

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: P299389

Luminaire Tested: **GLNA-AF-10-LED-E1-SLR-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299389  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-SLR-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Right OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 44838.2 lumens  
Efficiency: N/A  
Efficacy: 80.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

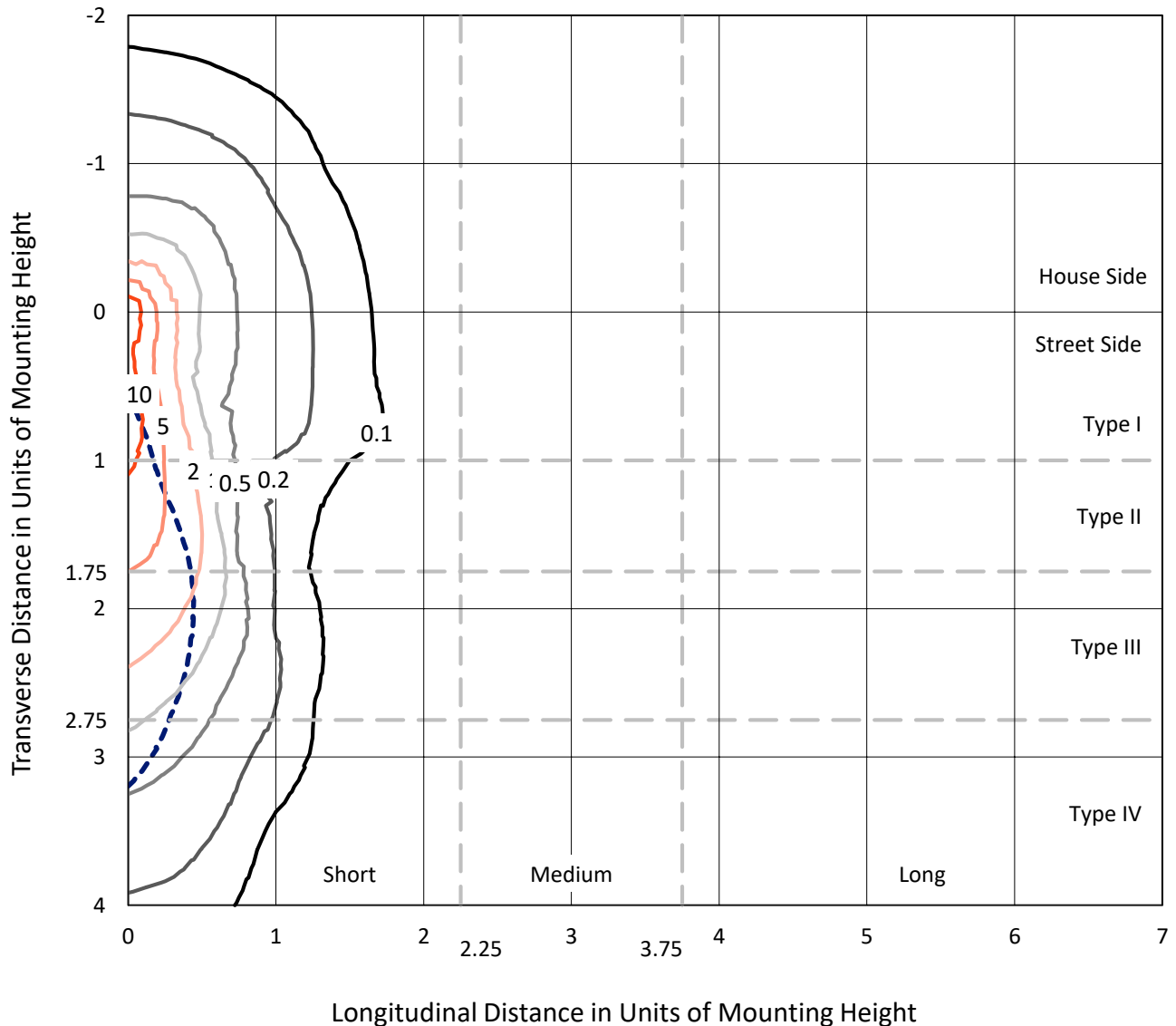
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

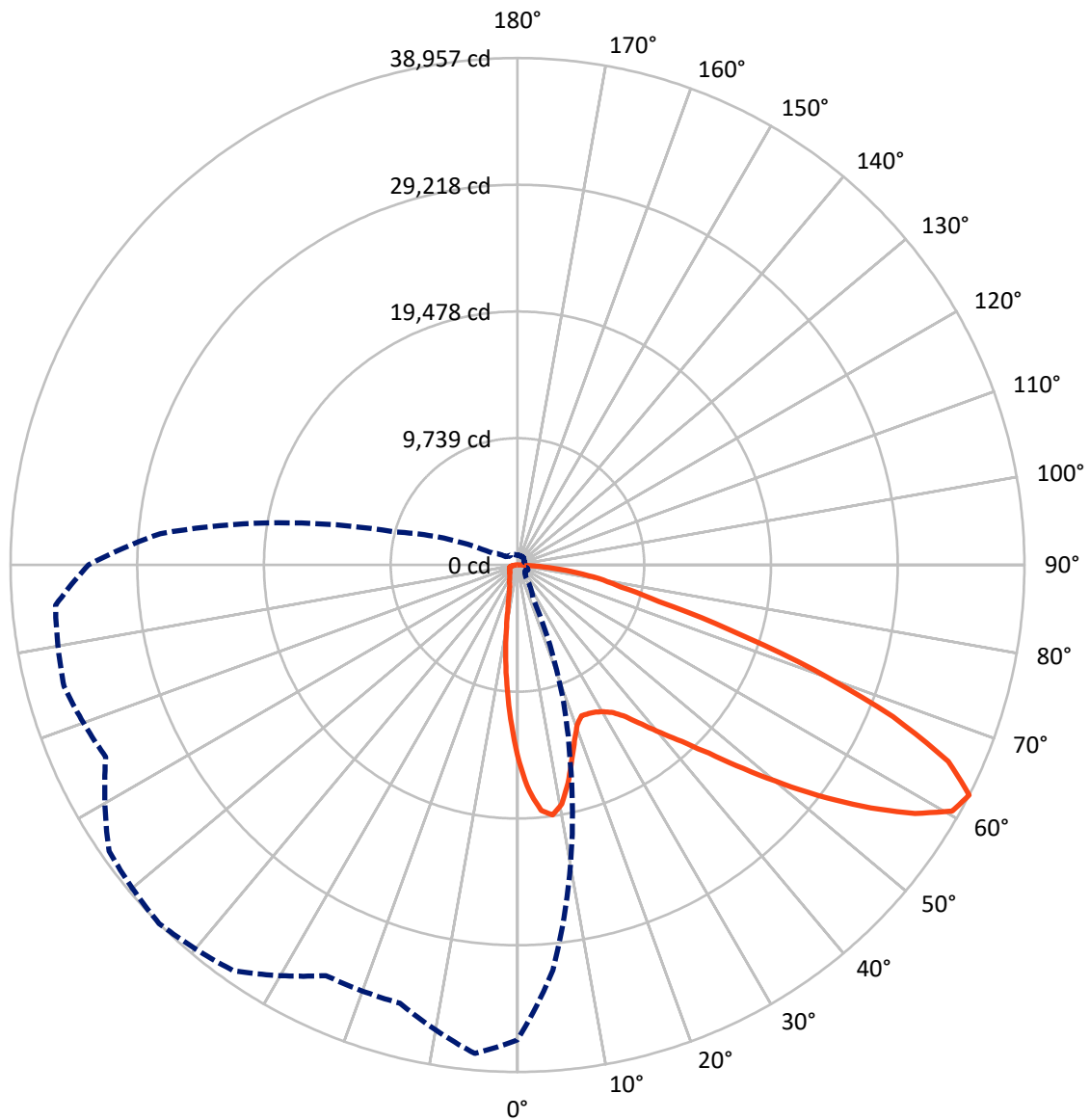
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.8 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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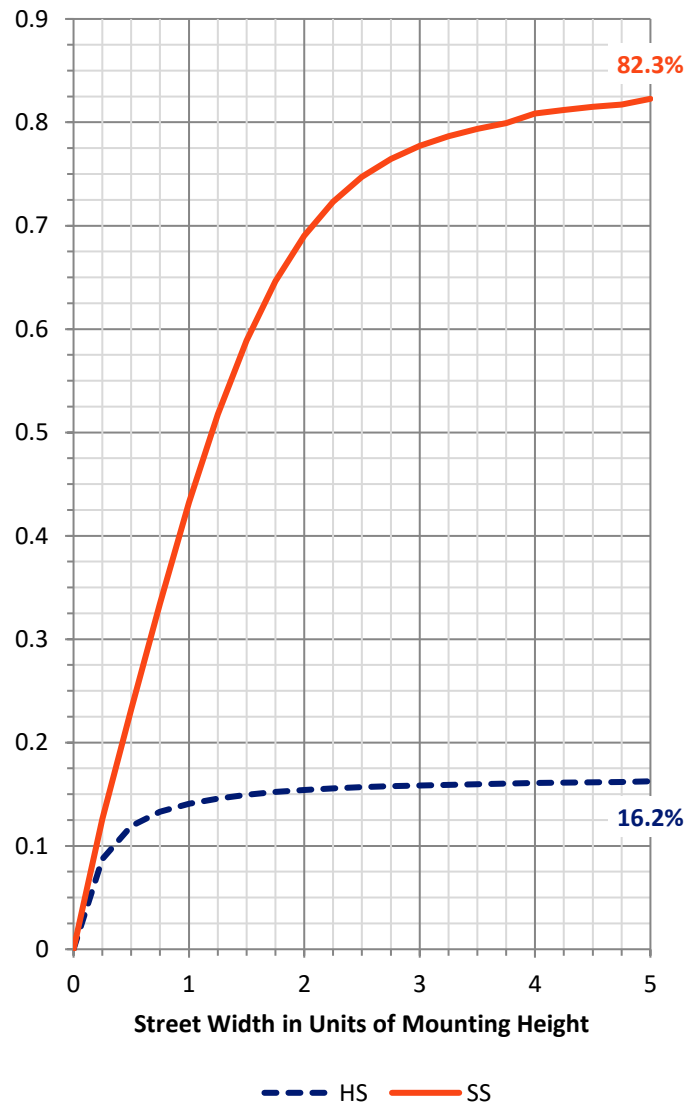
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7420.1	0.0	7420.1
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	37418.1	0.0	37418.1
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	44838.2	0.0	44838.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1102.8	2.5
10°-20°	2022.2	4.5
20°-30°	2948.3	6.6
30°-40°	4540.8	10.1
40°-50°	6682.9	14.9
50°-60°	9802.4	21.9
60°-70°	10957.7	24.4
70°-80°	5364.8	12.0
80°-90°	1416.4	3.2
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°	44838.2	100.0
0°-180°	44838.2	100.0

**Coefficient of Utilization**



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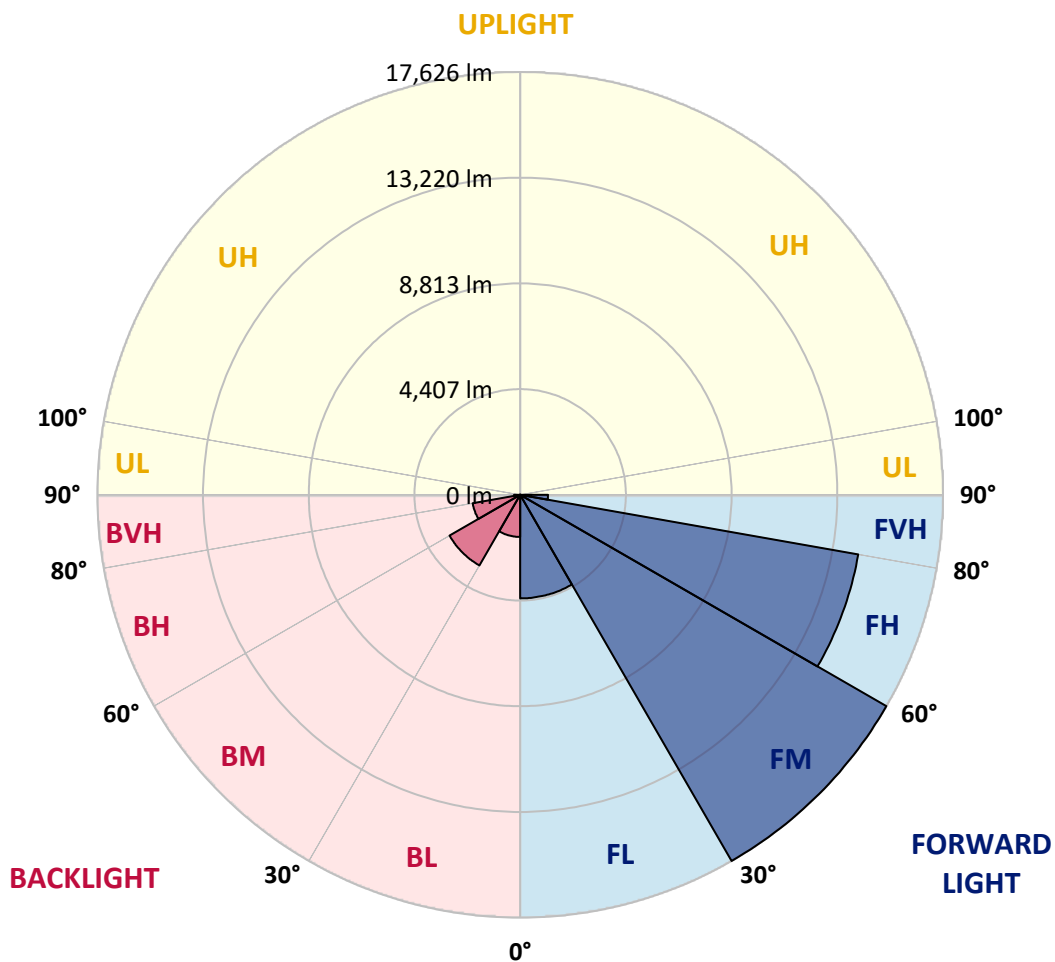
CATALOG NUMBER: GLNA-AF-10-LED-E1-SLR-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4317.8	9.6			
FM	(30°-60°)	17626.3	39.3			
FH	(60°-80°)	14310.8	31.9			G5
FVH	(80°-90°)	1163.2	2.6			G5
BL	(0°-30°)	1755.5	3.9	B3/2500		
BM	(30°-60°)	3399.8	7.6	B3/5000		
BH	(60°-80°)	2011.6	4.5	B3/2500		G3/2500
BVH	(80°-90°)	253.2	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0
2.5°	15740.0	15419.9	14887.1	14332.7	13995.4	13600.7	13292.5	13021.7	12479.2	12373.2	12469.5
5°	14801.3	14158.1	13154.5	12144.1	11471.1	10748.8	10186.9	9736.2	9048.2	8927.3	9072.9
7.5°	13295.5	12526.2	11200.2	9910.8	8959.4	8057.3	7451.4	6967.9	6430.6	6199.3	6213.5
10°	11996.4	11128.6	9560.9	8158.8	7379.8	6770.9	6260.5	5765.0	5220.3	4862.9	4764.4
12.5°	11268.9	10271.2	8464.0	7211.9	6489.6	5849.3	5299.4	4769.6	4187.6	3822.7	3719.7
15°	11143.5	10058.6	8052.8	6606.0	5700.8	4890.5	4242.1	3650.3	3051.1	2755.7	2693.7
17.5°	11688.2	10438.4	7919.3	6065.7	4959.1	3958.5	3162.3	2502.0	2014.0	1866.2	1853.5
20°	12732.9	11168.1	7902.1	5558.3	4227.1	3054.1	2203.5	1722.9	1508.8	1466.3	1469.2
22.5°	14199.9	12299.4	8114.0	5176.3	3554.1	2277.4	1656.5	1441.6	1358.1	1318.5	1318.5
25°	16097.4	13857.4	8602.0	4898.0	2969.8	1819.2	1461.8	1333.4	1254.3	1227.5	1232.7
27.5°	17936.8	15372.9	9169.1	4678.6	2587.8	1651.3	1384.9	1269.3	1200.6	1173.0	1185.7
30°	19370.9	16719.0	9642.2	4380.1	2393.0	1604.3	1412.5	1293.9	1195.4	1153.6	1155.8
32.5°	20558.9	17897.2	10039.2	4165.2	2220.6	1375.2	1217.8	1165.5	1153.6	1104.4	1079.7
35°	22077.3	19181.4	10305.5	4170.4	2139.3	1227.5	1084.2	993.2	926.8	870.1	870.1
37.5°	23857.0	20655.1	10589.1	4227.1	2110.2	1140.9	1037.9	946.2	885.0	830.5	820.8
40°	25616.5	22099.7	10848.0	4281.6	2092.3	1089.4	1000.6	917.1	860.4	805.9	791.0
42.5°	27113.3	23287.7	11079.3	4308.5	2033.4	1084.2	973.8	896.9	843.2	783.5	769.3
45°	28219.9	24283.1	11328.6	4350.3	1974.4	1104.4	973.8	894.7	828.3	771.6	756.6
47.5°	29207.9	25451.6	11744.9	4350.3	1902.8	1067.0	1005.9	896.9	826.0	766.3	754.4
50°	30531.6	27053.6	12533.7	4249.5	1802.0	1027.5	1059.6	887.2	803.6	756.6	741.7
52.5°	32355.3	29107.1	13785.7	4074.2	1646.8	951.4	1052.1	882.7	781.3	732.0	714.8
55°	34512.5	31305.4	15151.3	3869.7	1414.8	896.9	1015.6	870.1	756.6	702.2	685.0
57.5°	36195.9	32818.7	16112.4	3554.1	1212.5	867.8	899.9	858.1	726.8	670.1	655.9
60°	36866.0	32759.7	16376.5	3132.5	1114.1	843.2	786.5	961.1	702.2	645.4	628.3
62.5°	36504.1	31246.5	15637.0	2837.0	1091.7	811.1	737.2	889.5	682.8	628.3	603.7
65°	34830.4	28564.7	13677.6	2757.9	1155.8	779.0	705.1	697.7	655.9	603.7	579.0
67.5°	31184.5	24556.9	10951.0	2765.4	1237.2	746.9	673.1	638.7	618.6	576.8	554.4
70°	25400.1	19415.7	8163.3	2785.5	1279.0	709.6	638.7	601.4	579.0	537.3	522.3
72.5°	18676.2	14964.0	5930.7	2657.2	1286.4	667.8	591.7	559.6	537.3	493.2	480.5
75°	12777.7	11446.5	4113.7	2201.2	1121.5	608.9	539.5	510.4	495.5	441.0	433.5
77.5°	9334.0	8592.3	2632.5	1634.1	864.8	535.0	476.1	453.7	444.0	384.3	374.6
80°	7490.9	6797.7	1646.8	1119.3	633.5	448.5	399.2	387.3	376.8	317.9	310.4
82.5°	5195.7	4552.5	1057.3	726.8	476.1	347.7	315.6	310.4	295.5	241.8	234.3
85°	2740.7	2472.1	670.1	495.5	344.7	238.8	219.4	219.4	211.9	160.4	155.2
87.5°	350.0	569.3	340.3	258.9	189.5	106.0	106.0	103.7	111.2	91.0	79.1
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0
2.5°	12242.6	12361.3	12247.9	12255.3	12380.7	12755.3	12925.4	13065.7	13216.4	13314.9	13358.9
5°	8873.6	9149.7	9243.0	9440.0	9731.0	10209.3	10398.8	10536.9	10628.6	10682.4	10704.8
7.5°	6068.7	6235.9	6423.2	6741.0	7374.5	7655.8	7781.2	7749.1	7646.1	7608.8	7572.3
10°	4574.9	4508.4	4473.4	4648.7	5161.4	5444.9	5533.7	5447.1	5390.4	5403.1	5464.3
12.5°	3544.4	3428.7	3288.4	3268.3	3606.3	3860.0	3916.7	3921.2	4024.9	4116.0	4251.8
15°	2583.3	2570.6	2502.0	2460.2	2651.9	2859.4	2884.0	2928.0	3022.0	3088.5	3206.4
17.5°	1821.4	1887.8	1942.3	1969.2	2114.7	2262.4	2235.6	2213.2	2196.0	2196.0	2252.7
20°	1469.2	1513.3	1582.7	1661.0	1809.5	1912.5	1846.1	1757.3	1693.1	1673.7	1681.2
22.5°	1323.7	1358.1	1397.6	1466.3	1599.8	1671.5	1599.8	1535.6	1471.5	1449.1	1441.6
25°	1249.9	1293.9	1331.2	1382.7	1481.2	1530.4	1461.8	1414.8	1375.2	1348.4	1328.2
27.5°	1208.1	1246.9	1257.3	1281.9	1365.5	1409.5	1375.2	1355.8	1331.2	1306.6	1281.9
30°	1163.3	1155.8	1138.7	1140.9	1208.1	1252.1	1249.9	1254.3	1252.1	1244.6	1240.2
32.5°	1062.6	1047.6	1032.7	1047.6	1108.8	1148.4	1151.4	1161.1	1161.1	1158.8	1178.2
35°	885.0	911.8	929.0	973.8	1047.6	1082.0	1067.0	1042.4	998.4	970.8	968.5
37.5°	818.6	823.0	852.9	914.1	996.2	1027.5	1005.9	949.1	919.3	914.1	921.5
40°	786.5	791.0	808.1	864.8	946.2	978.2	958.8	917.1	889.5	887.2	899.9
42.5°	764.1	769.3	779.0	818.6	885.0	924.5	926.8	896.9	864.8	867.8	879.8
45°	751.4	754.4	751.4	771.6	832.7	879.8	899.9	879.8	852.9	858.1	872.3
47.5°	749.2	741.7	732.0	737.2	801.4	847.7	872.3	864.8	852.9	858.1	870.1
50°	739.5	722.3	709.6	707.4	771.6	820.8	843.2	843.2	847.7	858.1	870.1
52.5°	709.6	690.2	690.2	682.8	751.4	798.4	813.3	815.6	823.0	840.2	858.1
55°	673.1	665.6	673.1	660.4	737.2	781.3	788.7	793.9	798.4	813.3	838.0
57.5°	641.0	631.3	648.4	643.2	724.5	764.1	764.1	773.8	773.8	793.9	813.3
60°	623.8	603.7	611.1	616.3	707.4	749.2	744.7	754.4	758.9	776.8	791.0
62.5°	601.4	584.3	584.3	596.2	688.0	726.8	724.5	732.0	751.4	756.6	771.6
65°	574.6	567.1	559.6	574.6	667.8	702.2	705.1	714.8	732.0	737.2	749.2
67.5°	547.0	549.9	535.0	549.9	650.7	677.5	677.5	697.7	705.1	714.8	726.8
70°	517.9	520.1	507.4	525.3	638.7	650.7	648.4	675.3	680.5	688.0	699.9
72.5°	480.5	480.5	476.1	500.7	618.6	623.8	618.6	641.0	643.2	650.7	655.9
75°	441.0	441.0	436.5	470.8	606.6	594.0	579.0	596.2	601.4	606.6	606.6
77.5°	389.5	394.7	394.7	436.5	564.1	582.0	532.0	542.5	549.9	552.2	544.7
80°	325.3	338.0	342.5	397.0	473.1	537.3	476.1	482.8	485.8	485.8	476.1
82.5°	249.2	270.9	283.5	342.5	362.6	450.7	414.1	421.6	414.1	399.2	394.7
85°	172.4	202.2	217.1	261.2	273.8	347.7	344.7	344.7	330.6	310.4	308.2
87.5°	94.0	111.2	120.9	155.2	187.3	234.3	253.7	246.2	234.3	221.6	224.6
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0
2.5°	13591.0	13926.0	14461.0	14870.0	15281.8	15678.8	16107.9	16435.4	16713.8	16822.7	17152.5
5°	10929.4	11348.0	11853.1	12765.0	13411.2	14123.0	14946.8	16036.2	16454.8	17034.6	17983.0
7.5°	7727.5	8106.5	8919.9	9657.1	10571.9	11580.0	12691.1	14194.7	14744.6	15673.6	17218.9
10°	5770.2	6211.2	6864.1	7485.7	8291.6	9322.1	10598.8	12280.0	12947.8	13955.9	15735.5
12.5°	4648.7	5168.8	5861.3	6445.5	7069.3	7796.1	9036.3	10879.4	11774.8	12656.8	14455.8
15°	3571.2	4116.0	4759.9	5501.6	6188.9	6973.1	8272.2	10288.4	11318.1	12238.2	13773.1
17.5°	2472.1	2937.7	3748.8	4522.6	5403.1	6406.0	8060.3	10413.7	11643.5	12703.8	13891.7
20°	1752.8	2018.4	2684.0	3581.7	4678.6	5937.4	8020.7	11074.1	12673.9	13884.2	14650.6
22.5°	1473.7	1572.2	1959.5	2782.5	4049.5	5587.4	8158.8	12000.9	14064.1	15609.4	15860.9
25°	1343.1	1402.8	1604.3	2184.1	3489.9	5333.7	8624.4	13381.3	15784.8	17335.3	17290.6
27.5°	1271.5	1333.4	1466.3	1843.8	3069.1	5176.3	9090.0	15018.4	17751.7	19208.3	18656.1
30°	1249.9	1333.4	1473.7	1737.9	2768.3	4927.1	9472.1	16454.8	19265.0	20473.1	19277.7
32.5°	1232.7	1244.6	1308.8	1498.3	2481.8	4636.0	9731.0	17744.3	20746.2	21675.9	20172.3
35°	996.2	1057.3	1161.1	1343.1	2314.7	4461.4	9731.0	18856.1	22205.7	22890.7	21025.2
37.5°	958.8	1013.3	1104.4	1259.6	2220.6	4374.9	9536.2	19928.3	23696.6	24268.9	21727.4
40°	939.4	983.5	1070.0	1195.4	2181.1	4276.4	9252.7	20874.5	25153.1	25648.6	22383.3
42.5°	924.5	964.1	1045.4	1155.8	2129.6	4168.2	9023.6	21633.4	26417.9	26826.8	23009.3
45°	917.1	958.8	1047.6	1176.0	2025.9	4024.9	8947.5	22454.2	27458.1	27810.3	23686.9
47.5°	917.1	966.3	1059.6	1217.8	1902.8	3877.2	9186.3	23536.9	28441.5	28613.9	24485.3
50°	909.6	964.1	1094.7	1176.0	1722.9	3689.9	9748.1	24899.4	29506.4	29525.8	25496.4
52.5°	894.7	958.8	1178.2	1151.4	1515.5	3443.6	10507.8	26650.0	31081.5	31199.4	27078.3
55°	877.5	951.4	1155.8	1094.7	1346.1	3150.4	11128.6	28776.6	33294.7	33622.3	29405.6
57.5°	855.1	941.7	1119.3	1015.6	1234.9	2772.8	11353.2	30334.6	34840.1	35663.1	32027.7
60°	835.7	934.2	1010.3	968.5	1165.5	2454.9	10918.9	30026.4	34734.1	36508.5	34352.1
62.5°	815.6	941.7	921.5	939.4	1133.5	2250.5	9785.5	27558.8	32976.9	35636.3	36075.0
65°	793.9	875.3	870.1	914.1	1126.7	2169.2	8111.8	23859.2	29580.2	32878.4	36481.7
67.5°	764.1	808.1	832.7	882.7	1151.4	2097.5	6546.3	19681.3	24859.9	28744.5	34361.8
70°	732.0	769.3	796.2	843.2	1136.4	2065.4	5444.9	15520.6	19726.1	23558.5	30179.4
72.5°	690.2	722.3	746.9	791.0	1121.5	2048.3	4599.5	12499.3	14727.4	17500.3	24537.5
75°	641.0	670.1	688.0	732.0	1074.5	1875.9	3616.0	10576.4	11020.4	12174.0	19543.3
77.5°	584.3	606.6	620.8	670.1	951.4	1560.3	2615.4	8158.8	8558.0	8838.5	14983.4
80°	517.9	539.5	547.0	594.0	788.7	1220.0	1705.8	6026.2	6400.8	6464.9	9785.5
82.5°	441.0	463.4	463.4	507.4	645.4	877.5	1119.3	4128.6	4202.5	4419.6	6916.4
85°	355.2	372.3	372.3	394.7	500.7	655.9	769.3	2072.9	2050.5	2341.5	5991.9
87.5°	253.7	266.4	278.3	283.5	357.4	433.5	463.4	631.3	416.4	478.3	3847.3
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0	15149.0
2.5°	17401.8	17542.0	17398.8	17295.8	16849.6	16482.5	15991.5	15740.0
5°	18705.3	19062.8	18941.9	18508.3	17576.4	16528.7	15338.6	14801.3
7.5°	18547.9	19378.4	19397.8	18587.4	17214.5	15671.4	14059.6	13295.5
10°	17320.4	18382.2	18685.9	17899.5	16442.9	14717.7	12868.7	11996.4
12.5°	15949.7	16989.9	17221.9	16950.3	15733.3	13999.9	12124.7	11268.9
15°	14828.2	15294.5	15569.9	15807.2	15124.4	13714.1	12082.2	11143.5
17.5°	14145.4	14093.9	14173.0	14584.2	14699.8	14041.7	12723.2	11688.2
20°	13899.2	13108.2	13088.1	13655.2	14500.6	14823.7	13975.3	12732.9
22.5°	14035.0	12753.0	12590.4	13263.4	14606.6	15949.7	15616.9	14199.9
25°	14502.8	12782.9	12651.5	13303.0	14990.8	17150.3	17389.1	16097.4
27.5°	15240.1	12970.2	12797.1	13465.6	15501.2	18158.4	19134.4	17936.8
30°	15940.0	13295.5	13080.6	13785.7	15966.8	18557.6	20204.4	19370.9
32.5°	16790.6	13904.4	13526.8	14374.5	16543.6	19193.3	21158.0	20558.9
35°	17623.4	14771.5	14303.6	15284.1	17186.9	19985.0	22247.5	22077.3
37.5°	18538.2	15905.7	15518.4	16460.1	18067.4	20731.2	23637.6	23857.0
40°	19514.2	17409.2	16950.3	18175.6	19432.9	21668.4	25089.7	25616.5
42.5°	20497.7	19077.7	18530.7	19772.4	20933.4	22592.2	26331.3	27113.3
45°	21623.7	20889.4	20630.5	21973.6	22375.8	23472.7	27248.4	28219.9
47.5°	22935.5	22945.2	23361.5	23898.8	23830.1	24468.1	28170.7	29207.9
50°	24465.9	25510.5	26430.6	26787.3	25328.5	25538.1	29449.6	30531.6
52.5°	26304.5	28579.6	29718.3	29484.0	26943.2	26844.0	31475.5	32355.3
55°	28604.2	31828.5	32959.7	32791.8	28799.0	28623.6	33999.9	34512.5
57.5°	31265.9	34975.9	36016.1	35261.7	31027.1	30576.4	36087.7	36195.9
60°	33605.1	37470.4	38382.2	37546.5	33275.3	32653.8	37391.3	36866.0
62.5°	34906.5	38315.8	38956.8	38056.9	34815.5	34866.9	37677.1	36504.1
65°	34325.2	36178.7	36385.4	36311.6	34418.5	36151.1	36649.6	34830.4
67.5°	31140.5	30775.6	31123.3	31603.9	31017.4	34460.3	33802.1	31184.5
70°	25530.7	23526.4	24219.6	24542.0	24808.4	29654.1	29338.5	25400.1
72.5°	19240.4	16482.5	17029.4	16963.0	18195.0	23785.4	22816.8	18676.2
75°	13632.8	11175.6	11244.2	11217.4	12696.3	18609.1	16522.0	12777.7
77.5°	9538.5	8096.8	8134.2	8286.4	8535.6	14035.0	11803.9	9334.0
80°	6559.0	6144.8	6349.3	6362.0	5915.7	9428.0	8720.7	7490.9
82.5°	4885.3	4271.2	4221.9	4293.5	4636.0	7638.7	6701.5	5195.7
85°	4000.3	2528.8	2033.4	2549.0	4108.5	7564.8	4451.7	2740.7
87.5°	2252.7	1200.6	542.5	1005.9	1639.4	5008.4	1286.4	350.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)