	621.7	901.0
77.5°	5483.4	5852.9	5812.5	5856.4	5491.8	2504.4	1358.3	504.4	388.5	472.4	698.6
80°	2140.9	2207.2	2073.4	2032.0	1863.7	931.9	599.2	351.6	310.2	357.6	488.9
82.5°	943.8	974.4	945.9	953.3	911.8	480.9	358.6	254.7	236.7	261.7	324.6
85°	519.8	529.3	526.9	542.3	519.8	191.8	170.4	156.3	165.8	177.7	208.3
87.5°	253.3	255.7	247.6	260.6	252.2	96.9	83.9	88.9	96.9	99.4	99.4
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):**

	135°	145°	155°	165°	175°	180°
0°	2033.0	2033.0	2033.0	2033.0	2033.0	2033.0
2.5°	1920.6	1911.1	1912.2	1909.7	1905.2	1905.2
5°	1904.1	1894.6	1894.6	1892.2	1886.2	1887.3
7.5°	1920.6	1905.2	1899.2	1890.8	1882.7	1882.7
10°	1939.6	1912.2	1895.7	1881.6	1870.8	1870.8
12.5°	1953.6	1911.1	1883.7	1864.8	1854.2	1854.2
15°	1958.6	1902.7	1864.8	1842.3	1832.8	1831.8
17.5°	1943.1	1870.8	1824.7	1798.7	1786.8	1783.3
20°	1895.7	1812.8	1757.3	1727.4	1710.9	1705.0
22.5°	1824.7	1729.9	1664.9	1634.0	1612.6	1609.1
25°	1725.3	1623.5	1559.5	1529.7	1518.1	1514.2
27.5°	1609.1	1514.2	1459.8	1440.8	1430.3	1429.2
30°	1499.1	1418.3	1378.3	1363.9	1350.9	1348.8
32.5°	1395.9	1344.9	1329.8	1309.5	1278.9	1275.4
35°	1322.5	1317.9	1307.3	1262.0	1224.5	1213.6
37.5°	1277.5	1321.4	1267.0	1178.1	1151.0	1148.6
40°	1251.5	1284.9	1191.1	1160.5	1162.6	1160.5
42.5°	1192.5	1226.6	1193.5	1179.5	1188.6	1191.1
45°	1133.1	1171.1	1211.5	1202.0	1224.5	1224.5
47.5°	1100.1	1156.7	1210.1	1210.1	1243.4	1255.0
50°	1062.2	1145.1	1191.1	1207.6	1233.9	1224.5
52.5°	1059.7	1124.7	1164.0	1193.5	1205.5	1194.6
55°	1063.2	1108.2	1136.6	1170.0	1184.1	1185.1
57.5°	1068.1	1098.7	1117.7	1133.1	1175.6	1175.6
60°	1079.7	1090.6	1101.2	1109.6	1165.1	1166.1
62.5°	1098.7	1082.2	1079.7	1088.2	1159.1	1154.6
65°	1128.6	1070.3	1052.7	1060.8	1153.2	1139.1
67.5°	1168.6	1052.7	1018.3	1024.2	1148.6	1117.7
70°	1205.5	1024.2	975.8	969.8	1103.6	1049.2
72.5°	1209.0	991.2	916.4	898.8	959.3	906.9
75°	1149.6	968.4	851.4	799.1	792.1	785.0
77.5°	1036.2	955.4	775.6	693.7	679.7	684.2
80°	866.9	906.9	684.2	587.3	664.2	656.1
82.5°	647.7	800.5	581.3	519.8	518.4	458.4
85°	360.0	624.2	473.5	389.5	271.2	262.7
87.5°	100.8	347.0	331.6	220.2	150.3	156.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)