

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: P565397

Luminaire Tested: **HLBQL4069FS1E-3000K-UNIT**

Issue Date: 8/31/2021

Test Information

Test Method: LM-79-08
Report Number: P565397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2109887E005)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/31/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HLBQL4069FS1E-3000K-UNIT
Description: 4in Surface Mount Downlight Fixture with Color Selectable Switch
Light Source: (48) 3000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

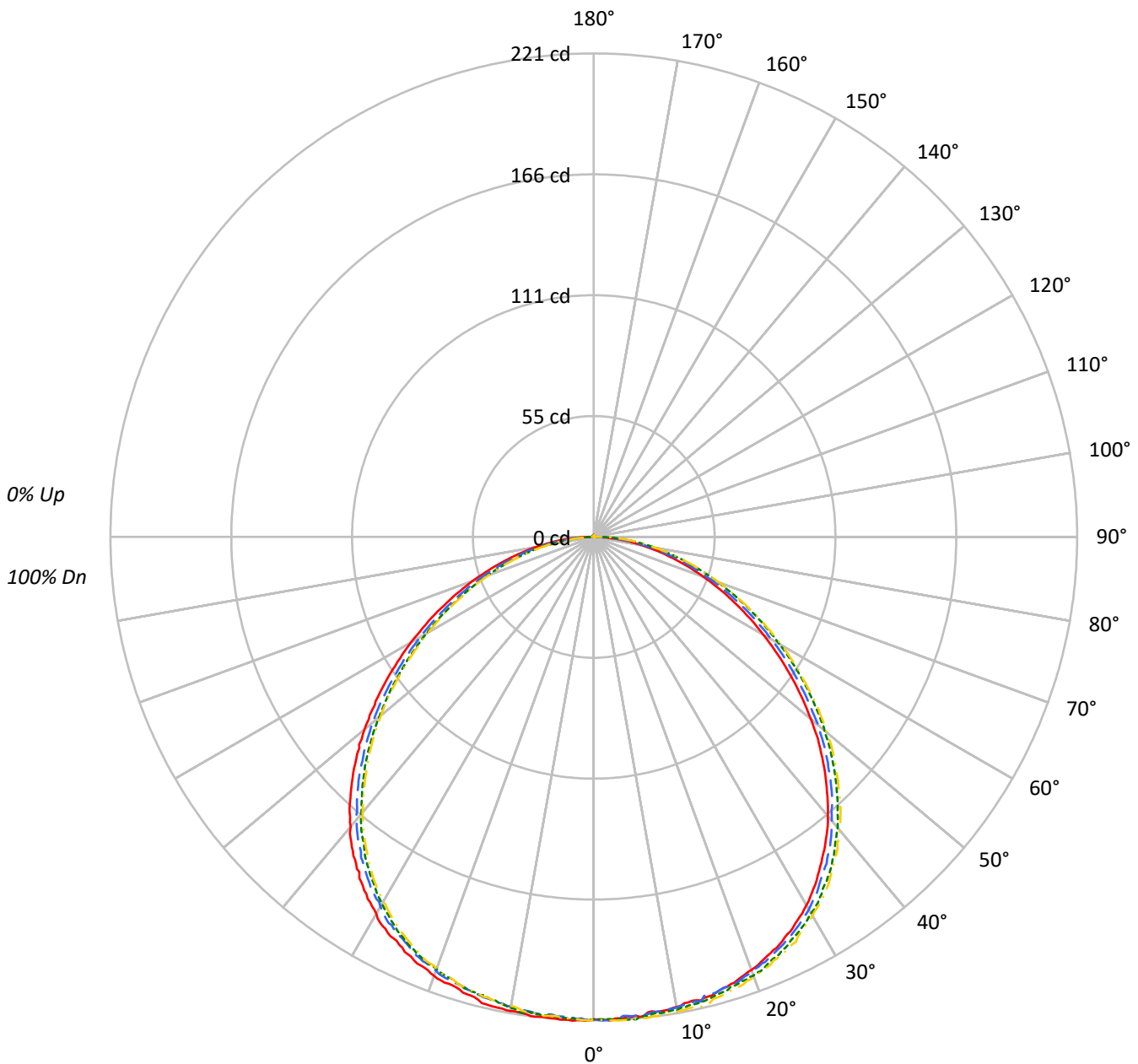
Lumens per Lamp: N/A
Luminaire Lumens: 640.1 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.31 / 1.4
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 7.8
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



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Luminous Intensity Polar Plot



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



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	47	41	54	47	41	52	46	41	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	36	32	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	2533	2533	2533	2533
5°	2532	2552	2546	2532
10°	2544	2559	2565	2550
15°	2564	2576	2581	2558
20°	2573	2608	2610	2570
25°	2583	2626	2624	2582
30°	2577	2633	2637	2567
35°	2544	2631	2620	2540
40°	2496	2601	2592	2479
45°	2419	2540	2532	2402
50°	2315	2460	2445	2290
55°	2192	2364	2336	2166
60°	2058	2253	2216	2032
65°	1932	2141	2097	1891
70°	1793	2028	1977	1746
75°	1650	1930	1863	1597
80°	1508	1885	1792	1435
85°	1304	1989	1805	1173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.0	3.3
10°-20°	61.0	9.5
20°-30°	94.6	14.8
30°-40°	115.1	18.0
40°-50°	117.1	18.3
50°-60°	101.0	15.8
60°-70°	73.4	11.5
70°-80°	42.1	6.6
80°-90°	13.2	2.1
90°-100°	0.1	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	176.6	27.6
0°-40°	291.7	45.6
0°-60°	509.8	79.6
0°-90°	638.6	99.8
90°-120°	0.3	0.0
90°-150°	0.9	0.1
90°-180°	1.0	0.2
0°-180°	640.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	221	221	221	221	221	
5°	220	221	221	220	220	21
15°	216	217	217	215	216	61
25°	204	207	207	204	204	94
35°	182	188	187	181	182	113
45°	149	156	156	148	149	115
55°	110	118	117	108	110	98
65°	71	79	77	70	71	70
75°	37	44	42	36	37	40
85°	10	15	14	9	10	11
90°	0	3	2	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	1	0	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	220.6	220.6	220.6	220.6	220.6	220.6	220.6	220.6	220.6	220.6	220.6
0.5°	220.6	220.5	220.8	219.5	220.6	221.5	220.8	220.8	221.1	220.7	220.7
1°	220.6	220.5	221.1	219.6	220.6	222.1	220.8	220.8	221.2	220.8	220.7
1.5°	220.9	220.5	221.0	219.6	220.5	221.9	220.8	220.8	221.0	220.5	220.1
2°	221.3	220.5	220.8	219.8	220.6	221.9	221.2	220.8	221.0	220.6	220.5
2.5°	220.4	220.2	220.6	219.8	221.1	221.3	221.2	220.9	221.4	220.7	220.0
3°	220.4	219.9	220.5	219.8	220.8	221.7	221.3	220.9	221.1	221.0	220.3
3.5°	220.4	220.3	219.3	219.2	220.7	221.7	221.3	220.2	221.1	220.0	219.7
4°	219.8	219.7	219.5	219.9	221.2	221.4	221.3	220.5	221.2	220.0	219.7
4.5°	220.2	219.7	219.7	219.9	221.2	221.3	221.3	220.5	220.9	219.8	219.8
5°	219.7	220.1	219.8	219.6	221.4	221.2	221.0	220.4	220.9	219.8	219.2
5.5°	220.4	219.9	219.8	220.0	220.4	221.3	221.1	220.4	220.8	219.8	219.2
6°	220.0	219.2	219.6	219.9	220.4	221.1	221.1	220.3	220.7	220.0	219.5
6.5°	218.8	219.3	219.5	219.5	220.3	221.1	221.2	220.2	220.7	219.8	219.5
7°	218.5	219.3	219.0	219.5	219.7	221.3	220.8	220.1	220.9	218.6	219.4
7.5°	218.9	218.9	219.0	219.5	219.4	221.2	220.8	220.0	221.0	219.0	219.0
8°	219.0	218.4	219.0	219.4	219.8	221.3	221.1	219.7	220.4	218.8	218.8
8.5°	218.9	218.4	218.7	219.2	219.8	220.8	221.0	220.0	220.1	218.6	218.6
9°	218.8	218.2	218.6	218.4	219.5	220.4	221.0	220.1	220.0	218.8	218.6
9.5°	218.3	218.2	218.6	218.5	219.3	220.2	220.8	219.8	219.9	218.9	218.5
10°	218.2	217.9	218.4	218.5	219.5	220.3	220.4	219.8	220.0	218.7	218.0
10.5°	218.0	217.9	218.1	218.5	218.9	219.1	220.1	219.5	220.0	218.7	218.0
11°	217.1	217.2	217.7	218.2	219.0	219.4	220.1	219.5	219.7	218.3	217.4
11.5°	217.1	217.7	217.1	218.1	218.5	219.6	219.8	219.5	219.7	218.0	217.2
12°	216.7	217.0	217.4	217.6	218.5	219.3	219.8	219.4	219.6	217.8	217.1
12.5°	216.9	216.4	217.4	217.4	218.5	218.9	219.8	218.6	219.5	217.1	216.5
13°	217.5	216.4	218.0	217.4	218.2	218.9	220.3	218.5	219.2	217.0	216.4
13.5°	216.7	216.4	215.8	217.2	218.0	219.0	220.2	218.2	219.2	217.0	216.4
14°	216.5	215.7	215.8	215.9	217.5	217.8	219.5	218.2	218.1	216.8	215.9
14.5°	216.4	215.6	215.7	215.8	217.4	217.8	218.1	217.5	217.4	216.4	215.6
15°	215.7	215.2	215.7	215.6	216.7	217.7	218.0	217.5	217.1	216.9	214.9
15.5°	215.2	215.0	215.0	215.3	216.5	217.6	217.7	217.0	217.0	215.5	214.9
16°	214.5	215.0	214.6	215.3	216.2	217.0	217.5	216.6	216.7	215.5	214.1
16.5°	214.5	214.5	214.5	215.1	216.0	217.2	217.1	216.6	215.9	215.5	213.8
17°	213.8	213.8	214.2	215.1	214.9	216.8	216.3	216.4	215.3	214.8	213.6
17.5°	213.7	213.4	214.0	214.4	214.9	215.5	216.1	215.9	214.9	214.2	213.5
18°	212.9	213.2	213.9	213.5	214.6	215.5	216.0	215.6	214.8	213.3	212.9
18.5°	212.2	212.3	213.1	213.0	214.1	215.3	215.6	215.2	214.8	213.2	212.8
19°	211.7	211.9	212.4	213.3	214.1	214.8	214.7	214.3	214.5	213.1	212.3
19.5°	211.1	211.9	212.1	212.7	213.4	214.7	214.6	214.3	214.2	212.3	211.9
20°	210.6	211.4	211.5	212.7	213.4	214.0	214.2	214.0	213.6	212.0	211.0
20.5°	210.1	210.8	210.8	211.8	212.7	213.9	213.7	213.0	212.9	211.6	210.6
21°	209.6	210.2	210.4	211.1	212.7	213.0	213.0	212.9	212.1	210.4	209.9
21.5°	208.8	209.6	209.6	210.3	212.0	212.4	212.3	212.8	211.6	210.2	209.3
22°	208.1	208.9	209.5	210.0	211.1	211.9	212.1	212.5	211.3	209.6	209.1



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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°	207.3	208.2	208.7	209.9	210.2	211.6	211.6	211.7	211.1	208.9	208.3
23°	206.7	207.2	208.2	208.5	209.5	210.8	210.3	210.8	210.3	209.1	207.8
23.5°	205.9	206.7	207.2	208.5	209.3	210.1	210.2	210.2	209.3	208.1	206.6
24°	205.6	206.1	206.6	207.7	208.7	210.1	209.7	209.5	208.9	208.0	206.0
24.5°	204.8	205.0	206.0	207.8	207.7	208.8	208.9	208.6	208.5	206.9	205.0
25°	203.9	204.1	205.3	206.8	207.3	208.3	208.7	207.7	207.1	205.3	204.3
25.5°	202.8	203.5	204.4	205.8	206.5	207.7	208.1	207.4	206.6	204.7	203.3
26°	202.0	202.7	203.7	204.6	205.3	207.3	207.1	206.3	205.5	204.1	202.8
26.5°	201.5	201.8	203.0	204.2	204.7	206.3	207.0	205.6	205.1	203.4	202.1
27°	200.5	200.9	202.1	203.0	204.0	204.9	205.3	205.5	204.9	202.7	201.3
27.5°	199.4	199.9	201.3	202.6	203.3	204.7	204.3	204.1	204.0	201.8	200.1
28°	198.5	199.1	200.4	201.1	202.4	204.1	203.3	203.4	202.9	201.1	199.9
28.5°	197.5	198.1	199.4	200.3	201.6	202.6	202.4	202.7	202.3	200.1	198.8
29°	196.7	197.2	198.4	199.4	200.8	201.9	202.1	201.7	201.6	199.0	197.7
29.5°	195.5	196.1	197.7	198.7	199.7	200.8	201.0	200.5	200.5	198.3	196.3
30°	194.4	195.1	196.7	197.5	198.6	199.9	200.1	199.7	198.9	197.3	195.2
30.5°	193.4	194.1	195.5	196.3	198.0	198.6	198.8	198.7	197.7	195.5	193.5
31°	192.1	192.8	194.3	195.3	196.9	197.9	198.0	197.5	196.9	195.0	193.0
31.5°	190.9	191.6	193.1	194.4	196.1	196.7	197.2	196.7	195.8	194.1	191.9
32°	189.6	190.3	192.2	193.1	194.7	196.0	196.2	195.7	195.1	192.9	191.3
32.5°	188.5	189.1	190.9	192.0	193.7	195.0	195.2	194.5	193.5	191.4	189.9
33°	187.1	187.9	189.3	190.7	192.1	194.3	194.1	193.0	192.8	190.9	188.4
33.5°	185.6	186.7	188.0	189.4	191.0	192.5	192.9	192.0	191.2	189.1	187.2
34°	184.3	185.3	186.7	188.3	190.2	191.4	191.7	190.5	190.2	187.9	185.9
34.5°	182.8	184.1	185.6	187.1	188.9	190.2	190.3	189.6	189.3	186.4	184.6
35°	181.5	182.7	184.3	186.0	187.7	189.0	188.9	187.7	186.9	185.1	183.4
35.5°	180.0	181.3	183.4	184.6	186.5	187.3	187.5	186.7	186.4	184.5	182.1
36°	178.6	179.8	181.6	183.0	185.2	186.2	186.1	185.9	184.8	182.7	181.0
36.5°	177.4	178.4	180.2	181.8	183.5	184.6	184.9	184.1	183.5	181.9	179.0
37°	175.8	176.9	178.8	180.5	182.4	183.6	183.3	182.7	182.6	180.3	177.7
37.5°	174.3	175.5	177.6	179.0	180.7	181.8	182.5	181.4	180.9	178.6	177.1
38°	172.9	174.1	175.9	177.5	179.1	180.6	180.9	180.2	179.8	177.2	175.2
38.5°	171.5	172.6	174.4	176.0	177.5	179.5	178.9	178.4	178.1	175.3	173.6
39°	169.9	171.0	172.7	174.4	176.2	177.9	177.8	177.3	176.7	174.2	172.1
39.5°	168.3	169.4	171.0	172.9	174.7	176.3	176.5	176.2	175.3	172.0	170.4
40°	166.5	167.9	169.3	171.3	173.5	174.7	174.9	174.7	172.9	170.6	168.8
40.5°	164.8	166.0	167.6	169.7	171.7	172.9	173.4	172.8	171.6	169.2	167.1
41°	163.2	164.3	165.7	168.0	170.1	171.5	171.8	171.3	169.8	167.4	164.9
41.5°	161.5	162.5	164.4	166.4	168.2	170.0	170.1	169.8	168.4	166.0	163.4
42°	159.6	160.8	162.8	164.6	166.6	168.6	168.7	168.2	166.9	164.2	161.9
42.5°	157.7	159.0	161.2	162.6	165.1	166.9	166.9	166.3	165.0	162.0	160.2
43°	156.1	157.4	159.5	161.2	163.4	165.0	165.3	164.7	163.2	160.4	158.3
43.5°	154.3	155.5	157.7	159.4	161.5	163.0	163.3	163.0	161.4	158.7	156.5
44°	152.6	153.8	156.0	157.6	159.9	161.5	161.6	161.0	159.7	156.8	154.8
44.5°	150.8	152.0	154.3	155.9	158.3	159.5	159.5	159.2	157.9	155.1	152.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	149.0	150.2	152.4	154.0	156.4	158.0	158.0	157.4	155.9	153.0	151.2
45.5°	147.1	148.6	150.4	152.3	154.7	156.2	156.1	155.4	154.2	151.4	149.0
46°	145.2	146.8	148.8	150.5	152.8	154.2	154.2	153.4	152.5	149.4	147.0
46.5°	143.2	145.0	147.0	148.6	150.8	152.5	152.6	151.8	150.4	147.9	145.2
47°	141.5	143.2	145.1	147.0	149.2	150.3	150.6	150.2	148.4	145.8	143.5
47.5°	139.6	141.2	143.4	145.2	147.3	148.8	149.0	148.0	146.7	144.1	141.5
48°	137.9	139.4	141.4	143.4	145.6	146.7	147.1	146.1	144.3	142.3	139.5
48.5°	135.8	137.4	139.5	141.3	143.7	145.0	145.3	144.0	143.2	140.3	137.7
49°	133.6	135.4	137.5	139.3	141.5	143.1	143.3	142.1	140.6	138.4	135.7
49.5°	131.5	133.5	135.6	137.4	139.6	141.2	141.2	140.3	138.9	136.4	133.9
50°	129.6	131.5	134.1	135.5	137.7	139.5	139.0	138.5	136.9	134.2	131.6
50.5°	127.5	129.5	131.7	133.6	136.3	136.8	137.3	136.5	134.7	132.2	130.0
51°	125.5	127.6	129.7	131.6	133.8	135.2	135.4	134.5	132.3	130.0	127.9
51.5°	123.6	125.7	127.6	130.4	131.9	133.2	133.3	132.3	131.0	128.3	125.9
52°	121.7	123.8	125.7	127.6	130.1	131.1	131.2	130.2	128.7	126.5	123.9
52.5°	119.6	121.9	123.7	125.7	127.9	129.1	129.7	128.2	126.2	124.4	121.8
53°	117.6	120.0	121.7	123.6	126.1	127.1	127.3	126.1	124.9	122.2	119.7
53.5°	115.6	117.8	119.8	121.7	124.0	124.9	125.4	124.3	122.8	120.2	117.7
54°	113.6	115.9	117.6	119.8	122.0	123.0	123.3	122.0	120.7	118.1	115.7
54.5°	111.5	114.0	115.8	117.8	120.1	120.8	121.1	120.1	118.6	116.3	113.6
55°	109.5	111.9	113.7	115.9	118.1	118.9	119.2	118.2	116.7	114.1	111.4
55.5°	107.5	109.9	111.7	113.8	116.1	116.7	117.2	116.2	114.6	112.3	109.4
56°	105.5	108.0	109.8	111.8	114.2	114.6	115.1	114.1	112.6	110.2	107.5
56.5°	103.5	106.0	107.9	109.9	112.2	112.6	113.3	112.1	110.6	108.1	105.4
57°	101.6	103.9	105.9	107.8	110.3	110.6	111.6	110.3	108.3	106.1	103.6
57.5°	99.4	101.8	103.7	105.6	108.0	108.6	109.5	108.1	106.4	104.2	101.6
58°	97.5	99.8	102.0	103.7	106.2	106.7	107.2	105.8	104.3	102.1	99.5
58.5°	95.6	97.9	100.0	101.9	104.2	104.7	105.3	104.0	102.5	100.3	97.7
59°	93.6	95.9	98.0	99.8	102.3	102.7	103.3	102.0	100.6	98.3	95.5
59.5°	91.6	93.9	95.9	97.9	100.1	100.7	101.3	100.2	98.5	96.2	93.6
60°	89.6	91.9	93.9	95.9	98.1	98.7	99.1	98.1	96.5	94.3	91.7
60.5°	87.7	89.9	91.9	94.0	96.0	96.6	97.2	96.1	94.6	92.2	89.8
61°	85.8	88.0	90.2	92.0	94.3	94.7	95.1	94.0	92.4	90.4	87.8
61.5°	84.1	86.1	88.1	89.9	92.0	92.7	93.1	91.9	90.2	88.5	85.9
62°	82.3	84.3	85.9	88.0	90.3	90.8	91.2	90.1	88.5	86.4	84.1
62.5°	80.4	82.4	84.4	86.0	88.2	88.9	89.0	87.9	86.5	84.6	82.2
63°	78.4	80.4	82.5	84.3	86.5	87.1	87.3	86.2	84.8	82.9	80.3
63.5°	76.6	78.4	80.6	82.3	84.4	85.1	85.2	84.4	83.0	80.8	78.3
64°	74.8	76.7	78.6	80.5	82.7	83.5	83.4	82.5	80.9	79.0	76.4
64.5°	72.9	74.8	76.8	78.6	80.5	81.6	81.4	80.5	79.3	77.1	74.6
65°	71.1	73.0	74.9	76.7	78.8	79.7	79.4	78.7	77.2	75.2	72.7
65.5°	69.2	71.1	72.9	74.8	76.8	77.7	77.5	76.6	75.1	73.2	70.9
66°	67.4	69.2	71.0	73.0	75.1	75.9	75.7	74.7	73.3	71.4	69.1
66.5°	65.7	67.4	69.2	71.1	73.2	73.8	73.8	72.8	71.4	69.4	67.2
67°	64.0	65.5	67.6	69.2	71.3	72.1	71.8	70.9	69.8	67.6	65.4



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	62.2	63.7	65.7	67.3	69.4	70.3	70.0	69.2	67.8	65.6	63.7
68°	60.4	62.0	63.9	65.6	67.6	68.4	68.2	67.4	66.0	63.9	61.9
68.5°	58.7	60.3	62.0	63.9	65.8	66.5	66.4	65.5	64.3	61.9	60.2
69°	56.9	58.5	60.3	62.1	63.9	64.7	64.7	63.5	62.5	60.2	58.4
69.5°	55.1	56.7	58.5	60.4	62.1	62.9	62.8	61.9	60.7	58.4	56.7
70°	53.4	55.1	56.8	58.6	60.4	61.0	61.1	60.0	58.9	56.7	54.9
70.5°	51.8	53.4	55.0	56.9	58.6	59.3	59.4	58.3	57.3	55.1	53.3
71°	50.1	51.7	53.3	55.1	56.9	57.5	57.4	56.6	55.5	53.4	51.6
71.5°	48.4	50.0	51.7	53.3	55.1	55.7	55.8	54.8	53.6	51.7	49.9
72°	46.8	48.3	50.1	51.7	53.5	54.0	53.9	53.2	52.1	50.0	48.3
72.5°	45.2	46.7	48.4	50.1	51.9	52.5	52.4	51.6	50.3	48.3	46.6
73°	43.5	45.0	46.8	48.5	50.1	50.8	50.7	49.9	48.6	46.7	45.1
73.5°	41.8	43.3	45.1	46.8	48.5	49.1	49.0	48.1	46.9	45.0	43.5
74°	40.3	41.8	43.5	45.2	46.7	47.5	47.4	46.5	45.4	43.5	42.0
74.5°	38.7	40.3	41.9	43.7	45.1	45.8	45.7	44.9	43.7	41.8	40.3
75°	37.2	38.8	40.4	42.0	43.5	44.1	44.1	43.3	42.0	40.2	38.8
75.5°	35.7	37.2	38.8	40.3	42.0	42.5	42.5	41.6	40.6	38.8	37.3
76°	34.2	35.7	37.3	38.7	40.3	40.9	40.8	40.1	38.9	37.3	35.8
76.5°	32.8	34.2	35.8	37.2	38.8	39.3	39.4	38.5	37.4	35.8	34.3
77°	31.2	32.7	34.2	35.6	37.2	37.8	37.8	37.0	35.8	34.3	32.8
77.5°	29.8	31.2	32.7	34.2	35.7	36.3	36.4	35.5	34.4	32.8	31.5
78°	28.3	29.8	31.2	32.7	34.2	34.7	34.8	34.0	32.9	31.4	30.0
78.5°	26.9	28.4	29.7	31.2	32.8	33.3	33.2	32.5	31.4	29.9	28.5
79°	25.5	27.0	28.3	29.7	31.3	31.7	31.7	31.0	29.9	28.5	27.1
79.5°	24.1	25.6	26.9	28.3	30.0	30.3	30.3	29.5	28.5	27.1	25.6
80°	22.8	24.2	25.4	26.8	28.5	28.8	28.7	28.2	27.1	25.6	24.3
80.5°	21.6	22.8	23.9	25.3	27.1	27.4	27.4	26.7	25.7	24.5	22.8
81°	20.2	21.6	22.6	23.9	25.7	26.1	26.0	25.3	24.2	23.1	21.5
81.5°	18.9	20.3	21.4	22.6	24.4	24.9	24.7	23.8	22.8	21.6	20.3
82°	17.5	19.0	20.1	21.4	22.9	23.2	23.2	22.5	21.4	20.5	19.0
82.5°	16.2	17.7	18.8	20.0	21.5	21.8	21.8	21.1	20.2	19.1	17.6
83°	15.0	16.4	17.5	18.6	20.4	20.6	20.7	19.9	18.9	17.8	16.4
83.5°	13.7	15.1	16.1	17.4	19.1	19.2	19.3	18.6	17.6	16.5	15.3
84°	12.4	13.8	14.8	16.0	17.7	17.6	17.9	17.3	16.4	15.2	13.6
84.5°	11.2	12.5	13.5	14.8	16.4	16.6	16.6	16.0	15.0	13.9	12.5
85°	9.9	11.3	12.2	13.4	15.1	15.3	15.3	14.6	13.7	12.7	11.4
85.5°	8.7	10.0	11.0	12.2	13.9	14.1	14.0	13.4	12.5	11.4	10.1
86°	7.6	8.7	9.8	10.9	12.6	12.8	12.8	12.3	11.4	10.1	8.9
86.5°	6.4	7.5	8.5	9.7	11.4	11.6	11.5	11.0	10.0	9.0	7.7
87°	5.3	6.4	7.3	8.4	10.1	10.3	10.3	9.7	8.7	7.8	6.6
87.5°	4.1	5.2	6.1	7.2	8.8	9.0	9.1	8.4	7.6	6.5	5.4
88°	2.9	4.0	5.1	6.0	7.6	7.8	7.8	7.3	6.4	5.4	4.3
88.5°	1.8	2.7	3.7	4.9	6.4	6.6	6.6	6.1	5.2	4.5	3.0
89°	0.9	1.6	2.6	3.5	5.2	5.4	5.4	4.9	4.1	3.0	1.8
89.5°	0.4	0.7	1.5	2.3	4.0	4.3	4.3	3.6	2.8	1.7	0.6



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.2	0.3	0.6	1.3	2.6	2.9	2.9	2.5	1.6	0.6	0.0
90.5°	0.1	0.2	0.2	0.6	1.4	1.6	1.6	1.3	0.5	0.0	0.0
91°	0.1	0.2	0.1	0.2	0.4	0.5	0.5	0.4	0.0	0.0	0.0
91.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.5°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94.5°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.5°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96.5°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
98°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
98.5°	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
99°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
99.5°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
100°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
100.5°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
101°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
101.5°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
102°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
102.5°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
103°	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
103.5°	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
104°	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
104.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
105°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
105.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
106°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
106.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
107°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
107.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
108°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
108.5°	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
109°	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
109.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
110°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
110.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
111°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
111.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
112°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-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	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
113°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
113.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
114°	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2
114.5°	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2
115°	0.0	0.1	0.0	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.2
115.5°	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
116°	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
116.5°	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3
117°	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3
117.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
118°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
118.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
119°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2
119.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2
120°	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2
120.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2
121°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2
121.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2
122°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.2
122.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.2
123°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2
123.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2
124°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2
124.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.3	0.3
125°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.4	0.3	0.4	0.3
125.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.4	0.4	0.3	0.4	0.3
126°	0.0	0.1	0.0	0.1	0.2	0.3	0.4	0.3	0.3	0.3	0.3
126.5°	0.0	0.1	0.0	0.1	0.3	0.4	0.3	0.3	0.3	0.3	0.3
127°	0.0	0.1	0.0	0.1	0.3	0.4	0.3	0.3	0.3	0.3	0.3
127.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3
128°	0.0	0.1	0.0	0.1	0.4	0.3	0.3	0.3	0.3	0.3	0.4
128.5°	0.0	0.1	0.0	0.1	0.4	0.3	0.3	0.3	0.3	0.4	0.3
129°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.4	0.3
129.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.4	0.4
130°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.4
130.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.4
131°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.4
131.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.4
132°	0.0	0.1	0.0	0.1	0.3	0.3	0.4	0.4	0.4	0.4	0.4
132.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.4	0.4	0.4	0.4	0.4
133°	0.0	0.1	0.0	0.1	0.3	0.3	0.4	0.4	0.4	0.4	0.4
133.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.4	0.4	0.4	0.4	0.4
134°	0.0	0.1	0.0	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.4
134.5°	0.0	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P565397

CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.0	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5
135.5°	0.0	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5
136°	0.0	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4
136.5°	0.0	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4
137°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4
137.5°	0.1	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.5	0.4
138°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.5	0.4
138.5°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4
139°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.5	0.4	0.4
139.5°	0.2	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.5	0.4	0.6
140°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.6
140.5°	0.3	0.3	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5
141°	0.3	0.3	0.1	0.1	0.4	0.5	0.4	0.4	0.4	0.4	0.5
141.5°	0.3	0.3	0.1	0.1	0.4	0.5	0.4	0.4	0.4	0.6	0.5
142°	0.3	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.5
142.5°	0.3	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
143°	0.4	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
143.5°	0.4	0.5	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
144°	0.4	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
144.5°	0.4	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
145°	0.4	0.4	0.1	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.5
145.5°	0.4	0.4	0.1	0.4	0.6	0.5	0.5	0.4	0.5	0.5	0.5
146°	0.4	0.4	0.1	0.4	0.6	0.6	0.5	0.4	0.5	0.6	0.6
146.5°	0.4	0.4	0.1	0.4	0.5	0.6	0.5	0.4	0.5	0.6	0.6
147°	0.4	0.4	0.1	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6
147.5°	0.4	0.4	0.2	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
148°	0.5	0.4	0.1	0.4	0.5	0.6	0.5	0.5	0.5	0.6	0.6
148.5°	0.4	0.4	0.2	0.4	0.5	0.6	0.5	0.6	0.6	0.6	0.6
149°	0.6	0.4	0.2	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6
149.5°	0.6	0.5	0.2	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6
150°	0.6	0.6	0.2	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6
150.5°	0.6	0.6	0.2	0.4	0.6	0.6	0.6	0.6	0.6	0.7	0.7
151°	0.6	0.6	0.3	0.4	0.6	0.6	0.6	0.6	0.6	0.7	0.7
151.5°	0.6	0.6	0.3	0.4	0.6	0.6	0.6	0.6	0.7	0.6	0.6
152°	0.8	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.6	0.7
152.5°	0.7	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.7
153°	0.7	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6
153.5°	0.7	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.7
154°	0.7	0.6	0.5	0.4	0.6	0.6	0.6	0.6	0.6	0.7	0.7
154.5°	0.7	0.6	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.7	0.7
155°	0.8	0.6	0.5	0.5	0.7	0.7	0.6	0.7	0.6	0.6	0.7
155.5°	0.8	0.7	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
156°	0.8	0.7	0.6	0.6	0.7	0.6	0.8	0.7	0.7	0.7	0.7
156.5°	0.8	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.7
157°	0.8	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P565397

CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P565397
CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P565397

CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	220.6	220.6	220.6	220.6	220.6	220.6
0.5°	220.6	220.8	221.0	221.1	220.6	220.6
1°	219.9	220.9	221.1	221.0	220.3	220.6
1.5°	219.9	220.7	220.7	220.9	220.3	220.9
2°	220.0	220.5	220.8	220.7	220.3	221.3
2.5°	219.8	220.2	219.9	220.5	220.2	220.4
3°	219.6	220.5	220.8	220.5	220.4	220.4
3.5°	219.5	220.2	220.8	220.3	220.2	220.4
4°	219.5	220.3	220.5	220.0	220.1	219.8
4.5°	219.5	220.1	220.7	219.8	219.3	220.2
5°	219.4	219.7	220.2	219.8	219.3	219.7
5.5°	219.3	219.7	219.9	220.0	219.1	220.4
6°	219.0	219.9	219.8	220.1	218.8	220.0
6.5°	218.9	219.7	219.8	219.5	218.6	218.8
7°	218.6	219.7	218.9	219.2	218.6	218.5
7.5°	218.4	219.4	220.0	219.2	218.7	218.9
8°	218.4	218.9	220.0	219.3	218.2	219.0
8.5°	218.4	220.0	219.3	219.1	218.4	218.9
9°	218.3	219.8	218.9	218.4	218.2	218.8
9.5°	217.6	218.7	218.4	217.9	218.1	218.3
10°	216.9	218.7	218.4	217.7	217.6	218.2
10.5°	216.7	218.1	218.0	217.8	217.4	218.0
11°	216.7	217.8	217.5	217.6	217.4	217.1
11.5°	216.7	217.4	217.2	217.5	217.1	217.1
12°	216.2	216.6	217.4	216.9	217.0	216.7
12.5°	215.6	216.7	216.5	216.5	216.8	216.9
13°	215.6	216.1	216.1	216.1	216.5	217.5
13.5°	215.1	215.4	216.2	216.1	215.4	216.7
14°	215.0	215.9	215.0	215.6	215.1	216.5
14.5°	214.7	215.2	216.0	215.7	215.1	216.4
15°	213.9	215.2	215.2	214.9	214.4	215.7
15.5°	213.9	214.7	214.1	214.3	214.0	215.2
16°	213.6	214.6	214.2	214.0	213.7	214.5
16.5°	213.4	213.8	214.0	213.9	213.6	214.5
17°	213.3	213.4	214.0	213.4	212.7	213.8
17.5°	212.7	212.5	212.7	212.5	212.6	213.7
18°	211.9	212.1	212.2	212.1	211.8	212.9
18.5°	211.7	212.1	211.9	211.3	211.4	212.2
19°	210.7	211.5	211.1	211.3	210.6	211.7
19.5°	210.3	211.0	210.2	211.3	210.6	211.1
20°	209.5	210.3	210.2	210.2	209.7	210.6
20.5°	208.8	209.6	209.7	209.1	209.5	210.1
21°	208.2	209.4	209.0	208.8	208.9	209.6
21.5°	207.8	208.8	208.6	208.5	208.1	208.8
22°	207.0	208.2	208.3	207.6	207.4	208.1



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	206.6	207.5	206.8	206.8	206.8	207.3
23°	205.7	206.9	205.9	205.9	206.0	206.7
23.5°	204.9	205.9	205.4	205.1	205.2	205.9
24°	204.5	205.3	204.8	204.4	204.8	205.6
24.5°	203.5	204.7	204.5	203.4	204.1	204.8
25°	202.6	203.8	203.5	202.6	202.9	203.9
25.5°	201.9	202.7	202.6	201.7	201.8	202.8
26°	201.1	202.1	201.5	200.8	201.1	202.0
26.5°	200.7	201.2	200.7	199.9	200.0	201.5
27°	199.6	200.0	199.1	198.9	199.0	200.5
27.5°	198.6	199.0	198.3	197.9	198.1	199.4
28°	197.5	198.0	197.9	196.8	197.0	198.5
28.5°	197.0	196.8	196.8	195.7	196.3	197.5
29°	195.8	195.8	195.9	194.6	195.3	196.7
29.5°	194.8	194.8	194.8	193.3	194.2	195.5
30°	193.6	193.6	193.5	192.3	193.2	194.4
30.5°	192.5	192.5	192.3	191.3	192.3	193.4
31°	191.5	191.5	190.8	190.2	190.7	192.1
31.5°	190.4	190.2	189.6	189.1	189.3	190.9
32°	189.2	188.7	188.3	187.9	188.1	189.6
32.5°	187.7	187.5	187.0	186.7	187.1	188.5
33°	186.6	186.4	185.7	185.4	185.4	187.1
33.5°	185.2	185.2	184.4	184.0	184.6	185.6
34°	183.9	183.8	183.2	182.6	182.9	184.3
34.5°	182.9	182.5	181.9	181.3	181.3	182.8
35°	181.4	181.2	180.6	179.9	180.1	181.5
35.5°	180.1	179.9	179.0	178.3	178.7	180.0
36°	178.6	178.4	177.5	176.8	177.2	178.6
36.5°	177.5	176.5	175.9	175.5	176.0	177.4
37°	176.3	174.9	174.2	173.9	174.5	175.8
37.5°	174.8	173.6	172.9	172.3	172.6	174.3
38°	173.3	172.2	171.5	170.9	171.1	172.9
38.5°	170.8	170.8	169.9	169.3	169.7	171.5
39°	169.8	169.1	168.3	167.5	168.0	169.9
39.5°	168.3	167.3	166.5	166.1	166.3	168.3
40°	166.7	165.4	164.8	164.5	164.5	166.5
40.5°	164.6	163.6	163.1	162.6	163.1	164.8
41°	162.9	161.9	161.3	160.8	161.6	163.2
41.5°	161.3	160.1	159.5	159.0	159.5	161.5
42°	159.4	158.4	157.8	157.2	157.7	159.6
42.5°	157.6	156.8	156.1	155.3	156.0	157.7
43°	156.0	155.0	154.4	153.5	154.2	156.1
43.5°	154.1	153.2	152.5	151.8	152.5	154.3
44°	152.3	151.3	150.5	149.9	150.7	152.6
44.5°	150.6	149.5	148.8	148.0	149.0	150.8



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	148.4	147.9	146.8	146.2	147.1	149.0
45.5°	146.6	146.0	144.9	144.3	145.1	147.1
46°	144.7	144.1	143.0	142.6	143.2	145.2
46.5°	143.0	142.2	141.1	140.6	141.2	143.2
47°	141.3	140.2	139.0	138.8	139.3	141.5
47.5°	139.2	138.2	137.1	136.8	137.3	139.6
48°	137.3	136.2	135.0	134.9	135.4	137.9
48.5°	135.1	134.3	132.9	132.9	133.6	135.8
49°	133.0	132.2	130.9	130.9	131.8	133.6
49.5°	131.1	130.2	128.9	129.0	129.7	131.5
50°	129.4	128.2	127.0	127.1	127.9	129.6
50.5°	127.2	126.1	125.0	125.1	125.7	127.5
51°	125.4	124.1	123.1	123.1	123.7	125.5
51.5°	123.4	122.1	121.2	121.3	121.9	123.6
52°	121.5	120.2	119.1	119.3	119.8	121.7
52.5°	119.2	118.1	117.2	117.3	117.8	119.6
53°	117.3	116.4	115.1	115.1	115.8	117.6
53.5°	115.6	114.4	113.1	113.0	113.9	115.6
54°	113.2	112.2	111.0	110.9	111.7	113.6
54.5°	111.4	110.2	109.0	109.0	109.7	111.5
55°	109.4	108.2	107.0	107.0	107.9	109.5
55.5°	107.3	106.1	105.1	105.1	106.0	107.5
56°	105.2	104.3	102.9	103.0	103.9	105.5
56.5°	103.2	102.3	101.0	101.1	101.8	103.5
57°	101.3	100.2	99.1	99.1	99.9	101.6
57.5°	99.3	98.2	97.1	97.2	98.0	99.4
58°	97.5	96.3	95.0	95.1	95.9	97.5
58.5°	95.5	94.4	93.1	93.1	94.1	95.6
59°	93.4	92.4	91.2	91.4	92.1	93.6
59.5°	91.5	90.4	89.3	89.4	90.1	91.6
60°	89.7	88.5	87.2	87.2	88.2	89.6
60.5°	87.8	86.6	85.5	85.4	86.1	87.7
61°	85.8	84.7	83.6	83.6	84.5	85.8
61.5°	84.1	82.8	81.7	81.7	82.6	84.1
62°	82.1	80.9	80.1	79.7	80.8	82.3
62.5°	80.2	79.1	78.1	77.8	78.8	80.4
63°	78.2	77.1	76.2	75.9	77.0	78.4
63.5°	76.3	75.1	74.4	74.2	75.1	76.6
64°	74.4	73.2	72.6	72.4	73.3	74.8
64.5°	72.8	71.4	70.8	70.6	71.5	72.9
65°	70.7	69.6	69.0	68.7	69.6	71.1
65.5°	68.8	67.7	67.2	66.8	67.8	69.2
66°	67.1	66.0	65.3	65.0	65.9	67.4
66.5°	65.3	64.2	63.5	63.3	64.2	65.7
67°	63.6	62.4	61.7	61.4	62.3	64.0



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	61.7	60.6	59.9	59.8	60.7	62.2
68°	60.0	58.9	58.2	57.9	58.9	60.4
68.5°	58.2	57.1	56.4	56.3	57.2	58.7
69°	56.5	55.2	54.6	54.5	55.5	56.9
69.5°	54.7	53.6	53.1	53.0	53.7	55.1
70°	53.1	52.0	51.3	51.2	52.1	53.4
70.5°	51.5	50.3	49.6	49.7	50.4	51.8
71°	50.0	48.7	48.1	48.0	48.8	50.1
71.5°	48.3	47.0	46.5	46.3	47.1	48.4
72°	46.6	45.3	44.8	44.7	45.6	46.8
72.5°	45.1	43.6	43.3	43.2	44.0	45.2
73°	43.4	42.0	41.6	41.6	42.4	43.5
73.5°	41.9	40.5	40.0	40.0	40.8	41.8
74°	40.4	39.0	38.4	38.5	39.2	40.3
74.5°	38.8	37.4	37.0	37.1	37.6	38.7
75°	37.4	36.0	35.4	35.4	36.2	37.2
75.5°	35.8	34.4	33.8	34.0	34.7	35.7
76°	34.3	33.0	32.3	32.5	33.1	34.2
76.5°	32.9	31.5	30.9	31.0	31.6	32.8
77°	31.4	30.1	29.5	29.5	30.2	31.2
77.5°	30.0	28.6	28.1	28.1	28.8	29.8
78°	28.5	27.2	26.6	26.7	27.3	28.3
78.5°	27.2	25.8	25.2	25.3	25.8	26.9
79°	25.7	24.3	23.7	24.0	24.5	25.5
79.5°	24.3	23.0	22.4	22.6	23.1	24.1
80°	23.0	21.7	21.2	21.4	21.8	22.8
80.5°	21.6	20.4	19.9	20.1	20.6	21.6
81°	20.4	19.1	18.5	18.7	19.3	20.2
81.5°	19.1	17.7	17.2	17.3	18.0	18.9
82°	17.8	16.5	16.0	16.0	16.7	17.5
82.5°	16.5	15.1	14.6	14.7	15.4	16.2
83°	15.2	13.8	13.3	13.5	14.0	15.0
83.5°	14.0	12.6	12.1	12.3	12.8	13.7
84°	12.7	11.3	10.8	11.0	11.6	12.4
84.5°	11.5	10.1	9.6	9.8	10.4	11.2
85°	10.3	8.9	8.4	8.5	9.2	9.9
85.5°	9.1	7.7	7.2	7.3	8.0	8.7
86°	7.9	6.5	6.0	6.2	6.8	7.6
86.5°	6.6	5.3	4.9	5.1	5.7	6.4
87°	5.5	4.2	3.7	3.8	4.4	5.3
87.5°	4.3	3.0	2.6	2.6	3.2	4.1
88°	3.1	1.7	1.5	1.6	2.1	2.9
88.5°	1.8	0.9	0.6	0.7	1.1	1.8
89°	0.7	0.4	0.2	0.3	0.4	0.9
89.5°	0.0	0.1	0.1	0.1	0.2	0.4



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.1	0.1	0.1	0.1	0.2
90.5°	0.0	0.1	0.1	0.1	0.1	0.1
91°	0.0	0.1	0.1	0.1	0.1	0.1
91.5°	0.0	0.1	0.1	0.1	0.1	0.1
92°	0.0	0.1	0.1	0.1	0.1	0.1
92.5°	0.0	0.1	0.1	0.1	0.1	0.1
93°	0.0	0.1	0.1	0.0	0.1	0.1
93.5°	0.0	0.1	0.1	0.0	0.1	0.0
94°	0.1	0.1	0.1	0.0	0.1	0.0
94.5°	0.1	0.1	0.1	0.0	0.0	0.0
95°	0.0	0.1	0.1	0.0	0.0	0.0
95.5°	0.0	0.1	0.1	0.0	0.0	0.0
96°	0.0	0.1	0.1	0.0	0.0	0.0
96.5°	0.1	0.1	0.1	0.0	0.0	0.0
97°	0.1	0.1	0.1	0.0	0.0	0.0
97.5°	0.1	0.1	0.1	0.0	0.0	0.0
98°	0.1	0.1	0.1	0.0	0.0	0.0
98.5°	0.1	0.1	0.1	0.0	0.0	0.0
99°	0.1	0.1	0.1	0.0	0.0	0.0
99.5°	0.1	0.1	0.1	0.0	0.0	0.0
100°	0.1	0.1	0.1	0.0	0.0	0.0
100.5°	0.1	0.1	0.1	0.0	0.0	0.0
101°	0.1	0.1	0.1	0.0	0.0	0.0
101.5°	0.1	0.1	0.1	0.0	0.0	0.0
102°	0.1	0.1	0.1	0.0	0.0	0.0
102.5°	0.1	0.1	0.1	0.0	0.0	0.0
103°	0.1	0.1	0.1	0.0	0.0	0.0
103.5°	0.1	0.1	0.1	0.0	0.0	0.0
104°	0.1	0.1	0.1	0.0	0.0	0.0
104.5°	0.1	0.1	0.1	0.0	0.0	0.0
105°	0.1	0.1	0.1	0.0	0.0	0.0
105.5°	0.1	0.1	0.1	0.0	0.0	0.0
106°	0.1	0.1	0.1	0.0	0.0	0.0
106.5°	0.1	0.1	0.1	0.0	0.0	0.0
107°	0.1	0.1	0.1	0.0	0.0	0.0
107.5°	0.1	0.1	0.1	0.0	0.0	0.0
108°	0.1	0.1	0.1	0.0	0.0	0.0
108.5°	0.1	0.1	0.1	0.0	0.0	0.0
109°	0.1	0.1	0.1	0.0	0.0	0.0
109.5°	0.1	0.1	0.1	0.0	0.0	0.0
110°	0.1	0.1	0.1	0.0	0.0	0.0
110.5°	0.1	0.1	0.1	0.0	0.0	0.0
111°	0.1	0.1	0.1	0.0	0.0	0.0
111.5°	0.1	0.1	0.1	0.0	0.0	0.0
112°	0.1	0.1	0.1	0.0	0.0	0.0



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.1	0.1	0.1	0.0	0.0	0.0
113°	0.1	0.1	0.1	0.0	0.0	0.0
113.5°	0.2	0.1	0.1	0.0	0.0	0.0
114°	0.2	0.1	0.1	0.0	0.0	0.0
114.5°	0.2	0.1	0.1	0.0	0.0	0.0
115°	0.2	0.1	0.1	0.0	0.0	0.0
115.5°	0.2	0.1	0.1	0.0	0.0	0.0
116°	0.2	0.1	0.1	0.0	0.0	0.0
116.5°	0.2	0.1	0.1	0.0	0.0	0.0
117°	0.2	0.1	0.1	0.0	0.0	0.0
117.5°	0.2	0.1	0.1	0.0	0.0	0.0
118°	0.2	0.1	0.1	0.0	0.0	0.0
118.5°	0.2	0.1	0.1	0.0	0.0	0.0
119°	0.2	0.1	0.1	0.0	0.0	0.0
119.5°	0.2	0.1	0.1	0.0	0.0	0.0
120°	0.2	0.1	0.1	0.0	0.0	0.0
120.5°	0.2	0.1	0.1	0.0	0.0	0.0
121°	0.2	0.1	0.1	0.0	0.0	0.0
121.5°	0.3	0.1	0.1	0.0	0.0	0.0
122°	0.3	0.1	0.1	0.0	0.0	0.0
122.5°	0.2	0.1	0.1	0.0	0.0	0.0
123°	0.2	0.1	0.1	0.0	0.0	0.0
123.5°	0.4	0.1	0.1	0.0	0.0	0.0
124°	0.4	0.1	0.1	0.0	0.0	0.0
124.5°	0.3	0.1	0.1	0.0	0.0	0.0
125°	0.3	0.1	0.1	0.0	0.0	0.0
125.5°	0.3	0.1	0.1	0.0	0.0	0.0
126°	0.3	0.1	0.1	0.0	0.0	0.0
126.5°	0.3	0.1	0.1	0.0	0.0	0.0
127°	0.3	0.1	0.1	0.0	0.0	0.0
127.5°	0.3	0.1	0.1	0.0	0.0	0.0
128°	0.3	0.1	0.1	0.0	0.0	0.0
128.5°	0.4	0.1	0.1	0.0	0.0	0.0
129°	0.4	0.1	0.1	0.0	0.0	0.0
129.5°	0.4	0.1	0.1	0.0	0.0	0.0
130°	0.4	0.1	0.1	0.0	0.0	0.0
130.5°	0.4	0.1	0.1	0.0	0.0	0.0
131°	0.4	0.1	0.1	0.0	0.0	0.0
131.5°	0.4	0.1	0.1	0.0	0.0	0.0
132°	0.4	0.2	0.1	0.0	0.0	0.0
132.5°	0.4	0.2	0.1	0.0	0.0	0.0
133°	0.4	0.1	0.1	0.0	0.0	0.0
133.5°	0.4	0.2	0.1	0.0	0.0	0.0
134°	0.4	0.2	0.1	0.0	0.0	0.0
134.5°	0.4	0.2	0.1	0.0	0.0	0.0



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.4	0.2	0.1	0.0	0.0	0.0
135.5°	0.4	0.2	0.1	0.0	0.0	0.0
136°	0.4	0.2	0.1	0.0	0.0	0.0
136.5°	0.4	0.2	0.1	0.0	0.0	0.0
137°	0.4	0.2	0.1	0.0	0.0	0.1
137.5°	0.4	0.3	0.1	0.0	0.0	0.1
138°	0.4	0.3	0.1	0.0	0.1	0.1
138.5°	0.4	0.3	0.1	0.0	0.4	0.1
139°	0.4	0.3	0.1	0.0	0.4	0.1
139.5°	0.4	0.3	0.1	0.0	0.3	0.2
140°	0.4	0.3	0.1	0.0	0.3	0.1
140.5°	0.4	0.4	0.1	0.0	0.3	0.3
141°	0.4	0.4	0.1	0.0	0.4	0.3
141.5°	0.4	0.4	0.3	0.1	0.4	0.3
142°	0.4	0.6	0.3	0.1	0.4	0.3
142.5°	0.5	0.6	0.3	0.4	0.4	0.3
143°	0.5	0.6	0.3	0.3	0.4	0.4
143.5°	0.5	0.6	0.5	0.3	0.4	0.4
144°	0.5	0.6	0.5	0.3	0.4	0.4
144.5°	0.5	0.6	0.4	0.4	0.4	0.4
145°	0.5	0.6	0.4	0.4	0.5	0.4
145.5°	0.5	0.6	0.4	0.4	0.5	0.4
146°	0.5	0.6	0.4	0.4	0.5	0.4
146.5°	0.5	0.6	0.4	0.4	0.5	0.4
147°	0.5	0.6	0.4	0.4	0.6	0.4
147.5°	0.6	0.6	0.4	0.5	0.6	0.4
148°	0.6	0.6	0.4	0.5	0.6	0.5
148.5°	0.6	0.6	0.5	0.6	0.6	0.4
149°	0.6	0.6	0.5	0.7	0.7	0.6
149.5°	0.6	0.6	0.6	0.7	0.6	0.6
150°	0.6	0.6	0.6	0.6	0.6	0.6
150.5°	0.6	0.6	0.6	0.7	0.6	0.6
151°	0.6	0.6	0.6	0.7	0.6	0.6
151.5°	0.6	0.6	0.6	0.8	0.6	0.6
152°	0.6	0.6	0.7	0.8	0.7	0.8
152.5°	0.6	0.6	0.7	0.8	0.7	0.7
153°	0.6	0.6	0.6	0.8	0.7	0.7
153.5°	0.6	0.6	0.6	0.8	0.7	0.7
154°	0.7	0.6	0.6	0.8	0.8	0.7
154.5°	0.7	0.7	0.6	0.8	0.8	0.7
155°	0.7	0.7	0.6	0.8	0.8	0.8
155.5°	0.7	0.7	0.7	0.8	0.8	0.8
156°	0.7	0.7	0.7	0.8	0.8	0.8
156.5°	0.7	0.7	0.7	0.8	0.8	0.8
157°	0.7	0.7	0.7	0.8	0.8	0.8



TEST NUMBER: P565397
 CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.7	0.7	0.7	0.8	0.8	0.8
158°	0.8	0.7	0.8	0.8	0.8	0.8
158.5°	0.8	0.7	0.8	0.8	0.8	0.8
159°	0.7	0.7	0.8	0.8	0.8	0.8
159.5°	0.7	0.7	0.8	0.8	0.8	0.8
160°	0.7	0.7	0.8	0.8	0.8	0.8
160.5°	0.7	0.7	0.8	0.8	0.8	0.8
161°	0.7	0.7	0.8	0.8	0.8	0.8
161.5°	0.9	0.7	0.8	0.8	0.8	0.8
162°	0.8	0.7	0.8	0.8	0.8	0.8
162.5°	0.9	0.7	0.8	0.8	0.8	0.8
163°	0.9	0.7	0.8	0.8	0.8	0.8
163.5°	0.8	0.7	0.8	0.8	0.8	0.8
164°	0.8	0.7	0.8	0.8	0.8	0.8
164.5°	0.8	0.7	0.8	0.8	0.8	0.8
165°	0.8	0.7	0.8	0.8	0.8	0.8
165.5°	0.8	0.7	0.8	0.8	0.8	0.8
166°	0.8	0.7	0.8	0.8	0.8	0.8
166.5°	0.8	0.7	0.8	0.8	0.8	0.8
167°	0.8	0.7	0.8	0.8	0.8	0.8
167.5°	0.9	0.7	0.8	0.8	0.8	0.8
168°	0.9	0.7	0.8	0.8	0.8	0.8
168.5°	0.9	0.7	0.8	0.8	0.8	0.8
169°	0.9	0.7	0.8	0.8	0.8	0.8
169.5°	0.9	0.7	0.8	0.8	0.8	0.8
170°	0.9	0.7	0.8	0.8	0.8	0.8
170.5°	0.9	0.7	0.8	0.8	0.8	0.8
171°	0.9	0.7	0.8	0.8	0.8	0.8
171.5°	0.9	0.7	0.8	0.8	0.8	0.8
172°	0.9	0.7	0.8	0.8	0.8	0.8
172.5°	0.9	0.7	0.8	0.8	0.8	0.8
173°	0.9	0.7	0.8	0.8	0.8	0.8
173.5°	0.9	0.7	0.8	0.8	0.8	0.8
174°	0.9	0.7	0.8	0.8	0.8	0.8
174.5°	0.9	0.7	0.8	0.8	0.8	0.8
175°	0.8	0.7	0.8	0.8	0.8	0.8
175.5°	0.8	0.7	0.8	0.8	0.8	0.8
176°	0.8	0.7	0.8	0.8	0.8	0.8
176.5°	0.8	0.7	0.8	0.8	0.8	0.8
177°	0.8	0.7	0.8	0.8	0.9	0.9
177.5°	0.9	0.7	0.8	0.8	0.9	0.9
178°	0.9	0.7	0.8	0.8	0.8	0.8
178.5°	0.7	0.7	0.8	0.8	0.8	0.8
179°	0.7	0.7	0.8	0.8	0.8	0.8
179.5°	0.7	0.7	0.8	0.8	0.7	0.8



TEST NUMBER: P565397
CATALOG NUMBER: HLBQL4069FS1E-3000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.7	0.7	0.7	0.7	0.7	0.7

(END OF REPORT)