

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: P301564

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301564  
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-01-LED-E1-T2R-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6469.8 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 59  
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

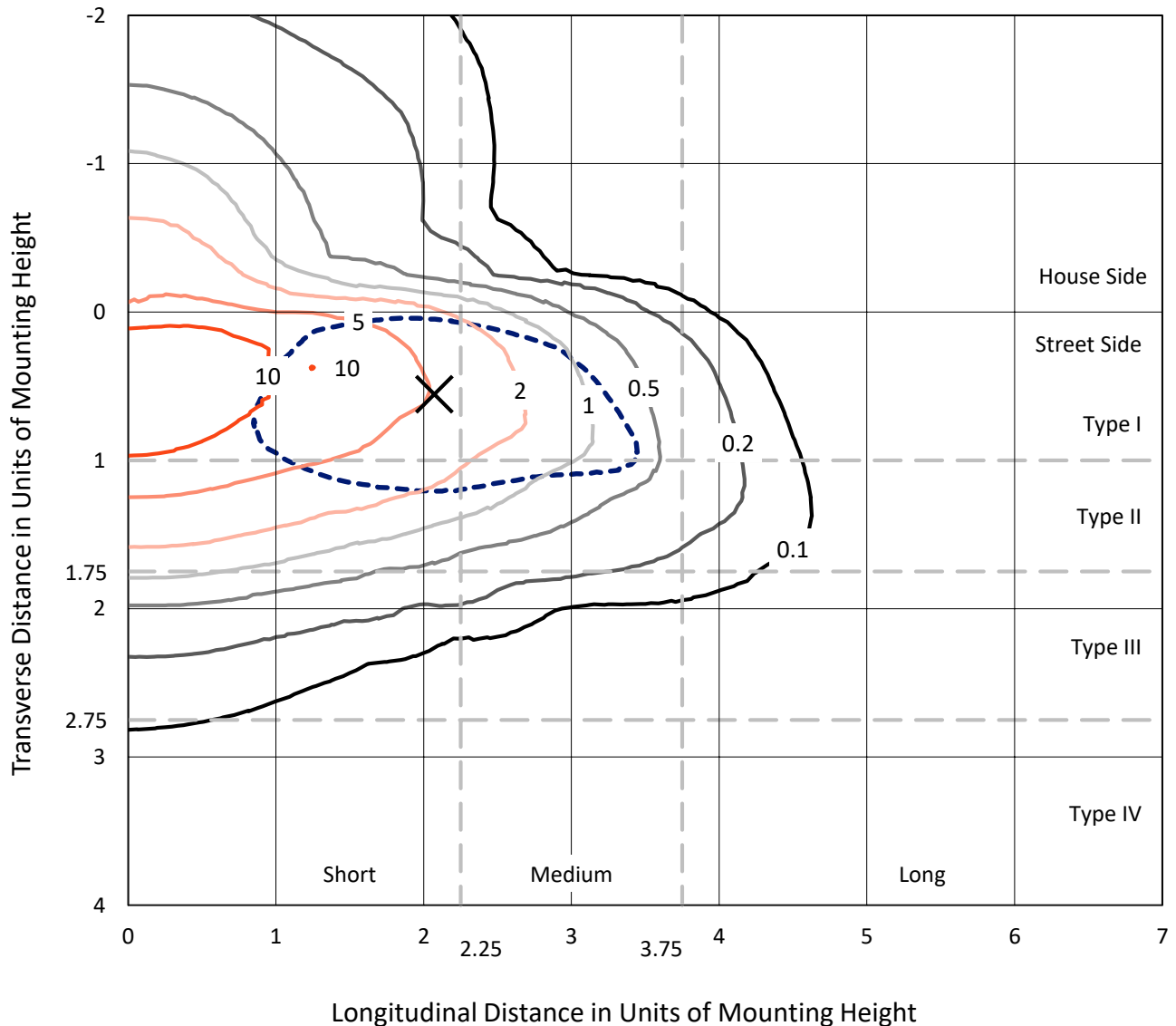


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

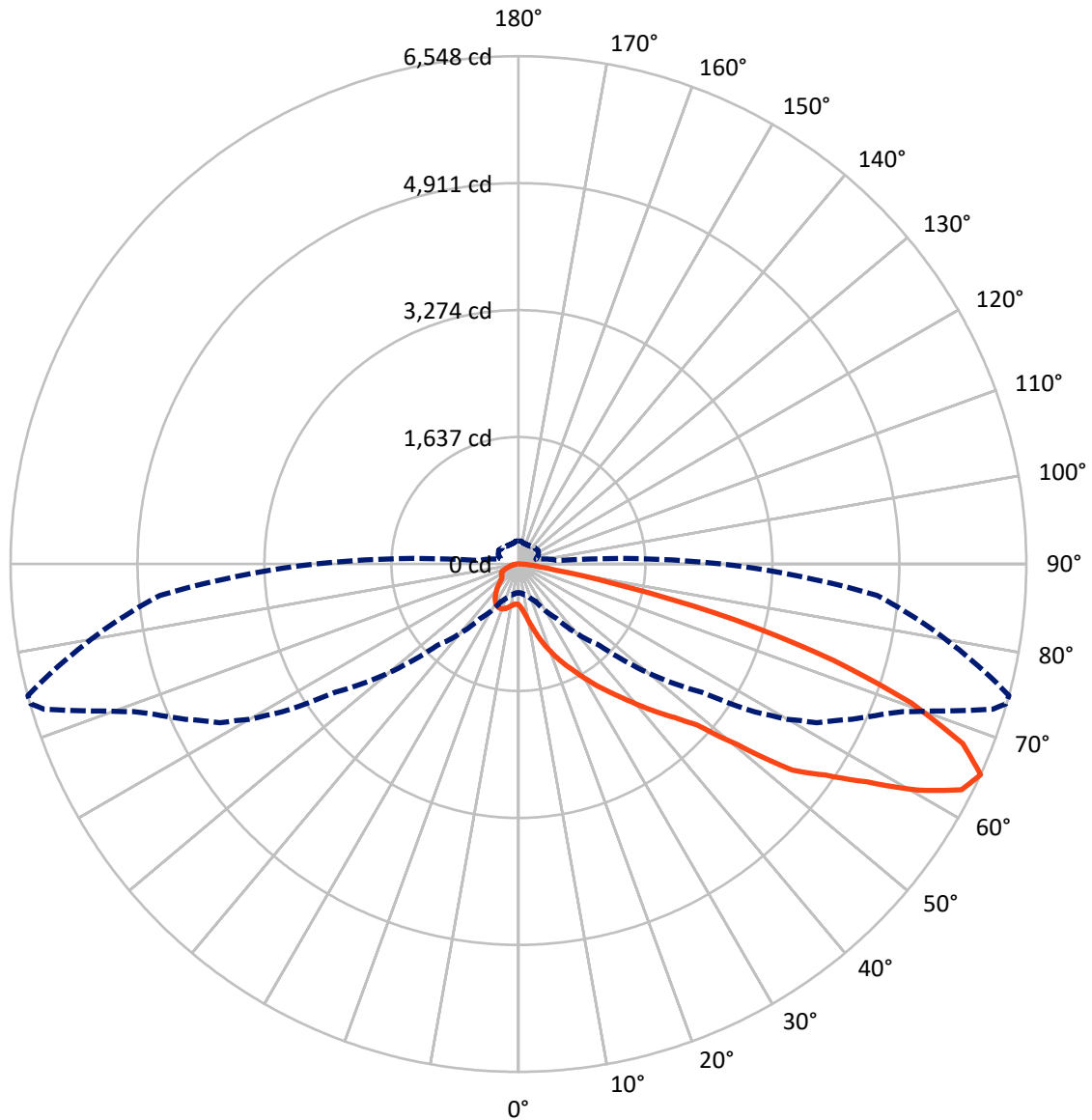


Based on 10 foot mounting height. Maximum calculated value = 16.3 fc  
 Type II - Short - Full Cutoff

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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	997.5	0.0	997.5
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	5472.3	0.0	5472.3
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	6469.8	0.0	6469.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	1.0
10°-20°	253.9	3.9
20°-30°	521.0	8.1
30°-40°	876.5	13.5
40°-50°	1211.1	18.7
50°-60°	1511.8	23.4
60°-70°	1360.5	21.0
70°-80°	570.3	8.8
80°-90°	99.6	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°	6469.8	100.0
0°-180°	6469.8	100.0



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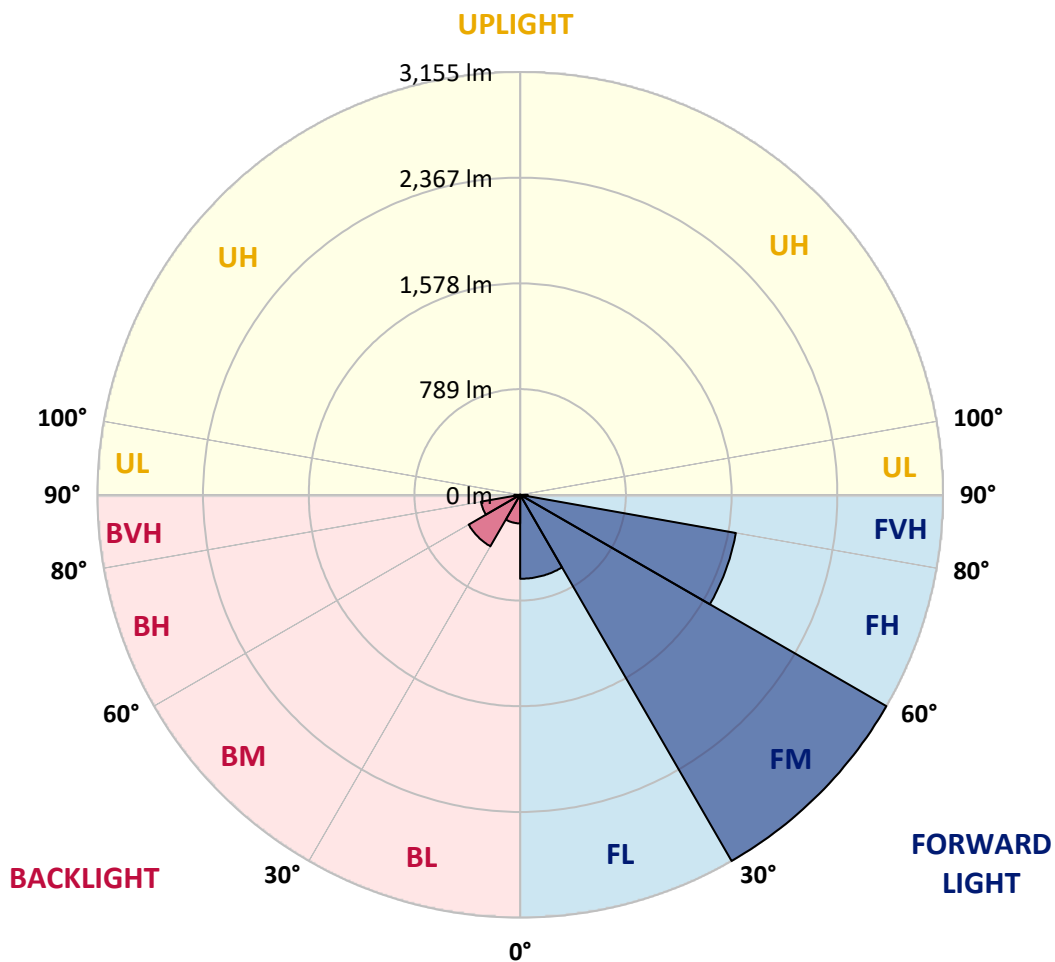
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	626.6	9.7			
FM	(30°-60°)	3155.4	48.8			
FH	(60°-80°)	1634.2	25.3			G1/1800
FVH	(80°-90°)	56.0	0.9			G1/100
BL	(0°-30°)	213.3	3.3	B1/500		
BM	(30°-60°)	444.0	6.9	B1/1000		
BH	(60°-80°)	296.5	4.6	B1/500		G1/500
BVH	(80°-90°)	43.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8
2.5°	667.6	660.2	662.1	649.8	634.8	615.2	593.5	593.2	593.5	591.3	583.4
5°	925.7	916.9	913.5	885.9	845.5	788.0	725.5	718.7	715.9	708.9	692.7
7.5°	1114.1	1109.2	1103.9	1083.1	1046.4	982.1	898.2	883.8	870.0	866.6	848.3
10°	1235.6	1234.4	1223.4	1217.8	1194.9	1139.2	1057.4	1043.6	1028.6	1023.4	1004.1
12.5°	1331.7	1331.5	1326.3	1327.8	1307.8	1267.5	1197.0	1184.5	1173.5	1157.5	1143.8
15°	1398.2	1398.5	1406.2	1414.8	1411.7	1384.4	1318.3	1312.8	1303.3	1292.3	1276.1
17.5°	1452.7	1454.3	1462.2	1477.8	1494.7	1492.5	1440.2	1435.6	1427.3	1412.3	1403.8
20°	1575.8	1581.6	1566.4	1566.4	1568.2	1576.5	1551.3	1547.7	1536.0	1528.0	1521.3
22.5°	1783.8	1790.5	1755.9	1720.7	1686.1	1660.9	1635.9	1640.4	1632.5	1627.0	1623.0
25°	2053.8	2059.1	2003.1	1943.6	1873.2	1781.3	1719.2	1716.4	1712.1	1708.7	1706.9
27.5°	2308.0	2310.2	2257.2	2170.2	2088.4	1956.5	1803.7	1800.3	1795.1	1788.7	1783.1
30°	2525.5	2524.9	2470.3	2387.3	2299.7	2153.7	1932.0	1921.6	1906.2	1888.8	1875.3
32.5°	2713.8	2712.9	2653.1	2567.1	2475.3	2349.1	2107.8	2086.4	2062.5	2028.4	2008.0
35°	2862.0	2861.4	2805.0	2715.3	2610.0	2533.1	2309.3	2282.9	2252.6	2207.0	2175.5
37.5°	2918.0	2918.0	2886.5	2825.3	2732.2	2679.5	2533.1	2501.2	2468.8	2417.0	2381.5
40°	2885.2	2885.9	2892.6	2881.3	2836.0	2795.6	2742.0	2723.0	2695.1	2648.6	2611.5
42.5°	2775.3	2778.7	2823.4	2878.2	2900.8	2894.5	2927.2	2918.7	2899.0	2863.2	2833.8
45°	2636.0	2646.4	2695.4	2798.9	2918.9	2979.9	3082.4	3083.3	3079.7	3060.5	3037.7
47.5°	2444.6	2459.3	2523.9	2663.8	2876.7	3062.9	3240.1	3248.4	3256.1	3243.6	3233.1
50°	2190.5	2207.9	2304.7	2490.2	2790.7	3148.9	3538.1	3575.5	3610.4	3606.1	3613.1
52.5°	1918.2	1938.7	2057.2	2264.0	2642.8	3168.8	3728.6	3789.6	3850.5	3900.4	3953.3
55°	1672.6	1661.6	1780.1	1997.8	2399.6	3079.1	3899.8	3973.3	4041.3	4102.5	4165.6
57.5°	1339.7	1357.8	1476.6	1691.9	2077.7	2825.8	4017.7	4125.2	4222.9	4324.2	4413.6
60°	979.3	997.4	1126.3	1344.9	1728.4	2441.8	3927.6	4090.6	4247.0	4402.3	4523.6
62.5°	591.3	604.8	718.4	926.7	1332.7	1986.5	3526.5	3740.2	3970.5	4156.1	4342.0
65°	368.1	375.7	417.7	532.2	855.9	1483.1	2881.3	3114.3	3362.3	3597.9	3791.1
67.5°	301.3	304.0	311.8	336.2	470.0	967.1	2144.5	2350.9	2574.7	2802.6	3017.6
70°	271.0	269.2	269.2	270.7	301.3	520.0	1404.0	1538.5	1725.0	1923.1	2119.7
72.5°	244.6	242.8	239.5	234.9	245.9	317.2	725.7	827.1	961.6	1137.6	1325.9
75°	219.8	217.4	213.5	207.7	215.3	239.5	348.5	391.1	456.6	550.3	655.3
77.5°	194.1	191.0	187.4	183.1	192.9	186.2	204.2	219.6	244.6	274.7	314.2
80°	165.1	162.3	161.1	159.0	170.6	141.8	144.3	153.7	168.4	184.7	203.0
82.5°	129.3	129.3	134.1	135.1	147.9	102.0	107.8	116.1	123.7	132.3	140.9
85°	85.1	85.8	102.3	108.7	116.6	68.6	80.8	83.6	89.8	94.7	98.3
87.5°	26.6	28.8	62.5	69.2	67.0	38.9	49.6	50.9	55.1	58.5	61.6
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):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8
2.5°	583.4	579.7	576.3	576.0	573.6	570.2	571.4	566.2	566.5	563.8	560.7
5°	685.9	683.5	671.2	667.9	658.7	652.9	652.0	639.7	638.2	631.2	623.4
7.5°	833.6	825.6	808.4	800.1	784.5	772.9	767.4	751.2	743.2	724.8	716.6
10°	988.2	978.1	956.9	945.3	930.3	911.6	901.5	878.0	868.7	851.9	831.7
12.5°	1131.5	1121.4	1099.6	1090.7	1070.8	1050.9	1040.0	1013.3	1001.3	974.4	958.5
15°	1264.1	1254.0	1235.0	1225.8	1205.9	1189.7	1174.9	1148.7	1134.6	1109.4	1088.6
17.5°	1392.7	1382.0	1365.4	1357.2	1337.9	1321.4	1305.5	1280.6	1266.2	1241.2	1222.5
20°	1512.2	1504.2	1492.3	1481.2	1461.9	1446.9	1427.9	1406.5	1385.7	1367.3	1349.5
22.5°	1616.3	1613.2	1600.4	1595.5	1578.9	1566.0	1549.5	1528.4	1513.3	1490.1	1473.5
25°	1706.0	1705.1	1698.9	1697.4	1685.7	1673.5	1669.9	1652.4	1638.6	1618.1	1601.0
27.5°	1783.1	1784.0	1782.6	1786.9	1783.8	1778.2	1778.6	1772.8	1764.8	1747.6	1732.6
30°	1868.9	1864.0	1866.8	1872.9	1874.7	1875.3	1885.4	1888.8	1888.2	1876.9	1869.5
32.5°	1990.2	1978.5	1967.8	1966.9	1973.0	1975.4	1992.6	2001.5	2009.1	2011.9	2013.1
35°	2144.8	2121.5	2099.2	2087.3	2076.8	2079.5	2091.8	2106.3	2123.1	2134.7	2148.5
37.5°	2339.5	2311.1	2271.6	2243.4	2236.3	2221.1	2229.0	2240.3	2256.9	2274.9	2298.8
40°	2575.6	2532.5	2488.1	2450.7	2430.6	2402.3	2402.0	2399.9	2410.0	2426.8	2460.5
42.5°	2802.9	2764.6	2717.4	2678.3	2651.9	2614.2	2606.6	2586.7	2591.3	2606.0	2638.8
45°	3015.7	2984.1	2955.4	2910.1	2887.7	2847.0	2834.1	2810.5	2797.4	2804.1	2836.9
47.5°	3221.8	3201.6	3171.6	3142.2	3125.0	3088.6	3072.1	3055.2	3038.4	3037.7	3072.1
50°	3623.6	3612.9	3577.3	3546.7	3555.0	3510.3	3513.0	3467.7	3488.2	3490.7	3562.6
52.5°	4001.1	4038.5	4064.9	4097.0	4117.9	4121.8	4135.6	4156.1	4180.9	4229.9	4296.6
55°	4217.3	4264.2	4291.5	4316.0	4356.4	4364.9	4387.9	4415.2	4436.9	4492.0	4548.7
57.5°	4474.3	4561.3	4603.5	4642.4	4696.9	4717.7	4756.0	4785.7	4813.9	4879.1	4947.7
60°	4632.6	4738.6	4824.6	4886.1	4954.4	5003.5	5061.3	5107.8	5174.0	5252.1	5354.4
62.5°	4506.7	4662.3	4776.5	4882.2	4974.9	5068.7	5151.6	5238.7	5339.0	5457.2	5615.9
65°	4005.5	4163.7	4359.4	4469.0	4591.9	4736.4	4862.6	5003.5	5140.3	5312.4	5547.0
67.5°	3224.6	3408.6	3628.5	3739.0	3880.2	4041.5	4183.1	4355.1	4515.0	4723.5	5013.6
70°	2324.3	2562.2	2747.1	2862.6	3027.4	3193.6	3330.3	3530.5	3662.7	3876.5	4176.4
72.5°	1471.7	1659.4	1886.1	2031.5	2177.8	2346.3	2486.0	2658.7	2782.0	2976.8	3248.4
75°	791.3	929.7	1128.7	1266.9	1423.7	1567.6	1731.1	1846.8	1938.1	2092.2	2312.6
77.5°	370.8	455.0	555.8	662.1	768.3	879.2	987.0	1080.7	1119.9	1208.1	1338.2
80°	225.1	252.4	281.7	314.5	358.9	394.7	442.2	476.5	478.9	506.8	546.6
82.5°	150.3	160.4	169.3	177.6	189.0	197.9	207.9	219.8	224.7	231.2	244.1
85°	102.6	107.5	109.3	114.6	113.3	116.4	120.4	124.4	126.5	126.2	132.0
87.5°	63.0	65.5	66.8	67.9	67.0	65.9	67.7	69.9	70.4	68.6	69.2
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):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8	525.8
2.5°	561.3	558.6	555.8	554.0	553.3	537.1	530.1	525.5	515.7	507.7	501.3
5°	619.2	613.4	608.8	603.3	600.2	559.1	544.1	533.8	516.6	506.5	497.3
7.5°	712.3	696.0	686.6	675.9	666.7	592.6	567.8	551.5	527.6	514.2	503.7
10°	817.9	801.1	786.1	769.5	755.2	637.0	600.8	575.7	544.1	526.7	512.9
12.5°	935.9	919.3	900.3	879.2	860.8	693.3	643.1	607.3	564.0	540.8	521.5
15°	1075.2	1046.0	1023.1	998.6	977.2	760.7	692.4	642.8	585.2	553.7	528.0
17.5°	1204.7	1174.0	1142.9	1121.4	1096.6	836.3	742.0	678.9	602.6	561.9	529.2
20°	1331.2	1297.8	1270.9	1242.1	1216.0	914.7	795.0	710.7	614.0	562.2	521.5
22.5°	1442.7	1421.8	1391.8	1360.5	1334.2	993.1	844.6	737.7	618.3	555.2	508.0
25°	1569.4	1547.4	1510.6	1484.3	1454.9	1073.0	893.2	758.5	615.8	542.1	487.2
27.5°	1704.7	1680.3	1642.6	1615.1	1579.6	1156.0	937.9	773.5	606.6	520.6	459.3
30°	1845.9	1823.6	1786.5	1758.7	1722.8	1243.9	987.9	783.6	588.3	490.9	426.9
32.5°	1997.5	1978.8	1942.1	1913.0	1874.7	1339.1	1034.4	786.7	560.4	455.7	392.6
35°	2141.4	2128.6	2097.6	2070.4	2030.6	1429.1	1083.7	785.1	527.3	417.1	361.4
37.5°	2303.5	2295.8	2280.5	2245.9	2197.2	1551.3	1142.9	778.7	486.9	378.8	337.5
40°	2476.2	2476.8	2460.3	2436.6	2391.3	1699.6	1213.3	766.2	442.8	345.1	315.7
42.5°	2658.9	2668.5	2660.5	2643.7	2600.2	1849.0	1297.5	750.9	400.0	312.3	294.3
45°	2868.4	2880.0	2892.3	2867.5	2825.3	2046.2	1408.3	731.0	353.6	285.1	279.6
47.5°	3110.1	3128.4	3139.4	3139.8	3097.5	2290.6	1588.4	719.0	312.7	266.7	272.5
50°	3619.9	3625.8	3651.7	3697.1	3664.6	2856.2	1902.9	711.7	284.8	255.4	267.3
52.5°	4354.5	4418.5	4463.6	4460.5	4416.4	3215.3	2076.2	673.7	268.3	251.1	264.9
55°	4653.7	4733.7	4817.0	4839.0	4804.7	3521.9	2240.1	635.7	260.3	254.2	265.8
57.5°	5052.4	5187.1	5301.4	5349.5	5299.9	3914.2	2455.6	615.8	257.8	262.4	271.6
60°	5518.2	5684.8	5834.9	5921.1	5921.1	4364.9	2679.2	607.5	254.4	274.7	281.4
62.5°	5817.4	6062.0	6288.7	6415.1	6411.4	4678.8	2778.4	579.4	246.8	283.2	294.9
65°	5818.6	6109.6	6398.2	6540.4	6547.7	4640.3	2614.6	511.7	232.7	284.5	308.4
67.5°	5333.6	5643.7	5980.3	6139.3	6176.0	4271.6	2263.3	420.8	209.8	272.3	313.3
70°	4504.6	4807.4	5151.0	5307.2	5372.5	3641.3	1822.9	324.3	180.4	245.3	303.1
72.5°	3548.8	3845.9	4085.1	4199.2	4250.1	2783.3	1327.5	245.0	147.9	206.7	275.9
75°	2512.6	2735.5	2862.6	2888.0	2895.9	1677.8	806.6	182.2	121.9	160.8	233.0
77.5°	1418.1	1513.7	1503.2	1514.6	1420.3	647.7	351.3	130.4	100.5	122.2	180.7
80°	553.7	570.8	536.2	525.5	482.0	241.0	155.0	90.9	80.2	92.5	126.5
82.5°	244.1	252.0	244.6	246.5	235.8	124.4	92.7	65.9	61.2	67.7	83.9
85°	134.4	136.9	136.3	140.3	134.4	49.6	44.1	40.4	42.9	46.0	53.9
87.5°	65.5	66.1	64.0	67.4	65.2	25.1	21.7	23.0	25.1	25.7	25.7
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):**

	135°	145°	155°	165°	175°	180°
0°	525.8	525.8	525.8	525.8	525.8	525.8
2.5°	496.7	494.3	494.5	493.9	492.7	492.7
5°	492.5	490.0	490.0	489.4	487.8	488.1
7.5°	496.7	492.7	491.2	489.0	486.9	486.9
10°	501.6	494.5	490.3	486.6	483.8	483.8
12.5°	505.3	494.3	487.2	482.3	479.6	479.6
15°	506.5	492.1	482.3	476.5	474.0	473.7
17.5°	502.5	483.8	471.9	465.2	462.1	461.2
20°	490.3	468.8	454.5	446.8	442.5	440.9
22.5°	471.9	447.4	430.6	422.6	417.1	416.1
25°	446.2	419.9	403.3	395.6	392.6	391.6
27.5°	416.1	391.6	377.5	372.6	369.9	369.6
30°	387.7	366.8	356.5	352.7	349.4	348.8
32.5°	361.0	347.8	343.9	338.7	330.8	329.8
35°	342.0	340.8	338.1	326.4	316.7	313.9
37.5°	330.4	341.7	327.7	304.7	297.7	297.1
40°	323.7	332.3	308.0	300.1	300.7	300.1
42.5°	308.4	317.2	308.7	305.0	307.4	308.0
45°	293.1	302.9	313.3	310.9	316.7	316.7
47.5°	284.5	299.1	312.9	312.9	321.6	324.6
50°	274.7	296.1	308.0	312.3	319.1	316.7
52.5°	274.1	290.9	301.0	308.7	311.8	309.0
55°	275.0	286.6	294.0	302.6	306.2	306.5
57.5°	276.2	284.2	289.1	293.1	304.0	304.0
60°	279.2	282.1	284.8	287.0	301.3	301.6
62.5°	284.2	279.9	279.2	281.4	299.8	298.6
65°	291.9	276.8	272.3	274.3	298.2	294.6
67.5°	302.2	272.3	263.3	264.9	297.1	289.1
70°	311.8	264.9	252.4	250.8	285.4	271.3
72.5°	312.7	256.4	237.0	232.5	248.1	234.6
75°	297.3	250.5	220.2	206.7	204.8	203.0
77.5°	268.0	247.1	200.6	179.4	175.8	177.0
80°	224.2	234.6	177.0	151.9	171.8	169.7
82.5°	167.5	207.0	150.3	134.4	134.1	118.5
85°	93.1	161.4	122.5	100.7	70.1	67.9
87.5°	26.1	89.8	85.8	57.0	38.9	40.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)