

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: P14206

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

Issue Date: 6/29/2020

Test Information

Test Method: LM-79-08
Report Number: P14206
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-CAGE
Description: MCGRAW-EDISON POST TOP WITH A TYPE III PRISMATIC REFRACTOR WITH ARCHITECTURAL CAGE
Light Source: [6] 4000K LEDS
Ballast/Driver: [2] ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12750.1 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.08' x H: 2.21')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U5 - G4

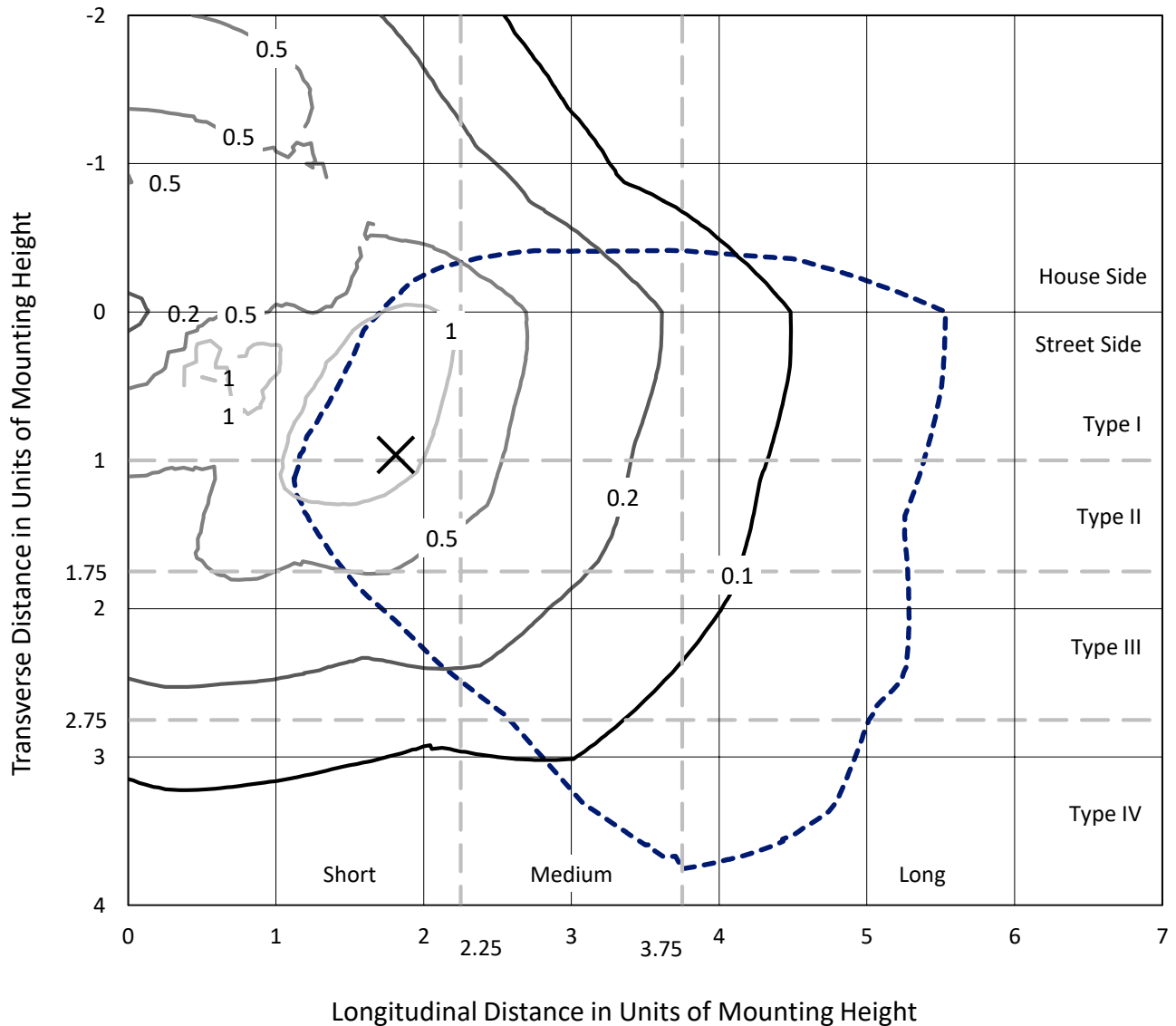
Input Watts (W): 101.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

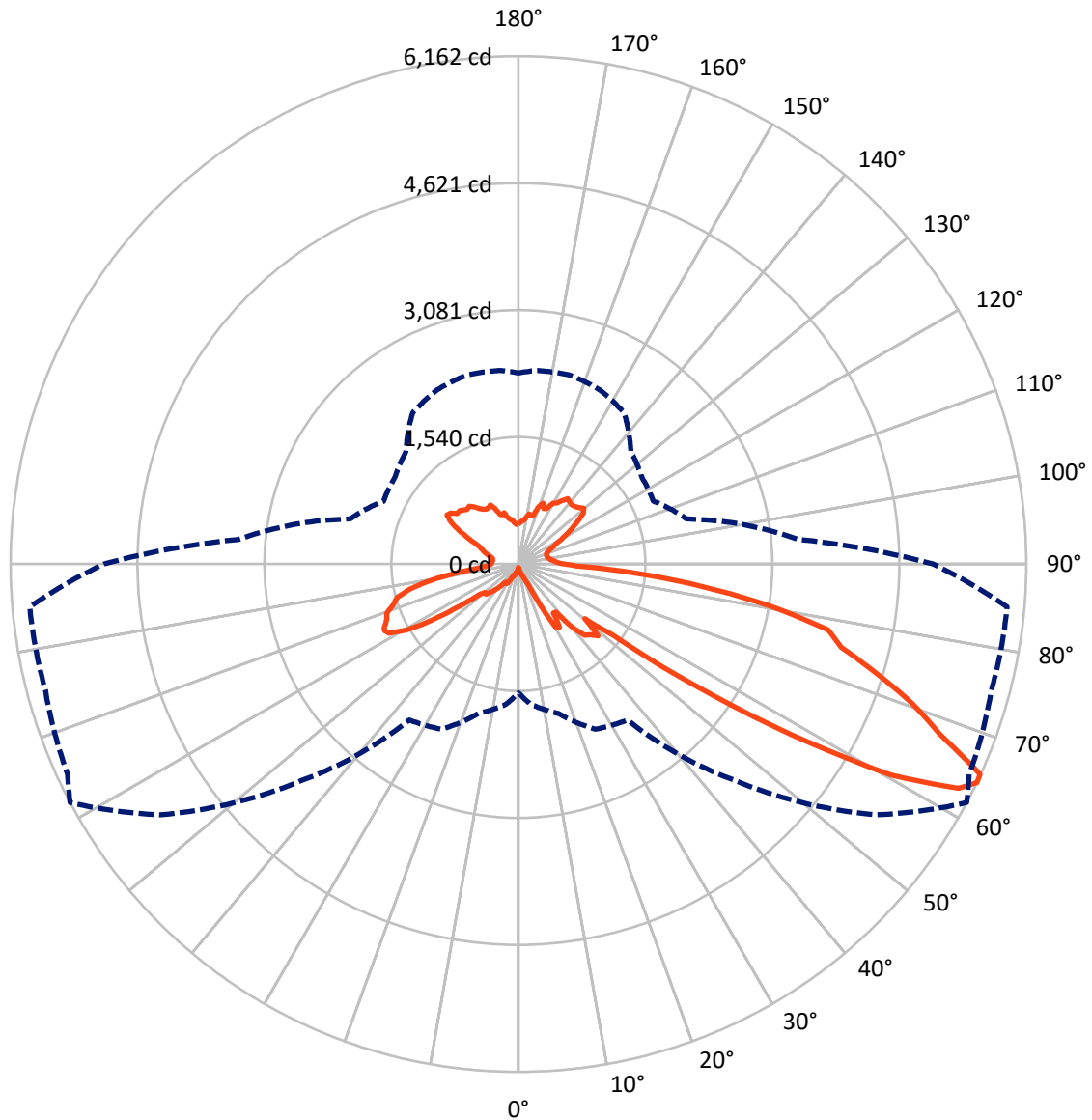
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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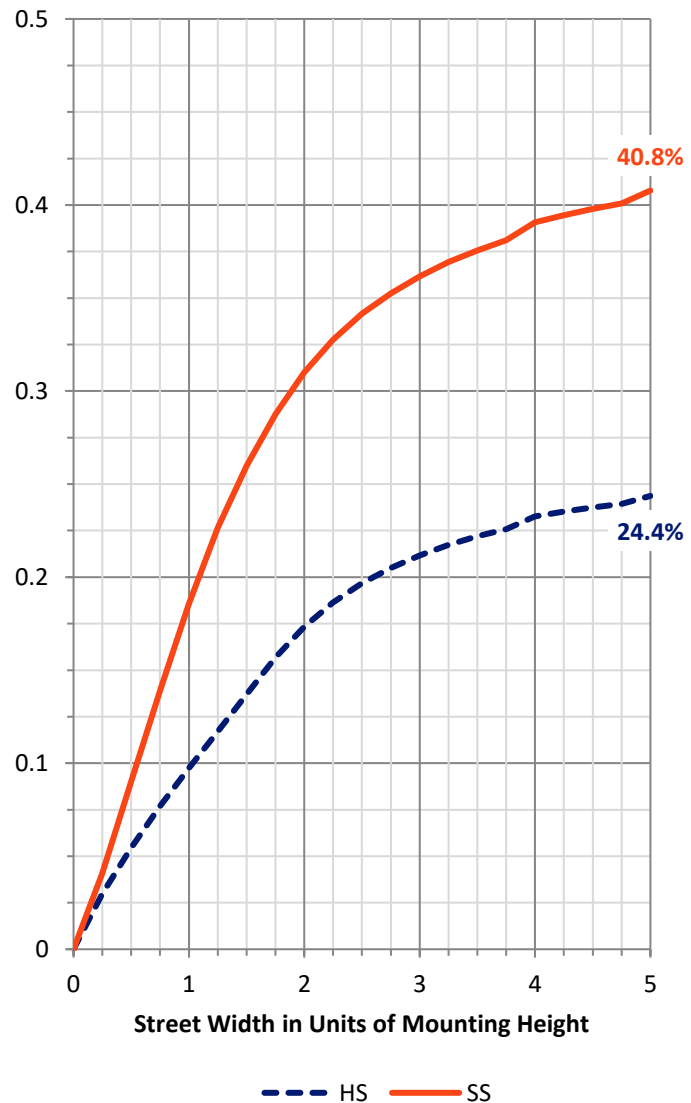
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3219.5	2050.9	5270.4
	% Fixture	25.3	16.1	41.3
Street Side	Lumens	5433.1	2046.5	7479.6
	% Fixture	42.6	16.1	58.7
Total	Lumens	8652.7	4097.4	12750.1
	% Fixture	67.9	32.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.6	0.1
10°-20°	35.3	0.3
20°-30°	115.6	0.9
30°-40°	278.1	2.2
40°-50°	550.6	4.3
50°-60°	1323.9	10.4
60°-70°	2896.5	22.7
70°-80°	2472.3	19.4
80°-90°	972.8	7.6
90°-100°	391.4	3.1
100°-110°	386.1	3.0
110°-120°	559.2	4.4
120°-130°	835.3	6.6
130°-140°	778.3	6.1
140°-150°	568.0	4.5
150°-160°	351.3	2.8
160°-170°	177.4	1.4
170°-180°	50.5	0.4
0°-90°	8652.7	67.9
0°-180°	12750.1	100.0



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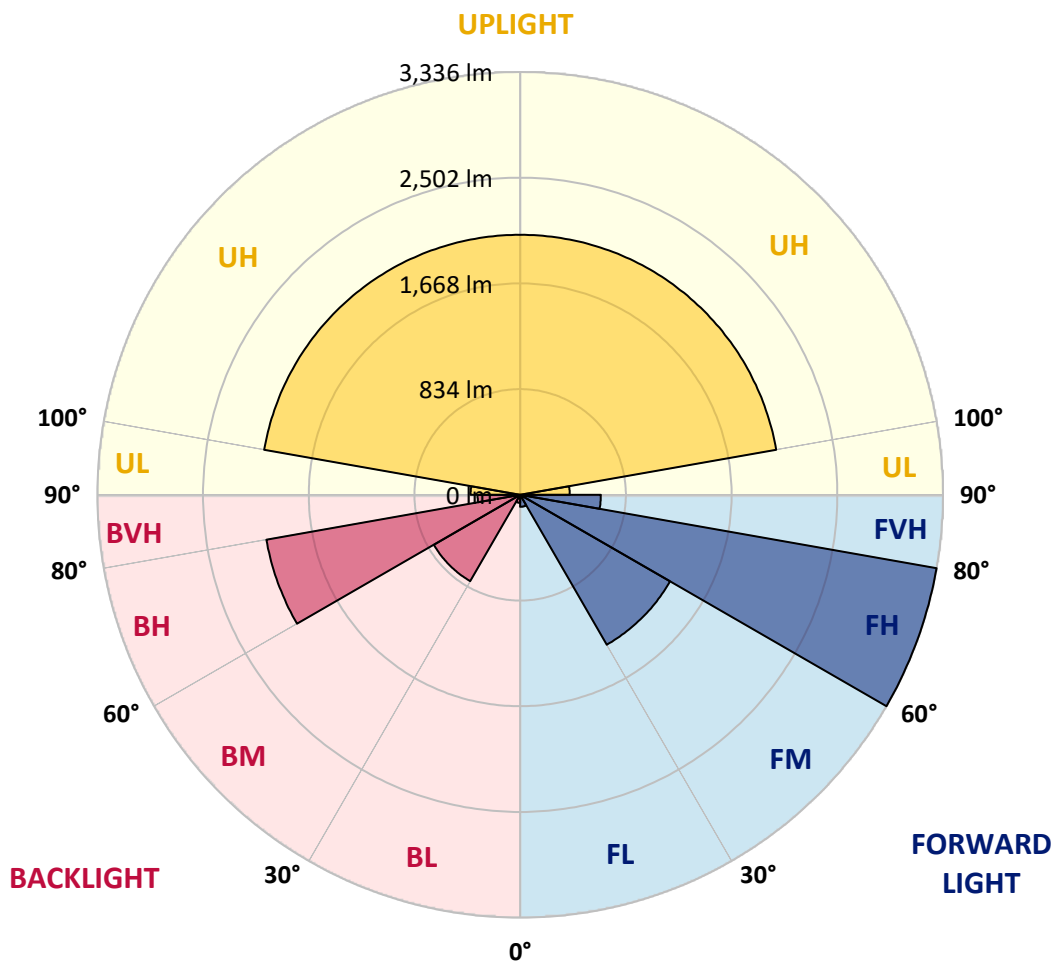
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	95.2	0.7			
FM	(30°-60°)	1365.8	10.7			
FH	(60°-80°)	3335.6	26.2			G2/5000
FVH	(80°-90°)	636.5	5.0			G4/750
BL	(0°-30°)	63.3	0.5	B0/110		
BM	(30°-60°)	786.8	6.2	B1/1000		
BH	(60°-80°)	2033.2	15.9	B3/2500		G3/2500
BVH	(80°-90°)	336.3	2.6			G3/500
UL	(90°-100°)	391.4	3.1		U3/500	
UH	(100°-180°)	2050.9	16.1		U5	

BUG Rating: B3-U5-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
2.5°	60.7	59.0	64.0	60.7	59.0	57.4	59.0	59.0	57.4	59.0	60.7
5°	72.2	72.2	72.2	72.2	68.9	68.9	68.9	68.9	70.5	72.2	77.1
7.5°	82.0	80.4	82.0	83.6	82.0	83.6	82.0	83.6	80.4	78.7	82.0
10°	100.0	100.0	100.0	101.7	103.3	103.3	101.7	98.4	98.4	98.4	96.8
12.5°	109.9	108.2	113.2	118.1	116.4	113.2	111.5	108.2	109.9	108.2	106.6
15°	123.0	123.0	126.3	127.9	134.5	132.8	126.3	126.3	124.6	121.4	119.7
17.5°	132.8	134.5	137.8	146.0	155.8	157.4	149.2	144.3	141.0	136.1	129.6
20°	147.6	149.2	149.2	160.7	183.7	196.8	190.2	175.5	168.9	157.4	146.0
22.5°	172.2	170.6	170.6	187.0	214.8	246.0	226.3	201.7	198.4	178.8	170.6
25°	196.8	198.4	205.0	232.9	290.3	305.0	278.8	275.5	264.0	214.8	177.1
27.5°	313.2	313.2	305.0	364.1	477.2	546.1	585.5	560.9	513.3	336.2	232.9
30°	431.3	431.3	400.2	442.8	621.6	703.6	841.3	880.7	798.7	469.0	316.5
32.5°	433.0	441.2	424.8	492.0	641.2	715.0	823.3	916.8	859.4	536.3	392.0
35°	405.1	393.6	378.8	428.0	521.5	567.4	642.9	729.8	729.8	511.7	395.2
37.5°	390.3	396.9	413.3	523.2	669.1	626.5	641.2	739.6	802.0	590.4	424.8
40°	570.7	560.9	508.4	575.6	747.8	838.0	933.2	1010.2	1052.9	811.8	487.1
42.5°	688.8	687.2	605.2	664.2	921.7	1034.8	1092.2	1180.8	1256.2	1103.7	595.3
45°	711.8	715.0	642.9	705.2	944.6	1169.3	1253.0	1223.4	1264.4	1302.2	731.4
47.5°	710.1	721.6	664.2	736.4	954.5	1195.6	1346.4	1302.2	1320.2	1367.8	861.0
50°	557.6	564.2	597.0	649.4	813.4	984.0	1107.0	1043.0	1031.6	1133.2	949.6
52.5°	515.0	557.6	651.1	857.7	1043.0	1139.8	1497.3	1426.8	1454.7	1398.9	1113.6
55°	680.6	757.7	893.8	1146.4	1336.6	1946.7	2530.5	2604.3	2660.1	2345.2	1631.8
57.5°	1005.3	1082.4	1210.3	1462.9	1697.4	3022.5	4057.4	3899.9	3678.5	3426.0	2833.9
60°	1387.4	1449.8	1574.4	1887.6	2153.3	3516.2	5261.1	5193.9	4721.6	4851.1	4452.6
62.5°	1631.8	1710.5	1830.2	2222.2	2399.3	3540.8	5487.4	5994.2	5681.0	5795.8	5679.3
64°	1561.3	1707.2	1876.2	2210.7	2309.1	3711.3	5303.8	6161.5	6035.2	5940.1	5951.6
65°	1599.0	1702.3	1849.9	2179.6	2325.5	3786.8	5257.8	6154.9	5992.6	5869.6	5917.1
67.5°	1525.2	1648.2	1774.5	2064.8	2256.6	3914.7	4623.2	5512.0	5395.6	5198.8	5336.6
70°	1448.1	1569.5	1663.0	1876.2	2164.8	3686.7	4287.0	5067.6	4926.6	4613.3	4759.3
72.5°	1443.2	1572.8	1651.5	1817.1	2100.8	3578.5	4022.9	4544.4	4513.3	4154.1	4370.6
75°	1344.8	1446.5	1546.5	1667.9	1982.8	3311.2	3614.6	4045.9	4104.9	3881.9	4177.1
77.5°	1330.0	1428.4	1523.6	1679.4	1940.1	3375.1	3657.2	3840.9	3932.7	3713.0	3901.6
80°	1167.7	1256.2	1356.3	1562.9	1728.6	2963.5	3158.6	3093.0	3157.0	2938.9	2981.5
82.5°	856.1	928.2	1026.6	1203.8	1282.5	2189.4	2366.5	2256.6	2230.4	2040.2	1930.3
85°	539.6	597.0	660.9	841.3	852.8	1328.4	1489.1	1426.8	1372.7	1162.8	977.4
87.5°	339.5	360.8	406.7	501.8	501.8	692.1	720.0	706.8	695.4	623.2	624.8
90°	290.3	301.8	329.6	375.6	378.8	500.2	515.0	519.9	541.2	519.9	547.8
92.5°	293.6	301.8	321.4	355.9	357.5	447.7	457.6	459.2	477.2	462.5	495.3
95°	290.3	298.5	321.4	349.3	347.7	408.4	414.9	426.4	439.5	413.3	442.8
97.5°	288.6	295.2	311.6	336.2	336.2	387.0	385.4	392.0	406.7	382.1	411.6
100°	308.3	310.0	331.3	354.2	344.4	383.8	372.3	377.2	382.1	369.0	393.6
102.5°	318.2	316.5	336.2	365.7	351.0	369.0	354.2	362.4	370.6	354.2	373.9
105°	319.8	319.8	342.8	377.2	362.4	362.4	352.6	357.5	362.4	355.9	383.8
107.5°	334.6	336.2	357.5	392.0	377.2	367.4	351.0	357.5	359.2	362.4	408.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
110°	355.9	355.9	378.8	414.9	405.1	387.0	360.8	362.4	365.7	380.5	436.2
112.5°	377.2	375.6	413.3	457.6	449.4	418.2	387.0	387.0	393.6	413.3	472.3
115°	413.3	408.4	446.1	521.5	521.5	469.0	434.6	439.5	451.0	455.9	524.8
117.5°	544.5	516.6	551.0	639.6	634.7	578.9	521.5	510.0	515.0	541.2	638.0
120°	618.3	592.0	651.1	721.6	723.2	692.1	638.0	626.5	626.5	664.2	752.8
122.5°	629.8	639.6	720.0	790.5	820.0	783.9	756.0	746.2	757.7	821.6	888.9
125°	724.9	723.2	793.8	916.8	939.7	910.2	872.5	869.2	890.5	957.8	988.9
127.5°	882.3	875.8	918.4	1038.1	1054.5	1025.0	1005.3	998.8	1020.1	1079.1	1108.6
130°	1025.0	1018.4	1051.2	1098.8	1113.6	1089.0	1070.9	1043.0	1044.7	1113.6	1169.3
132.5°	1070.9	1075.8	1098.8	1121.8	1125.0	1093.9	1029.9	1003.7	1007.0	1036.5	1095.5
135°	1021.7	1025.0	1051.2	1097.2	1118.5	1061.1	987.3	977.4	985.6	1002.0	1059.4
137.5°	961.0	972.5	1016.8	1054.5	1082.4	1039.8	992.2	966.0	980.7	1025.0	1039.8
140°	987.3	993.8	1029.9	1044.7	1064.4	1031.6	988.9	975.8	982.4	992.2	988.9
142.5°	979.1	992.2	1000.4	1003.7	1005.3	982.4	975.8	993.8	1005.3	1005.3	1011.9
145°	1011.9	998.8	988.9	974.2	990.6	974.2	944.6	931.5	934.8	956.1	962.7
147.5°	933.2	929.9	944.6	933.2	928.2	920.0	903.6	870.8	875.8	902.0	895.4
150°	834.8	833.1	820.0	816.7	793.8	815.1	831.5	849.5	854.4	843.0	841.3
152.5°	769.2	772.4	795.4	813.4	836.4	829.8	800.3	752.8	736.4	752.8	764.2
155°	751.1	754.4	751.1	792.1	793.8	764.2	739.6	739.6	731.4	747.8	726.5
157.5°	741.3	742.9	723.2	739.6	739.6	749.5	792.1	797.0	785.6	747.8	744.6
160°	754.4	756.0	739.6	715.0	711.8	713.4	729.8	736.4	733.1	690.4	700.3
162.5°	682.2	679.0	659.3	662.6	667.5	641.2	616.6	618.3	616.6	592.0	601.9
165°	560.9	562.5	587.1	606.8	623.2	621.6	611.7	608.4	616.6	587.1	580.6
167.5°	616.6	615.0	613.4	613.4	621.6	626.5	621.6	623.2	624.8	628.1	623.2
170°	595.3	597.0	600.2	588.8	580.6	575.6	570.7	574.0	570.7	574.0	574.0
172.5°	534.6	534.6	539.6	544.5	547.8	542.8	537.9	536.3	531.4	528.1	524.8
175°	523.2	521.5	523.2	524.8	524.8	521.5	523.2	523.2	524.8	519.9	516.6
177.5°	513.3	513.3	510.0	510.0	508.4	503.5	501.8	498.6	496.9	496.9	492.0
180°	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
2.5°	62.3	59.0	64.0	64.0	64.0	60.7	57.4	62.3	60.7	62.3	59.0
5°	77.1	73.8	73.8	73.8	72.2	77.1	72.2	72.2	72.2	75.4	77.1
7.5°	80.4	82.0	83.6	83.6	85.3	82.0	82.0	80.4	80.4	80.4	82.0
10°	96.8	98.4	96.8	95.1	96.8	96.8	96.8	95.1	95.1	95.1	93.5
12.5°	106.6	105.0	103.3	103.3	101.7	100.0	101.7	103.3	103.3	109.9	106.6
15°	121.4	118.1	114.8	111.5	113.2	114.8	114.8	113.2	118.1	116.4	118.1
17.5°	127.9	126.3	126.3	124.6	124.6	123.0	123.0	124.6	126.3	126.3	127.9
20°	141.0	141.0	137.8	136.1	137.8	134.5	134.5	136.1	136.1	137.8	137.8
22.5°	155.8	149.2	149.2	150.9	149.2	149.2	146.0	147.6	147.6	150.9	150.9
25°	173.8	167.3	162.4	164.0	170.6	165.6	168.9	167.3	170.6	168.9	165.6
27.5°	214.8	200.1	200.1	209.9	221.4	213.2	206.6	206.6	216.5	224.7	226.3
30°	262.4	249.3	244.4	257.5	272.2	260.8	250.9	254.2	269.0	280.4	283.7
32.5°	314.9	296.8	282.1	277.2	282.1	277.2	278.8	290.3	300.1	303.4	308.3
35°	334.6	316.5	288.6	269.0	259.1	257.5	278.8	298.5	300.1	288.6	291.9
37.5°	377.2	347.7	308.3	290.3	300.1	311.6	336.2	355.9	346.0	331.3	332.9
40°	410.0	385.4	357.5	354.2	365.7	383.8	395.2	398.5	413.3	426.4	436.2
42.5°	485.4	465.8	423.1	419.8	436.2	451.0	437.9	449.4	478.9	498.6	511.7
45°	583.8	551.0	498.6	467.4	495.3	518.2	508.4	524.8	537.9	547.8	560.9
47.5°	682.2	628.1	551.0	531.4	554.3	556.0	534.6	542.8	560.9	577.3	593.7
50°	752.8	692.1	578.9	529.7	528.1	572.4	600.2	623.2	582.2	542.8	541.2
52.5°	852.8	757.7	628.1	592.0	616.6	701.9	775.7	798.7	761.0	723.2	718.3
55°	1157.8	934.8	803.6	851.2	952.8	1038.1	1090.6	1107.0	1151.3	1179.2	1182.4
57.5°	1918.8	1402.2	1164.4	1231.6	1294.0	1294.0	1362.8	1467.8	1594.1	1618.7	1622.0
60°	3262.0	2281.2	1641.6	1577.7	1582.6	1571.1	1835.2	2041.8	2127.1	1972.9	1933.6
62.5°	4533.0	3099.6	1992.6	1771.2	1810.6	1876.2	2259.9	2443.6	2432.1	2291.1	2250.1
64°	5028.2	3412.8	2112.3	1805.6	1830.2	1928.6	2237.0	2332.1	2376.4	2356.7	2315.7
65°	5100.4	3496.5	2141.8	1800.7	1813.8	1912.2	2168.1	2253.4	2320.6	2330.4	2300.9
67.5°	4982.3	3603.1	2192.7	1746.6	1707.2	1800.7	1940.1	2064.8	2176.3	2259.9	2258.3
70°	4675.6	3585.0	2194.3	1730.2	1649.8	1713.8	1777.8	1946.7	2081.2	2136.9	2161.5
72.5°	4352.6	3427.6	1954.9	1618.7	1536.7	1605.6	1672.8	1854.8	1972.9	2005.7	2045.1
75°	4182.0	3293.1	1718.7	1543.2	1495.7	1559.6	1559.6	1708.9	1846.6	1884.4	1938.5
77.5°	3865.5	2999.6	1489.1	1356.3	1325.1	1359.6	1305.4	1413.7	1530.1	1558.0	1600.6
80°	2986.4	2322.2	1184.1	1092.2	1043.0	1041.4	959.4	1034.8	1121.8	1166.0	1193.9
82.5°	1931.9	1502.2	798.7	744.6	703.6	685.5	623.2	647.8	685.5	708.5	716.7
85°	969.2	798.7	498.6	474.0	442.8	434.6	413.3	434.6	442.8	437.9	439.5
87.5°	628.1	539.6	385.4	373.9	339.5	336.2	332.9	359.2	370.6	369.0	377.2
90°	529.7	459.2	352.6	346.0	321.4	318.2	323.1	349.3	360.8	357.5	359.2
92.5°	474.0	429.7	341.1	332.9	305.0	308.3	310.0	331.3	339.5	337.8	328.0
95°	439.5	401.8	342.8	336.2	300.1	306.7	311.6	321.4	316.5	310.0	303.4
97.5°	405.1	369.0	321.4	318.2	306.7	306.7	321.4	308.3	293.6	280.4	270.6
100°	388.7	359.2	321.4	318.2	313.2	313.2	334.6	323.1	296.8	280.4	278.8
102.5°	377.2	360.8	336.2	324.7	316.5	319.8	344.4	357.5	321.4	305.0	296.8
105°	388.7	387.0	365.7	349.3	334.6	346.0	373.9	375.6	355.9	326.4	316.5
107.5°	423.1	428.0	408.4	396.9	383.8	395.2	416.6	398.5	369.0	365.7	360.8



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CATALOG NUMBER: GAR-080-LED-E1-3-GLOW-CAGE

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	462.5	467.4	454.3	441.2	437.9	452.6	488.7	457.6	411.6	421.5	428.0
112.5°	503.5	515.0	500.2	475.6	475.6	508.4	575.6	590.4	528.1	498.6	496.9
115°	564.2	577.3	559.2	523.2	534.6	587.1	660.9	700.3	647.8	608.4	619.9
117.5°	680.6	701.9	677.3	660.9	669.1	726.5	823.3	852.8	811.8	782.3	798.7
120°	793.8	824.9	815.1	821.6	838.0	903.6	988.9	959.4	915.1	911.8	921.7
122.5°	926.6	931.5	925.0	957.8	1000.4	1039.8	1048.0	985.6	938.1	897.1	895.4
125°	1018.4	1033.2	1046.3	1057.8	1034.8	1028.3	1033.2	998.8	947.9	856.1	841.3
127.5°	1125.0	1128.3	1103.7	1048.0	977.4	990.6	1023.4	941.4	898.7	892.2	897.1
130°	1174.2	1149.6	1062.7	969.2	946.3	998.8	1013.5	943.0	925.0	897.1	903.6
132.5°	1092.2	1089.0	1016.8	974.2	943.0	979.1	1015.2	982.4	923.3	823.3	798.7
135°	1077.5	1070.9	1015.2	949.6	900.4	906.9	934.8	961.0	939.7	862.6	841.3
137.5°	1044.7	1038.1	980.7	902.0	916.8	928.2	944.6	956.1	967.6	964.3	952.8
140°	987.3	966.0	931.5	916.8	929.9	972.5	962.7	947.9	957.8	949.6	941.4
142.5°	998.8	979.1	926.6	884.0	870.8	898.7	893.8	897.1	872.5	829.8	824.9
145°	952.8	938.1	900.4	844.6	787.2	806.9	824.9	820.0	806.9	821.6	821.6
147.5°	872.5	854.4	820.0	803.6	767.5	808.5	826.6	810.2	800.3	770.8	762.6
150°	838.0	824.9	785.6	775.7	765.9	769.2	762.6	785.6	780.6	762.6	762.6
152.5°	772.4	775.7	806.9	780.6	749.5	747.8	762.6	777.4	795.4	795.4	797.0
155°	728.2	738.0	769.2	806.9	765.9	795.4	752.8	741.3	765.9	774.1	772.4
157.5°	721.6	713.4	716.7	738.0	720.0	721.6	711.8	713.4	706.8	688.8	682.2
160°	692.1	680.6	670.8	651.1	633.0	624.8	624.8	642.9	669.1	687.2	695.4
162.5°	616.6	623.2	642.9	624.8	633.0	664.2	644.5	654.4	667.5	665.8	669.1
165°	585.5	598.6	615.0	644.5	652.7	638.0	631.4	613.4	592.0	592.0	590.4
167.5°	616.6	605.2	587.1	577.3	577.3	587.1	590.4	575.6	564.2	562.5	560.9
170°	570.7	565.8	557.6	551.0	557.6	557.6	564.2	564.2	570.7	574.0	574.0
172.5°	526.4	528.1	533.0	539.6	539.6	534.6	533.0	533.0	526.4	524.8	526.4
175°	513.3	511.7	506.8	501.8	496.9	490.4	485.4	478.9	474.0	474.0	472.3
177.5°	490.4	487.1	485.4	482.2	480.5	475.6	474.0	469.0	467.4	464.1	462.5
180°	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5

(END OF REPORT)