

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: P301705

Luminaire Tested: **GLNA-AF-05-LED-E1-T2R-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301705  
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-05-LED-E1-T2R-7030-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 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: 19679.3 lumens  
Efficiency: N/A  
Efficacy: 121.5 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 - G2

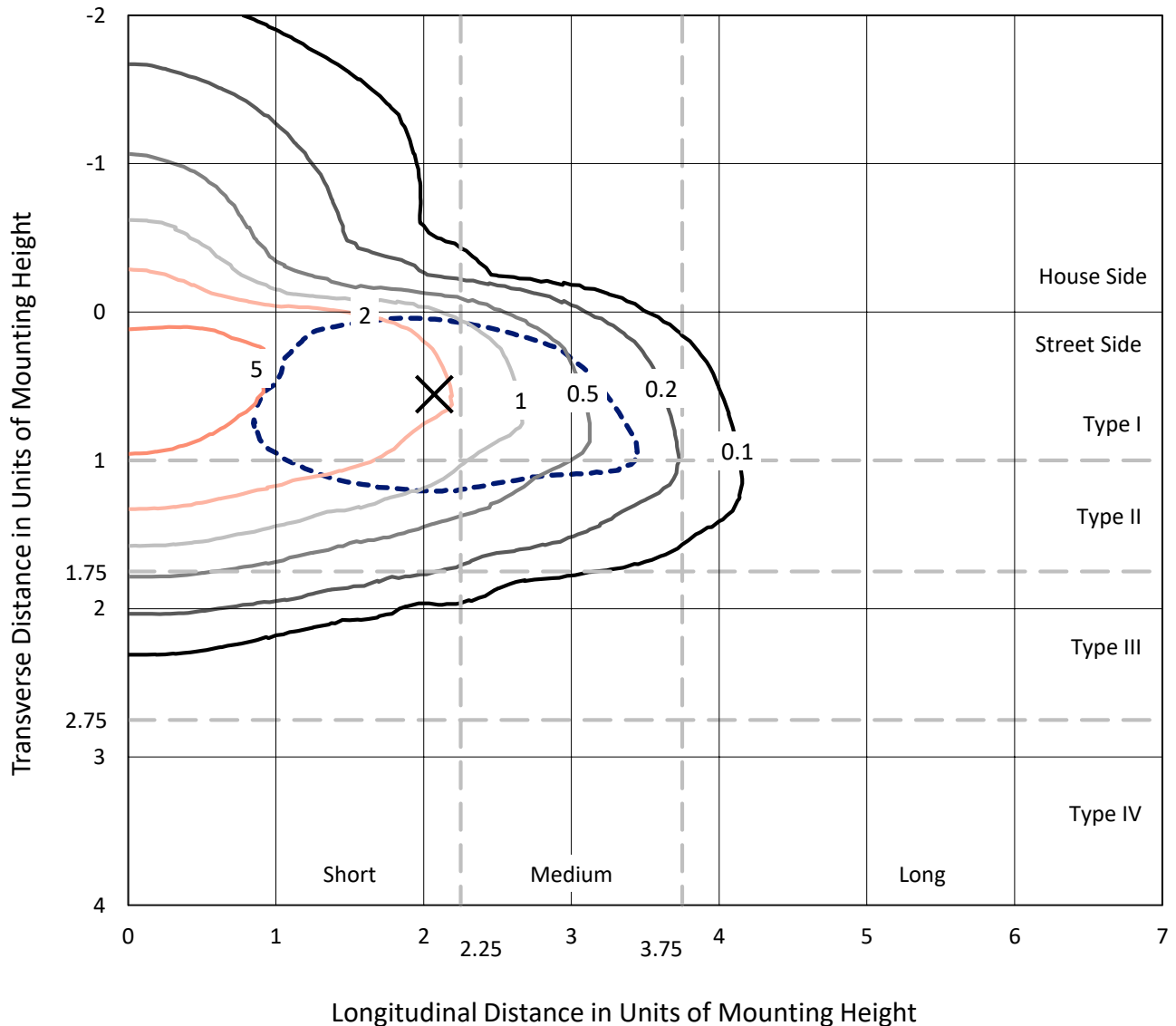
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

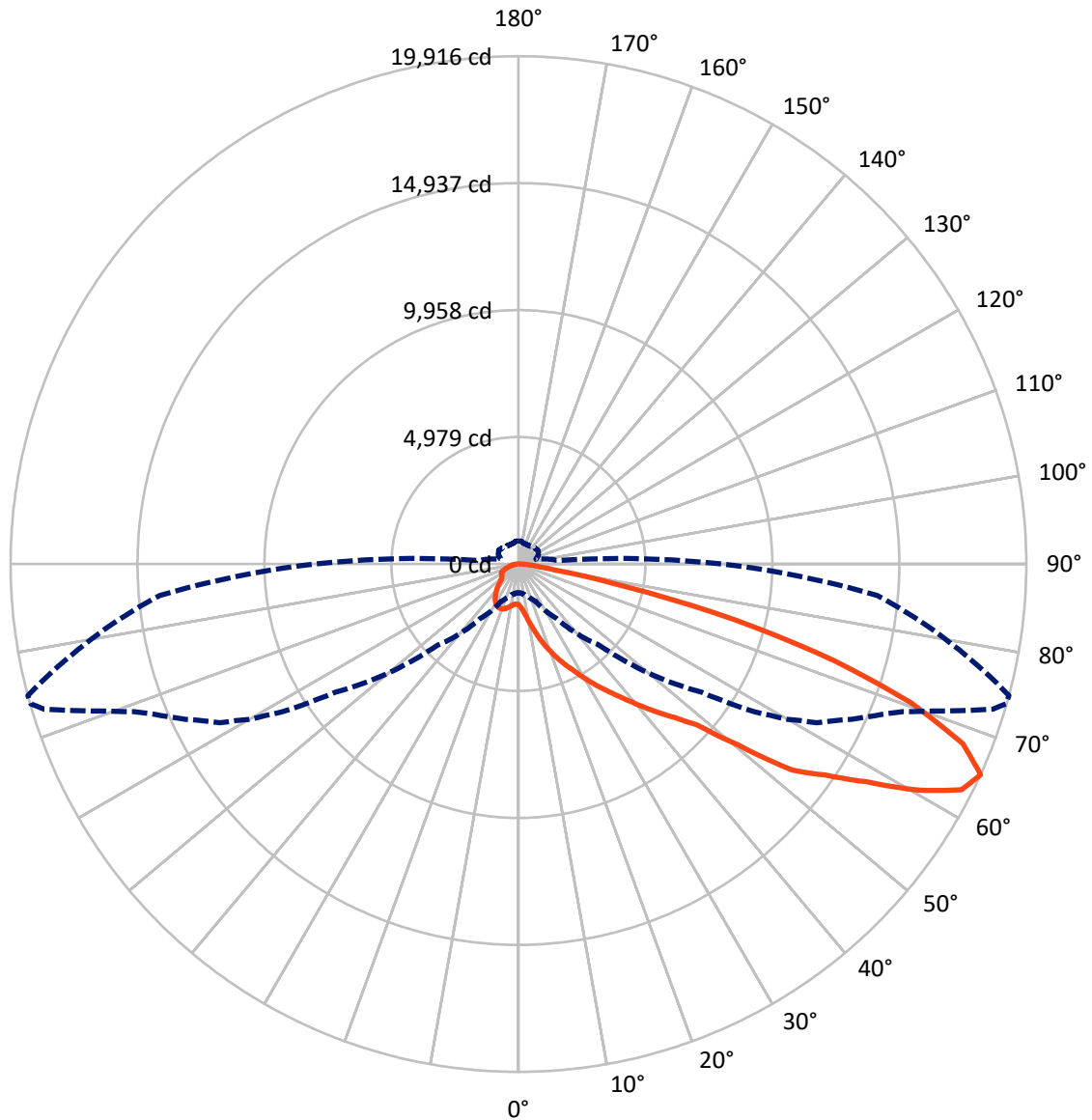
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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	3034.1	0.0	3034.1
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	16645.2	0.0	16645.2
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	19679.3	0.0	19679.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.7	1.0
10°-20°	772.4	3.9
20°-30°	1584.7	8.1
30°-40°	2666.1	13.5
40°-50°	3683.9	18.7
50°-60°	4598.6	23.4
60°-70°	4138.2	21.0
70°-80°	1734.7	8.8
80°-90°	303.1	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°	19679.3	100.0
0°-180°	19679.3	100.0

**Coefficient of Utilization**



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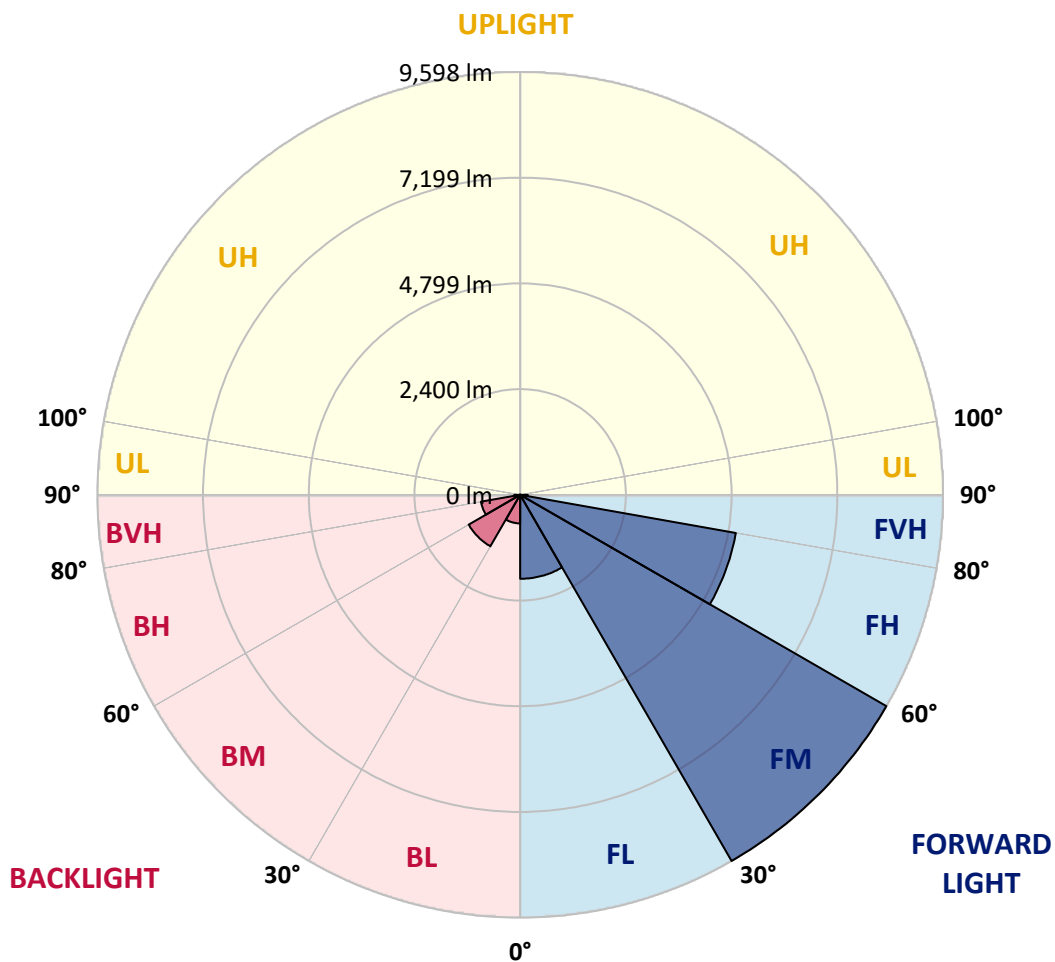
CATALOG NUMBER: GLNA-AF-05-LED-E1-T2R-7030-600

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1905.9	9.7			
FM (30°-60°)	9598.1	48.8			
FH (60°-80°)	4970.9	25.3			G2/5000
FVH (80°-90°)	170.3	0.9			G2/225
BL (0°-30°)	648.9	3.3	B2/1000		
BM (30°-60°)	1350.5	6.9	B2/2500		
BH (60°-80°)	902.0	4.6	B2/1000		G2/1000
BVH (80°-90°)	132.7	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	2030.7	2008.3	2013.8	1976.5	1930.9	1871.2	1805.2	1804.4	1805.2	1798.5	1774.5
5°	2815.7	2788.9	2778.6	2694.6	2571.7	2396.8	2206.7	2186.2	2177.7	2156.4	2106.9
7.5°	3388.8	3373.8	3357.8	3294.5	3182.9	2987.3	2731.9	2688.3	2646.3	2636.1	2580.2
10°	3758.5	3754.6	3721.2	3704.3	3634.7	3465.0	3216.3	3174.3	3128.7	3113.0	3054.1
12.5°	4050.8	4050.0	4034.2	4038.9	3978.1	3855.5	3641.0	3602.9	3569.5	3520.8	3479.1
15°	4253.1	4253.9	4277.4	4303.4	4294.0	4211.1	4009.9	3993.1	3964.3	3930.9	3881.4
17.5°	4418.9	4423.6	4447.6	4495.1	4546.5	4539.9	4380.7	4366.6	4341.5	4295.9	4269.9
20°	4793.3	4811.0	4764.5	4764.5	4770.1	4795.2	4718.7	4707.6	4672.2	4647.9	4627.5
22.5°	5425.8	5446.2	5340.9	5234.0	5128.7	5052.2	4975.9	4989.7	4965.7	4948.8	4936.7
25°	6247.3	6263.3	6092.8	5912.1	5697.7	5418.3	5229.3	5220.7	5207.7	5197.5	5192.0
27.5°	7020.4	7027.0	6865.9	6601.2	6352.5	5951.0	5486.3	5476.1	5460.3	5440.7	5423.8
30°	7681.9	7680.0	7514.2	7261.6	6995.2	6550.9	5876.7	5844.9	5798.2	5745.2	5704.3
32.5°	8254.7	8251.9	8070.1	7808.4	7529.1	7145.3	6411.4	6346.2	6273.5	6169.9	6107.7
35°	8705.4	8703.7	8532.1	8259.4	7938.9	7705.1	7024.3	6944.1	6851.8	6713.1	6617.2
37.5°	8875.9	8875.9	8780.0	8593.7	8310.5	8150.2	7705.1	7608.1	7509.5	7352.0	7243.9
40°	8776.1	8778.0	8798.5	8764.2	8626.3	8503.4	8340.4	8282.6	8197.8	8056.3	7943.6
42.5°	8441.8	8452.0	8588.2	8754.8	8823.6	8804.3	8903.8	8877.8	8818.1	8709.2	8619.7
45°	8017.9	8049.7	8198.6	8513.6	8878.6	9064.0	9376.0	9378.8	9367.7	9309.1	9240.0
47.5°	7436.0	7480.5	7677.2	8102.7	8750.1	9316.6	9855.7	9880.8	9904.3	9866.2	9834.4
50°	6662.8	6715.9	7010.2	7574.7	8488.5	9578.3	10762.0	10875.8	10981.9	10969.0	10990.2
52.5°	5834.7	5897.2	6257.5	6886.4	8038.6	9638.8	11341.4	11526.8	11712.3	11863.9	12025.0
55°	5087.5	5054.1	5414.7	6076.8	7298.9	9365.8	11862.3	12085.8	12292.5	12478.8	12670.8
57.5°	4075.1	4130.1	4491.5	5146.4	6319.9	8595.4	12220.7	12547.8	12844.9	13153.2	13425.1
60°	2978.7	3033.7	3425.8	4090.9	5257.2	7427.4	11946.8	12442.6	12918.4	13390.6	13759.5
62.5°	1798.5	1839.7	2185.1	2818.7	4053.8	6042.5	10726.6	11376.8	12077.3	12641.8	13207.1
65°	1119.6	1142.8	1270.5	1618.9	2603.5	4511.2	8764.2	9473.0	10227.3	10943.8	11531.5
67.5°	916.5	924.8	948.3	1022.6	1429.7	2941.7	6523.0	7150.8	7831.7	8524.7	9178.7
70°	824.3	818.7	818.7	823.4	916.5	1581.6	4270.8	4679.7	5247.0	5849.6	6447.6
72.5°	744.1	738.6	728.4	714.6	748.0	964.9	2207.5	2515.9	2924.8	3460.3	4033.1
75°	668.7	661.2	649.3	631.7	654.9	728.4	1060.0	1189.5	1388.8	1673.9	1993.4
77.5°	590.5	581.1	570.0	557.1	586.9	566.4	621.2	667.9	744.1	835.6	955.8
80°	502.1	493.8	489.9	483.6	518.9	431.3	438.8	467.5	512.3	561.8	617.6
82.5°	393.2	393.2	407.8	410.9	449.8	310.3	328.0	353.1	376.3	402.3	428.6
85°	258.9	260.8	311.1	330.8	354.8	208.6	245.9	254.2	273.0	287.9	299.0
87.5°	81.0	87.6	190.1	210.6	203.9	118.3	150.9	154.7	167.7	177.9	187.3
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):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	1774.5	1763.2	1753.0	1752.1	1744.7	1734.4	1738.0	1722.3	1723.1	1714.8	1705.4
5°	2086.5	2079.0	2041.7	2031.5	2003.6	1985.9	1983.1	1945.8	1941.1	1919.9	1896.4
7.5°	2535.5	2511.2	2458.9	2433.8	2386.3	2350.9	2334.3	2284.9	2260.5	2204.7	2179.6
10°	3005.8	2975.1	2910.7	2875.4	2829.8	2772.8	2742.2	2670.6	2642.4	2591.3	2530.0
12.5°	3441.8	3411.1	3344.8	3317.7	3257.2	3196.7	3163.3	3082.3	3045.8	2963.8	2915.4
15°	3845.0	3814.3	3756.5	3728.6	3668.1	3618.6	3573.9	3494.0	3451.2	3374.7	3311.4
17.5°	4236.2	4203.6	4153.3	4128.2	4069.6	4019.3	3971.0	3895.2	3851.6	3775.3	3718.4
20°	4599.6	4575.3	4539.1	4505.3	4446.8	4401.2	4343.4	4278.2	4214.9	4158.8	4105.0
22.5°	4916.2	4906.8	4867.9	4853.0	4802.7	4763.4	4713.1	4649.0	4603.2	4532.4	4482.1
25°	5189.2	5186.5	5167.7	5163.0	5127.6	5090.3	5079.3	5026.2	4984.2	4921.8	4869.8
27.5°	5423.8	5426.6	5422.2	5435.2	5425.8	5408.9	5410.0	5392.3	5368.0	5315.8	5270.2
30°	5684.7	5669.7	5678.3	5696.8	5702.4	5704.3	5735.0	5745.2	5743.5	5709.0	5686.6
32.5°	6053.6	6018.2	5985.6	5982.8	6001.3	6008.8	6061.0	6088.1	6111.3	6119.6	6123.5
35°	6523.8	6453.1	6385.1	6348.9	6317.2	6325.5	6362.8	6406.7	6457.8	6493.2	6535.2
37.5°	7116.3	7029.8	6909.6	6823.9	6802.4	6756.0	6780.0	6814.5	6864.8	6919.8	6992.5
40°	7834.4	7703.2	7568.0	7454.5	7393.1	7307.2	7306.4	7299.7	7330.7	7381.8	7484.3
42.5°	8525.8	8409.2	8265.7	8146.7	8066.5	7951.9	7928.6	7868.1	7881.9	7926.7	8026.5
45°	9172.9	9077.0	8989.4	8851.8	8783.6	8659.8	8620.5	8549.0	8508.9	8529.4	8629.1
47.5°	9799.9	9738.5	9647.1	9557.8	9505.6	9394.8	9344.5	9293.1	9242.0	9240.0	9344.5
50°	11022.0	10989.4	10881.4	10788.2	10813.4	10677.4	10685.7	10547.9	10610.3	10617.8	10836.6
52.5°	12170.4	12284.2	12364.4	12461.9	12525.5	12537.6	12579.3	12641.8	12717.2	12866.2	13069.2
55°	12828.0	12970.6	13053.5	13128.1	13251.1	13277.0	13346.9	13429.8	13495.9	13663.6	13836.0
57.5°	13609.7	13874.2	14002.6	14120.9	14286.7	14350.0	14466.6	14556.9	14642.6	14841.0	15049.6
60°	14091.1	14413.5	14675.2	14862.3	15070.1	15219.3	15395.3	15536.8	15737.9	15975.5	16286.7
62.5°	13708.4	14181.4	14529.0	14850.4	15132.5	15417.7	15669.9	15934.7	16240.0	16599.5	17082.2
65°	12183.6	12665.0	13260.2	13593.7	13967.3	14406.9	14790.7	15219.3	15635.4	16159.0	16872.5
67.5°	9808.4	10368.0	11036.9	11373.2	11802.6	12293.3	12723.8	13247.2	13733.5	14367.7	15249.9
70°	7069.8	7793.5	8356.1	8707.3	9208.5	9714.2	10129.8	10738.8	11141.1	11791.3	12703.4
72.5°	4476.6	5047.5	5736.9	6179.3	6624.4	7137.0	7561.7	8087.0	8462.2	9054.6	9880.8
75°	2407.0	2827.8	3433.2	3853.5	4330.4	4768.1	5265.5	5617.5	5895.2	6363.9	7034.5
77.5°	1127.9	1384.1	1690.5	2013.8	2337.1	2674.2	3002.2	3287.1	3406.4	3674.7	4070.4
80°	684.7	767.6	856.9	956.6	1091.7	1200.6	1345.1	1449.3	1456.7	1541.6	1662.6
82.5°	457.3	488.0	515.1	540.2	574.7	601.8	632.5	668.7	683.6	703.2	742.5
85°	312.0	326.9	332.4	348.4	344.6	354.0	366.1	378.3	384.6	383.8	401.5
87.5°	191.8	199.2	203.1	206.7	203.9	200.3	205.9	212.5	214.1	208.6	210.6
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°	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	1707.4	1699.1	1690.5	1685.0	1683.0	1633.9	1612.3	1598.5	1568.7	1544.3	1524.7
5°	1883.4	1865.7	1851.9	1835.0	1825.6	1700.7	1655.1	1623.6	1571.4	1540.7	1512.6
7.5°	2166.6	2117.1	2088.4	2055.8	2027.9	1802.4	1727.0	1677.5	1604.8	1564.0	1532.2
10°	2488.0	2436.8	2391.0	2340.7	2297.0	1937.5	1827.6	1751.0	1655.1	1602.1	1560.1
12.5°	2846.6	2796.3	2738.6	2674.2	2618.4	2108.9	1956.0	1847.2	1715.7	1644.9	1586.3
15°	3270.5	3181.8	3111.9	3037.6	2972.3	2313.9	2106.1	1955.2	1780.0	1684.2	1606.0
17.5°	3664.2	3571.1	3476.3	3411.1	3335.7	2543.8	2257.0	2064.9	1833.1	1709.3	1609.5
20°	4049.2	3947.5	3865.7	3778.1	3698.8	2782.2	2418.1	2161.9	1867.6	1710.1	1586.3
22.5°	4388.2	4324.6	4233.5	4138.4	4058.3	3020.7	2568.9	2244.0	1880.6	1688.8	1545.2
25°	4773.7	4706.8	4594.9	4514.7	4425.5	3263.9	2717.0	2307.2	1873.2	1648.8	1481.9
27.5°	5185.4	5111.0	4996.4	4912.6	4804.6	3516.1	2853.0	2352.8	1845.2	1583.6	1397.1
30°	5614.8	5546.8	5434.1	5349.5	5240.4	3783.6	3004.9	2383.5	1789.4	1493.2	1298.4
32.5°	6075.9	6019.0	5907.4	5819.0	5702.4	4073.2	3146.4	2392.9	1704.6	1386.0	1194.2
35°	6513.6	6474.7	6380.4	6297.5	6176.5	4347.0	3296.5	2388.2	1604.0	1268.6	1099.2
37.5°	7006.6	6983.1	6936.7	6831.4	6683.3	4718.7	3476.3	2368.6	1481.1	1152.2	1026.5
40°	7531.9	7533.8	7483.5	7411.7	7273.8	5169.6	3690.5	2330.5	1346.8	1049.7	960.2
42.5°	8087.8	8116.8	8092.5	8041.4	7909.0	5624.2	3946.6	2284.0	1216.6	950.0	895.3
45°	8725.0	8760.4	8797.7	8722.2	8593.7	6224.0	4283.7	2223.5	1075.7	867.1	850.5
47.5°	9460.0	9515.8	9549.2	9550.3	9421.9	6967.3	4831.4	2187.0	951.1	811.3	829.0
50°	11010.7	11028.6	11107.7	11245.6	11146.9	8687.7	5788.0	2164.7	866.3	776.7	813.2
52.5°	13245.3	13440.1	13577.1	13567.7	13433.4	9780.2	6315.2	2049.2	816.0	763.7	805.7
55°	14155.4	14398.6	14652.0	14718.9	14614.7	10712.8	6813.7	1933.7	791.6	773.1	808.5
57.5°	15368.2	15778.0	16125.6	16271.8	16120.9	11905.9	7469.4	1873.2	784.2	798.3	826.2
60°	16784.9	17291.6	17748.1	18010.6	18010.6	13277.0	8149.4	1848.0	774.0	835.6	856.0
62.5°	17695.1	18439.2	19128.6	19513.2	19501.9	14231.7	8451.2	1762.4	750.8	861.6	896.9
65°	17698.7	18583.7	19461.8	19894.3	19916.4	14114.6	7953.0	1556.5	707.9	865.4	938.1
67.5°	16223.4	17166.8	18190.5	18674.1	18785.7	12993.0	6884.4	1279.9	638.0	828.1	953.0
70°	13701.7	14623.0	15668.0	16143.3	16341.7	11075.9	5544.9	986.5	548.8	746.1	922.1
72.5°	10794.6	11698.2	12425.7	12773.0	12927.8	8466.1	4037.8	745.2	449.8	628.6	839.2
75°	7642.7	8320.7	8707.3	8784.7	8808.7	5103.6	2453.4	554.3	370.8	489.1	708.8
77.5°	4313.6	4604.3	4572.5	4607.0	4320.2	1970.1	1068.5	396.8	305.6	371.6	549.6
80°	1684.2	1736.4	1631.1	1598.5	1466.1	733.1	471.4	276.6	244.0	281.3	384.6
82.5°	742.5	766.5	744.1	749.9	717.3	378.3	282.1	200.3	186.2	205.9	255.3
85°	408.9	416.4	414.5	426.6	408.9	150.9	134.0	123.0	130.4	139.8	163.9
87.5°	199.2	201.2	194.8	205.0	198.4	76.3	66.0	69.9	76.3	78.2	78.2
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°	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	1510.9	1503.4	1504.3	1502.3	1498.7	1498.7
5°	1497.9	1490.5	1490.5	1488.5	1483.8	1484.7
7.5°	1510.9	1498.7	1494.0	1487.4	1481.1	1481.1
10°	1525.8	1504.3	1491.3	1480.2	1471.7	1471.7
12.5°	1536.9	1503.4	1481.9	1467.0	1458.7	1458.7
15°	1540.7	1496.8	1467.0	1449.3	1441.8	1441.0
17.5°	1528.6	1471.7	1435.5	1415.0	1405.6	1402.9
20°	1491.3	1426.1	1382.4	1358.9	1345.9	1341.2
22.5°	1435.5	1360.9	1309.7	1285.4	1268.6	1265.8
25°	1357.3	1277.1	1226.8	1203.4	1194.2	1191.2
27.5°	1265.8	1191.2	1148.4	1133.5	1125.2	1124.3
30°	1179.3	1115.8	1084.3	1072.9	1062.7	1061.1
32.5°	1098.1	1058.0	1046.1	1030.1	1006.1	1003.3
35°	1040.3	1036.7	1028.5	992.8	963.2	954.7
37.5°	1005.0	1039.5	996.7	926.8	905.5	903.6
40°	984.5	1010.8	937.0	913.0	914.6	913.0
42.5°	938.1	964.9	938.9	927.9	935.1	937.0
45°	891.4	921.2	953.0	945.6	963.2	963.2
47.5°	865.4	909.9	951.9	951.9	978.2	987.3
50°	835.6	900.8	937.0	950.0	970.7	963.2
52.5°	833.6	884.8	915.7	938.9	948.3	939.8
55°	836.4	871.8	894.2	920.4	931.5	932.3
57.5°	840.3	864.3	879.2	891.4	924.8	924.8
60°	849.4	858.0	866.3	872.9	916.5	917.4
62.5°	864.3	851.3	849.4	856.0	911.8	908.3
65°	887.8	841.9	828.1	834.5	907.1	896.1
67.5°	919.3	828.1	801.0	805.7	903.6	879.2
70°	948.3	805.7	767.6	762.9	868.2	825.4
72.5°	951.1	779.8	720.9	707.1	754.6	713.5
75°	904.4	761.8	669.8	628.6	623.1	617.6
77.5°	815.1	751.6	610.1	545.7	534.7	538.3
80°	682.0	713.5	538.3	462.0	522.5	516.2
82.5°	509.5	629.7	457.3	408.9	407.8	360.6
85°	283.2	491.0	372.5	306.4	213.3	206.7
87.5°	79.3	273.0	260.8	173.3	118.3	123.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)