

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: HALO

Report Number: P522087

Luminaire Tested: **HLBQL6099BLE40AWH-5000K-UNIT**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522087
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A1914661A001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HLBQL6099BLE40AWH-5000K-UNIT
Description: Surface Mount Downlight Fixture, Single Unit
Light Source: (16) 5000K CCT, 94 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

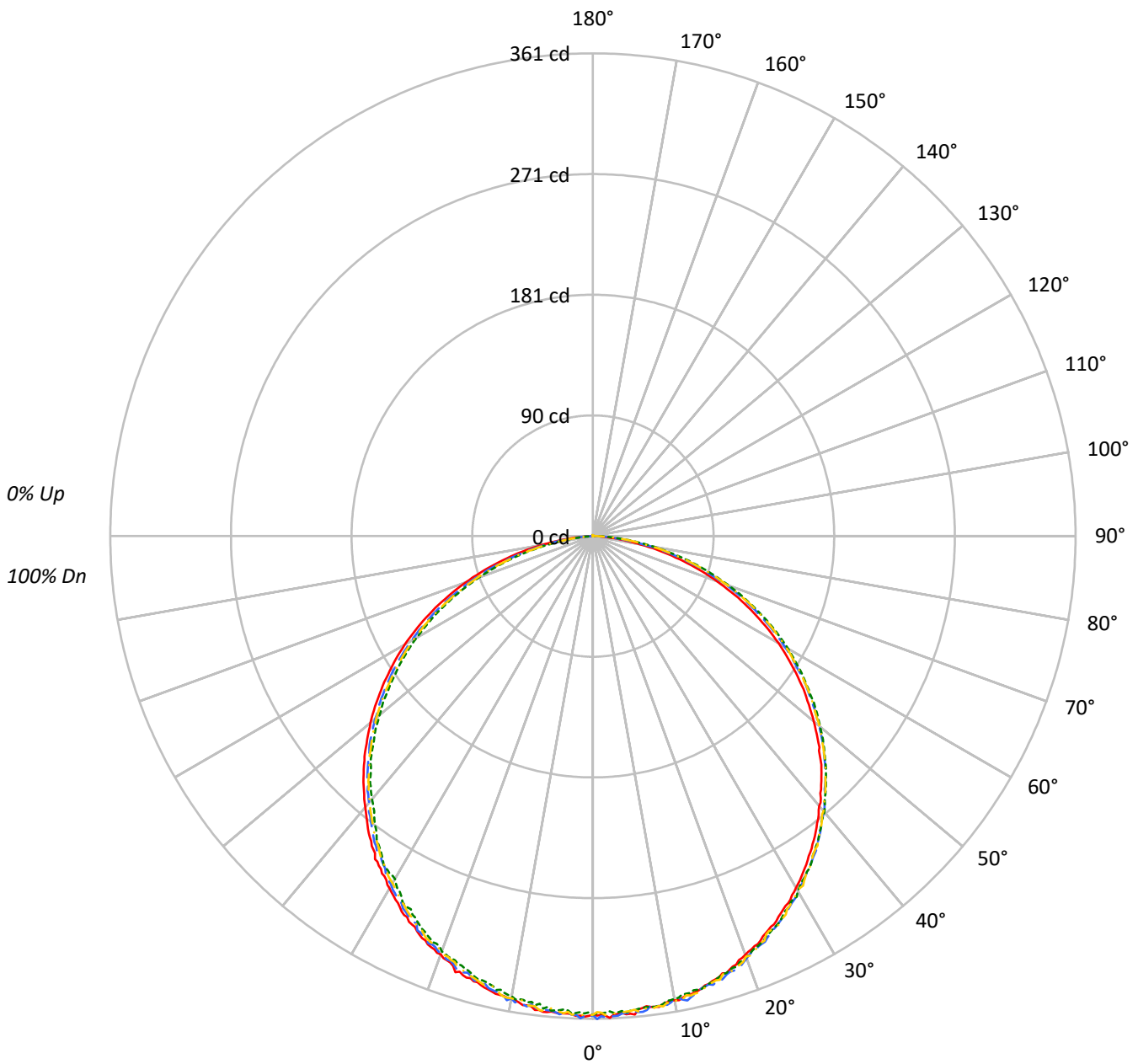
Lumens per Lamp: N/A
Luminaire Lumens: 1030.0 lumens
Efficiency: N/A
Efficacy: 88.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 0.5m x H: 0m)
CIE Type: Direct

Input Watts (W): 11.6
Input Voltage (V): 120
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



TEST NUMBER: P522087
CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	1823	1823	1823	1823
5°	1836	1821	1825	1822
10°	1823	1817	1818	1807
15°	1816	1820	1818	1799
20°	1806	1817	1804	1791
25°	1801	1812	1801	1769
30°	1787	1802	1789	1741
35°	1774	1794	1780	1743
40°	1752	1790	1760	1709
45°	1740	1775	1744	1690
50°	1709	1759	1721	1650
55°	1676	1738	1692	1603
60°	1635	1718	1655	1551
65°	1569	1675	1597	1470
70°	1471	1614	1502	1355
75°	1320	1523	1372	1169
80°	1073	1370	1161	874
85°	678	1145	806	409



TEST NUMBER: P522087
 CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	3.3
10°-20°	97.1	9.4
20°-30°	147.4	14.3
30°-40°	178.2	17.3
40°-50°	185.9	18.0
50°-60°	169.0	16.4
60°-70°	129.4	12.6
70°-80°	72.3	7.0
80°-90°	16.3	1.6
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°	0.1	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	278.4	27.0
0°-40°	456.6	44.3
0°-60°	811.5	78.8
0°-90°	1029.6	100.0
90°-120°	0.0	0.0
90°-150°	0.2	0.0
90°-180°	0.0	0.0
0°-180°	1030.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	358	358	358	358	358	
5°	359	356	357	356	359	34
15°	344	345	345	341	344	97
25°	320	322	320	315	320	147
35°	285	289	286	280	285	178
45°	242	246	242	235	242	186
55°	189	196	190	180	189	169
65°	130	139	132	122	130	129
75°	67	77	70	59	67	71
85°	12	20	14	7	12	15
90°	0	1	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
0.5°	358.6	359.1	361.3	358.1	357.0	356.7	356.1	358.5	358.8	357.1	360.5
1°	358.1	358.6	359.0	356.7	357.0	358.0	356.4	357.2	359.5	359.6	359.2
1.5°	358.8	360.0	360.0	357.8	356.6	358.2	358.3	358.0	358.8	358.3	360.8
2°	360.6	362.3	359.7	360.1	355.7	358.4	358.2	358.0	359.1	358.0	358.2
2.5°	358.2	360.8	359.3	359.4	357.0	357.8	357.3	358.8	358.2	358.0	358.4
3°	358.0	358.5	359.1	359.1	356.7	358.4	356.9	358.5	357.6	358.3	357.4
3.5°	357.3	357.2	357.7	357.7	355.9	356.7	357.0	358.2	357.7	359.3	357.6
4°	358.5	358.2	357.4	358.2	357.2	358.1	356.5	357.1	357.6	359.0	358.5
4.5°	358.3	357.0	358.5	357.8	356.2	357.3	356.4	356.6	357.5	357.1	357.1
5°	359.2	356.6	356.9	357.8	356.2	356.9	355.6	356.3	357.0	356.2	356.4
5.5°	355.7	355.4	357.7	356.7	355.3	356.9	357.3	356.9	357.6	357.5	356.2
6°	354.9	356.4	357.7	356.6	355.0	356.2	358.0	357.2	357.7	356.7	356.1
6.5°	353.9	356.5	356.6	357.0	354.5	356.9	354.9	354.7	356.6	353.1	356.5
7°	354.9	356.4	354.0	356.9	354.7	356.7	356.4	354.9	357.1	354.9	355.2
7.5°	355.0	355.4	353.3	354.9	355.2	353.6	355.6	354.9	354.7	353.6	353.1
8°	355.7	354.9	355.1	356.0	354.4	353.4	354.9	354.4	354.4	352.6	355.3
8.5°	353.8	353.3	354.5	355.5	354.3	352.1	355.7	353.3	354.7	353.9	354.0
9°	353.2	352.0	354.9	354.4	351.8	354.0	353.5	353.5	353.1	352.5	352.9
9.5°	352.4	352.6	353.6	353.5	352.0	354.4	354.5	351.9	351.9	352.4	353.6
10°	352.6	353.6	351.4	353.8	351.3	352.0	353.8	352.4	351.5	351.8	351.1
10.5°	353.1	352.1	351.6	354.0	351.3	353.1	351.3	351.1	351.3	350.2	353.0
11°	351.8	350.2	353.3	351.6	349.4	351.9	352.6	351.8	350.4	349.8	350.1
11.5°	350.4	350.5	354.5	350.8	349.4	351.8	350.3	350.2	350.2	350.9	349.0
12°	350.5	349.5	352.6	352.0	349.3	350.2	351.3	348.9	350.0	346.6	348.3
12.5°	349.7	349.8	351.2	350.2	347.9	350.2	350.7	348.2	348.9	347.3	347.8
13°	349.1	349.7	349.5	349.4	348.2	347.8	350.4	347.1	348.0	347.0	346.9
13.5°	348.1	349.9	347.8	348.8	348.2	346.9	348.3	347.3	347.2	345.6	344.6
14°	346.4	348.5	347.1	347.2	346.9	347.0	348.3	345.8	346.1	345.0	345.0
14.5°	346.0	345.8	346.2	346.2	345.9	346.9	346.0	345.3	344.7	344.2	344.3
15°	344.5	344.0	347.4	344.6	345.2	345.6	345.6	344.2	344.8	342.9	344.0
15.5°	343.9	342.8	346.1	344.7	344.2	344.5	344.8	342.7	343.1	342.2	341.6
16°	343.1	342.8	346.3	344.3	343.0	343.8	345.2	342.7	343.6	341.2	339.8
16.5°	341.1	341.8	344.7	343.6	341.6	342.7	341.9	342.0	342.5	340.1	340.4
17°	342.0	341.8	342.7	342.6	341.8	342.5	341.7	341.8	340.6	339.7	338.5
17.5°	340.0	342.2	341.5	340.8	340.1	341.1	341.7	338.8	342.0	338.8	339.5
18°	338.6	340.0	341.6	340.5	339.4	339.6	341.0	339.5	338.0	337.8	336.9
18.5°	337.9	337.5	340.7	338.9	339.6	339.0	339.8	337.8	336.4	336.4	335.0
19°	335.4	336.2	340.0	337.7	337.0	337.7	338.7	336.2	335.5	335.6	335.0
19.5°	334.6	336.2	338.0	336.7	336.9	336.3	337.4	335.5	334.8	334.5	333.6
20°	333.2	334.9	336.2	335.6	335.2	335.3	334.6	334.6	332.9	332.7	332.9
20.5°	331.9	331.3	334.2	334.5	334.0	334.0	335.0	332.8	332.8	332.1	331.0
21°	331.0	331.3	332.8	333.2	332.4	332.4	333.8	331.6	331.1	329.5	329.1
21.5°	329.6	332.1	332.7	332.1	330.8	331.9	332.1	330.4	330.5	328.5	328.3
22°	329.1	329.8	331.0	331.8	330.4	330.1	331.2	329.0	329.5	328.1	328.6



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	327.6	328.3	330.1	330.0	329.3	328.5	329.3	328.1	327.4	326.6	326.1
23°	325.3	328.2	329.5	329.7	327.9	328.4	328.7	327.9	326.7	324.8	324.9
23.5°	324.1	326.3	327.4	327.6	325.9	326.1	324.9	326.2	325.2	323.9	323.3
24°	322.6	324.5	326.0	326.5	324.9	324.9	323.6	324.3	323.4	322.0	322.8
24.5°	321.1	323.4	324.1	325.0	323.4	324.2	323.5	323.2	321.3	320.3	318.4
25°	320.5	321.5	322.9	323.3	322.5	322.5	323.0	320.5	320.5	318.9	318.3
25.5°	318.9	320.0	321.4	322.5	321.5	320.8	322.4	319.9	319.7	317.8	316.8
26°	316.8	318.4	320.1	321.5	320.0	319.9	320.1	318.1	316.9	316.6	315.5
26.5°	315.2	317.6	318.4	319.4	317.9	318.9	318.9	317.3	316.6	315.8	313.9
27°	313.5	315.6	317.2	317.3	315.5	317.1	317.6	315.1	315.1	313.1	312.7
27.5°	311.9	313.4	315.7	316.1	314.6	315.7	314.6	313.2	312.8	311.2	309.9
28°	311.0	312.7	313.8	314.5	313.0	313.5	313.5	311.9	310.7	309.6	308.1
28.5°	309.4	310.0	311.9	312.7	311.0	312.1	311.8	310.0	309.5	308.5	307.3
29°	307.0	308.3	310.8	310.9	309.9	310.7	309.9	309.4	307.7	306.4	305.5
29.5°	305.7	307.5	309.1	308.7	309.8	308.8	308.3	305.9	306.0	303.4	303.9
30°	303.8	305.7	307.4	307.8	306.5	307.0	306.9	305.1	304.2	302.2	301.4
30.5°	302.0	303.3	305.3	306.0	304.6	305.5	305.4	304.1	302.7	300.8	300.0
31°	300.6	301.8	303.5	303.4	302.3	304.2	305.1	302.0	300.2	299.2	298.0
31.5°	298.7	300.2	301.5	301.5	301.3	302.3	302.4	298.6	298.4	297.2	296.4
32°	296.6	297.7	299.8	300.2	300.1	300.0	300.2	298.1	297.7	295.3	293.3
32.5°	294.8	296.2	298.3	298.5	297.9	298.7	297.4	296.3	295.2	293.8	291.5
33°	292.9	294.2	296.3	297.0	296.9	297.3	296.9	294.9	294.0	291.3	289.8
33.5°	290.9	293.1	294.8	295.0	295.1	295.1	295.0	292.3	292.0	289.7	287.7
34°	288.7	291.0	292.9	293.5	292.9	292.3	292.5	290.6	291.5	287.9	286.5
34.5°	287.0	289.1	291.0	290.9	290.2	290.7	290.4	289.3	287.7	286.1	285.1
35°	285.3	286.9	289.6	289.3	288.6	289.0	288.6	287.6	286.3	284.2	282.9
35.5°	282.9	284.8	287.9	287.6	286.6	287.2	287.0	285.3	284.7	281.6	281.3
36°	281.0	282.6	285.6	285.7	285.0	285.5	286.1	283.4	282.1	279.9	279.0
36.5°	279.1	280.7	283.1	283.6	283.2	283.1	282.8	281.3	280.3	278.4	276.8
37°	276.8	278.6	281.3	281.4	280.8	281.3	280.6	279.4	278.4	276.7	274.4
37.5°	274.9	276.4	279.3	278.9	278.8	279.0	279.6	277.3	276.2	274.3	272.0
38°	272.4	274.4	277.0	277.2	277.0	277.0	276.8	275.2	273.8	272.2	270.0
38.5°	270.6	272.4	275.2	275.1	274.1	275.2	274.7	273.0	271.6	270.1	267.6
39°	268.2	270.3	272.8	273.2	272.6	273.0	272.3	271.0	269.4	266.6	265.9
39.5°	265.4	268.4	270.5	270.6	271.2	270.8	269.7	268.9	266.9	265.5	263.5
40°	263.5	266.2	268.7	268.5	269.3	268.5	268.3	266.6	264.8	263.3	260.6
40.5°	262.1	263.9	266.8	266.2	267.1	266.5	266.1	264.5	262.7	260.4	258.5
41°	260.0	261.4	264.0	264.3	264.6	264.4	263.7	262.1	260.6	257.8	256.1
41.5°	256.8	259.2	261.9	262.2	261.6	262.2	261.7	259.8	258.2	255.9	254.4
42°	255.0	256.9	259.6	260.0	259.8	260.3	259.4	257.6	256.0	253.8	251.3
42.5°	252.7	254.4	256.6	257.9	257.8	257.9	257.3	255.0	253.9	251.4	249.8
43°	250.5	252.6	254.8	255.5	255.6	255.5	255.0	253.0	251.6	249.3	247.5
43.5°	248.2	250.6	252.6	253.2	253.2	253.2	252.8	250.8	249.3	246.9	245.1
44°	246.1	248.2	250.4	251.0	250.9	251.0	250.5	248.5	246.9	244.3	242.5
44.5°	243.8	245.6	247.9	248.8	248.6	248.9	248.4	246.3	244.6	242.0	239.9



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	241.6	243.2	245.7	246.3	246.4	246.5	245.9	243.8	242.2	239.7	237.5
45.5°	238.7	240.9	243.7	244.1	244.0	244.1	243.6	241.3	239.6	237.2	235.3
46°	235.9	238.5	241.0	241.7	241.6	241.7	241.1	238.7	237.5	234.9	232.6
46.5°	233.1	236.2	238.5	239.3	239.3	239.3	238.6	236.4	234.9	232.4	230.4
47°	231.7	233.3	236.2	236.9	236.8	237.0	236.2	234.1	232.1	229.9	228.5
47.5°	228.8	231.0	233.8	234.5	234.4	235.0	233.7	231.3	229.6	227.1	225.6
48°	226.2	228.7	231.7	232.3	231.9	232.3	231.1	228.9	227.2	224.5	222.9
48.5°	223.5	226.5	228.7	229.6	229.7	229.6	228.7	226.5	224.6	221.7	220.3
49°	220.9	223.5	226.2	227.3	227.2	226.9	226.2	224.0	222.0	219.5	217.7
49.5°	218.5	220.7	223.3	224.9	224.6	224.4	223.8	221.6	219.5	217.1	215.1
50°	215.7	218.4	220.9	222.0	222.0	221.8	221.2	219.2	217.2	214.5	212.4
50.5°	213.0	215.6	217.9	218.9	219.4	219.2	218.5	216.3	214.5	211.9	209.5
51°	210.3	213.0	215.5	216.7	216.9	217.1	215.6	214.1	212.0	209.1	207.3
51.5°	207.6	210.3	213.0	214.2	214.4	214.6	212.8	211.6	209.4	206.4	205.0
52°	205.0	207.4	210.4	211.6	212.0	211.9	210.3	208.9	206.8	203.7	202.0
52.5°	202.3	205.2	207.6	209.0	209.4	209.2	207.9	205.8	204.0	201.0	199.7
53°	199.8	202.7	205.1	206.2	206.8	206.4	205.3	203.3	201.1	198.3	196.6
53.5°	197.2	199.7	202.1	203.2	203.9	203.8	202.7	200.7	198.5	195.8	194.0
54°	194.8	196.9	199.6	200.3	200.8	201.2	200.0	198.5	195.8	193.3	191.2
54.5°	191.5	194.3	197.1	197.9	198.5	198.8	197.5	195.6	193.3	190.6	188.2
55°	188.8	191.7	194.5	195.2	195.7	196.1	194.8	192.6	190.5	187.7	185.7
55.5°	186.2	188.9	191.8	192.3	193.0	193.5	192.0	189.9	187.5	185.0	183.1
56°	183.2	186.2	189.2	189.6	190.4	190.6	189.3	186.9	184.8	182.2	180.3
56.5°	180.2	183.3	186.1	187.1	187.9	187.9	186.5	184.6	182.1	179.5	177.2
57°	177.3	180.3	182.6	184.2	185.3	185.2	183.5	181.6	179.2	176.7	174.6
57.5°	174.7	177.3	180.1	181.2	182.4	182.4	180.7	179.1	176.4	174.0	171.7
58°	171.8	174.6	177.3	178.4	179.5	179.4	177.9	176.0	173.8	170.9	168.7
58.5°	169.1	172.0	174.7	175.7	176.8	176.5	175.1	173.1	171.0	167.9	165.8
59°	166.1	168.9	171.7	173.2	174.0	173.8	172.8	170.0	168.2	164.9	162.7
59.5°	163.2	166.0	168.8	170.0	171.5	171.1	170.0	167.4	165.4	162.0	159.8
60°	160.5	163.0	166.0	167.4	168.7	168.2	167.1	164.1	162.5	159.3	156.6
60.5°	157.2	160.5	163.2	164.5	165.7	165.5	164.3	161.7	159.6	156.4	154.1
61°	154.4	157.4	160.3	161.6	162.7	162.5	161.3	158.7	156.6	153.4	150.9
61.5°	151.5	154.5	157.1	158.6	159.8	159.7	158.3	156.2	153.6	150.4	148.0
62°	148.5	151.4	154.3	155.6	157.1	156.8	155.5	153.0	150.6	147.4	144.7
62.5°	145.3	148.4	151.4	152.9	154.2	154.0	152.6	150.1	147.7	144.6	141.7
63°	142.3	145.3	148.3	150.0	151.2	151.1	149.6	146.8	144.7	141.6	138.6
63.5°	139.4	142.3	145.2	146.7	148.1	148.1	146.8	144.0	141.7	138.4	135.7
64°	136.3	139.1	142.2	143.4	145.2	145.0	143.8	140.7	138.5	135.3	132.9
64.5°	133.3	136.4	139.0	140.8	142.1	142.0	140.8	137.9	135.5	132.4	129.7
65°	130.2	133.4	135.9	137.9	139.0	138.8	137.8	134.9	132.5	129.5	126.4
65.5°	127.2	130.5	133.2	135.0	136.0	135.9	134.7	131.8	129.4	126.4	123.3
66°	124.1	127.4	130.2	131.7	133.0	132.6	131.6	128.6	126.3	123.1	120.3
66.5°	121.1	124.0	127.1	128.6	129.9	129.8	128.5	125.6	123.1	120.0	117.2
67°	118.2	121.2	124.0	125.4	126.8	126.7	125.4	122.4	120.0	117.0	114.0



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	114.7	118.1	121.1	122.2	123.7	123.6	122.4	119.4	116.9	113.9	110.9
68°	111.3	114.8	118.2	119.5	120.9	120.6	119.1	116.2	113.7	110.7	107.8
68.5°	108.1	111.6	114.7	116.2	117.7	117.5	116.1	113.1	110.5	107.4	104.6
69°	105.0	108.4	111.5	112.8	114.4	114.4	112.9	110.0	107.4	104.3	101.5
69.5°	101.8	105.2	108.3	109.7	111.5	111.3	109.8	106.8	104.2	101.1	98.6
70°	98.8	101.9	105.2	106.7	108.4	108.1	106.7	103.8	100.9	98.2	95.3
70.5°	95.9	98.8	101.9	103.5	105.0	105.2	103.5	100.7	98.1	95.0	92.2
71°	92.6	95.6	98.8	100.3	101.8	101.8	100.4	97.7	94.9	91.8	89.0
71.5°	89.4	92.8	95.6	97.4	98.7	98.7	97.3	94.5	91.8	88.5	86.0
72°	86.1	89.4	92.4	94.3	95.9	95.7	94.2	91.4	88.4	85.4	82.9
72.5°	83.0	86.4	89.1	91.1	92.8	92.6	91.0	88.3	85.3	82.4	79.8
73°	79.8	83.1	85.9	87.9	89.8	89.4	87.7	85.1	82.0	79.4	76.5
73.5°	76.6	79.9	82.9	84.8	86.4	86.2	84.6	82.1	79.1	75.8	73.4
74°	73.6	76.6	79.9	81.5	83.5	83.2	81.5	78.8	75.9	72.9	70.2
74.5°	70.3	73.5	76.5	78.4	80.4	80.1	78.4	75.7	72.8	69.7	66.9
75°	67.1	70.4	73.4	75.3	77.4	77.0	75.3	72.7	69.7	66.5	63.8
75.5°	63.9	67.2	70.2	72.3	74.2	73.8	72.3	69.6	66.6	63.5	60.9
76°	61.0	64.0	67.0	69.0	71.1	70.6	69.2	66.4	63.5	60.5	57.8
76.5°	57.8	61.1	63.8	66.1	67.9	67.6	66.0	63.3	60.5	57.3	54.7
77°	54.5	57.9	60.9	62.9	64.8	64.4	62.9	60.4	57.6	54.5	51.6
77.5°	51.8	54.8	57.8	59.7	61.8	61.4	60.0	57.3	54.6	51.4	48.7
78°	48.6	51.8	54.7	56.7	58.7	58.3	56.9	54.2	51.5	48.4	45.7
78.5°	45.7	48.7	51.6	53.6	55.7	55.2	53.8	51.2	48.4	45.5	42.8
79°	42.7	45.8	48.5	50.5	52.6	52.2	50.8	48.3	45.4	42.4	39.8
79.5°	39.6	42.7	45.6	47.4	49.5	49.1	47.8	45.4	42.5	39.5	37.0
80°	36.6	39.8	42.8	44.4	46.7	46.4	44.9	42.4	39.6	36.7	34.1
80.5°	34.0	36.9	39.6	41.4	43.7	43.4	41.9	39.5	36.7	33.9	31.4
81°	31.0	34.0	36.6	38.5	40.8	40.6	39.1	36.7	34.0	31.1	28.7
81.5°	28.3	31.3	33.9	35.6	38.0	37.7	36.2	33.9	31.2	28.2	25.9
82°	25.7	28.6	31.1	32.8	35.2	34.8	33.4	31.2	28.4	25.7	23.5
82.5°	23.2	25.8	28.4	30.0	32.3	32.1	30.8	28.4	25.8	23.4	21.0
83°	20.7	23.5	25.7	27.3	29.6	29.4	28.0	25.9	23.5	20.8	18.7
83.5°	18.3	20.9	23.2	24.8	27.0	26.7	25.3	23.4	20.8	18.4	16.2
84°	15.9	18.4	20.7	22.4	24.4	24.1	23.0	21.0	18.5	16.0	13.9
84.5°	13.7	16.0	18.3	19.8	22.0	21.9	20.5	18.5	16.0	13.8	11.7
85°	11.6	13.9	15.9	17.4	19.6	19.5	18.0	16.2	13.8	11.6	9.7
85.5°	9.7	11.7	13.7	15.1	17.3	17.0	15.8	13.8	11.6	9.5	7.7
86°	7.7	9.7	11.5	13.0	14.9	14.7	13.5	11.7	9.6	7.6	6.0
86.5°	6.1	7.9	9.9	10.8	12.7	12.4	11.4	9.6	7.7	6.0	4.4
87°	4.5	6.1	7.7	9.0	10.6	10.4	9.3	7.7	6.0	4.3	3.0
87.5°	3.1	4.6	6.1	7.3	8.9	8.6	7.5	6.0	4.4	2.9	1.8
88°	2.0	3.3	4.5	5.5	6.9	6.8	5.8	4.4	3.0	1.8	0.8
88.5°	1.0	2.1	3.1	4.0	5.3	5.0	4.3	3.0	1.7	0.7	0.0
89°	0.3	1.1	2.0	2.9	3.7	3.4	2.7	1.9	0.7	0.0	0.0
89.5°	0.0	0.4	1.0	1.8	2.2	2.1	1.4	0.8	0.0	0.0	0.0



TEST NUMBER: P522087
 CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.3	0.9	1.1	1.0	0.4	0.0	0.0	0.0	0.0
90.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121.5°	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123.5°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.5°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126.5°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.5°	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.5°	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130.5°	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131.5°	0.3	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.2	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
135.5°	0.1	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.5°	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.1	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139.5°	0.1	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
141°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0
141.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0
143.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
144°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1
144.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1
145°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.2	0.1	0.1
145.5°	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1
146°	0.1	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.1
146.5°	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.0	0.2	0.1	0.1
147°	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.0	0.2	0.1	0.1
147.5°	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.1
148°	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.1
148.5°	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
149°	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1
149.5°	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.3	0.1
150°	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.0	0.1
150.5°	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
151°	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
151.5°	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2
152°	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2
152.5°	0.1	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2
153°	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2
153.5°	0.1	0.3	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2
154°	0.1	0.3	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2
154.5°	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3
155°	0.1	0.3	0.1	0.2	0.1	0.3	0.2	0.2	0.2	0.1	0.3
155.5°	0.1	0.3	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.3
156°	0.1	0.6	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.3
156.5°	0.1	0.6	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.1	0.4
157°	0.1	0.6	0.1	0.2	0.1	0.3	0.3	0.2	0.2	0.1	0.3



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	0.1	0.6	0.1	0.2	0.0	0.2	0.3	0.2	0.2	0.1	0.3
158°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.4
158.5°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.4
159°	0.1	0.6	0.1	0.2	0.0	0.4	0.3	0.2	0.2	0.1	0.6
159.5°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.6
160°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.6
160.5°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.6
161°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.6
161.5°	0.1	0.6	0.1	0.2	0.0	0.3	0.3	0.2	0.2	0.1	0.6
162°	0.1	0.6	0.1	0.2	0.0	0.4	0.4	0.2	0.2	0.1	0.6
162.5°	0.1	0.6	0.1	0.2	0.0	0.3	0.4	0.2	0.2	0.1	0.6
163°	0.1	0.6	0.1	0.2	0.0	0.3	0.4	0.2	0.2	0.1	0.6
163.5°	0.1	0.7	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.6
164°	0.1	0.7	0.1	0.2	0.0	0.6	0.4	0.2	0.2	0.1	0.6
164.5°	0.1	0.4	0.1	0.2	0.0	0.4	0.4	0.2	0.2	0.1	0.8
165°	0.1	0.7	0.1	0.2	0.0	0.4	0.6	0.2	0.2	0.1	0.8
165.5°	0.1	0.8	0.1	0.2	0.0	0.4	0.6	0.2	0.2	0.1	0.7
166°	0.1	0.8	0.1	0.2	0.0	0.4	0.6	0.2	0.2	0.1	0.7
166.5°	0.1	0.8	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
167°	0.1	0.8	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
167.5°	0.1	0.8	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
168°	0.1	0.2	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.2	0.7
168.5°	0.1	0.2	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
169°	0.1	0.4	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.2	0.7
169.5°	0.1	0.4	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.7	0.7
170°	0.1	0.4	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.7	0.7
170.5°	0.1	1.1	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.8	0.7
171°	0.1	1.1	0.1	0.2	0.0	0.6	0.7	0.2	0.2	0.7	0.7
171.5°	0.1	1.0	0.2	0.2	0.0	0.6	0.6	0.2	0.2	0.3	0.7
172°	0.1	1.0	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.8	0.7
172.5°	0.1	1.0	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.3	0.7
173°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.3	0.7
173.5°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.2	0.7
174°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.2	0.7
174.5°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
175°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
175.5°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
176°	0.1	0.9	0.1	0.2	0.0	0.6	0.6	0.2	0.2	0.1	0.7
176.5°	0.1	0.8	0.1	0.2	0.0	0.6	0.7	0.2	0.2	0.1	0.7
177°	0.1	0.8	0.1	0.2	0.0	0.6	0.7	0.2	0.2	0.1	0.7
177.5°	0.1	0.8	0.1	0.2	0.0	0.6	0.7	0.2	0.2	0.1	0.7
178°	0.1	0.8	0.1	0.2	0.0	0.6	0.7	0.2	0.2	0.1	0.7
178.5°	0.1	0.8	0.1	0.2	0.0	0.6	0.8	0.2	0.2	0.1	0.7
179°	0.1	0.7	0.1	0.2	0.0	0.6	0.8	0.2	0.2	0.1	0.7
179.5°	0.1	0.7	0.1	0.2	0.0	0.6	0.8	0.2	0.2	0.1	0.7



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	358.0	358.0	358.0	358.0	358.0	358.0
0.5°	357.6	356.2	356.2	358.2	356.6	358.6
1°	357.5	357.1	356.4	357.8	357.5	358.1
1.5°	356.4	356.2	357.5	358.4	358.4	358.8
2°	357.4	356.9	356.3	357.5	359.0	360.6
2.5°	356.2	357.6	355.4	358.4	358.3	358.2
3°	357.0	355.2	356.0	356.4	357.8	358.0
3.5°	356.9	354.6	356.5	357.5	356.6	357.3
4°	356.2	355.5	354.6	356.6	355.3	358.5
4.5°	355.7	355.7	355.7	355.9	355.9	358.3
5°	356.3	356.3	356.9	354.6	356.0	359.2
5.5°	355.7	353.8	355.1	355.5	353.9	355.7
6°	353.1	355.3	355.3	357.1	354.0	354.9
6.5°	354.6	352.0	354.0	356.5	354.0	353.9
7°	355.1	353.4	353.1	354.5	355.5	354.9
7.5°	353.8	351.3	353.6	354.3	356.3	355.0
8°	353.9	352.2	353.1	354.4	353.8	355.7
8.5°	352.9	350.7	351.9	351.0	352.8	353.8
9°	351.6	350.7	352.1	351.6	349.7	353.2
9.5°	349.1	351.3	349.0	351.6	351.6	352.4
10°	351.0	349.5	348.4	351.1	350.5	352.6
10.5°	348.9	349.0	350.5	351.3	350.4	353.1
11°	349.0	347.9	348.5	350.7	350.4	351.8
11.5°	347.9	346.2	348.2	349.3	348.4	350.4
12°	346.7	347.1	348.0	346.7	346.7	350.5
12.5°	346.2	344.9	346.7	345.0	345.1	349.7
13°	346.0	343.8	345.6	345.0	345.0	349.1
13.5°	343.7	342.9	343.6	345.6	344.9	348.1
14°	343.9	342.4	342.8	344.7	344.2	346.4
14.5°	342.0	342.5	342.5	343.6	344.1	346.0
15°	341.7	341.2	340.8	342.5	343.6	344.5
15.5°	340.6	339.5	340.2	341.6	342.7	343.9
16°	340.5	338.1	338.7	340.6	339.8	343.1
16.5°	339.5	337.3	337.3	339.3	339.4	341.1
17°	337.4	335.8	336.8	338.4	338.8	342.0
17.5°	337.1	335.7	336.3	337.3	336.8	340.0
18°	335.6	333.6	335.2	334.9	336.0	338.6
18.5°	334.0	333.1	333.6	334.3	334.9	337.9
19°	334.7	332.7	332.7	332.9	334.0	335.4
19.5°	332.4	331.3	331.0	332.6	332.3	334.6
20°	331.0	330.5	330.5	331.3	332.2	333.2
20.5°	329.2	327.6	330.1	329.2	330.5	331.9
21°	327.5	326.6	327.6	328.8	329.6	331.0
21.5°	325.9	326.5	327.0	327.5	328.1	329.6
22°	326.0	324.8	324.3	326.5	326.1	329.1



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	324.5	323.3	322.8	325.6	324.5	327.6
23°	323.0	321.5	322.2	323.5	324.0	325.3
23.5°	321.3	320.4	321.2	321.1	322.5	324.1
24°	318.2	318.6	320.0	320.8	321.7	322.6
24.5°	316.5	316.8	318.3	319.0	319.0	321.1
25°	315.7	314.8	316.0	317.3	317.4	320.5
25.5°	316.3	313.7	314.2	315.5	316.1	318.9
26°	314.0	310.5	312.9	314.1	314.7	316.8
26.5°	312.5	310.5	310.9	312.5	313.9	315.2
27°	310.3	310.0	309.4	310.3	312.7	313.5
27.5°	308.6	308.4	307.6	308.8	310.5	311.9
28°	306.6	305.3	306.4	307.0	308.4	311.0
28.5°	305.2	302.9	304.6	305.4	306.9	309.4
29°	303.3	301.5	302.1	303.1	304.8	307.0
29.5°	301.5	299.0	300.5	301.4	302.5	305.7
30°	299.6	296.1	299.3	299.8	301.0	303.8
30.5°	298.0	295.1	296.9	298.4	299.0	302.0
31°	295.9	294.9	295.3	297.0	297.6	300.6
31.5°	293.5	293.3	293.1	294.8	295.2	298.7
32°	291.8	292.5	290.4	292.9	293.6	296.6
32.5°	289.8	291.4	288.7	291.0	291.8	294.8
33°	288.1	288.7	286.9	288.9	289.9	292.9
33.5°	286.5	286.1	285.1	287.5	288.0	290.9
34°	284.7	283.8	283.2	285.2	285.8	288.7
34.5°	282.9	282.0	281.4	282.9	283.9	287.0
35°	280.7	280.4	279.3	280.9	281.9	285.3
35.5°	278.8	278.5	277.3	278.9	279.6	282.9
36°	276.6	275.4	275.3	276.9	277.5	281.0
36.5°	274.6	272.8	273.4	275.2	275.3	279.1
37°	272.4	270.8	271.4	272.8	273.4	276.8
37.5°	270.4	268.5	269.5	270.8	271.2	274.9
38°	268.3	265.6	267.4	268.7	269.1	272.4
38.5°	266.0	262.8	265.2	266.5	267.2	270.6
39°	263.4	260.9	262.9	264.5	264.9	268.2
39.5°	261.4	258.9	260.8	262.0	263.1	265.4
40°	258.9	257.0	258.2	260.1	260.9	263.5
40.5°	256.6	255.1	255.7	257.6	258.7	262.1
41°	254.5	253.1	253.5	255.2	256.7	260.0
41.5°	252.5	250.5	250.9	253.2	254.2	256.8
42°	249.9	249.0	248.7	250.6	252.0	255.0
42.5°	247.8	246.6	246.3	248.7	249.8	252.7
43°	245.5	243.6	243.7	245.7	247.3	250.5
43.5°	243.3	241.1	241.4	243.8	245.1	248.2
44°	241.0	239.0	239.5	241.0	242.8	246.1
44.5°	238.5	237.3	236.5	238.5	240.3	243.8



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	236.1	234.7	234.1	236.6	238.1	241.6
45.5°	233.3	231.9	231.7	234.3	235.3	238.7
46°	231.0	229.3	229.5	231.4	233.1	235.9
46.5°	228.6	226.4	227.2	228.9	230.6	233.1
47°	225.7	224.0	224.6	226.5	228.0	231.7
47.5°	223.4	221.6	222.3	223.9	225.4	228.8
48°	220.7	219.4	219.5	221.4	222.9	226.2
48.5°	218.2	216.7	216.6	219.0	220.2	223.5
49°	215.5	213.8	214.1	216.5	217.6	220.9
49.5°	213.2	210.9	211.9	213.8	215.5	218.5
50°	210.4	208.2	209.0	211.4	212.7	215.7
50.5°	207.8	205.4	206.4	208.5	210.1	213.0
51°	204.9	203.3	204.1	205.9	207.4	210.3
51.5°	202.1	200.7	201.1	203.0	204.8	207.6
52°	199.5	197.8	198.2	200.2	202.1	205.0
52.5°	196.9	194.7	195.5	197.7	199.3	202.3
53°	194.3	191.7	193.0	194.9	196.6	199.8
53.5°	191.5	189.2	190.4	191.9	193.6	197.2
54°	188.8	186.6	187.3	189.1	190.4	194.8
54.5°	186.2	183.6	184.5	186.2	188.3	191.5
55°	183.3	180.5	181.5	183.5	185.2	188.8
55.5°	180.3	178.2	178.9	180.7	182.2	186.2
56°	177.7	175.4	176.1	177.9	179.5	183.2
56.5°	174.9	172.9	173.8	175.1	176.8	180.2
57°	172.1	169.9	170.5	172.2	174.4	177.3
57.5°	169.3	166.9	167.7	169.3	171.8	174.7
58°	166.5	164.1	164.7	166.5	168.8	171.8
58.5°	163.6	161.4	161.8	163.7	165.8	169.1
59°	160.7	158.4	158.6	160.7	162.7	166.1
59.5°	157.8	155.4	155.8	157.7	159.9	163.2
60°	154.8	152.3	152.7	154.8	156.8	160.5
60.5°	151.9	149.2	150.0	152.0	153.9	157.2
61°	148.9	146.2	146.9	148.7	151.1	154.4
61.5°	145.8	143.4	143.9	145.7	147.9	151.5
62°	142.9	140.3	141.1	142.7	144.8	148.5
62.5°	140.0	137.3	138.0	139.7	141.7	145.3
63°	136.8	134.4	134.9	136.8	138.8	142.3
63.5°	133.8	131.5	131.8	133.7	135.8	139.4
64°	130.7	128.3	128.6	130.6	132.7	136.3
64.5°	127.5	125.0	125.7	127.5	129.8	133.3
65°	124.5	122.0	122.6	124.5	126.7	130.2
65.5°	121.1	118.9	119.4	121.5	123.7	127.2
66°	118.1	116.0	116.4	118.2	120.5	124.1
66.5°	114.9	112.8	113.3	114.9	117.7	121.1
67°	111.8	109.6	110.2	112.1	114.3	118.2



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	108.6	106.5	107.0	108.7	111.1	114.7
68°	105.5	103.5	103.6	105.6	108.0	111.3
68.5°	102.3	100.1	100.7	102.4	104.7	108.1
69°	99.2	97.1	97.5	99.5	101.5	105.0
69.5°	96.1	94.1	94.3	96.4	98.5	101.8
70°	93.0	91.0	91.4	93.0	95.4	98.8
70.5°	89.9	87.7	88.0	89.9	92.1	95.9
71°	86.7	84.6	85.0	86.9	89.0	92.6
71.5°	83.7	81.4	81.6	83.5	85.7	89.4
72°	80.4	78.0	78.4	80.4	82.9	86.1
72.5°	77.3	75.2	75.4	77.0	79.6	83.0
73°	74.0	71.7	72.2	73.8	76.4	79.8
73.5°	70.8	68.6	69.0	70.7	73.5	76.6
74°	67.7	65.7	66.0	67.6	70.2	73.6
74.5°	64.6	62.5	62.5	64.4	66.9	70.3
75°	61.7	59.4	59.7	61.5	63.8	67.1
75.5°	58.6	56.4	56.7	58.2	60.7	63.9
76°	55.6	53.2	53.5	55.1	57.4	61.0
76.5°	52.5	50.3	50.4	52.1	54.3	57.8
77°	49.6	47.3	47.4	49.1	51.4	54.5
77.5°	46.6	44.1	44.5	46.0	48.4	51.8
78°	43.6	41.2	41.4	43.2	45.4	48.6
78.5°	40.6	38.3	38.5	40.2	42.5	45.7
79°	37.9	35.4	35.8	37.3	39.5	42.7
79.5°	35.0	32.5	32.9	34.4	36.6	39.6
80°	32.1	29.8	29.9	31.5	33.6	36.6
80.5°	29.4	26.9	27.2	28.9	30.9	34.0
81°	26.8	24.5	24.8	26.1	28.3	31.0
81.5°	24.2	22.0	22.2	23.7	25.6	28.3
82°	21.8	19.5	19.7	21.1	23.2	25.7
82.5°	19.4	17.0	17.4	18.7	20.7	23.2
83°	17.0	14.9	15.1	16.4	18.2	20.7
83.5°	14.6	12.7	13.0	14.1	15.8	18.3
84°	12.4	10.6	10.8	12.0	13.6	15.9
84.5°	10.4	8.7	8.9	10.0	11.5	13.7
85°	8.4	7.0	7.0	8.0	9.7	11.6
85.5°	6.6	5.4	5.4	6.2	7.6	9.7
86°	5.0	3.9	4.1	4.8	6.0	7.7
86.5°	3.4	2.5	2.8	3.4	4.4	6.1
87°	2.0	1.5	1.7	2.1	3.1	4.5
87.5°	0.9	0.7	0.7	1.1	2.0	3.1
88°	0.0	0.3	0.2	0.4	1.0	2.0
88.5°	0.0	0.0	0.0	0.0	0.4	1.0
89°	0.0	0.0	0.0	0.0	0.0	0.3
89.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0
90.5°	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0
91.5°	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0
93.5°	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0
94.5°	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0
95.5°	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0
96.5°	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0
98.5°	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0
99.5°	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0
100.5°	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0
101.5°	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0
103.5°	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0
104.5°	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0
105.5°	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0
106.5°	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0
108.5°	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0
109.5°	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0
110.5°	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0
111.5°	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0
113.5°	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0
114.5°	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.1	0.0
115.5°	0.0	0.0	0.0	0.0	0.1	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0
116.5°	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.1	0.0	0.0	0.1	0.1
117.5°	0.0	0.1	0.0	0.0	0.0	0.1
118°	0.0	0.1	0.0	0.0	0.0	0.0
118.5°	0.0	0.0	0.1	0.0	0.1	0.0
119°	0.0	0.1	0.1	0.0	0.1	0.1
119.5°	0.0	0.1	0.1	0.1	0.1	0.1
120°	0.0	0.1	0.1	0.1	0.1	0.1
120.5°	0.0	0.1	0.1	0.1	0.1	0.1
121°	0.0	0.1	0.1	0.1	0.1	0.1
121.5°	0.0	0.1	0.1	0.0	0.1	0.1
122°	0.0	0.1	0.1	0.1	0.1	0.1
122.5°	0.0	0.1	0.0	0.1	0.1	0.1
123°	0.0	0.1	0.0	0.1	0.1	0.2
123.5°	0.0	0.1	0.1	0.1	0.1	0.1
124°	0.0	0.1	0.0	0.1	0.2	0.2
124.5°	0.0	0.1	0.1	0.1	0.2	0.1
125°	0.0	0.1	0.1	0.1	0.1	0.1
125.5°	0.0	0.2	0.2	0.1	0.1	0.1
126°	0.0	0.2	0.0	0.1	0.1	0.1
126.5°	0.0	0.2	0.1	0.1	0.1	0.1
127°	0.0	0.1	0.1	0.1	0.1	0.1
127.5°	0.0	0.2	0.1	0.2	0.1	0.3
128°	0.0	0.1	0.1	0.2	0.1	0.2
128.5°	0.0	0.1	0.1	0.1	0.1	0.2
129°	0.0	0.1	0.2	0.1	0.1	0.2
129.5°	0.0	0.1	0.2	0.1	0.1	0.1
130°	0.0	0.1	0.1	0.1	0.1	0.1
130.5°	0.0	0.1	0.1	0.1	0.1	0.1
131°	0.0	0.1	0.1	0.1	0.1	0.1
131.5°	0.0	0.1	0.1	0.3	0.2	0.3
132°	0.0	0.1	0.1	0.1	0.2	0.2
132.5°	0.0	0.1	0.1	0.1	0.2	0.2
133°	0.0	0.1	0.1	0.1	0.2	0.2
133.5°	0.0	0.1	0.1	0.1	0.2	0.1
134°	0.0	0.1	0.3	0.1	0.2	0.1
134.5°	0.0	0.1	0.3	0.1	0.2	0.1



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.0	0.1	0.2	0.3	0.2	0.1
135.5°	0.0	0.1	0.2	0.3	0.2	0.1
136°	0.0	0.1	0.2	0.2	0.2	0.1
136.5°	0.0	0.1	0.2	0.2	0.2	0.1
137°	0.0	0.1	0.2	0.2	0.2	0.1
137.5°	0.0	0.1	0.2	0.2	0.2	0.1
138°	0.0	0.1	0.2	0.2	0.2	0.1
138.5°	0.0	0.1	0.2	0.2	0.2	0.1
139°	0.0	0.1	0.2	0.2	0.2	0.1
139.5°	0.0	0.1	0.2	0.2	0.2	0.1
140°	0.0	0.1	0.2	0.2	0.2	0.1
140.5°	0.0	0.1	0.2	0.2	0.2	0.1
141°	0.0	0.1	0.2	0.2	0.2	0.1
141.5°	0.0	0.1	0.2	0.2	0.2	0.1
142°	0.0	0.1	0.2	0.2	0.2	0.0
142.5°	0.0	0.1	0.2	0.2	0.2	0.0
143°	0.0	0.1	0.2	0.2	0.2	0.1
143.5°	0.0	0.1	0.2	0.2	0.2	0.1
144°	0.0	0.1	0.2	0.2	0.2	0.1
144.5°	0.0	0.1	0.2	0.2	0.2	0.1
145°	0.0	0.1	0.2	0.2	0.2	0.1
145.5°	0.0	0.1	0.2	0.2	0.2	0.1
146°	0.0	0.1	0.2	0.2	0.2	0.1
146.5°	0.0	0.1	0.2	0.2	0.2	0.1
147°	0.1	0.1	0.2	0.2	0.2	0.1
147.5°	0.0	0.1	0.2	0.2	0.2	0.1
148°	0.0	0.1	0.2	0.2	0.2	0.1
148.5°	0.1	0.1	0.2	0.2	0.2	0.1
149°	0.1	0.1	0.2	0.2	0.2	0.1
149.5°	0.1	0.1	0.2	0.2	0.2	0.1
150°	0.1	0.1	0.2	0.2	0.2	0.1
150.5°	0.1	0.1	0.2	0.2	0.2	0.1
151°	0.1	0.1	0.2	0.2	0.2	0.1
151.5°	0.2	0.1	0.2	0.2	0.2	0.1
152°	0.2	0.1	0.2	0.2	0.2	0.1
152.5°	0.2	0.1	0.2	0.2	0.2	0.1
153°	0.2	0.1	0.2	0.2	0.2	0.1
153.5°	0.3	0.1	0.2	0.2	0.2	0.1
154°	0.3	0.1	0.2	0.2	0.2	0.1
154.5°	0.1	0.1	0.2	0.2	0.2	0.1
155°	0.2	0.1	0.2	0.2	0.2	0.1
155.5°	0.2	0.1	0.2	0.2	0.2	0.1
156°	0.1	0.1	0.2	0.2	0.2	0.1
156.5°	0.1	0.1	0.2	0.2	0.2	0.1
157°	0.1	0.1	0.2	0.2	0.2	0.1



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.1	0.1	0.2	0.2	0.2	0.1
158°	0.1	0.1	0.2	0.2	0.2	0.1
158.5°	0.1	0.1	0.2	0.2	0.2	0.1
159°	0.1	0.1	0.2	0.2	0.2	0.1
159.5°	0.1	0.1	0.2	0.2	0.2	0.1
160°	0.1	0.1	0.2	0.2	0.2	0.1
160.5°	0.1	0.1	0.2	0.2	0.2	0.1
161°	0.1	0.1	0.2	0.2	0.2	0.1
161.5°	0.1	0.1	0.2	0.2	0.2	0.1
162°	0.1	0.1	0.2	0.2	0.2	0.1
162.5°	0.1	0.1	0.2	0.2	0.2	0.1
163°	0.1	0.1	0.2	0.2	0.2	0.1
163.5°	0.1	0.1	0.2	0.2	0.2	0.1
164°	0.1	0.1	0.2	0.2	0.2	0.1
164.5°	0.1	0.1	0.2	0.2	0.2	0.1
165°	0.1	0.1	0.2	0.2	0.2	0.1
165.5°	0.1	0.1	0.2	0.2	0.2	0.1
166°	0.1	0.1	0.2	0.2	0.2	0.1
166.5°	0.1	0.1	0.2	0.2	0.2	0.1
167°	0.1	0.1	0.2	0.2	0.2	0.1
167.5°	0.1	0.1	0.2	0.2	0.2	0.1
168°	0.1	0.1	0.2	0.2	0.2	0.1
168.5°	0.1	0.1	0.2	0.2	0.2	0.1
169°	0.1	0.1	0.2	0.2	0.2	0.1
169.5°	0.1	0.1	0.2	0.2	0.2	0.1
170°	0.1	0.1	0.2	0.2	0.2	0.1
170.5°	0.1	0.1	0.2	0.2	0.2	0.1
171°	0.1	0.1	0.2	0.2	0.2	0.1
171.5°	0.1	0.1	0.2	0.2	0.2	0.1
172°	0.1	0.2	0.2	0.2	0.2	0.1
172.5°	0.1	0.2	0.2	0.2	0.2	0.1
173°	0.1	0.2	0.2	0.2	0.2	0.1
173.5°	0.1	0.2	0.2	0.2	0.2	0.1
174°	0.1	0.2	0.3	0.2	0.2	0.1
174.5°	0.1	0.3	0.3	0.2	0.2	0.1
175°	0.1	0.3	0.3	0.2	0.2	0.1
175.5°	0.1	0.3	0.3	0.2	0.2	0.1
176°	0.1	0.4	0.3	0.2	0.2	0.1
176.5°	0.1	0.6	0.6	0.2	0.2	0.1
177°	0.1	0.7	0.7	0.2	0.2	0.1
177.5°	0.1	0.7	0.8	0.2	0.2	0.1
178°	0.1	0.6	0.8	0.2	0.2	0.1
178.5°	0.1	0.6	0.8	0.2	0.2	0.1
179°	0.1	0.6	0.8	0.2	0.2	0.1
179.5°	0.1	0.6	0.8	0.2	0.2	0.1



TEST NUMBER: P522087

CATALOG NUMBER: HLBQL6099BLE40AWH-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.1	0.1	0.1	0.1	0.1	0.1

(END OF REPORT)