

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: P522079

Luminaire Tested: **HLBQL4069BLE40AWH-3000K-UNIT**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522079
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-3000K-UNIT
Description: Surface Mount Downlight Fixture, Single Unit
Light Source: (16) 3000K CCT, 94 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

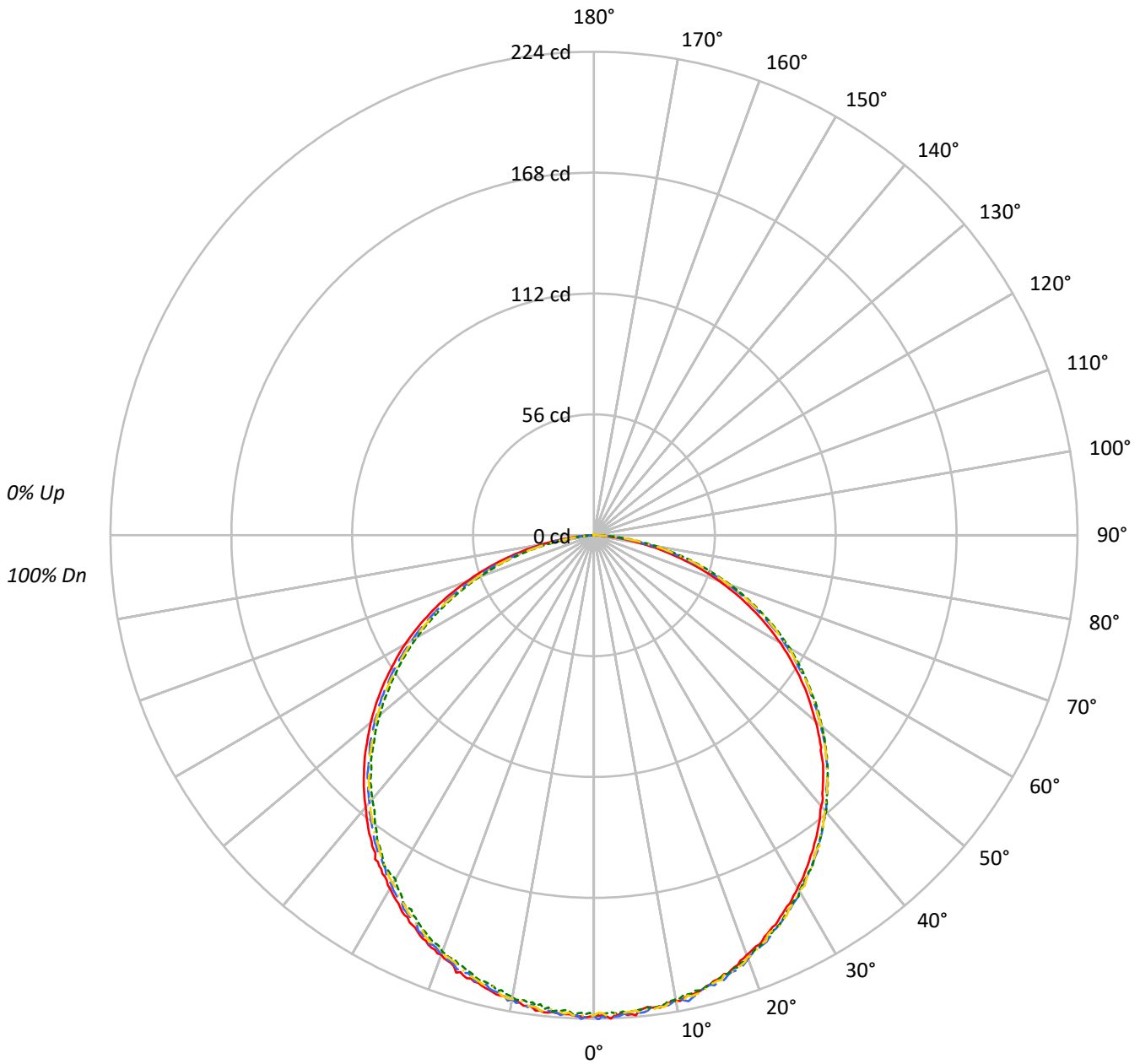
Lumens per Lamp: N/A
Luminaire Lumens: 640.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

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: P522079
CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

Luminous Intensity Polar Plot



0% Up
100% Dn

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



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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°	2555	2555	2555	2555
5°	2573	2551	2556	2552
10°	2555	2545	2546	2532
15°	2544	2550	2546	2520
20°	2529	2545	2528	2510
25°	2524	2539	2524	2478
30°	2503	2524	2506	2440
35°	2485	2513	2494	2442
40°	2455	2508	2466	2394
45°	2437	2486	2444	2368
50°	2394	2465	2410	2311
55°	2348	2434	2370	2246
60°	2290	2407	2319	2172
65°	2198	2347	2236	2059
70°	2061	2259	2105	1897
75°	1850	2134	1921	1637
80°	1508	1918	1627	1223
85°	949	1607	1133	566



TEST NUMBER: P522079
 CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.0	3.3
10°-20°	60.3	9.4
20°-30°	91.6	14.3
30°-40°	110.8	17.3
40°-50°	115.5	18.0
50°-60°	105.0	16.4
60°-70°	80.4	12.6
70°-80°	44.9	7.0
80°-90°	10.1	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
0°-30°	173.0	27.0
0°-40°	283.7	44.3
0°-60°	504.3	78.8
0°-90°	639.8	100.0
90°-120°	0.0	0.0
90°-150°	0.1	0.0
90°-180°	0.0	0.0
0°-180°	640.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	222	222	222	222	222	
5°	223	221	222	221	223	21
15°	214	214	214	212	214	60
25°	199	200	199	196	199	92
35°	177	179	178	174	177	111
45°	150	153	150	146	150	115
55°	117	122	118	112	117	105
65°	81	86	82	76	81	80
75°	42	48	43	37	42	44
85°	7	12	9	4	7	9
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: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	222.5	222.5	222.5	222.5	222.5	222.5	222.5	222.5	222.5	222.5	222.5
0.5°	222.8	223.1	224.5	222.5	221.8	221.7	221.3	222.8	223.0	221.9	224.0
1°	222.5	222.8	223.0	221.7	221.8	222.4	221.5	221.9	223.4	223.5	223.2
1.5°	223.0	223.7	223.7	222.4	221.6	222.6	222.6	222.4	223.0	222.6	224.2
2°	224.1	225.1	223.5	223.7	221.0	222.7	222.6	222.4	223.1	222.4	222.6
2.5°	222.6	224.2	223.2	223.3	221.8	222.4	222.0	223.0	222.6	222.4	222.7
3°	222.4	222.8	223.1	223.1	221.7	222.7	221.7	222.8	222.2	222.6	222.1
3.5°	222.0	221.9	222.3	222.3	221.1	221.7	221.8	222.6	222.3	223.2	222.2
4°	222.8	222.6	222.1	222.6	221.9	222.5	221.5	221.9	222.2	223.0	222.8
4.5°	222.6	221.8	222.8	222.4	221.3	222.0	221.5	221.6	222.1	221.9	221.9
5°	223.2	221.6	221.7	222.4	221.3	221.7	221.0	221.4	221.8	221.3	221.5
5.5°	221.0	220.8	222.3	221.7	220.8	221.7	222.0	221.7	222.2	222.1	221.3
6°	220.5	221.5	222.3	221.6	220.6	221.3	222.4	221.9	222.3	221.7	221.3
6.5°	219.9	221.5	221.6	221.8	220.3	221.7	220.5	220.4	221.6	219.4	221.5
7°	220.5	221.5	219.9	221.7	220.4	221.7	221.5	220.5	221.9	220.5	220.7
7.5°	220.6	220.8	219.5	220.5	220.7	219.7	221.0	220.5	220.4	219.7	219.4
8°	221.0	220.5	220.6	221.2	220.2	219.6	220.5	220.2	220.2	219.1	220.8
8.5°	219.8	219.5	220.3	220.9	220.2	218.8	221.0	219.5	220.4	219.9	219.9
9°	219.5	218.7	220.5	220.2	218.6	219.9	219.7	219.7	219.4	219.1	219.3
9.5°	219.0	219.1	219.7	219.7	218.7	220.2	220.3	218.6	218.6	219.0	219.7
10°	219.1	219.7	218.4	219.8	218.3	218.7	219.8	219.0	218.4	218.6	218.2
10.5°	219.4	218.8	218.5	219.9	218.3	219.4	218.3	218.2	218.3	217.6	219.3
11°	218.6	217.6	219.5	218.5	217.1	218.6	219.1	218.6	217.7	217.3	217.5
11.5°	217.7	217.8	220.3	218.0	217.1	218.6	217.7	217.6	217.6	218.0	216.8
12°	217.8	217.2	219.1	218.7	217.1	217.6	218.3	216.8	217.5	215.3	216.4
12.5°	217.3	217.3	218.2	217.6	216.2	217.6	217.9	216.4	216.8	215.8	216.1
13°	216.9	217.3	217.2	217.1	216.4	216.1	217.7	215.7	216.2	215.6	215.5
13.5°	216.3	217.4	216.1	216.7	216.4	215.5	216.4	215.8	215.7	214.7	214.1
14°	215.3	216.6	215.7	215.7	215.5	215.6	216.4	214.9	215.1	214.4	214.4
14.5°	215.0	214.9	215.1	215.1	214.9	215.5	215.0	214.6	214.2	213.9	214.0
15°	214.0	213.8	215.9	214.1	214.5	214.7	214.7	213.9	214.2	213.1	213.8
15.5°	213.7	213.0	215.1	214.2	213.9	214.0	214.2	212.9	213.2	212.7	212.2
16°	213.2	213.0	215.2	214.0	213.1	213.6	214.5	212.9	213.5	212.0	211.1
16.5°	212.0	212.4	214.2	213.5	212.2	212.9	212.4	212.5	212.8	211.3	211.5
17°	212.5	212.4	212.9	212.9	212.4	212.8	212.3	212.4	211.6	211.1	210.3
17.5°	211.3	212.7	212.2	211.8	211.3	212.0	212.3	210.5	212.5	210.5	210.9
18°	210.4	211.3	212.2	211.6	210.9	211.0	211.9	210.9	210.0	209.9	209.4
18.5°	210.0	209.7	211.7	210.6	211.0	210.7	211.1	209.9	209.0	209.0	208.2
19°	208.4	208.9	211.3	209.8	209.4	209.8	210.5	208.9	208.5	208.5	208.2
19.5°	207.9	208.9	210.0	209.2	209.4	208.9	209.6	208.5	208.0	207.8	207.3
20°	207.0	208.1	208.9	208.5	208.3	208.3	207.9	207.9	206.9	206.7	206.9
20.5°	206.3	205.8	207.6	207.8	207.6	207.6	208.2	206.8	206.8	206.3	205.6
21°	205.6	205.8	206.8	207.0	206.5	206.5	207.4	206.1	205.7	204.7	204.5
21.5°	204.8	206.3	206.7	206.3	205.6	206.3	206.3	205.3	205.4	204.1	204.0
22°	204.5	205.0	205.6	206.2	205.3	205.1	205.8	204.4	204.7	203.9	204.2



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	203.6	204.0	205.1	205.0	204.6	204.1	204.6	203.9	203.4	203.0	202.6
23°	202.1	203.9	204.7	204.9	203.7	204.1	204.3	203.7	203.0	201.8	201.9
23.5°	201.4	202.8	203.4	203.6	202.5	202.6	201.9	202.7	202.1	201.2	200.9
24°	200.5	201.7	202.5	202.9	201.9	201.9	201.1	201.5	201.0	200.1	200.5
24.5°	199.5	201.0	201.4	201.9	201.0	201.4	201.0	200.8	199.7	199.0	197.9
25°	199.2	199.8	200.6	200.9	200.4	200.4	200.7	199.2	199.2	198.1	197.8
25.5°	198.1	198.8	199.7	200.4	199.8	199.3	200.3	198.8	198.6	197.5	196.8
26°	196.8	197.9	198.9	199.8	198.8	198.8	198.9	197.7	196.9	196.7	196.0
26.5°	195.9	197.3	197.9	198.5	197.5	198.1	198.1	197.2	196.7	196.2	195.0
27°	194.8	196.1	197.1	197.2	196.0	197.0	197.3	195.8	195.8	194.6	194.3
27.5°	193.8	194.7	196.1	196.4	195.5	196.1	195.5	194.6	194.4	193.4	192.6
28°	193.3	194.3	195.0	195.4	194.5	194.8	194.8	193.8	193.1	192.4	191.5
28.5°	192.2	192.6	193.8	194.3	193.3	193.9	193.7	192.6	192.3	191.7	190.9
29°	190.8	191.5	193.1	193.2	192.6	193.1	192.6	192.2	191.2	190.4	189.8
29.5°	190.0	191.1	192.1	191.8	192.5	191.9	191.5	190.1	190.2	188.5	188.9
30°	188.8	190.0	191.0	191.3	190.4	190.8	190.7	189.5	189.0	187.8	187.3
30.5°	187.6	188.4	189.7	190.2	189.3	189.8	189.8	188.9	188.1	186.9	186.4
31°	186.8	187.6	188.6	188.5	187.8	189.0	189.5	187.6	186.5	185.9	185.1
31.5°	185.6	186.5	187.3	187.3	187.2	187.8	187.9	185.6	185.4	184.7	184.2
32°	184.3	185.0	186.3	186.5	186.5	186.4	186.5	185.2	185.0	183.5	182.3
32.5°	183.1	184.0	185.4	185.5	185.1	185.6	184.8	184.1	183.4	182.5	181.2
33°	182.0	182.8	184.1	184.5	184.5	184.7	184.5	183.2	182.7	181.0	180.1
33.5°	180.7	182.1	183.1	183.3	183.4	183.4	183.3	181.6	181.4	180.0	178.7
34°	179.4	180.8	182.0	182.4	182.0	181.6	181.8	180.5	181.2	178.9	178.0
34.5°	178.3	179.6	180.8	180.7	180.3	180.6	180.5	179.8	178.7	177.8	177.2
35°	177.3	178.3	179.9	179.8	179.3	179.6	179.3	178.7	177.9	176.6	175.8
35.5°	175.8	177.0	178.9	178.7	178.1	178.5	178.3	177.3	176.9	175.0	174.8
36°	174.6	175.6	177.4	177.5	177.1	177.4	177.8	176.1	175.3	173.9	173.4
36.5°	173.5	174.4	175.9	176.2	176.0	175.9	175.7	174.8	174.1	173.0	172.0
37°	172.0	173.1	174.8	174.8	174.5	174.8	174.3	173.6	173.0	171.9	170.5
37.5°	170.8	171.7	173.5	173.3	173.2	173.4	173.7	172.3	171.6	170.4	169.0
38°	169.3	170.5	172.1	172.2	172.1	172.1	172.0	171.0	170.2	169.1	167.7
38.5°	168.2	169.3	171.0	170.9	170.3	171.0	170.7	169.6	168.8	167.8	166.3
39°	166.6	168.0	169.5	169.7	169.4	169.6	169.2	168.4	167.4	165.7	165.2
39.5°	164.9	166.8	168.1	168.2	168.5	168.3	167.6	167.1	165.8	165.0	163.8
40°	163.8	165.4	167.0	166.8	167.3	166.8	166.7	165.7	164.5	163.6	161.9
40.5°	162.9	164.0	165.7	165.4	166.0	165.6	165.3	164.4	163.2	161.8	160.6
41°	161.6	162.4	164.0	164.2	164.4	164.3	163.8	162.9	161.9	160.2	159.1
41.5°	159.6	161.1	162.7	162.9	162.5	162.9	162.6	161.4	160.5	159.0	158.0
42°	158.5	159.6	161.3	161.6	161.4	161.8	161.2	160.0	159.1	157.7	156.1
42.5°	157.0	158.0	159.4	160.2	160.2	160.2	159.9	158.5	157.8	156.2	155.2
43°	155.6	156.9	158.3	158.7	158.8	158.7	158.5	157.2	156.3	154.9	153.8
43.5°	154.2	155.7	156.9	157.4	157.4	157.4	157.1	155.8	154.9	153.4	152.3
44°	152.9	154.2	155.6	156.0	155.9	156.0	155.6	154.4	153.4	151.8	150.7
44.5°	151.5	152.6	154.1	154.6	154.5	154.7	154.3	153.0	152.0	150.3	149.0



TEST NUMBER: P522079
 CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	150.1	151.1	152.7	153.0	153.1	153.2	152.8	151.5	150.5	149.0	147.6
45.5°	148.3	149.7	151.4	151.7	151.6	151.7	151.4	149.9	148.9	147.4	146.2
46°	146.6	148.2	149.7	150.2	150.1	150.2	149.8	148.3	147.6	145.9	144.5
46.5°	144.8	146.8	148.2	148.7	148.7	148.7	148.3	146.9	145.9	144.4	143.2
47°	143.9	145.0	146.8	147.2	147.1	147.2	146.8	145.5	144.2	142.8	142.0
47.5°	142.2	143.5	145.3	145.7	145.7	146.0	145.2	143.7	142.6	141.1	140.2
48°	140.6	142.1	143.9	144.4	144.1	144.4	143.6	142.2	141.2	139.5	138.5
48.5°	138.9	140.7	142.1	142.6	142.7	142.6	142.1	140.7	139.5	137.8	136.9
49°	137.3	138.9	140.6	141.3	141.2	141.0	140.6	139.2	138.0	136.4	135.3
49.5°	135.8	137.1	138.7	139.8	139.5	139.4	139.1	137.7	136.4	134.9	133.6
50°	134.0	135.7	137.3	138.0	138.0	137.8	137.4	136.2	134.9	133.3	132.0
50.5°	132.3	134.0	135.4	136.0	136.3	136.2	135.8	134.4	133.3	131.6	130.2
51°	130.7	132.3	133.9	134.7	134.8	134.9	134.0	133.0	131.7	129.9	128.8
51.5°	129.0	130.7	132.3	133.1	133.2	133.4	132.3	131.5	130.1	128.3	127.4
52°	127.4	128.9	130.7	131.5	131.7	131.6	130.7	129.8	128.5	126.5	125.5
52.5°	125.7	127.5	129.0	129.8	130.1	130.0	129.2	127.9	126.8	124.9	124.1
53°	124.1	125.9	127.4	128.1	128.5	128.3	127.6	126.3	125.0	123.2	122.1
53.5°	122.6	124.1	125.6	126.3	126.7	126.6	125.9	124.7	123.3	121.7	120.6
54°	121.0	122.4	124.0	124.5	124.8	125.0	124.3	123.3	121.7	120.1	118.8
54.5°	119.0	120.7	122.5	123.0	123.3	123.5	122.7	121.5	120.1	118.4	116.9
55°	117.3	119.1	120.8	121.3	121.6	121.9	121.0	119.7	118.4	116.6	115.4
55.5°	115.7	117.4	119.2	119.5	119.9	120.2	119.3	118.0	116.5	114.9	113.8
56°	113.8	115.7	117.5	117.8	118.3	118.4	117.6	116.2	114.9	113.2	112.0
56.5°	112.0	113.9	115.6	116.2	116.8	116.8	115.9	114.7	113.1	111.6	110.1
57°	110.2	112.0	113.5	114.4	115.1	115.1	114.0	112.9	111.3	109.8	108.5
57.5°	108.5	110.2	111.9	112.6	113.3	113.3	112.3	111.3	109.6	108.1	106.7
58°	106.7	108.5	110.2	110.9	111.6	111.5	110.5	109.4	108.0	106.2	104.8
58.5°	105.1	106.9	108.5	109.1	109.8	109.7	108.8	107.6	106.3	104.3	103.0
59°	103.2	105.0	106.7	107.6	108.1	108.0	107.4	105.6	104.5	102.5	101.1
59.5°	101.4	103.2	104.9	105.6	106.5	106.3	105.6	104.0	102.8	100.7	99.3
60°	99.7	101.3	103.2	104.0	104.8	104.5	103.9	102.0	101.0	99.0	97.3
60.5°	97.7	99.7	101.4	102.2	103.0	102.8	102.1	100.5	99.2	97.2	95.7
61°	95.9	97.8	99.6	100.4	101.1	101.0	100.2	98.6	97.3	95.3	93.7
61.5°	94.2	96.0	97.6	98.6	99.3	99.2	98.3	97.0	95.5	93.5	92.0
62°	92.3	94.1	95.9	96.7	97.6	97.5	96.6	95.0	93.6	91.6	89.9
62.5°	90.3	92.2	94.1	95.0	95.8	95.7	94.8	93.3	91.7	89.8	88.0
63°	88.4	90.3	92.2	93.2	93.9	93.9	93.0	91.2	89.9	88.0	86.1
63.5°	86.6	88.4	90.2	91.1	92.0	92.0	91.2	89.5	88.0	86.0	84.3
64°	84.7	86.5	88.4	89.1	90.2	90.1	89.3	87.4	86.0	84.0	82.6
64.5°	82.8	84.7	86.4	87.5	88.3	88.2	87.5	85.7	84.2	82.3	80.6
65°	80.9	82.9	84.5	85.7	86.4	86.2	85.6	83.8	82.3	80.5	78.5
65.5°	79.0	81.1	82.7	83.9	84.5	84.5	83.7	81.9	80.4	78.5	76.6
66°	77.1	79.2	80.9	81.8	82.7	82.4	81.8	79.9	78.5	76.5	74.8
66.5°	75.2	77.0	79.0	79.9	80.7	80.7	79.8	78.1	76.5	74.6	72.8
67°	73.5	75.3	77.0	77.9	78.8	78.7	77.9	76.1	74.6	72.7	70.8



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	71.3	73.4	75.2	75.9	76.9	76.8	76.1	74.2	72.6	70.8	68.9
68°	69.2	71.3	73.5	74.3	75.1	75.0	74.0	72.2	70.6	68.8	67.0
68.5°	67.2	69.3	71.3	72.2	73.1	73.0	72.1	70.3	68.6	66.7	65.0
69°	65.3	67.3	69.3	70.1	71.1	71.1	70.2	68.4	66.7	64.8	63.1
69.5°	63.3	65.3	67.3	68.2	69.3	69.2	68.2	66.4	64.7	62.8	61.3
70°	61.4	63.3	65.3	66.3	67.3	67.2	66.3	64.5	62.7	61.0	59.2
70.5°	59.6	61.4	63.3	64.3	65.3	65.3	64.3	62.6	60.9	59.0	57.3
71°	57.6	59.4	61.4	62.3	63.3	63.3	62.4	60.7	58.9	57.0	55.3
71.5°	55.6	57.6	59.4	60.5	61.3	61.3	60.5	58.7	57.0	55.0	53.4
72°	53.5	55.6	57.4	58.6	59.6	59.5	58.5	56.8	55.0	53.1	51.5
72.5°	51.6	53.7	55.4	56.6	57.6	57.6	56.5	54.9	53.0	51.2	49.6
73°	49.6	51.7	53.4	54.6	55.8	55.6	54.5	52.9	51.0	49.3	47.5
73.5°	47.6	49.7	51.5	52.7	53.7	53.6	52.5	51.0	49.2	47.1	45.6
74°	45.7	47.6	49.7	50.6	51.9	51.7	50.6	49.0	47.2	45.3	43.6
74.5°	43.7	45.7	47.5	48.7	49.9	49.8	48.7	47.0	45.3	43.3	41.5
75°	41.7	43.7	45.6	46.8	48.1	47.9	46.8	45.2	43.3	41.3	39.6
75.5°	39.7	41.7	43.6	44.9	46.1	45.9	44.9	43.3	41.4	39.5	37.8
76°	37.9	39.8	41.6	42.8	44.2	43.9	43.0	41.3	39.5	37.6	35.9
76.5°	35.9	38.0	39.6	41.1	42.2	42.0	41.0	39.3	37.6	35.6	34.0
77°	33.8	36.0	37.8	39.1	40.2	40.0	39.1	37.6	35.8	33.8	32.0
77.5°	32.2	34.0	35.9	37.1	38.4	38.2	37.3	35.6	33.9	31.9	30.3
78°	30.2	32.2	34.0	35.2	36.5	36.2	35.4	33.7	32.0	30.1	28.4
78.5°	28.4	30.3	32.0	33.3	34.6	34.3	33.4	31.8	30.1	28.3	26.6
79°	26.5	28.5	30.1	31.4	32.7	32.5	31.6	30.0	28.2	26.3	24.8
79.5°	24.6	26.5	28.3	29.4	30.7	30.5	29.7	28.2	26.4	24.6	23.0
80°	22.8	24.8	26.6	27.6	29.0	28.8	27.9	26.3	24.6	22.8	21.2
80.5°	21.1	22.9	24.6	25.7	27.2	27.0	26.1	24.6	22.8	21.0	19.5
81°	19.3	21.1	22.8	23.9	25.4	25.2	24.3	22.8	21.1	19.3	17.8
81.5°	17.6	19.5	21.0	22.1	23.6	23.5	22.5	21.0	19.4	17.5	16.1
82°	16.0	17.7	19.3	20.4	21.9	21.6	20.8	19.4	17.7	16.0	14.6
82.5°	14.4	16.0	17.7	18.6	20.1	19.9	19.1	17.7	16.0	14.5	13.1
83°	12.9	14.6	16.0	17.0	18.4	18.3	17.4	16.1	14.6	12.9	11.6
83.5°	11.3	13.0	14.4	15.4	16.8	16.6	15.7	14.5	12.9	11.4	10.0
84°	9.9	11.4	12.9	13.9	15.1	15.0	14.3	13.1	11.5	10.0	8.7
84.5°	8.5	10.0	11.3	12.3	13.7	13.6	12.7	11.5	10.0	8.6	7.3
85°	7.2	8.7	9.9	10.8	12.2	12.1	11.2	10.0	8.6	7.2	6.1
85.5°	6.1	7.3	8.5	9.4	10.7	10.6	9.8	8.6	7.2	5.9	4.8
86°	4.8	6.1	7.2	8.0	9.3	9.1	8.4	7.3	6.0	4.7	3.7
86.5°	3.8	4.9	6.1	6.7	7.9	7.7	7.1	6.0	4.8	3.7	2.8
87°	2.8	3.8	4.8	5.6	6.6	6.5	5.8	4.8	3.7	2.7	1.9
87.5°	1.9	2.9	3.8	4.5	5.5	5.4	4.7	3.7	2.8	1.8	1.1
88°	1.2	2.1	2.8	3.4	4.3	4.2	3.6	2.8	1.9	1.1	0.5
88.5°	0.6	1.3	1.9	2.5	3.3	3.1	2.7	1.9	1.0	0.4	0.0
89°	0.2	0.7	1.2	1.8	2.3	2.1	1.7	1.2	0.4	0.0	0.0
89.5°	0.0	0.3	0.6	1.1	1.4	1.3	0.9	0.5	0.0	0.0	0.0



TEST NUMBER: P522079
 CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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	0.6	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: P522079
 CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
156.5°	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3
157°	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	222.5	222.5	222.5	222.5	222.5	222.5
0.5°	222.2	221.3	221.3	222.6	221.6	222.8
1°	222.1	221.9	221.5	222.4	222.1	222.5
1.5°	221.5	221.3	222.1	222.7	222.7	223.0
2°	222.1	221.7	221.4	222.1	223.0	224.1
2.5°	221.3	222.2	220.8	222.7	222.6	222.6
3°	221.8	220.7	221.2	221.5	222.4	222.4
3.5°	221.7	220.4	221.5	222.1	221.6	222.0
4°	221.3	220.9	220.4	221.6	220.8	222.8
4.5°	221.0	221.0	221.0	221.1	221.1	222.6
5°	221.4	221.4	221.7	220.4	221.2	223.2
5.5°	221.0	219.8	220.6	220.9	219.9	221.0
6°	219.4	220.8	220.8	221.9	219.9	220.5
6.5°	220.4	218.7	219.9	221.5	219.9	219.9
7°	220.6	219.6	219.4	220.3	220.9	220.5
7.5°	219.8	218.3	219.7	220.2	221.4	220.6
8°	219.9	218.8	219.4	220.2	219.8	221.0
8.5°	219.3	217.9	218.6	218.1	219.2	219.8
9°	218.5	217.9	218.8	218.5	217.3	219.5
9.5°	216.9	218.3	216.8	218.5	218.5	219.0
10°	218.1	217.2	216.5	218.2	217.8	219.1
10.5°	216.8	216.8	217.8	218.3	217.7	219.4
11°	216.8	216.2	216.6	217.9	217.7	218.6
11.5°	216.2	215.1	216.4	217.1	216.5	217.7
12°	215.4	215.7	216.2	215.4	215.4	217.8
12.5°	215.1	214.3	215.4	214.4	214.4	217.3
13°	215.0	213.6	214.7	214.4	214.4	216.9
13.5°	213.5	213.1	213.5	214.7	214.3	216.3
14°	213.7	212.7	213.0	214.2	213.9	215.3
14.5°	212.5	212.8	212.8	213.5	213.8	215.0
15°	212.3	212.0	211.8	212.8	213.5	214.0
15.5°	211.6	210.9	211.4	212.2	212.9	213.7
16°	211.6	210.1	210.5	211.6	211.1	213.2
16.5°	210.9	209.6	209.6	210.8	210.9	212.0
17°	209.6	208.7	209.3	210.2	210.5	212.5
17.5°	209.5	208.6	208.9	209.6	209.3	211.3
18°	208.5	207.3	208.3	208.1	208.8	210.4
18.5°	207.6	206.9	207.3	207.7	208.1	210.0
19°	208.0	206.7	206.7	206.9	207.6	208.4
19.5°	206.5	205.8	205.6	206.7	206.5	207.9
20°	205.6	205.4	205.4	205.8	206.4	207.0
20.5°	204.5	203.6	205.1	204.5	205.4	206.3
21°	203.5	203.0	203.6	204.3	204.8	205.6
21.5°	202.5	202.9	203.2	203.5	203.9	204.8
22°	202.5	201.8	201.5	202.9	202.6	204.5



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	201.7	200.9	200.5	202.3	201.7	203.6
23°	200.7	199.8	200.2	201.0	201.3	202.1
23.5°	199.7	199.1	199.6	199.5	200.4	201.4
24°	197.7	197.9	198.8	199.3	199.9	200.5
24.5°	196.6	196.8	197.8	198.2	198.2	199.5
25°	196.1	195.6	196.4	197.2	197.2	199.2
25.5°	196.6	194.9	195.3	196.0	196.4	198.1
26°	195.1	192.9	194.4	195.2	195.5	196.8
26.5°	194.2	192.9	193.2	194.2	195.0	195.9
27°	192.8	192.6	192.2	192.8	194.3	194.8
27.5°	191.7	191.6	191.1	191.9	192.9	193.8
28°	190.5	189.7	190.4	190.8	191.6	193.3
28.5°	189.6	188.2	189.3	189.8	190.7	192.2
29°	188.4	187.3	187.7	188.3	189.4	190.8
29.5°	187.3	185.8	186.7	187.3	188.0	190.0
30°	186.2	184.0	186.0	186.3	187.0	188.8
30.5°	185.1	183.4	184.5	185.4	185.8	187.6
31°	183.8	183.2	183.5	184.5	184.9	186.8
31.5°	182.4	182.3	182.1	183.1	183.4	185.6
32°	181.3	181.8	180.5	182.0	182.5	184.3
32.5°	180.1	181.1	179.4	180.8	181.3	183.1
33°	179.0	179.4	178.3	179.5	180.1	182.0
33.5°	178.0	177.8	177.2	178.6	179.0	180.7
34°	176.9	176.3	176.0	177.2	177.6	179.4
34.5°	175.8	175.2	174.8	175.8	176.4	178.3
35°	174.4	174.2	173.5	174.6	175.2	177.3
35.5°	173.2	173.0	172.3	173.3	173.7	175.8
36°	171.9	171.1	171.0	172.1	172.4	174.6
36.5°	170.6	169.5	169.9	171.0	171.0	173.5
37°	169.3	168.3	168.6	169.5	169.9	172.0
37.5°	168.0	166.8	167.5	168.3	168.5	170.8
38°	166.7	165.1	166.2	167.0	167.2	169.3
38.5°	165.3	163.3	164.8	165.6	166.0	168.2
39°	163.7	162.1	163.3	164.4	164.6	166.6
39.5°	162.4	160.9	162.0	162.8	163.5	164.9
40°	160.9	159.7	160.5	161.6	162.1	163.8
40.5°	159.4	158.5	158.9	160.0	160.7	162.9
41°	158.1	157.3	157.5	158.6	159.5	161.6
41.5°	156.9	155.6	155.9	157.4	158.0	159.6
42°	155.3	154.7	154.5	155.7	156.6	158.5
42.5°	154.0	153.2	153.0	154.5	155.2	157.0
43°	152.5	151.4	151.4	152.7	153.6	155.6
43.5°	151.2	149.8	150.0	151.5	152.3	154.2
44°	149.7	148.5	148.8	149.7	150.9	152.9
44.5°	148.2	147.5	147.0	148.2	149.3	151.5



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	146.7	145.8	145.5	147.0	147.9	150.1
45.5°	145.0	144.1	143.9	145.6	146.2	148.3
46°	143.5	142.5	142.6	143.8	144.8	146.6
46.5°	142.0	140.6	141.2	142.2	143.3	144.8
47°	140.2	139.2	139.5	140.7	141.7	143.9
47.5°	138.8	137.7	138.1	139.1	140.0	142.2
48°	137.1	136.3	136.4	137.6	138.5	140.6
48.5°	135.6	134.7	134.6	136.1	136.8	138.9
49°	133.9	132.9	133.0	134.5	135.2	137.3
49.5°	132.5	131.0	131.6	132.9	133.9	135.8
50°	130.7	129.4	129.8	131.4	132.2	134.0
50.5°	129.1	127.6	128.3	129.6	130.5	132.3
51°	127.3	126.3	126.8	127.9	128.9	130.7
51.5°	125.6	124.7	125.0	126.1	127.2	129.0
52°	123.9	122.9	123.2	124.4	125.6	127.4
52.5°	122.4	121.0	121.5	122.8	123.9	125.7
53°	120.7	119.1	119.9	121.1	122.1	124.1
53.5°	119.0	117.5	118.3	119.3	120.3	122.6
54°	117.3	116.0	116.4	117.5	118.3	121.0
54.5°	115.7	114.1	114.6	115.7	117.0	119.0
55°	113.9	112.2	112.8	114.0	115.1	117.3
55.5°	112.0	110.7	111.1	112.3	113.2	115.7
56°	110.4	109.0	109.4	110.5	111.6	113.8
56.5°	108.7	107.4	108.0	108.8	109.8	112.0
57°	106.9	105.6	105.9	107.0	108.4	110.2
57.5°	105.2	103.7	104.2	105.2	106.7	108.5
58°	103.4	102.0	102.3	103.4	104.9	106.7
58.5°	101.7	100.3	100.5	101.7	103.0	105.1
59°	99.9	98.4	98.6	99.9	101.1	103.2
59.5°	98.1	96.6	96.8	98.0	99.4	101.4
60°	96.2	94.6	94.9	96.2	97.5	99.7
60.5°	94.4	92.7	93.2	94.4	95.6	97.7
61°	92.5	90.9	91.3	92.4	93.9	95.9
61.5°	90.6	89.1	89.4	90.5	91.9	94.2
62°	88.8	87.2	87.7	88.7	90.0	92.3
62.5°	87.0	85.3	85.8	86.8	88.0	90.3
63°	85.0	83.5	83.8	85.0	86.2	88.4
63.5°	83.1	81.7	81.9	83.1	84.4	86.6
64°	81.2	79.7	79.9	81.2	82.5	84.7
64.5°	79.2	77.6	78.1	79.2	80.7	82.8
65°	77.4	75.8	76.2	77.4	78.7	80.9
65.5°	75.2	73.9	74.2	75.5	76.9	79.0
66°	73.4	72.1	72.4	73.5	74.9	77.1
66.5°	71.4	70.1	70.4	71.4	73.1	75.2
67°	69.5	68.1	68.5	69.7	71.0	73.5



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	67.5	66.2	66.5	67.5	69.1	71.3
68°	65.5	64.3	64.4	65.6	67.1	69.2
68.5°	63.5	62.2	62.6	63.6	65.1	67.2
69°	61.6	60.3	60.6	61.8	63.1	65.3
69.5°	59.7	58.5	58.6	59.9	61.2	63.3
70°	57.8	56.5	56.8	57.8	59.3	61.4
70.5°	55.8	54.5	54.7	55.8	57.2	59.6
71°	53.9	52.5	52.8	54.0	55.3	57.6
71.5°	52.0	50.6	50.7	51.9	53.2	55.6
72°	49.9	48.5	48.7	49.9	51.5	53.5
72.5°	48.0	46.7	46.8	47.9	49.4	51.6
73°	46.0	44.6	44.8	45.9	47.5	49.6
73.5°	44.0	42.6	42.8	43.9	45.7	47.6
74°	42.1	40.9	41.0	42.0	43.6	45.7
74.5°	40.2	38.9	38.9	40.0	41.5	43.7
75°	38.3	36.9	37.1	38.2	39.6	41.7
75.5°	36.4	35.1	35.2	36.2	37.7	39.7
76°	34.5	33.1	33.2	34.3	35.7	37.9
76.5°	32.6	31.2	31.3	32.4	33.8	35.9
77°	30.8	29.4	29.4	30.5	31.9	33.8
77.5°	29.0	27.4	27.6	28.6	30.1	32.2
78°	27.1	25.6	25.7	26.8	28.2	30.2
78.5°	25.2	23.8	23.9	25.0	26.4	28.4
79°	23.5	22.0	22.2	23.2	24.6	26.5
79.5°	21.7	20.2	20.4	21.4	22.8	24.6
80°	19.9	18.5	18.6	19.6	20.9	22.8
80.5°	18.3	16.7	16.9	18.0	19.2	21.1
81°	16.6	15.2	15.4	16.2	17.6	19.3
81.5°	15.1	13.7	13.8	14.7	15.9	17.6
82°	13.5	12.1	12.2	13.1	14.4	16.0
82.5°	12.0	10.6	10.8	11.6	12.9	14.4
83°	10.6	9.3	9.4	10.2	11.3	12.9
83.5°	9.1	7.9	8.0	8.7	9.8	11.3
84°	7.7	6.6	6.7	7.4	8.5	9.9
84.5°	6.5	5.4	5.5	6.2	7.2	8.5
85°	5.2	4.3	4.3	5.0	6.1	7.2
85.5°	4.1	3.4	3.4	3.9	4.7	6.1
86°	3.1	2.4	2.5	3.0	3.7	4.8
86.5°	2.1	1.6	1.7	2.1	2.8	3.8
87°	1.2	1.0	1.0	1.3	1.9	2.8
87.5°	0.6	0.4	0.4	0.7	1.2	1.9
88°	0.0	0.2	0.1	0.3	0.6	1.2
88.5°	0.0	0.0	0.0	0.0	0.3	0.6
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: P522079
CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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: P522079
 CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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	0.3	0.3	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	0.3	0.5	0.1	0.1	0.1
178.5°	0.1	0.3	0.5	0.1	0.1	0.1
179°	0.1	0.3	0.5	0.1	0.1	0.1
179.5°	0.1	0.3	0.5	0.1	0.1	0.1



TEST NUMBER: P522079

CATALOG NUMBER: HLBQL4069BLE40AWH-3000K-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)