

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: P522081

Luminaire Tested: **HLBQL4069BLE40AWH-4000K-UNIT**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522081  
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: HLBQL4069BLE40AWH-4000K-UNIT  
Description: Surface Mount Downlight Fixture, Single Unit  
Light Source: (16) 4000K CCT, 94 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

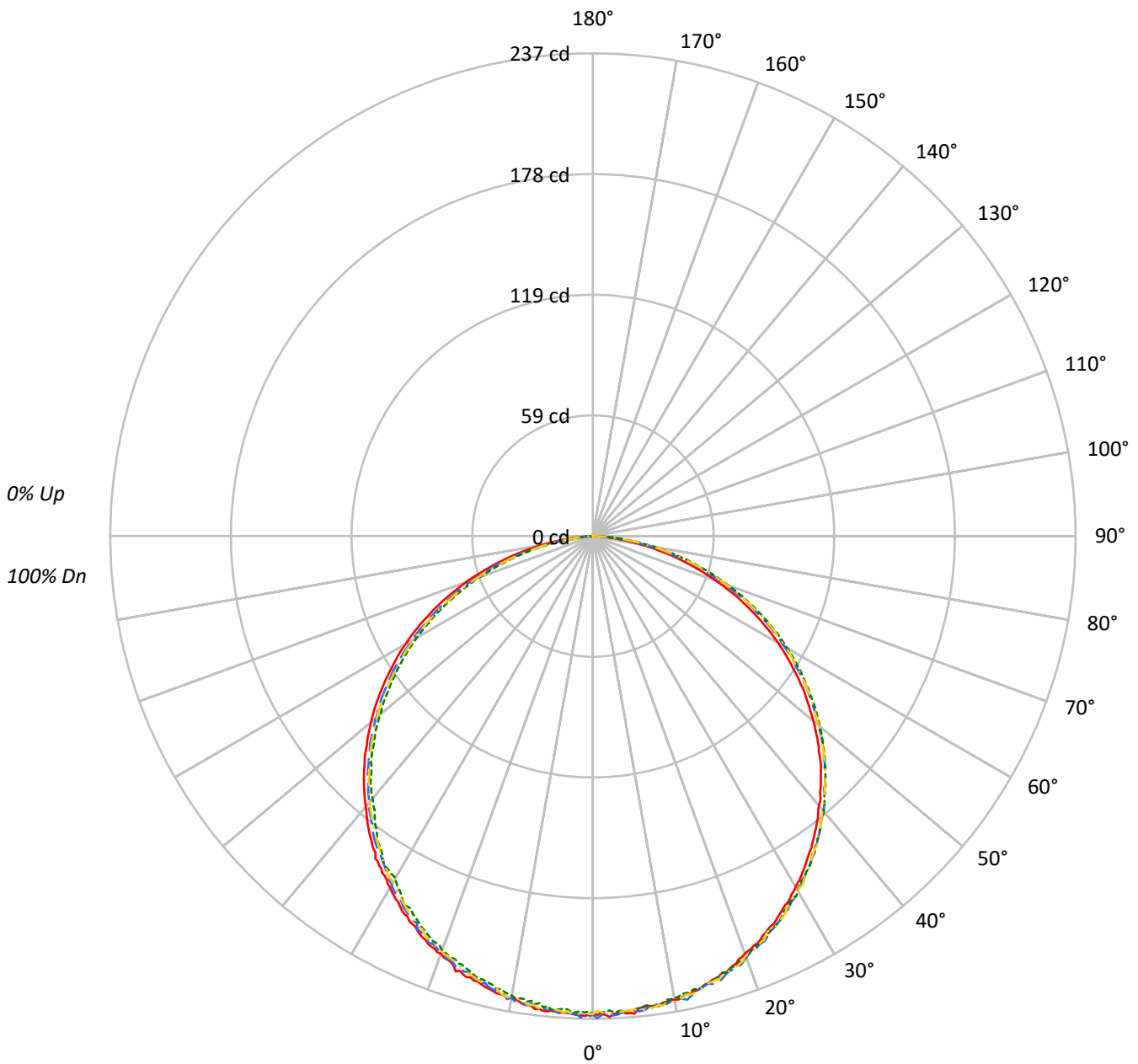
Lumens per Lamp: N/A  
Luminaire Lumens: 675.0 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38  
Luminous Opening: Circular (Dia: 0.33m x H: 0m)  
CIE Type: Direct

Input Watts (W): 7.3  
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: P522081  
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### Luminous Intensity Polar Plot



0% Up  
100% Dn

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



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**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°	2694	2694	2694	2694
5°	2713	2690	2696	2691
10°	2694	2684	2686	2671
15°	2683	2689	2686	2658
20°	2667	2683	2666	2647
25°	2662	2678	2662	2614
30°	2640	2664	2642	2572
35°	2621	2651	2631	2575
40°	2589	2646	2601	2524
45°	2570	2622	2577	2497
50°	2526	2599	2542	2437
55°	2476	2566	2498	2368
60°	2416	2538	2446	2292
65°	2318	2475	2358	2171
70°	2175	2384	2222	2001
75°	1952	2249	2027	1730
80°	1587	2023	1719	1289
85°	1001	1686	1199	606



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.2	3.3
10°-20°	63.6	9.4
20°-30°	96.6	14.3
30°-40°	116.8	17.3
40°-50°	121.8	18.0
50°-60°	110.8	16.4
60°-70°	84.8	12.6
70°-80°	47.4	7.0
80°-90°	10.7	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°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
<b>0°-30°</b>	<b>182.4</b>	<b>27.0</b>
<b>0°-40°</b>	<b>299.2</b>	<b>44.3</b>
<b>0°-60°</b>	<b>531.8</b>	<b>78.8</b>
<b>0°-90°</b>	<b>674.7</b>	<b>100.0</b>
90°-120°	0.0	0.0
90°-150°	0.1	0.0
<b>90°-180°</b>	<b>0.0</b>	<b>0.0</b>
<b>0°-180°</b>	<b>675.0</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	235	235	235	235	235	
5°	235	233	234	234	235	22
15°	226	226	226	224	226	64
25°	210	211	210	206	210	97
35°	187	189	188	184	187	117
45°	158	162	159	154	158	122
55°	124	128	125	118	124	111
65°	85	91	87	80	85	84
75°	44	51	46	39	44	47
85°	8	13	9	5	8	10
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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6
0.5°	235.0	235.3	236.8	234.7	233.9	233.8	233.4	234.9	235.2	234.0	236.3
1°	234.7	235.0	235.2	233.8	233.9	234.6	233.6	234.1	235.6	235.7	235.4
1.5°	235.2	235.9	235.9	234.5	233.7	234.7	234.8	234.6	235.2	234.8	236.5
2°	236.3	237.4	235.7	236.0	233.1	234.9	234.7	234.6	235.3	234.6	234.7
2.5°	234.7	236.5	235.5	235.5	233.9	234.5	234.1	235.2	234.7	234.6	234.9
3°	234.6	234.9	235.3	235.3	233.8	234.9	233.9	234.9	234.4	234.8	234.2
3.5°	234.1	234.1	234.4	234.4	233.2	233.8	233.9	234.7	234.4	235.5	234.4
4°	234.9	234.7	234.2	234.7	234.1	234.7	233.6	234.0	234.4	235.2	234.9
4.5°	234.8	233.9	234.9	234.5	233.4	234.1	233.6	233.7	234.3	234.0	234.0
5°	235.4	233.7	233.9	234.5	233.4	233.9	233.1	233.5	233.9	233.4	233.6
5.5°	233.1	232.9	234.4	233.8	232.8	233.9	234.1	233.9	234.4	234.3	233.4
6°	232.6	233.6	234.4	233.7	232.6	233.4	234.6	234.1	234.4	233.8	233.4
6.5°	231.9	233.6	233.7	233.9	232.3	233.9	232.6	232.5	233.7	231.4	233.6
7°	232.6	233.6	232.0	233.9	232.5	233.8	233.6	232.6	234.0	232.6	232.8
7.5°	232.6	232.9	231.5	232.6	232.8	231.8	233.1	232.6	232.5	231.8	231.4
8°	233.1	232.6	232.7	233.3	232.3	231.6	232.6	232.3	232.3	231.1	232.8
8.5°	231.8	231.5	232.3	233.0	232.2	230.7	233.1	231.5	232.5	231.9	232.0
9°	231.5	230.7	232.6	232.3	230.5	232.0	231.7	231.7	231.4	231.0	231.2
9.5°	231.0	231.1	231.8	231.7	230.7	232.3	232.3	230.6	230.6	231.0	231.8
10°	231.1	231.8	230.3	231.8	230.2	230.7	231.8	231.0	230.4	230.5	230.1
10.5°	231.4	230.7	230.4	232.0	230.2	231.4	230.2	230.1	230.2	229.5	231.3
11°	230.5	229.5	231.5	230.4	229.0	230.6	231.1	230.5	229.7	229.2	229.4
11.5°	229.7	229.7	232.3	229.9	229.0	230.5	229.6	229.5	229.5	229.9	228.7
12°	229.7	229.1	231.1	230.7	228.9	229.5	230.2	228.6	229.4	227.1	228.3
12.5°	229.1	229.2	230.2	229.5	228.0	229.5	229.8	228.2	228.6	227.6	227.9
13°	228.8	229.1	229.1	229.0	228.2	227.9	229.7	227.5	228.1	227.4	227.3
13.5°	228.1	229.3	227.9	228.6	228.2	227.3	228.3	227.6	227.5	226.5	225.8
14°	227.0	228.4	227.5	227.5	227.3	227.4	228.3	226.6	226.8	226.1	226.1
14.5°	226.8	226.6	226.9	226.9	226.7	227.3	226.8	226.3	225.9	225.6	225.7
15°	225.7	225.4	227.7	225.8	226.2	226.5	226.5	225.6	226.0	224.7	225.4
15.5°	225.4	224.6	226.8	225.9	225.6	225.7	226.0	224.6	224.9	224.3	223.8
16°	224.9	224.6	227.0	225.7	224.8	225.3	226.2	224.6	225.2	223.6	222.7
16.5°	223.6	224.0	225.9	225.2	223.8	224.6	224.1	224.1	224.4	222.9	223.1
17°	224.1	224.0	224.6	224.5	224.0	224.4	223.9	224.0	223.2	222.6	221.8
17.5°	222.8	224.3	223.8	223.3	222.9	223.6	223.9	222.0	224.1	222.0	222.5
18°	221.9	222.8	223.8	223.1	222.4	222.5	223.5	222.5	221.5	221.4	220.8
18.5°	221.5	221.2	223.3	222.1	222.5	222.2	222.7	221.4	220.4	220.4	219.6
19°	219.8	220.3	222.8	221.3	220.9	221.3	222.0	220.3	219.9	219.9	219.6
19.5°	219.3	220.3	221.5	220.7	220.8	220.4	221.1	219.9	219.4	219.2	218.6
20°	218.3	219.5	220.3	219.9	219.6	219.7	219.3	219.3	218.2	218.0	218.2
20.5°	217.5	217.1	219.0	219.2	218.9	218.9	219.6	218.1	218.1	217.6	216.9
21°	216.9	217.1	218.1	218.3	217.8	217.8	218.8	217.3	217.0	215.9	215.7
21.5°	216.0	217.6	218.0	217.6	216.8	217.5	217.6	216.5	216.6	215.3	215.1
22°	215.7	216.2	216.9	217.5	216.5	216.3	217.0	215.6	215.9	215.0	215.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	214.7	215.1	216.3	216.2	215.8	215.3	215.8	215.0	214.6	214.1	213.7
23°	213.2	215.1	215.9	216.1	214.9	215.2	215.4	214.9	214.1	212.8	212.9
23.5°	212.4	213.8	214.6	214.7	213.5	213.7	212.9	213.8	213.1	212.2	211.9
24°	211.4	212.7	213.6	214.0	212.9	212.9	212.1	212.5	212.0	211.0	211.5
24.5°	210.4	212.0	212.4	213.0	212.0	212.5	212.0	211.8	210.6	209.9	208.7
25°	210.1	210.7	211.6	211.9	211.4	211.4	211.7	210.1	210.1	209.0	208.6
25.5°	209.0	209.7	210.6	211.4	210.7	210.2	211.3	209.6	209.5	208.3	207.6
26°	207.6	208.7	209.8	210.7	209.7	209.6	209.8	208.5	207.7	207.5	206.7
26.5°	206.6	208.1	208.7	209.3	208.3	209.0	209.0	208.0	207.5	206.9	205.7
27°	205.4	206.8	207.9	208.0	206.7	207.8	208.1	206.5	206.5	205.2	204.9
27.5°	204.4	205.4	206.9	207.2	206.1	206.9	206.1	205.3	205.0	204.0	203.1
28°	203.8	204.9	205.6	206.1	205.1	205.4	205.4	204.4	203.6	202.9	201.9
28.5°	202.7	203.2	204.4	204.9	203.8	204.6	204.3	203.2	202.8	202.2	201.4
29°	201.2	202.0	203.7	203.8	203.1	203.6	203.1	202.7	201.7	200.8	200.2
29.5°	200.3	201.5	202.6	202.3	203.0	202.4	202.0	200.5	200.6	198.8	199.2
30°	199.1	200.3	201.4	201.7	200.9	201.2	201.1	199.9	199.3	198.0	197.5
30.5°	197.9	198.8	200.1	200.6	199.6	200.2	200.1	199.3	198.4	197.2	196.6
31°	197.0	197.8	198.9	198.8	198.1	199.3	199.9	197.9	196.7	196.1	195.3
31.5°	195.8	196.7	197.6	197.6	197.4	198.1	198.2	195.7	195.6	194.8	194.3
32°	194.4	195.1	196.5	196.7	196.6	196.6	196.7	195.3	195.1	193.5	192.2
32.5°	193.2	194.1	195.5	195.6	195.2	195.8	194.9	194.2	193.5	192.5	191.1
33°	191.9	192.8	194.2	194.6	194.5	194.8	194.5	193.2	192.7	190.9	189.9
33.5°	190.6	192.1	193.2	193.3	193.4	193.4	193.3	191.6	191.4	189.8	188.5
34°	189.2	190.7	191.9	192.4	191.9	191.6	191.7	190.4	191.1	188.7	187.7
34.5°	188.1	189.5	190.7	190.6	190.2	190.5	190.3	189.6	188.5	187.5	186.9
35°	187.0	188.0	189.8	189.6	189.1	189.4	189.1	188.5	187.7	186.3	185.4
35.5°	185.4	186.6	188.7	188.5	187.8	188.2	188.1	187.0	186.6	184.5	184.3
36°	184.2	185.2	187.1	187.2	186.8	187.1	187.5	185.7	184.9	183.4	182.9
36.5°	182.9	184.0	185.5	185.8	185.6	185.5	185.3	184.3	183.7	182.4	181.4
37°	181.4	182.6	184.3	184.4	184.0	184.3	183.9	183.1	182.4	181.3	179.8
37.5°	180.2	181.1	183.0	182.8	182.7	182.9	183.2	181.7	181.0	179.7	178.2
38°	178.5	179.8	181.6	181.6	181.6	181.6	181.4	180.3	179.5	178.4	176.9
38.5°	177.4	178.5	180.3	180.3	179.6	180.3	180.0	178.9	178.0	177.0	175.4
39°	175.8	177.1	178.8	179.0	178.7	178.9	178.4	177.6	176.6	174.7	174.2
39.5°	173.9	175.9	177.3	177.4	177.7	177.5	176.8	176.2	174.9	174.0	172.7
40°	172.7	174.5	176.1	176.0	176.5	176.0	175.8	174.7	173.5	172.6	170.8
40.5°	171.8	172.9	174.8	174.5	175.0	174.7	174.4	173.4	172.1	170.7	169.4
41°	170.4	171.3	173.0	173.2	173.4	173.3	172.8	171.8	170.8	168.9	167.9
41.5°	168.3	169.9	171.6	171.8	171.4	171.8	171.5	170.2	169.2	167.7	166.7
42°	167.1	168.4	170.1	170.4	170.2	170.6	170.0	168.8	167.8	166.3	164.7
42.5°	165.6	166.7	168.1	169.0	168.9	169.0	168.6	167.1	166.4	164.7	163.7
43°	164.2	165.5	167.0	167.4	167.5	167.4	167.1	165.8	164.9	163.4	162.2
43.5°	162.6	164.2	165.5	166.0	166.0	166.0	165.7	164.4	163.4	161.8	160.6
44°	161.2	162.6	164.1	164.5	164.4	164.5	164.2	162.8	161.8	160.1	158.9
44.5°	159.8	161.0	162.5	163.1	162.9	163.1	162.8	161.4	160.3	158.6	157.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	158.3	159.4	161.0	161.4	161.5	161.5	161.2	159.8	158.7	157.1	155.7
45.5°	156.5	157.8	159.7	159.9	159.9	159.9	159.7	158.1	157.0	155.4	154.2
46°	154.6	156.3	157.9	158.4	158.3	158.4	158.0	156.5	155.7	153.9	152.4
46.5°	152.8	154.8	156.3	156.8	156.8	156.8	156.4	154.9	153.9	152.3	151.0
47°	151.8	152.9	154.8	155.2	155.2	155.3	154.8	153.4	152.1	150.7	149.7
47.5°	149.9	151.4	153.2	153.7	153.6	154.0	153.1	151.6	150.4	148.8	147.8
48°	148.3	149.9	151.8	152.3	152.0	152.3	151.5	150.0	148.9	147.1	146.1
48.5°	146.5	148.4	149.9	150.4	150.5	150.4	149.9	148.4	147.2	145.3	144.3
49°	144.8	146.5	148.3	149.0	148.9	148.7	148.3	146.8	145.5	143.8	142.7
49.5°	143.2	144.6	146.3	147.4	147.2	147.0	146.7	145.2	143.8	142.2	140.9
50°	141.4	143.1	144.8	145.5	145.5	145.4	144.9	143.6	142.3	140.6	139.2
50.5°	139.6	141.3	142.8	143.5	143.8	143.6	143.2	141.7	140.6	138.8	137.3
51°	137.8	139.6	141.2	142.0	142.2	142.2	141.3	140.3	138.9	137.0	135.9
51.5°	136.1	137.8	139.6	140.4	140.5	140.6	139.5	138.7	137.2	135.3	134.3
52°	134.3	135.9	137.9	138.7	138.9	138.8	137.8	136.9	135.5	133.5	132.4
52.5°	132.6	134.5	136.1	136.9	137.2	137.1	136.2	134.8	133.7	131.7	130.9
53°	130.9	132.8	134.4	135.1	135.5	135.3	134.6	133.3	131.8	130.0	128.8
53.5°	129.3	130.9	132.5	133.2	133.6	133.5	132.8	131.5	130.1	128.3	127.2
54°	127.7	129.0	130.8	131.3	131.6	131.9	131.1	130.1	128.3	126.6	125.3
54.5°	125.5	127.3	129.2	129.7	130.1	130.3	129.4	128.2	126.6	124.9	123.3
55°	123.7	125.6	127.4	128.0	128.2	128.5	127.7	126.2	124.8	123.0	121.7
55.5°	122.0	123.8	125.7	126.0	126.5	126.8	125.9	124.5	122.9	121.2	120.0
56°	120.0	122.0	124.0	124.3	124.8	124.9	124.0	122.5	121.1	119.4	118.2
56.5°	118.1	120.1	121.9	122.6	123.2	123.2	122.2	121.0	119.3	117.7	116.1
57°	116.2	118.2	119.7	120.7	121.4	121.4	120.3	119.0	117.4	115.8	114.4
57.5°	114.5	116.2	118.0	118.7	119.5	119.5	118.5	117.4	115.6	114.0	112.5
58°	112.6	114.4	116.2	116.9	117.7	117.6	116.6	115.3	113.9	112.0	110.5
58.5°	110.8	112.7	114.5	115.1	115.8	115.7	114.8	113.4	112.1	110.0	108.7
59°	108.9	110.7	112.5	113.5	114.0	113.9	113.2	111.4	110.3	108.1	106.6
59.5°	106.9	108.8	110.6	111.4	112.4	112.1	111.4	109.7	108.4	106.2	104.7
60°	105.2	106.8	108.8	109.7	110.5	110.3	109.5	107.6	106.5	104.4	102.6
60.5°	103.0	105.2	106.9	107.8	108.6	108.4	107.6	106.0	104.6	102.5	101.0
61°	101.2	103.1	105.0	105.9	106.6	106.5	105.7	104.0	102.6	100.5	98.9
61.5°	99.3	101.3	102.9	103.9	104.7	104.7	103.7	102.3	100.7	98.6	97.0
62°	97.3	99.2	101.1	102.0	102.9	102.8	101.9	100.2	98.7	96.6	94.8
62.5°	95.2	97.3	99.2	100.2	101.0	100.9	100.0	98.4	96.8	94.7	92.8
63°	93.3	95.2	97.2	98.3	99.1	99.0	98.1	96.2	94.8	92.8	90.8
63.5°	91.3	93.3	95.2	96.1	97.1	97.1	96.2	94.4	92.8	90.7	88.9
64°	89.3	91.2	93.2	94.0	95.2	95.0	94.2	92.2	90.7	88.6	87.1
64.5°	87.3	89.4	91.1	92.3	93.1	93.1	92.3	90.4	88.8	86.8	85.0
65°	85.3	87.4	89.1	90.4	91.1	91.0	90.3	88.4	86.8	84.9	82.8
65.5°	83.3	85.5	87.3	88.5	89.1	89.1	88.3	86.4	84.8	82.8	80.8
66°	81.3	83.5	85.3	86.3	87.2	86.9	86.2	84.3	82.8	80.7	78.8
66.5°	79.4	81.2	83.3	84.3	85.2	85.1	84.2	82.3	80.7	78.6	76.8
67°	77.5	79.4	81.2	82.2	83.1	83.1	82.2	80.2	78.6	76.7	74.7





TEST NUMBER: P522081  
 CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	75.1	77.4	79.4	80.1	81.1	81.0	80.2	78.3	76.6	74.6	72.7
68°	73.0	75.2	77.5	78.3	79.2	79.1	78.0	76.2	74.5	72.5	70.7
68.5°	70.9	73.1	75.1	76.2	77.1	77.0	76.1	74.1	72.4	70.4	68.5
69°	68.8	71.0	73.0	73.9	75.0	75.0	74.0	72.1	70.4	68.3	66.5
69.5°	66.7	68.9	70.9	71.9	73.0	73.0	72.0	70.0	68.3	66.2	64.6
70°	64.8	66.8	68.9	69.9	71.0	70.9	69.9	68.0	66.2	64.3	62.5
70.5°	62.8	64.8	66.8	67.8	68.8	68.9	67.8	66.0	64.3	62.2	60.4
71°	60.7	62.7	64.8	65.7	66.7	66.7	65.8	64.1	62.2	60.1	58.3
71.5°	58.6	60.8	62.7	63.8	64.7	64.7	63.8	61.9	60.1	58.0	56.4
72°	56.4	58.6	60.6	61.8	62.8	62.7	61.7	59.9	58.0	56.0	54.3
72.5°	54.4	56.7	58.4	59.7	60.8	60.7	59.6	57.9	55.9	54.0	52.3
73°	52.3	54.5	56.3	57.6	58.8	58.6	57.4	55.8	53.7	52.0	50.1
73.5°	50.2	52.4	54.3	55.6	56.7	56.5	55.4	53.8	51.9	49.7	48.1
74°	48.2	50.2	52.4	53.4	54.7	54.5	53.4	51.6	49.8	47.8	46.0
74.5°	46.1	48.2	50.1	51.4	52.7	52.5	51.4	49.6	47.7	45.7	43.8
75°	44.0	46.1	48.1	49.3	50.7	50.5	49.3	47.7	45.7	43.6	41.8
75.5°	41.9	44.0	46.0	47.4	48.6	48.4	47.4	45.6	43.7	41.6	39.9
76°	40.0	41.9	43.9	45.2	46.6	46.3	45.3	43.5	41.6	39.7	37.9
76.5°	37.9	40.0	41.8	43.3	44.5	44.3	43.2	41.5	39.7	37.6	35.8
77°	35.7	37.9	39.9	41.2	42.4	42.2	41.2	39.6	37.7	35.7	33.8
77.5°	33.9	35.9	37.9	39.1	40.5	40.3	39.3	37.6	35.8	33.7	31.9
78°	31.8	33.9	35.8	37.1	38.4	38.2	37.3	35.5	33.7	31.7	30.0
78.5°	30.0	31.9	33.8	35.1	36.5	36.2	35.3	33.6	31.7	29.8	28.1
79°	28.0	30.0	31.8	33.1	34.5	34.2	33.3	31.6	29.7	27.8	26.1
79.5°	26.0	28.0	29.9	31.0	32.4	32.2	31.3	29.7	27.9	25.9	24.2
80°	24.0	26.1	28.1	29.1	30.6	30.4	29.4	27.8	26.0	24.1	22.3
80.5°	22.3	24.2	26.0	27.1	28.7	28.4	27.5	25.9	24.1	22.2	20.6
81°	20.3	22.3	24.0	25.2	26.8	26.6	25.6	24.1	22.3	20.4	18.8
81.5°	18.6	20.5	22.2	23.4	24.9	24.7	23.7	22.2	20.5	18.5	17.0
82°	16.8	18.7	20.4	21.5	23.1	22.8	21.9	20.5	18.6	16.8	15.4
82.5°	15.2	16.9	18.6	19.7	21.2	21.0	20.2	18.6	16.9	15.3	13.8
83°	13.6	15.4	16.8	17.9	19.4	19.3	18.4	17.0	15.4	13.6	12.3
83.5°	12.0	13.7	15.2	16.2	17.7	17.5	16.6	15.3	13.6	12.0	10.6
84°	10.4	12.0	13.6	14.7	16.0	15.8	15.1	13.8	12.1	10.5	9.1
84.5°	9.0	10.5	12.0	13.0	14.4	14.4	13.4	12.1	10.5	9.1	7.7
85°	7.6	9.1	10.4	11.4	12.8	12.8	11.8	10.6	9.1	7.6	6.4
85.5°	6.4	7.7	9.0	9.9	11.3	11.2	10.4	9.1	7.6	6.2	5.1
86°	5.1	6.4	7.5	8.5	9.8	9.6	8.8	7.7	6.3	5.0	3.9
86.5°	4.0	5.2	6.5	7.1	8.3	8.1	7.5	6.3	5.1	3.9	2.9
87°	3.0	4.0	5.1	5.9	7.0	6.8	6.1	5.1	3.9	2.8	2.0
87.5°	2.0	3.0	4.0	4.8	5.8	5.7	4.9	3.9	2.9	1.9	1.2
88°	1.3	2.2	3.0	3.6	4.5	4.4	3.8	2.9	2.0	1.2	0.5
88.5°	0.7	1.4	2.0	2.6	3.5	3.3	2.8	2.0	1.1	0.4	0.0
89°	0.2	0.7	1.3	1.9	2.4	2.2	1.7	1.2	0.4	0.0	0.0
89.5°	0.0	0.3	0.7	1.2	1.5	1.4	0.9	0.5	0.0	0.0	0.0



TEST NUMBER: P522081  
 CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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	0.2	0.6	0.7	0.7	0.3	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: P522081  
 CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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°	0.1	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°	0.1	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°	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.5°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.5°	0.1	0.1	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	0.1	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°	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.1	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: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
135.5°	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139.5°	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
141°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
141.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
143.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
144°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
144.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
145°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
145.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
146°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1
146.5°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1
147°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1
147.5°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
148°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
148.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
149°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
149.5°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1
150°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
150.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
151°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
151.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
152°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
152.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
154°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
154.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
155°	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2
155.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
156°	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
156.5°	0.1	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3
157°	0.1	0.4	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2



TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	0.1	0.4	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.2
158°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.3
158.5°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.3
159°	0.1	0.4	0.1	0.1	0.0	0.3	0.2	0.1	0.1	0.1	0.4
159.5°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.4
160°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.4
160.5°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.4
161°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.4
161.5°	0.1	0.4	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.4
162°	0.1	0.4	0.1	0.1	0.0	0.3	0.3	0.1	0.1	0.1	0.4
162.5°	0.1	0.4	0.1	0.1	0.0	0.2	0.3	0.1	0.1	0.1	0.4
163°	0.1	0.4	0.1	0.1	0.0	0.2	0.3	0.1	0.1	0.1	0.4
163.5°	0.1	0.4	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
164°	0.1	0.4	0.1	0.1	0.0	0.4	0.3	0.1	0.1	0.1	0.4
164.5°	0.1	0.3	0.1	0.1	0.0	0.3	0.3	0.1	0.1	0.1	0.5
165°	0.1	0.4	0.1	0.1	0.0	0.3	0.4	0.1	0.1	0.1	0.5
165.5°	0.1	0.5	0.1	0.1	0.0	0.3	0.4	0.1	0.1	0.1	0.4
166°	0.1	0.5	0.1	0.1	0.0	0.3	0.4	0.1	0.1	0.1	0.4
166.5°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
167°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
167.5°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
168°	0.1	0.1	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
168.5°	0.1	0.1	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
169°	0.1	0.3	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
169.5°	0.1	0.3	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.4	0.4
170°	0.1	0.3	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.4	0.4
170.5°	0.1	0.7	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.5	0.4
171°	0.1	0.7	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.4	0.4
171.5°	0.1	0.7	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.2	0.4
172°	0.1	0.7	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.5	0.4
172.5°	0.1	0.7	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.2	0.4
173°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.2	0.4
173.5°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
174°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
174.5°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
175°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
175.5°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
176°	0.1	0.6	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
176.5°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
177°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
177.5°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
178°	0.1	0.5	0.1	0.1	0.0	0.4	0.4	0.1	0.1	0.1	0.4
178.5°	0.1	0.5	0.1	0.1	0.0	0.4	0.5	0.1	0.1	0.1	0.4
179°	0.1	0.4	0.1	0.1	0.0	0.4	0.5	0.1	0.1	0.1	0.4
179.5°	0.1	0.4	0.1	0.1	0.0	0.4	0.5	0.1	0.1	0.1	0.4



TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	234.6	234.6	234.6	234.6	234.6	234.6
0.5°	234.4	233.4	233.4	234.7	233.7	235.0
1°	234.3	234.0	233.6	234.5	234.3	234.7
1.5°	233.6	233.4	234.3	234.9	234.9	235.2
2°	234.2	233.9	233.5	234.3	235.2	236.3
2.5°	233.4	234.4	232.9	234.9	234.8	234.7
3°	233.9	232.8	233.3	233.6	234.5	234.6
3.5°	233.9	232.4	233.6	234.3	233.7	234.1
4°	233.4	233.0	232.4	233.7	232.8	234.9
4.5°	233.1	233.1	233.1	233.2	233.2	234.8
5°	233.5	233.5	233.9	232.4	233.3	235.4
5.5°	233.1	231.8	232.7	233.0	231.9	233.1
6°	231.4	232.8	232.8	234.0	232.0	232.6
6.5°	232.4	230.7	232.0	233.6	232.0	231.9
7°	232.7	231.6	231.4	232.3	233.0	232.6
7.5°	231.8	230.2	231.8	232.2	233.5	232.6
8°	231.9	230.8	231.4	232.3	231.8	233.1
8.5°	231.2	229.8	230.6	230.0	231.2	231.8
9°	230.4	229.8	230.7	230.4	229.1	231.5
9.5°	228.8	230.2	228.7	230.4	230.4	231.0
10°	230.0	229.1	228.3	230.1	229.7	231.1
10.5°	228.6	228.7	229.7	230.2	229.7	231.4
11°	228.7	228.0	228.4	229.8	229.7	230.5
11.5°	228.0	226.9	228.2	228.9	228.3	229.7
12°	227.2	227.5	228.1	227.2	227.2	229.7
12.5°	226.9	226.0	227.2	226.1	226.2	229.1
13°	226.8	225.3	226.5	226.1	226.1	228.8
13.5°	225.2	224.7	225.2	226.5	226.0	228.1
14°	225.4	224.4	224.6	225.9	225.6	227.0
14.5°	224.1	224.4	224.4	225.2	225.5	226.8
15°	223.9	223.6	223.3	224.4	225.2	225.7
15.5°	223.2	222.5	223.0	223.8	224.6	225.4
16°	223.1	221.6	222.0	223.2	222.7	224.9
16.5°	222.5	221.0	221.0	222.3	222.4	223.6
17°	221.1	220.1	220.7	221.7	222.0	224.1
17.5°	220.9	220.0	220.4	221.0	220.7	222.8
18°	219.9	218.6	219.6	219.5	220.2	221.9
18.5°	218.9	218.3	218.6	219.1	219.5	221.5
19°	219.4	218.0	218.0	218.2	218.9	219.8
19.5°	217.8	217.1	216.9	218.0	217.8	219.3
20°	216.9	216.6	216.6	217.1	217.7	218.3
20.5°	215.7	214.7	216.3	215.7	216.6	217.5
21°	214.6	214.1	214.7	215.5	216.0	216.9
21.5°	213.5	214.0	214.3	214.6	215.0	216.0
22°	213.6	212.8	212.5	214.0	213.7	215.7



TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	212.7	211.9	211.5	213.4	212.7	214.7
23°	211.7	210.7	211.2	212.0	212.3	213.2
23.5°	210.6	210.0	210.5	210.4	211.4	212.4
24°	208.5	208.8	209.7	210.2	210.8	211.4
24.5°	207.4	207.6	208.6	209.1	209.1	210.4
25°	206.9	206.3	207.1	208.0	208.0	210.1
25.5°	207.3	205.6	205.9	206.7	207.2	209.0
26°	205.8	203.5	205.1	205.9	206.2	207.6
26.5°	204.8	203.5	203.8	204.8	205.7	206.6
27°	203.3	203.2	202.7	203.3	204.9	205.4
27.5°	202.2	202.1	201.6	202.4	203.5	204.4
28°	200.9	200.1	200.8	201.2	202.1	203.8
28.5°	200.0	198.5	199.6	200.1	201.1	202.7
29°	198.8	197.6	198.0	198.6	199.8	201.2
29.5°	197.6	195.9	196.9	197.5	198.2	200.3
30°	196.4	194.0	196.1	196.5	197.2	199.1
30.5°	195.3	193.4	194.5	195.6	195.9	197.9
31°	193.9	193.2	193.5	194.6	195.1	197.0
31.5°	192.4	192.2	192.1	193.2	193.5	195.8
32°	191.2	191.7	190.3	191.9	192.4	194.4
32.5°	189.9	191.0	189.2	190.7	191.2	193.2
33°	188.8	189.2	188.0	189.3	190.0	191.9
33.5°	187.7	187.5	186.9	188.4	188.7	190.6
34°	186.6	186.0	185.6	186.9	187.3	189.2
34.5°	185.4	184.8	184.4	185.4	186.1	188.1
35°	184.0	183.7	183.0	184.1	184.8	187.0
35.5°	182.7	182.5	181.7	182.8	183.2	185.4
36°	181.3	180.5	180.4	181.5	181.8	184.2
36.5°	180.0	178.8	179.2	180.3	180.4	182.9
37°	178.5	177.5	177.9	178.8	179.2	181.4
37.5°	177.2	176.0	176.6	177.5	177.7	180.2
38°	175.8	174.1	175.2	176.1	176.3	178.5
38.5°	174.3	172.2	173.8	174.7	175.1	177.4
39°	172.6	171.0	172.3	173.4	173.6	175.8
39.5°	171.3	169.7	170.9	171.7	172.4	173.9
40°	169.7	168.4	169.2	170.5	171.0	172.7
40.5°	168.1	167.2	167.6	168.8	169.5	171.8
41°	166.8	165.9	166.1	167.3	168.2	170.4
41.5°	165.5	164.2	164.4	166.0	166.6	168.3
42°	163.8	163.2	163.0	164.2	165.2	167.1
42.5°	162.4	161.6	161.4	163.0	163.7	165.6
43°	160.9	159.7	159.7	161.0	162.0	164.2
43.5°	159.4	158.0	158.2	159.8	160.6	162.6
44°	157.9	156.6	157.0	157.9	159.1	161.2
44.5°	156.3	155.5	155.0	156.3	157.5	159.8





TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	154.7	153.8	153.4	155.1	156.0	158.3
45.5°	152.9	152.0	151.8	153.6	154.2	156.5
46°	151.4	150.3	150.4	151.7	152.8	154.6
46.5°	149.8	148.3	148.9	150.0	151.1	152.8
47°	147.9	146.8	147.2	148.4	149.4	151.8
47.5°	146.4	145.2	145.7	146.7	147.7	149.9
48°	144.6	143.8	143.8	145.1	146.1	148.3
48.5°	143.0	142.0	142.0	143.6	144.3	146.5
49°	141.2	140.1	140.3	141.9	142.6	144.8
49.5°	139.7	138.2	138.8	140.1	141.2	143.2
50°	137.9	136.4	136.9	138.5	139.4	141.4
50.5°	136.2	134.6	135.3	136.7	137.7	139.6
51°	134.3	133.3	133.8	134.9	135.9	137.8
51.5°	132.5	131.5	131.8	133.0	134.2	136.1
52°	130.7	129.6	129.9	131.2	132.5	134.3
52.5°	129.0	127.6	128.1	129.6	130.6	132.6
53°	127.3	125.6	126.5	127.7	128.8	130.9
53.5°	125.5	124.0	124.8	125.8	126.9	129.3
54°	123.7	122.3	122.7	123.9	124.8	127.7
54.5°	122.0	120.3	120.9	122.0	123.4	125.5
55°	120.1	118.3	119.0	120.3	121.4	123.7
55.5°	118.2	116.8	117.2	118.5	119.4	122.0
56°	116.4	115.0	115.4	116.6	117.7	120.0
56.5°	114.6	113.3	113.9	114.8	115.8	118.1
57°	112.8	111.3	111.7	112.9	114.3	116.2
57.5°	111.0	109.4	109.9	111.0	112.6	114.5
58°	109.1	107.6	107.9	109.1	110.6	112.6
58.5°	107.2	105.8	106.0	107.3	108.7	110.8
59°	105.3	103.8	103.9	105.3	106.6	108.9
59.5°	103.4	101.8	102.1	103.4	104.8	106.9
60°	101.5	99.8	100.1	101.5	102.8	105.2
60.5°	99.5	97.8	98.3	99.6	100.8	103.0
61°	97.6	95.8	96.3	97.4	99.0	101.2
61.5°	95.5	94.0	94.3	95.5	96.9	99.3
62°	93.6	92.0	92.5	93.5	94.9	97.3
62.5°	91.8	89.9	90.5	91.5	92.8	95.2
63°	89.7	88.1	88.4	89.7	91.0	93.3
63.5°	87.7	86.2	86.4	87.6	89.0	91.3
64°	85.7	84.1	84.3	85.6	87.0	89.3
64.5°	83.6	81.9	82.4	83.6	85.1	87.3
65°	81.6	79.9	80.4	81.6	83.1	85.3
65.5°	79.4	77.9	78.3	79.6	81.1	83.3
66°	77.4	76.0	76.3	77.5	79.0	81.3
66.5°	75.3	73.9	74.3	75.3	77.1	79.4
67°	73.3	71.8	72.2	73.5	74.9	77.5



TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	71.2	69.8	70.1	71.2	72.8	75.1
68°	69.1	67.8	67.9	69.2	70.8	73.0
68.5°	67.0	65.6	66.0	67.1	68.6	70.9
69°	65.0	63.6	63.9	65.2	66.5	68.8
69.5°	63.0	61.7	61.8	63.2	64.6	66.7
70°	60.9	59.6	59.9	60.9	62.5	64.8
70.5°	58.9	57.4	57.7	58.9	60.4	62.8
71°	56.8	55.4	55.7	56.9	58.3	60.7
71.5°	54.8	53.3	53.5	54.7	56.1	58.6
72°	52.7	51.1	51.4	52.7	54.3	56.4
72.5°	50.6	49.3	49.4	50.5	52.2	54.4
73°	48.5	47.0	47.3	48.4	50.1	52.3
73.5°	46.4	45.0	45.2	46.4	48.2	50.2
74°	44.4	43.1	43.2	44.3	46.0	48.2
74.5°	42.4	41.0	41.0	42.2	43.8	46.1
75°	40.4	39.0	39.1	40.3	41.8	44.0
75.5°	38.4	37.0	37.1	38.2	39.8	41.9
76°	36.4	34.9	35.0	36.1	37.6	40.0
76.5°	34.4	32.9	33.0	34.2	35.6	37.9
77°	32.5	31.0	31.0	32.2	33.7	35.7
77.5°	30.5	28.9	29.2	30.2	31.7	33.9
78°	28.6	27.0	27.1	28.3	29.7	31.8
78.5°	26.6	25.1	25.2	26.3	27.9	30.0
79°	24.8	23.2	23.4	24.4	25.9	28.0
79.5°	22.9	21.3	21.5	22.6	24.0	26.0
80°	21.0	19.5	19.6	20.7	22.1	24.0
80.5°	19.3	17.6	17.8	18.9	20.2	22.3
81°	17.6	16.0	16.2	17.1	18.6	20.3
81.5°	15.9	14.4	14.6	15.5	16.8	18.6
82°	14.3	12.8	12.9	13.9	15.2	16.8
82.5°	12.7	11.2	11.4	12.3	13.6	15.2
83°	11.2	9.8	9.9	10.7	11.9	13.6
83.5°	9.6	8.3	8.5	9.2	10.4	12.0
84°	8.1	7.0	7.1	7.8	8.9	10.4
84.5°	6.8	5.7	5.8	6.5	7.5	9.0
85°	5.5	4.6	4.6	5.2	6.4	7.6
85.5°	4.4	3.6	3.6	4.1	5.0	6.4
86°	3.3	2.5	2.7	3.1	3.9	5.1
86.5°	2.2	1.7	1.8	2.2	2.9	4.0
87°	1.3	1.0	1.1	1.4	2.0	3.0
87.5°	0.6	0.4	0.4	0.7	1.3	2.0
88°	0.0	0.2	0.1	0.3	0.7	1.3
88.5°	0.0	0.0	0.0	0.0	0.3	0.7
89°	0.0	0.0	0.0	0.0	0.0	0.2
89.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P522081  
 CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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	0.1
123.5°	0.0	0.1	0.1	0.1	0.1	0.1
124°	0.0	0.1	0.0	0.1	0.1	0.1
124.5°	0.0	0.1	0.1	0.1	0.1	0.1
125°	0.0	0.1	0.1	0.1	0.1	0.1
125.5°	0.0	0.1	0.1	0.1	0.1	0.1
126°	0.0	0.1	0.0	0.1	0.1	0.1
126.5°	0.0	0.1	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	0.1	0.1	0.1	0.1	0.2
128°	0.0	0.1	0.1	0.1	0.1	0.1
128.5°	0.0	0.1	0.1	0.1	0.1	0.1
129°	0.0	0.1	0.1	0.1	0.1	0.1
129.5°	0.0	0.1	0.1	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	0.2	0.1	0.2
132°	0.0	0.1	0.1	0.1	0.1	0.1
132.5°	0.0	0.1	0.1	0.1	0.1	0.1
133°	0.0	0.1	0.1	0.1	0.1	0.1
133.5°	0.0	0.1	0.1	0.1	0.1	0.1
134°	0.0	0.1	0.2	0.1	0.1	0.1
134.5°	0.0	0.1	0.2	0.1	0.1	0.1



TEST NUMBER: P522081  
 CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.1	0.1	0.1	0.1	0.1	0.1
158°	0.1	0.1	0.1	0.1	0.1	0.1
158.5°	0.1	0.1	0.1	0.1	0.1	0.1
159°	0.1	0.1	0.1	0.1	0.1	0.1
159.5°	0.1	0.1	0.1	0.1	0.1	0.1
160°	0.1	0.1	0.1	0.1	0.1	0.1
160.5°	0.1	0.1	0.1	0.1	0.1	0.1
161°	0.1	0.1	0.1	0.1	0.1	0.1
161.5°	0.1	0.1	0.1	0.1	0.1	0.1
162°	0.1	0.1	0.1	0.1	0.1	0.1
162.5°	0.1	0.1	0.1	0.1	0.1	0.1
163°	0.1	0.1	0.1	0.1	0.1	0.1
163.5°	0.1	0.1	0.1	0.1	0.1	0.1
164°	0.1	0.1	0.1	0.1	0.1	0.1
164.5°	0.1	0.1	0.1	0.1	0.1	0.1
165°	0.1	0.1	0.1	0.1	0.1	0.1
165.5°	0.1	0.1	0.1	0.1	0.1	0.1
166°	0.1	0.1	0.1	0.1	0.1	0.1
166.5°	0.1	0.1	0.1	0.1	0.1	0.1
167°	0.1	0.1	0.1	0.1	0.1	0.1
167.5°	0.1	0.1	0.1	0.1	0.1	0.1
168°	0.1	0.1	0.1	0.1	0.1	0.1
168.5°	0.1	0.1	0.1	0.1	0.1	0.1
169°	0.1	0.1	0.1	0.1	0.1	0.1
169.5°	0.1	0.1	0.1	0.1	0.1	0.1
170°	0.1	0.1	0.1	0.1	0.1	0.1
170.5°	0.1	0.1	0.1	0.1	0.1	0.1
171°	0.1	0.1	0.1	0.1	0.1	0.1
171.5°	0.1	0.1	0.1	0.1	0.1	0.1
172°	0.1	0.1	0.1	0.1	0.1	0.1
172.5°	0.1	0.1	0.1	0.1	0.1	0.1
173°	0.1	0.1	0.1	0.1	0.1	0.1
173.5°	0.1	0.1	0.1	0.1	0.1	0.1
174°	0.1	0.1	0.2	0.1	0.1	0.1
174.5°	0.1	0.2	0.2	0.1	0.1	0.1
175°	0.1	0.2	0.2	0.1	0.1	0.1
175.5°	0.1	0.2	0.2	0.1	0.1	0.1
176°	0.1	0.3	0.2	0.1	0.1	0.1
176.5°	0.1	0.4	0.4	0.1	0.1	0.1
177°	0.1	0.4	0.4	0.1	0.1	0.1
177.5°	0.1	0.4	0.5	0.1	0.1	0.1
178°	0.1	0.4	0.5	0.1	0.1	0.1
178.5°	0.1	0.4	0.5	0.1	0.1	0.1
179°	0.1	0.4	0.5	0.1	0.1	0.1
179.5°	0.1	0.4	0.5	0.1	0.1	0.1



TEST NUMBER: P522081

CATALOG NUMBER: HLBQL4069BLE40AWH-4000K-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)