

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: P14204

Luminaire Tested: **GAR-080-LED-E1-3-GLOW-X**

Issue Date: 6/29/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P14204  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 6/29/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GAR-080-LED-E1-3-GLOW-X  
Description: MCGRAW-EDISON POST TOP WITH A TYPE III PRISMATIC REFRACTOR  
Light Source: [6] 4000K LEDS  
Ballast/Driver: [2] ELECTRONIC DRIVERS

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18134.9 lumens  
Efficiency: N/A  
Efficacy: 179.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.08' x H: 2.21')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B4 - U5 - G5

Input Watts (W): 101.3  
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: 28.75 FT

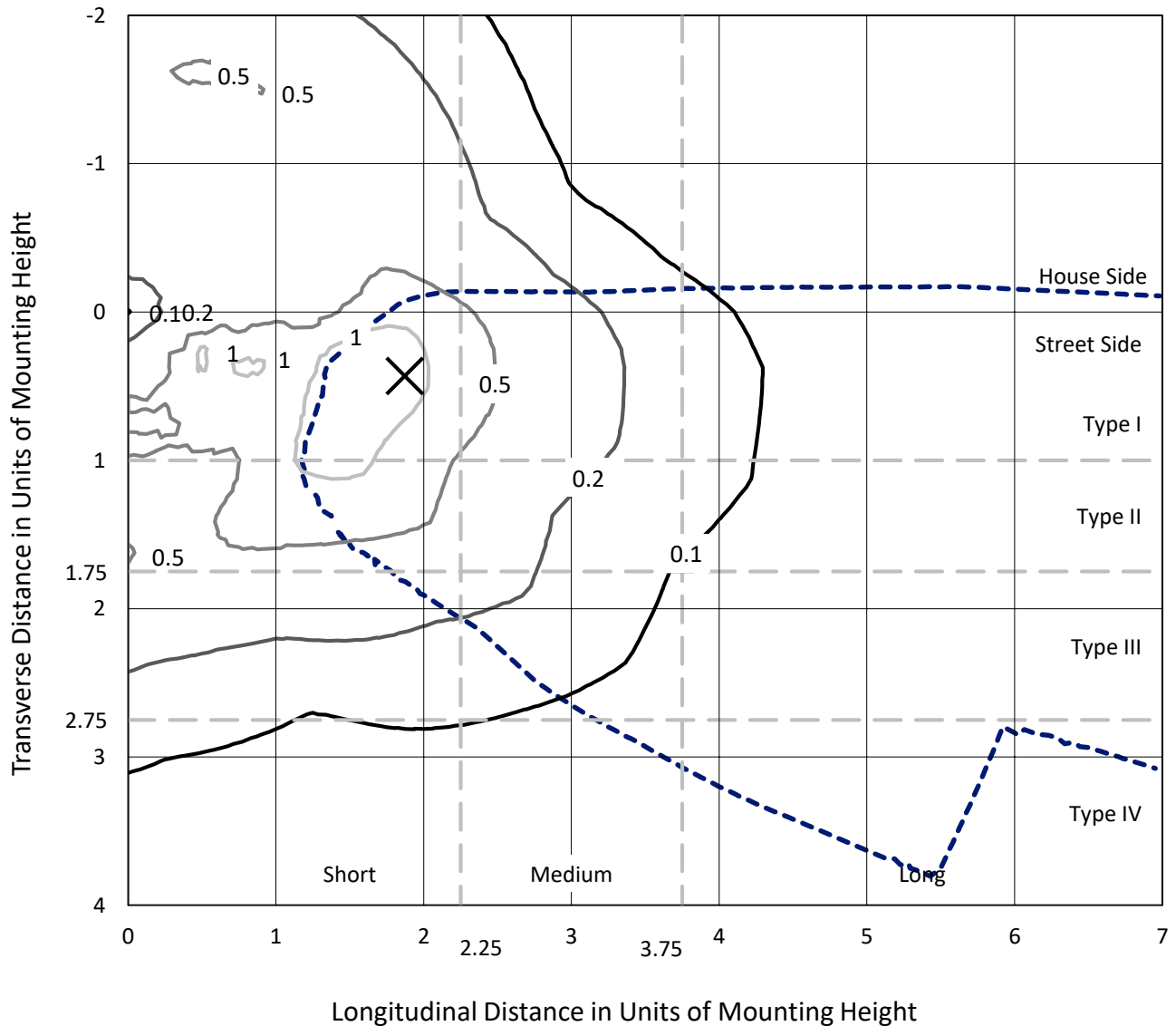


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

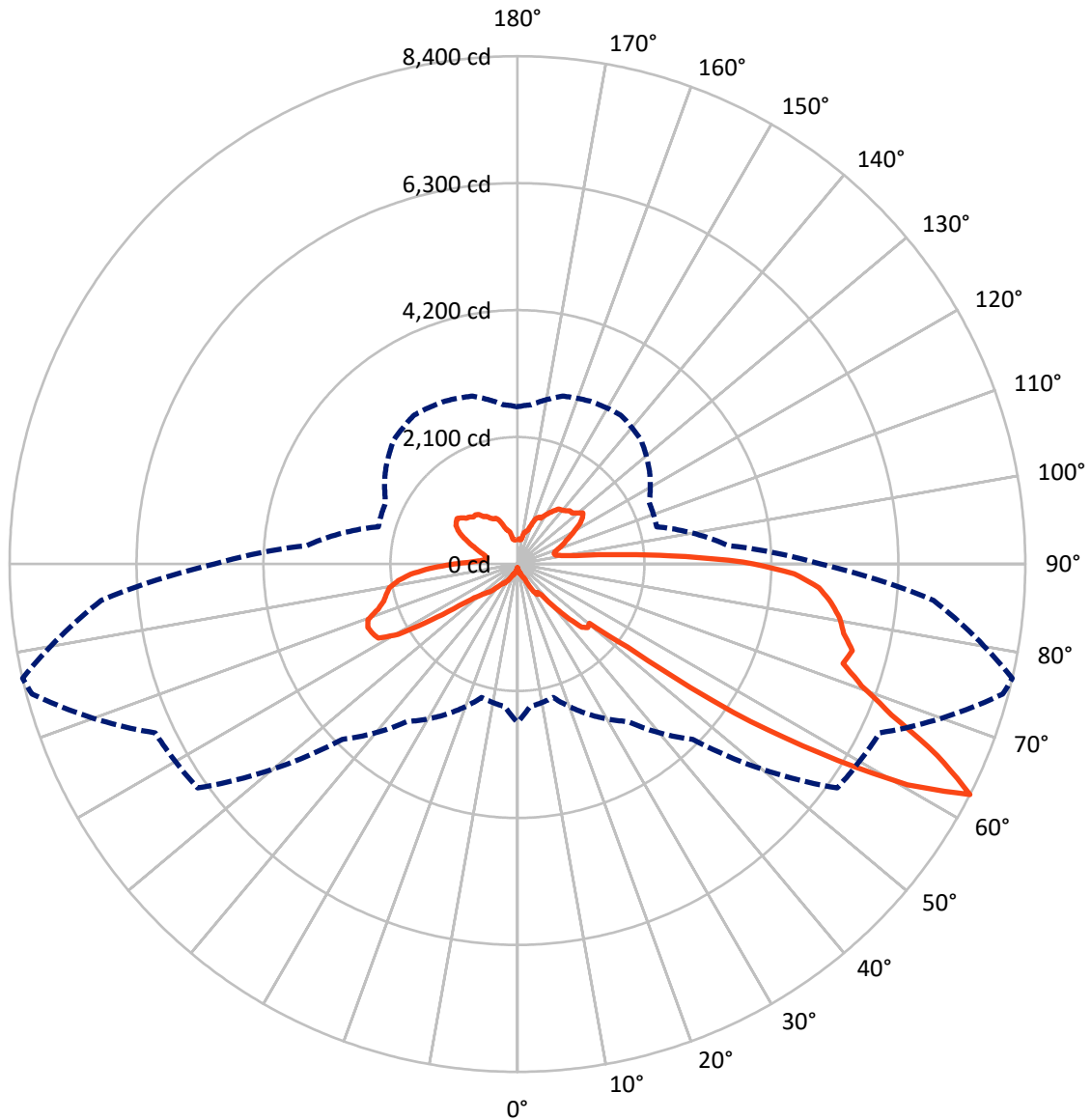


Based on 25 foot mounting height. Maximum calculated value = 1.5 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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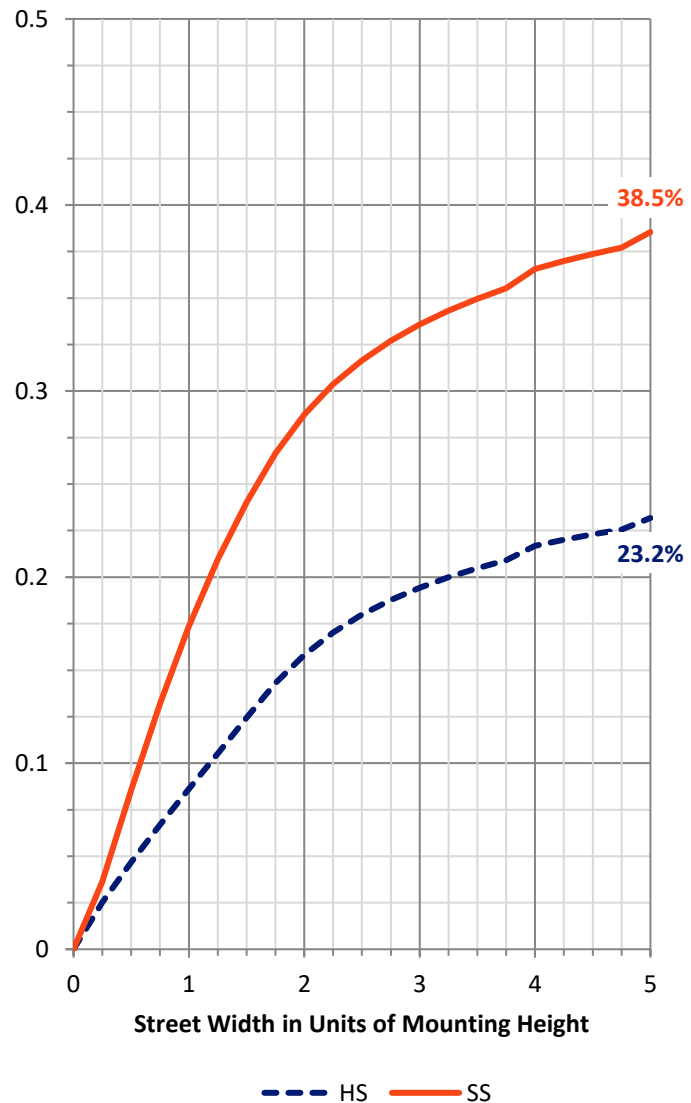
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4701.2	2706.0	7407.2
	% Fixture	25.9	14.9	40.8
<b>Street Side</b>	Lumens	7754.2	2973.5	10727.7
	% Fixture	42.8	16.4	59.2
<b>Total</b>	Lumens	12455.4	5679.5	18134.9
	% Fixture	68.7	31.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	9.3	0.1
10°-20°	47.8	0.3
20°-30°	153.7	0.8
30°-40°	352.9	1.9
40°-50°	683.9	3.8
50°-60°	1847.9	10.2
60°-70°	3541.5	19.5
70°-80°	3198.2	17.6
80°-90°	2620.1	14.4
90°-100°	1054.1	5.8
100°-110°	607.1	3.3
110°-120°	879.5	4.8
120°-130°	1052.8	5.8
130°-140°	875.2	4.8
140°-150°	626.2	3.5
150°-160°	380.8	2.1
160°-170°	164.2	0.9
170°-180°	39.5	0.2
0°-90°	12455.4	68.7
0°-180°	18134.9	100.0



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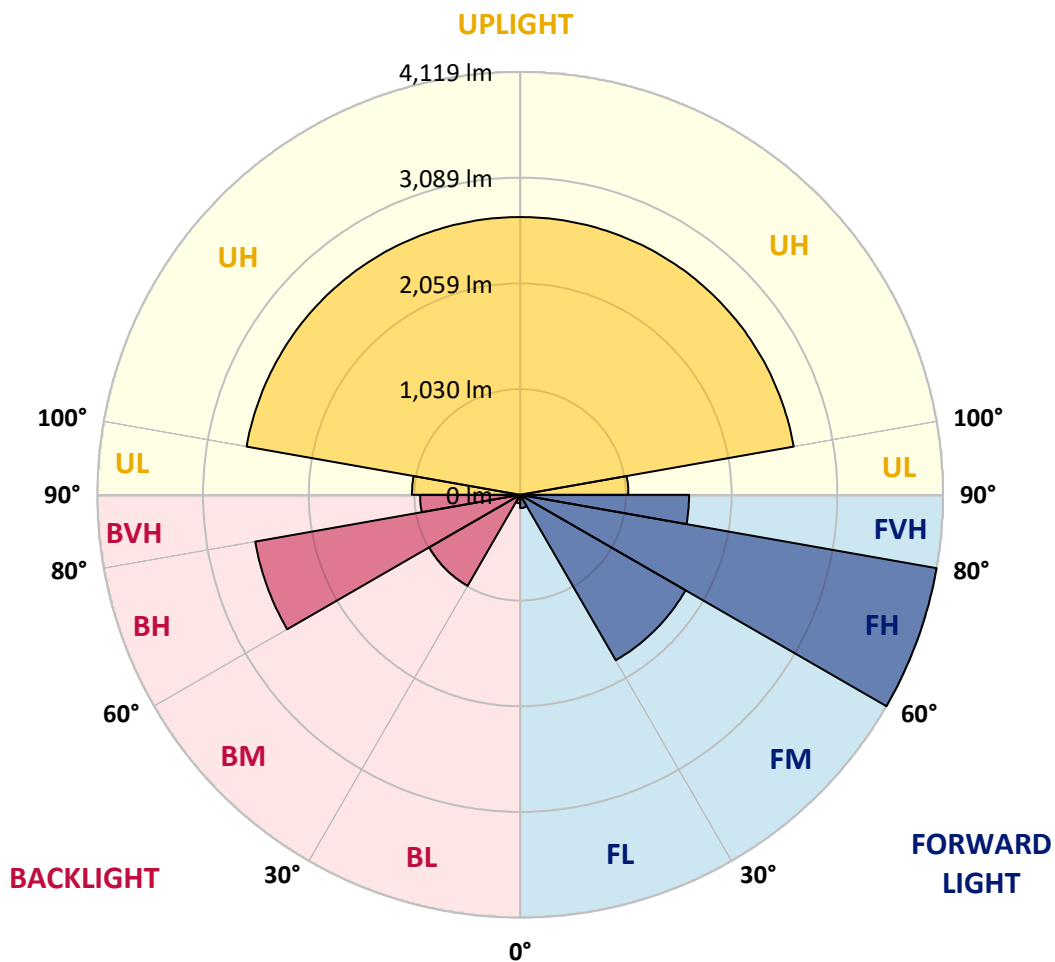
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	129.0	0.7			
FM (30°-60°)	1860.7	10.3			
FH (60°-80°)	4118.9	22.7			G2/5000
FVH (80°-90°)	1645.6	9.1			G5
BL (0°-30°)	81.8	0.5	B0/110		
BM (30°-60°)	1024.1	5.6	B2/2500		
BH (60°-80°)	2620.9	14.5	B4/5000		G4/5000
BVH (80°-90°)	974.5	5.4			G5
UL (90°-100°)	1054.1	5.8		U5	
UH (100°-180°)	2706.0	14.9		U5	

**BUG Rating: B4-U5-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
2.5°	72.2	73.8	72.2	73.8	73.8	73.8	68.9	67.2	67.2	68.9	68.9
5°	85.3	83.6	85.3	85.3	83.6	82.0	80.4	78.7	78.7	82.0	80.4
7.5°	101.7	105.0	105.0	108.2	113.2	113.2	108.2	105.0	101.7	101.7	100.0
10°	129.6	129.6	132.8	136.1	141.0	137.8	136.1	132.8	131.2	129.6	126.3
12.5°	144.3	146.0	154.2	159.1	162.4	155.8	149.2	141.0	139.4	137.8	136.1
15°	170.6	168.9	175.5	188.6	196.8	188.6	173.8	164.0	152.5	155.8	152.5
17.5°	203.4	198.4	191.9	211.6	237.8	247.6	234.5	211.6	177.1	172.2	162.4
20°	205.0	208.3	216.5	249.3	305.0	318.2	295.2	269.0	216.5	206.6	203.4
22.5°	241.1	242.7	241.1	247.6	295.2	367.4	355.9	282.1	244.4	242.7	216.5
25°	277.2	267.3	260.8	313.2	377.2	433.0	451.0	380.5	262.4	250.9	241.1
27.5°	464.1	451.0	400.2	413.3	556.0	701.9	908.6	761.0	421.5	380.5	290.3
30°	577.3	565.8	516.6	513.3	665.8	821.6	1241.5	1079.1	593.7	529.7	390.3
32.5°	552.7	549.4	537.9	575.6	742.9	816.7	1136.5	1125.0	682.2	600.2	460.8
35°	465.8	467.4	493.6	551.0	667.5	672.4	752.8	921.7	634.7	578.9	485.4
37.5°	559.2	552.7	536.3	638.0	854.4	802.0	821.6	1184.1	733.1	649.4	516.6
40°	759.3	752.8	687.2	669.1	908.6	982.4	1021.7	1626.9	1080.8	920.0	557.6
42.5°	911.8	893.8	806.9	824.9	1130.0	1152.9	1208.7	1784.3	1395.6	1197.2	728.2
45°	849.5	862.6	864.3	905.3	1234.9	1371.0	1339.9	1822.0	1733.5	1494.0	877.4
47.5°	910.2	869.2	797.0	828.2	1056.2	1308.7	1326.8	1656.4	1743.3	1567.8	982.4
50°	695.4	744.6	780.6	893.8	1116.8	1182.4	1162.8	1436.6	1625.2	1541.6	1090.6
52.5°	906.9	911.8	892.2	1169.3	1374.3	1567.8	1928.6	2450.2	2499.4	2281.2	1431.7
55°	1474.4	1436.6	1320.2	1625.2	1748.2	2712.6	3486.6	4344.4	4731.4	4341.1	2404.2
57.5°	2068.0	1933.6	1795.8	2120.5	2348.5	3701.5	5239.8	5420.2	6176.2	5913.8	3909.8
60°	2496.1	2281.2	2153.3	2568.2	2979.9	3888.4	6269.7	6056.5	7489.9	7416.1	5646.5
62.5°	2617.4	2369.8	2284.5	2733.9	3181.6	4101.6	6456.7	6609.2	8311.5	8400.1	6911.0
65°	2474.8	2263.2	2243.5	2530.5	3114.4	4300.1	6335.3	6209.0	7552.2	7632.6	6704.3
67.5°	2228.8	2064.8	2038.5	2228.8	3112.7	4075.4	6102.4	5477.6	6646.9	6673.2	6056.5
70°	2256.6	2071.3	2013.9	1969.6	2965.1	3868.8	5766.2	4972.5	6007.3	6040.1	5554.7
72.5°	2161.5	1987.7	1941.8	1864.7	2848.7	3686.7	5166.0	4603.5	5618.6	5630.1	5377.6
75°	2230.4	2027.0	1972.9	1866.3	2866.7	3760.5	4993.8	4642.8	5749.8	5723.6	5498.9
77.5°	2220.6	2013.9	1968.0	1874.5	2819.2	3706.4	4544.4	4459.2	5594.0	5517.0	5397.2
80°	2222.2	2009.0	1946.7	1835.2	2714.2	3672.0	4246.0	4295.2	5523.5	5405.4	5348.0
82.5°	2174.6	1941.8	1849.9	1733.5	2533.8	3467.0	4034.4	3963.9	5367.7	5226.7	5144.7
85°	2115.6	1874.5	1741.7	1648.2	2312.4	3152.1	3850.7	3649.0	5154.5	5003.6	4728.1
87.5°	1977.8	1751.5	1574.4	1531.8	2130.4	2689.6	3567.0	3352.2	4741.2	4578.9	4031.1
90°	1536.7	1389.1	1261.2	1300.5	1748.2	2066.4	2763.4	2750.3	3891.7	3732.6	3043.8
92.5°	1075.8	995.5	931.5	1005.3	1279.2	1462.9	1835.2	1917.2	2669.9	2548.6	2038.5
95°	723.2	683.9	672.4	724.9	872.5	980.7	1166.0	1218.5	1654.8	1592.4	1282.5
97.5°	572.4	549.4	546.1	575.6	657.6	729.8	829.8	843.0	1025.0	987.3	887.2
100°	516.6	501.8	501.8	519.9	565.8	615.0	669.1	662.6	772.4	757.7	721.6
102.5°	474.0	464.1	478.9	505.1	524.8	544.5	572.4	582.2	654.4	649.4	646.2
105°	475.6	470.7	492.0	523.2	536.3	534.6	547.8	554.3	628.1	631.4	644.5
107.5°	488.7	487.1	519.9	554.3	569.1	562.5	544.5	552.7	638.0	651.1	683.9
110°	518.2	524.8	562.5	629.8	656.0	624.8	587.1	593.7	703.6	718.3	756.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
112.5°	638.0	636.3	657.6	734.7	734.7	697.0	662.6	682.2	792.1	811.8	851.2
115°	790.5	779.0	816.7	833.1	833.1	780.6	744.6	759.3	870.8	890.5	933.2
117.5°	813.4	815.1	893.8	898.7	913.5	880.7	831.5	831.5	967.6	995.5	1074.2
120°	790.5	802.0	892.2	975.8	993.8	964.3	916.8	923.3	1069.3	1103.7	1192.3
122.5°	928.2	952.8	998.8	1125.0	1133.2	1090.6	1025.0	1056.2	1208.7	1238.2	1266.1
125°	1090.6	1105.4	1148.0	1261.2	1246.4	1207.0	1152.9	1192.3	1300.5	1321.8	1313.6
127.5°	1205.4	1218.5	1262.8	1321.8	1315.3	1303.8	1228.4	1267.7	1357.9	1374.3	1377.6
130°	1192.3	1203.8	1259.5	1323.5	1346.4	1312.0	1207.0	1221.8	1280.8	1302.2	1326.8
132.5°	1136.5	1143.1	1212.0	1287.4	1298.9	1234.9	1164.4	1161.1	1216.9	1234.9	1251.3
135°	1166.0	1167.7	1210.3	1274.3	1266.1	1207.0	1161.1	1175.9	1225.1	1234.9	1261.2
137.5°	1161.1	1174.2	1203.8	1253.0	1228.4	1184.1	1134.9	1138.2	1180.8	1187.4	1203.8
140°	1134.9	1139.8	1174.2	1172.6	1149.6	1125.0	1144.7	1167.7	1159.5	1152.9	1130.0
142.5°	1128.3	1126.7	1113.6	1121.8	1118.5	1108.6	1107.0	1113.6	1134.9	1139.8	1136.5
145°	985.6	997.1	1038.1	1062.7	1074.2	1074.2	1016.8	1046.3	1066.0	1066.0	1046.3
147.5°	936.4	944.6	941.4	936.4	943.0	970.9	980.7	1026.6	1003.7	1000.4	964.3
150°	915.1	908.6	920.0	947.9	979.1	931.5	906.9	898.7	920.0	923.3	929.9
152.5°	816.7	833.1	852.8	903.6	911.8	872.5	828.2	861.0	852.8	851.2	875.8
155°	846.2	844.6	859.4	834.8	844.6	864.3	870.8	884.0	861.0	851.2	821.6
157.5°	816.7	823.3	834.8	790.5	800.3	849.5	847.9	815.1	815.1	806.9	777.4
160°	705.2	695.4	688.8	720.0	728.2	708.5	695.4	677.3	674.0	680.6	700.3
162.5°	570.7	570.7	598.6	634.7	647.8	608.4	577.3	567.4	575.6	583.8	618.3
165°	624.8	618.3	613.4	610.1	603.5	623.2	605.2	565.8	549.4	549.4	556.0
167.5°	541.2	537.9	544.5	531.4	526.4	524.8	529.7	526.4	533.0	531.4	524.8
170°	449.4	447.7	454.3	459.2	459.2	452.6	444.4	429.7	423.1	421.5	419.8
172.5°	419.8	419.8	421.5	423.1	426.4	426.4	418.2	411.6	403.4	403.4	400.2
175°	395.2	396.9	414.9	429.7	429.7	416.6	398.5	398.5	411.6	413.3	421.5
177.5°	401.8	401.8	405.1	411.6	413.3	408.4	408.4	408.4	405.1	406.7	406.7
180°	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
2.5°	68.9	68.9	72.2	70.5	70.5	68.9	68.9	70.5	70.5	70.5	70.5
5°	80.4	80.4	83.6	85.3	82.0	80.4	77.1	82.0	82.0	83.6	83.6
7.5°	98.4	98.4	98.4	100.0	100.0	100.0	96.8	98.4	96.8	98.4	95.1
10°	126.3	121.4	119.7	116.4	119.7	118.1	116.4	114.8	116.4	116.4	114.8
12.5°	136.1	129.6	132.8	131.2	126.3	127.9	126.3	124.6	127.9	126.3	126.3
15°	150.9	149.2	149.2	147.6	146.0	146.0	146.0	147.6	149.2	149.2	149.2
17.5°	164.0	160.7	162.4	160.7	164.0	162.4	159.1	160.7	164.0	165.6	164.0
20°	191.9	182.0	177.1	182.0	182.0	182.0	185.3	180.4	182.0	182.0	182.0
22.5°	205.0	200.1	196.8	206.6	206.6	203.4	200.1	201.7	205.0	205.0	203.4
25°	237.8	221.4	211.6	218.1	224.7	216.5	226.3	223.0	219.8	219.8	219.8
27.5°	257.5	254.2	259.1	270.6	280.4	273.9	269.0	270.6	277.2	280.4	282.1
30°	321.4	306.7	311.6	329.6	342.8	334.6	323.1	326.4	347.7	354.2	352.6
32.5°	392.0	364.1	344.4	344.4	355.9	360.8	365.7	372.3	382.1	383.8	383.8
35°	431.3	396.9	370.6	344.4	347.7	367.4	387.0	398.5	392.0	375.6	370.6
37.5°	462.5	436.2	400.2	378.8	400.2	426.4	446.1	452.6	431.3	413.3	406.7
40°	480.5	465.8	452.6	462.5	493.6	506.8	496.9	492.0	508.4	516.6	519.9
42.5°	585.5	554.3	529.7	557.6	583.8	567.4	560.9	570.7	582.2	624.8	631.4
45°	724.9	675.7	624.8	621.6	642.9	644.5	647.8	662.6	672.4	664.2	667.5
47.5°	797.0	739.6	685.5	695.4	715.0	698.6	675.7	675.7	700.3	701.9	711.8
50°	905.3	856.1	762.6	731.4	734.7	769.2	783.9	788.8	729.8	670.8	662.6
52.5°	1130.0	1025.0	875.8	870.8	916.8	969.2	982.4	962.7	928.2	879.0	880.7
55°	1589.2	1279.2	1164.4	1292.3	1380.9	1379.2	1335.0	1349.7	1426.8	1459.6	1471.1
57.5°	2515.8	1868.0	1653.1	1805.6	1840.1	1766.3	1748.2	1866.3	2018.8	1995.9	1999.2
60°	3927.8	2847.0	2155.0	2197.6	2218.9	2291.1	2473.1	2584.6	2586.3	2337.0	2309.1
62.5°	5010.2	3501.4	2382.9	2405.9	2666.6	2894.6	2996.3	2955.3	2874.9	2645.3	2601.0
65°	5243.1	3668.7	2405.9	2537.1	2847.0	2920.8	2824.1	2751.9	2725.7	2660.1	2628.9
67.5°	5039.7	3619.5	2451.8	2556.8	2661.7	2647.0	2578.1	2532.2	2566.6	2586.3	2568.2
70°	4805.2	3601.4	2399.3	2299.3	2360.0	2414.1	2363.2	2423.9	2468.2	2458.4	2433.8
72.5°	4700.2	3506.3	2153.3	2036.9	2177.9	2299.3	2305.8	2368.2	2381.3	2351.8	2337.0
75°	4749.4	3447.3	2004.1	1943.4	2148.4	2300.9	2328.8	2338.6	2394.4	2378.0	2382.9
77.5°	4665.8	3385.0	1935.2	1840.1	2035.2	2207.4	2256.6	2264.8	2346.8	2319.0	2330.4
80°	4572.3	3260.3	1876.2	1767.9	1933.6	2077.9	2132.0	2179.6	2291.1	2279.6	2294.4
82.5°	4277.1	2966.8	1746.6	1648.2	1776.1	1881.1	1933.6	2000.8	2123.8	2127.1	2135.3
85°	3788.4	2538.7	1581.0	1540.0	1641.6	1651.5	1659.7	1746.6	1904.0	1946.7	1950.0
87.5°	3089.8	2027.0	1316.9	1349.7	1446.5	1403.8	1376.0	1438.3	1594.1	1669.5	1664.6
90°	2228.8	1456.3	1011.9	1051.2	1134.9	1102.1	1090.6	1128.3	1225.1	1290.7	1287.4
92.5°	1456.3	1013.5	757.7	774.1	833.1	824.9	843.0	875.8	911.8	936.4	934.8
95°	988.9	754.4	618.3	616.6	646.2	654.4	672.4	697.0	697.0	708.5	701.9
97.5°	744.6	610.1	536.3	541.2	554.3	565.8	583.8	583.8	565.8	569.1	570.7
100°	642.9	552.7	506.8	515.0	526.4	533.0	557.6	542.8	501.8	501.8	503.5
102.5°	608.4	546.1	506.8	503.5	506.8	524.8	554.3	551.0	493.6	488.7	480.5
105°	619.9	582.2	542.8	526.4	526.4	552.7	577.3	587.1	547.8	521.5	513.3
107.5°	677.3	647.8	615.0	593.7	585.5	608.4	634.7	639.6	618.3	603.5	590.4
110°	749.5	726.5	690.4	665.8	664.2	693.7	738.0	741.3	708.5	716.7	713.4



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	846.2	833.1	788.8	744.6	746.2	834.8	925.0	920.0	887.2	847.9	839.7
115°	944.6	929.9	903.6	877.4	897.1	987.3	1082.4	1090.6	1080.8	984.0	979.1
117.5°	1085.7	1054.5	1028.3	1016.8	1033.2	1100.4	1189.0	1226.7	1212.0	1146.4	1149.6
120°	1205.4	1161.1	1116.8	1097.2	1123.4	1166.0	1251.3	1272.6	1266.1	1193.9	1193.9
122.5°	1259.5	1231.6	1189.0	1171.0	1197.2	1234.9	1272.6	1226.7	1177.5	1136.5	1151.3
125°	1279.2	1251.3	1220.2	1208.7	1192.3	1207.0	1226.7	1175.9	1100.4	1043.0	1043.0
127.5°	1336.6	1313.6	1234.9	1149.6	1118.5	1126.7	1167.7	1141.4	1066.0	984.0	972.5
130°	1312.0	1285.8	1179.2	1084.0	1054.5	1079.1	1089.0	1049.6	1021.7	997.1	1003.7
132.5°	1226.7	1197.2	1115.2	1069.3	1052.9	1102.1	1105.4	1057.8	998.8	943.0	936.4
135°	1243.1	1200.5	1089.0	1043.0	995.5	1051.2	1092.2	1070.9	961.0	865.9	838.0
137.5°	1190.6	1151.3	1043.0	975.8	982.4	997.1	1020.1	1025.0	995.5	943.0	933.2
140°	1105.4	1097.2	1061.1	1007.0	1020.1	1029.9	1018.4	1011.9	1038.1	1056.2	1062.7
142.5°	1107.0	1084.0	1029.9	984.0	972.5	997.1	1023.4	1026.6	1010.2	967.6	966.0
145°	1033.2	1013.5	947.9	880.7	859.4	910.2	952.8	941.4	918.4	869.2	864.3
147.5°	956.1	957.8	936.4	867.6	838.0	884.0	885.6	852.8	862.6	874.1	872.5
150°	925.0	918.4	869.2	864.3	829.8	844.6	879.0	880.7	843.0	798.7	790.5
152.5°	874.1	870.8	838.0	806.9	800.3	821.6	839.7	821.6	808.5	802.0	798.7
155°	820.0	821.6	841.3	849.5	821.6	816.7	800.3	787.2	805.2	828.2	833.1
157.5°	777.4	779.0	800.3	829.8	787.2	782.3	759.3	752.8	775.7	772.4	767.5
160°	713.4	718.3	692.1	660.9	654.4	675.7	695.4	710.1	687.2	664.2	664.2
162.5°	629.8	619.9	597.0	600.2	595.3	588.8	600.2	623.2	619.9	624.8	629.8
165°	564.2	567.4	578.9	560.9	577.3	608.4	588.8	578.9	583.8	585.5	583.8
167.5°	523.2	529.7	544.5	533.0	505.1	506.8	503.5	490.4	478.9	462.5	457.6
170°	418.2	418.2	424.8	431.3	393.6	434.6	428.0	423.1	418.2	414.9	414.9
172.5°	403.4	403.4	406.7	406.7	411.6	410.0	403.4	405.1	403.4	400.2	400.2
175°	423.1	418.2	403.4	388.7	383.8	395.2	401.8	398.5	385.4	372.3	369.0
177.5°	405.1	401.8	398.5	401.8	401.8	398.5	396.9	395.2	395.2	396.9	398.5
180°	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4	426.4

(END OF REPORT)