

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: P301632

Luminaire Tested: **GLNA-AF-03-LED-E1-T2R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301632  
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-03-LED-E1-T2R-7027-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13241.3 lumens  
Efficiency: N/A  
Efficacy: 106.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 124  
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

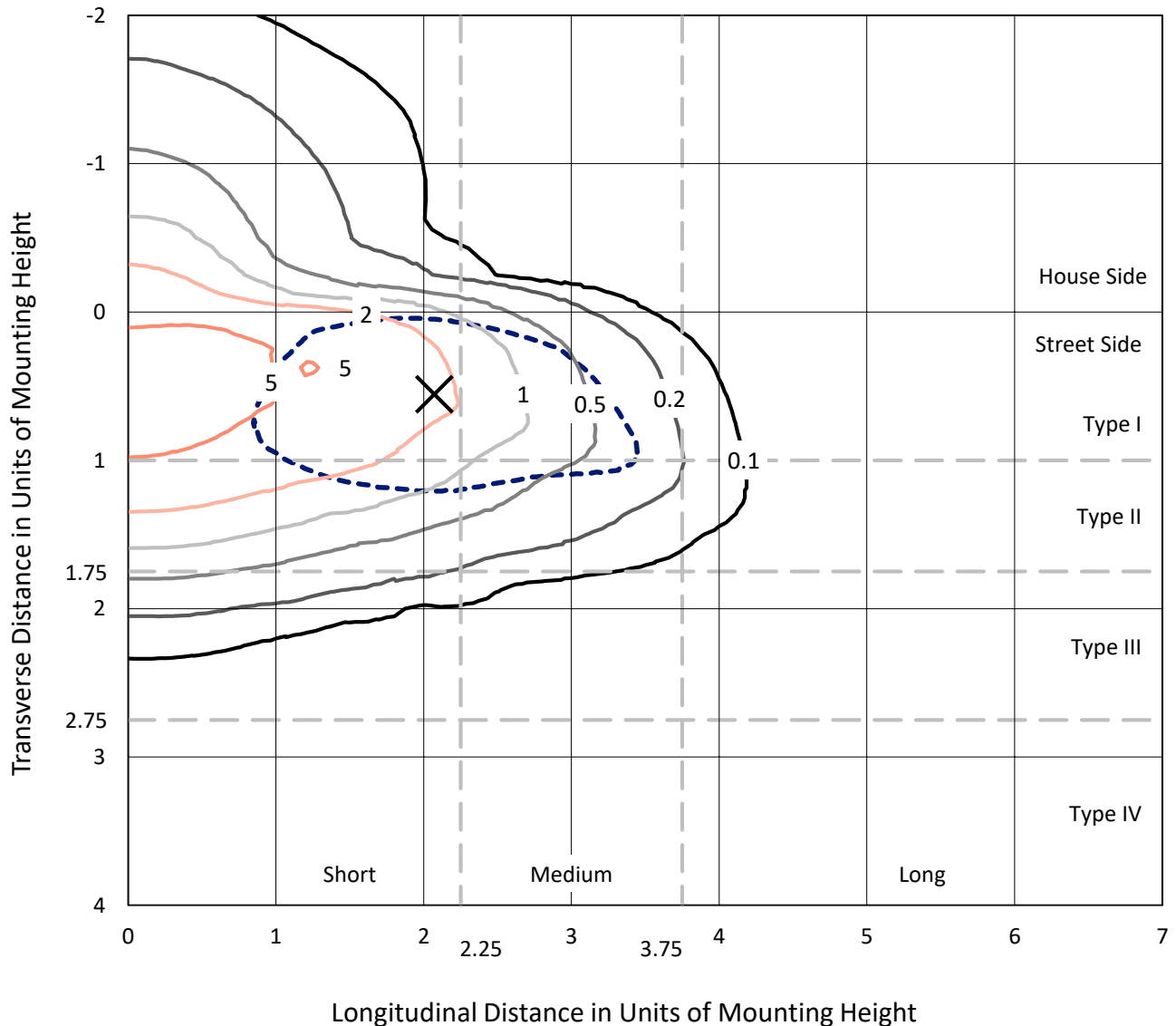


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### Iso-Footcandle Lines of Horizontal Illumination

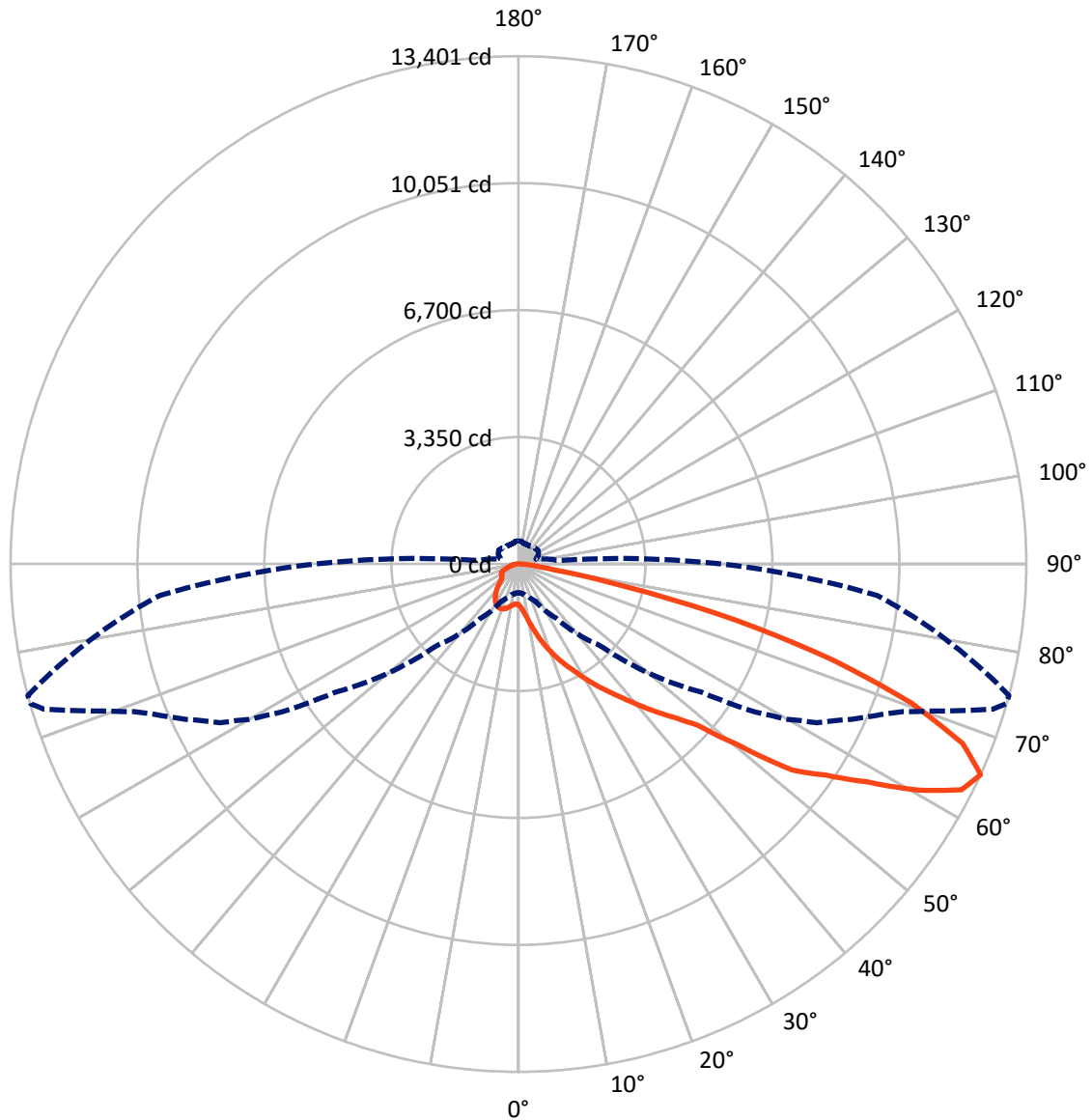
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.4 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	2041.5	0.0	2041.5
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	11199.8	0.0	11199.8
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	13241.3	0.0	13241.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.0	1.0
10°-20°	519.7	3.9
20°-30°	1066.3	8.1
30°-40°	1793.9	13.5
40°-50°	2478.7	18.7
50°-60°	3094.2	23.4
60°-70°	2784.4	21.0
70°-80°	1167.2	8.8
80°-90°	203.9	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°	13241.3	100.0
0°-180°	13241.3	100.0

**Coefficient of Utilization**



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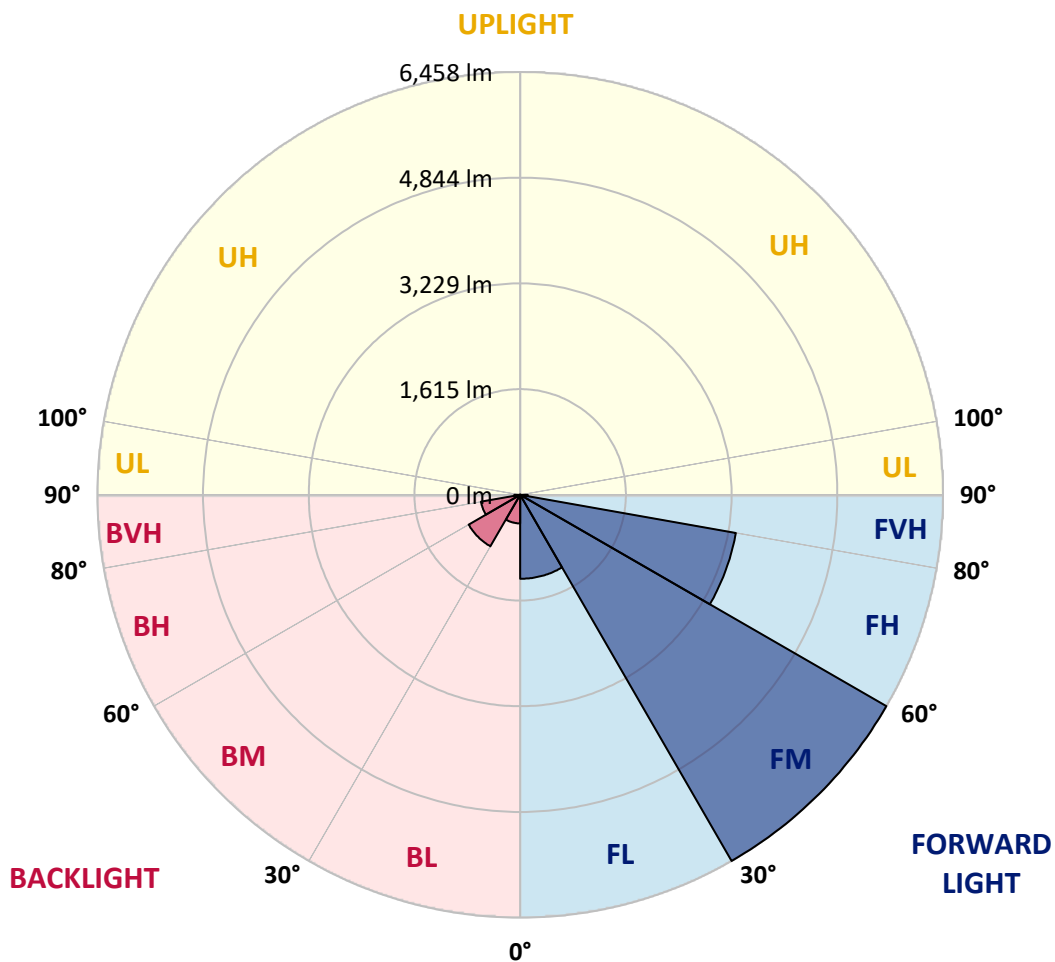
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1282.4	9.7			
FM	(30°-60°)	6458.1	48.8			
FH	(60°-80°)	3344.7	25.3			G2/5000
FVH	(80°-90°)	114.6	0.9			G2/225
BL	(0°-30°)	436.6	3.3	B1/500		
BM	(30°-60°)	908.7	6.9	B1/1000		
BH	(60°-80°)	606.9	4.6	B2/1000		G2/1000
BVH	(80°-90°)	89.3	0.7			G1/100
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°	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1
2.5°	1366.3	1351.3	1355.0	1329.9	1299.2	1259.1	1214.6	1214.1	1214.6	1210.2	1194.0
5°	1894.5	1876.5	1869.6	1813.1	1730.4	1612.7	1484.8	1471.0	1465.2	1450.9	1417.6
7.5°	2280.1	2270.1	2259.3	2216.7	2141.6	2010.0	1838.2	1808.8	1780.6	1773.7	1736.1
10°	2528.9	2526.3	2503.8	2492.5	2445.6	2331.4	2164.1	2135.9	2105.2	2094.6	2055.0
12.5°	2725.6	2725.0	2714.4	2717.6	2676.7	2594.2	2449.9	2424.2	2401.7	2369.0	2340.9
15°	2861.7	2862.3	2878.1	2895.5	2889.2	2833.4	2698.1	2686.7	2667.4	2644.9	2611.6
17.5°	2973.2	2976.4	2992.6	3024.6	3059.1	3054.7	2947.6	2938.1	2921.2	2890.5	2873.0
20°	3225.2	3237.1	3205.8	3205.8	3209.6	3226.5	3175.0	3167.5	3143.7	3127.4	3113.6
22.5°	3650.7	3664.5	3593.7	3521.7	3450.9	3399.4	3348.1	3357.4	3341.2	3329.8	3321.7
25°	4203.5	4214.3	4099.6	3978.0	3833.7	3645.7	3518.6	3512.8	3504.1	3497.2	3493.5
27.5°	4723.7	4728.2	4619.8	4441.7	4274.3	4004.2	3691.5	3684.6	3674.0	3660.8	3649.4
30°	5168.8	5167.5	5055.9	4886.0	4706.8	4407.8	3954.2	3932.8	3901.4	3865.7	3838.2
32.5°	5554.2	5552.3	5430.0	5253.9	5066.0	4807.7	4313.9	4270.0	4221.2	4151.4	4109.6
35°	5857.4	5856.3	5740.9	5557.4	5341.7	5184.4	4726.3	4672.4	4610.3	4517.0	4452.4
37.5°	5972.2	5972.2	5907.6	5782.3	5591.8	5483.9	5184.4	5119.1	5052.8	4946.8	4874.1
40°	5905.0	5906.3	5920.1	5897.0	5804.3	5721.5	5611.8	5573.0	5515.9	5420.7	5344.9
42.5°	5680.1	5687.0	5778.6	5890.7	5937.0	5924.0	5990.9	5973.5	5933.3	5860.0	5799.8
45°	5394.9	5416.3	5516.5	5728.4	5974.0	6098.8	6308.7	6310.5	6303.1	6263.7	6217.2
47.5°	5003.3	5033.3	5165.6	5451.9	5887.6	6268.7	6631.4	6648.4	6664.2	6638.5	6617.1
50°	4483.1	4518.8	4716.8	5096.7	5711.5	6444.8	7241.3	7317.9	7389.2	7380.5	7394.8
52.5°	3925.9	3967.9	4210.4	4633.5	5408.8	6485.5	7631.1	7755.9	7880.6	7982.7	8091.1
55°	3423.2	3400.7	3643.3	4088.8	4911.1	6301.8	7981.6	8132.0	8271.1	8396.4	8525.6
57.5°	2742.0	2779.0	3022.1	3462.8	4252.4	5783.4	8222.7	8442.9	8642.7	8850.2	9033.2
60°	2004.2	2041.2	2305.0	2752.6	3537.3	4997.6	8038.5	8372.0	8692.2	9009.9	9258.1
62.5°	1210.2	1237.9	1470.3	1896.6	2727.6	4065.7	7217.5	7654.9	8126.2	8506.1	8886.5
65°	753.4	769.0	854.9	1089.3	1751.7	3035.3	5897.0	6373.9	6881.5	7363.6	7759.0
67.5°	616.7	622.3	638.1	688.1	962.0	1979.3	4389.0	4811.5	5269.6	5735.8	6175.9
70°	554.6	550.9	550.9	554.0	616.7	1064.2	2873.6	3148.8	3530.5	3935.9	4338.3
72.5°	500.7	497.0	490.1	480.8	503.3	649.2	1485.3	1692.8	1968.0	2328.3	2713.7
75°	449.9	444.9	436.9	425.0	440.6	490.1	713.2	800.4	934.4	1126.3	1341.2
77.5°	397.3	391.0	383.6	374.8	394.9	381.1	418.0	449.4	500.7	562.2	643.1
80°	337.8	332.2	329.6	325.4	349.2	290.2	295.2	314.6	344.7	378.0	415.5
82.5°	264.6	264.6	274.4	276.5	302.7	208.8	220.7	237.6	253.2	270.7	288.4
85°	174.2	175.5	209.3	222.5	238.7	140.4	165.5	171.0	183.7	193.7	201.2
87.5°	54.5	58.9	127.9	141.7	137.2	79.6	101.5	104.1	112.9	119.7	126.1
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°	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1
2.5°	1194.0	1186.4	1179.5	1178.9	1173.9	1167.0	1169.4	1158.8	1159.4	1153.8	1147.5
5°	1403.9	1398.9	1373.8	1366.9	1348.1	1336.2	1334.4	1309.3	1306.1	1291.8	1276.0
7.5°	1706.0	1689.7	1654.5	1637.6	1605.6	1581.8	1570.7	1537.4	1521.0	1483.5	1466.5
10°	2022.4	2001.8	1958.5	1934.7	1904.0	1865.7	1845.1	1796.9	1778.0	1743.6	1702.3
12.5°	2315.8	2295.2	2250.6	2232.4	2191.6	2150.9	2128.4	2073.9	2049.4	1994.2	1961.7
15°	2587.1	2566.5	2527.6	2508.8	2468.1	2434.8	2404.7	2351.0	2322.2	2270.7	2228.1
17.5°	2850.4	2828.4	2794.6	2777.7	2738.2	2704.4	2671.9	2620.9	2591.6	2540.2	2501.9
20°	3094.8	3078.5	3054.1	3031.4	2992.0	2961.4	2922.5	2878.6	2836.0	2798.3	2762.0
22.5°	3307.9	3301.6	3275.4	3265.3	3231.5	3205.1	3171.3	3128.1	3097.3	3049.7	3015.8
25°	3491.6	3489.7	3477.1	3473.9	3450.1	3425.0	3417.6	3381.9	3353.6	3311.6	3276.7
27.5°	3649.4	3651.3	3648.3	3657.1	3650.7	3639.4	3640.1	3628.2	3611.9	3576.7	3546.1
30°	3825.0	3814.9	3820.7	3833.1	3836.9	3838.2	3858.8	3865.7	3864.6	3841.3	3826.3
32.5°	4073.2	4049.4	4027.4	4025.6	4038.0	4043.0	4078.2	4096.4	4112.0	4117.6	4120.2
35°	4389.6	4342.0	4296.3	4271.9	4250.5	4256.1	4281.2	4310.8	4345.2	4369.0	4397.2
37.5°	4788.2	4730.0	4649.1	4591.5	4577.0	4545.8	4561.9	4585.2	4619.0	4656.0	4704.9
40°	5271.4	5183.1	5092.2	5015.8	4974.5	4916.7	4916.1	4911.7	4932.5	4966.9	5035.9
42.5°	5736.6	5658.1	5561.6	5481.5	5427.6	5350.4	5334.8	5294.1	5303.4	5333.5	5400.6
45°	6172.0	6107.5	6048.6	5956.0	5910.1	5826.8	5800.4	5752.2	5725.3	5739.0	5806.1
47.5°	6593.9	6552.6	6491.1	6431.0	6395.9	6321.3	6287.5	6252.9	6218.5	6217.2	6287.5
50°	7416.2	7394.3	7321.6	7258.9	7275.8	7184.4	7189.9	7097.2	7139.2	7144.2	7291.5
52.5°	8188.9	8265.5	8319.4	8385.0	8427.8	8436.0	8464.1	8506.1	8556.8	8657.0	8793.7
55°	8631.4	8727.3	8783.1	8833.3	8916.0	8933.5	8980.5	9036.3	9080.8	9193.6	9309.6
57.5°	9157.4	9335.3	9421.7	9501.3	9612.9	9655.4	9733.9	9794.7	9852.3	9985.8	10126.2
60°	9481.2	9698.2	9874.3	10000.1	10139.9	10240.3	10358.8	10454.0	10589.3	10749.2	10958.6
62.5°	9223.7	9542.0	9775.9	9992.1	10182.0	10373.8	10543.6	10721.7	10927.1	11169.0	11493.8
65°	8197.8	8521.7	8922.2	9146.6	9397.9	9693.7	9952.0	10240.3	10520.3	10872.7	11352.7
67.5°	6599.6	6976.1	7426.2	7652.5	7941.4	8271.6	8561.3	8913.4	9240.6	9667.3	10261.0
70°	4757.0	5243.9	5622.4	5858.7	6196.0	6536.2	6815.9	7225.6	7496.3	7933.8	8547.5
72.5°	3012.1	3396.2	3860.1	4157.8	4457.3	4802.2	5087.9	5441.4	5693.8	6092.4	6648.4
75°	1619.6	1902.7	2310.1	2592.9	2913.8	3208.3	3542.9	3779.8	3966.6	4281.9	4733.2
77.5°	758.9	931.3	1137.5	1355.0	1572.5	1799.3	2020.0	2211.7	2292.0	2472.6	2738.8
80°	460.7	516.5	576.5	643.7	734.6	807.8	905.1	975.2	980.2	1037.3	1118.7
82.5°	307.7	328.3	346.6	363.5	386.7	404.9	425.6	449.9	460.0	473.2	499.6
85°	209.9	219.9	223.7	234.4	231.8	238.2	246.3	254.5	258.8	258.2	270.1
87.5°	129.0	134.0	136.7	139.1	137.2	134.8	138.5	143.0	144.1	140.4	141.7
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°	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1
2.5°	1148.8	1143.2	1137.5	1133.7	1132.4	1099.4	1084.8	1075.6	1055.5	1039.1	1025.9
5°	1267.2	1255.3	1246.0	1234.7	1228.4	1144.3	1113.7	1092.5	1057.3	1036.7	1017.7
7.5°	1457.8	1424.5	1405.2	1383.3	1364.5	1212.8	1162.0	1128.7	1079.8	1052.3	1030.9
10°	1674.0	1639.6	1608.8	1574.9	1545.6	1303.7	1229.7	1178.2	1113.7	1078.0	1049.7
12.5°	1915.4	1881.5	1842.7	1799.3	1761.8	1418.9	1316.1	1242.9	1154.4	1106.8	1067.4
15°	2200.6	2140.9	2093.8	2043.8	2000.0	1556.9	1417.1	1315.6	1197.7	1133.2	1080.6
17.5°	2465.5	2402.8	2339.1	2295.2	2244.4	1711.6	1518.6	1389.4	1233.4	1150.1	1083.0
20°	2724.5	2656.1	2601.0	2542.1	2488.7	1872.0	1627.0	1454.6	1256.6	1150.7	1067.4
22.5°	2952.6	2909.9	2848.5	2784.5	2730.6	2032.5	1728.5	1509.9	1265.4	1136.3	1039.7
25°	3212.0	3167.0	3091.7	3037.8	2977.7	2196.1	1828.2	1552.4	1260.4	1109.4	997.1
27.5°	3489.0	3439.0	3361.8	3305.5	3232.8	2365.8	1919.6	1583.1	1241.6	1065.5	940.0
30°	3777.9	3732.2	3656.3	3599.4	3526.0	2545.8	2021.9	1603.8	1204.0	1004.7	873.6
32.5°	4088.2	4049.9	3974.8	3915.3	3836.9	2740.7	2117.1	1610.1	1146.9	932.6	803.6
35°	4382.7	4356.5	4293.1	4237.3	4155.9	2924.9	2218.0	1606.9	1079.3	853.6	739.6
37.5°	4714.4	4698.6	4667.4	4596.5	4496.9	3175.0	2339.1	1593.7	996.5	775.3	690.7
40°	5067.8	5069.1	5035.3	4987.0	4894.2	3478.4	2483.2	1568.1	906.2	706.3	646.1
42.5°	5441.9	5461.4	5445.1	5410.7	5321.6	3784.2	2655.5	1536.8	818.6	639.2	602.4
45°	5870.6	5894.4	5919.5	5868.8	5782.3	4187.9	2882.3	1496.1	723.8	583.4	572.3
47.5°	6365.2	6402.7	6425.2	6426.0	6339.5	4688.0	3250.8	1471.6	639.9	545.9	557.8
50°	7408.6	7420.7	7473.8	7566.6	7500.2	5845.5	3894.5	1456.5	582.9	522.6	547.2
52.5°	8912.1	9043.2	9135.4	9129.1	9038.7	6580.7	4249.2	1378.8	549.0	513.9	542.1
55°	9524.5	9688.2	9858.6	9903.6	9833.5	7208.2	4584.6	1301.1	532.7	520.2	544.0
57.5°	10340.6	10616.3	10850.2	10948.5	10847.0	8011.0	5025.8	1260.4	527.6	537.1	555.9
60°	11293.8	11634.8	11941.9	12118.5	12118.5	8933.5	5483.4	1243.4	520.8	562.2	576.0
62.5°	11906.2	12406.9	12870.8	13129.6	13121.9	9575.9	5686.4	1185.8	505.1	579.7	603.5
65°	11908.6	12504.1	13095.0	13385.9	13400.8	9497.0	5351.2	1047.3	476.3	582.3	631.2
67.5°	10916.0	11550.7	12239.6	12564.9	12640.0	8742.4	4632.2	861.2	429.3	557.2	641.2
70°	9219.3	9839.1	10542.3	10862.1	10995.6	7452.5	3730.9	663.7	369.2	502.0	620.4
72.5°	7263.2	7871.2	8360.7	8594.4	8698.5	5696.4	2716.9	501.4	302.7	423.0	564.6
75°	5142.4	5598.6	5858.7	5910.8	5927.0	3434.0	1650.8	373.0	249.5	329.1	476.9
77.5°	2902.4	3098.0	3076.6	3099.9	2906.9	1325.6	719.0	267.0	205.6	250.1	369.8
80°	1133.2	1168.3	1097.5	1075.6	986.5	493.2	317.2	186.1	164.2	189.3	258.8
82.5°	499.6	515.7	500.7	504.6	482.7	254.5	189.8	134.8	125.3	138.5	171.8
85°	275.2	280.2	278.9	287.1	275.2	101.5	90.2	82.7	87.8	94.1	110.3
87.5°	134.0	135.4	131.1	138.0	133.5	51.3	44.4	47.0	51.3	52.6	52.6
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):**

	135°	145°	155°	165°	175°	180°
0°	1076.1	1076.1	1076.1	1076.1	1076.1	1076.1
2.5°	1016.6	1011.6	1012.2	1010.9	1008.4	1008.4
5°	1007.9	1002.9	1002.9	1001.6	998.4	999.0
7.5°	1016.6	1008.4	1005.3	1000.8	996.5	996.5
10°	1026.7	1012.2	1003.4	996.0	990.2	990.2
12.5°	1034.1	1011.6	997.1	987.1	981.5	981.5
15°	1036.7	1007.1	987.1	975.2	970.1	969.6
17.5°	1028.5	990.2	965.9	952.1	945.8	943.9
20°	1003.4	959.5	930.2	914.4	905.6	902.5
22.5°	965.9	915.7	881.3	864.9	853.6	851.7
25°	913.2	859.3	825.5	809.7	803.6	801.5
27.5°	851.7	801.5	772.7	762.6	757.1	756.5
30°	793.5	750.7	729.6	721.9	715.1	713.9
32.5°	738.9	711.9	703.9	693.1	676.9	675.1
35°	700.0	697.6	692.0	668.0	648.1	642.4
37.5°	676.2	699.4	670.6	623.6	609.3	608.0
40°	662.4	680.1	630.5	614.3	615.4	614.3
42.5°	631.2	649.2	631.8	624.3	629.2	630.5
45°	599.8	619.9	641.2	636.2	648.1	648.1
47.5°	582.3	612.2	640.5	640.5	658.2	664.3
50°	562.2	606.1	630.5	639.2	653.1	648.1
52.5°	560.9	595.3	616.1	631.8	638.1	632.3
55°	562.8	586.6	601.6	619.3	626.7	627.3
57.5°	565.4	581.6	591.6	599.8	622.3	622.3
60°	571.5	577.3	582.9	587.3	616.7	617.3
62.5°	581.6	572.8	571.5	576.0	613.5	611.1
65°	597.4	566.5	557.2	561.5	610.4	602.9
67.5°	618.6	557.2	539.0	542.1	608.0	591.6
70°	638.1	542.1	516.5	513.3	584.2	555.3
72.5°	639.9	524.7	485.1	475.8	507.8	480.0
75°	608.5	512.6	450.7	423.0	419.3	415.5
77.5°	548.5	505.7	410.5	367.2	359.8	362.2
80°	458.9	480.0	362.2	310.9	351.6	347.3
82.5°	342.8	423.7	307.7	275.2	274.4	242.6
85°	190.6	330.4	250.6	206.2	143.5	139.1
87.5°	53.4	183.7	175.5	116.6	79.6	82.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)