

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: P565396

Luminaire Tested: **HLBQL4069FS1E-2700K-UNIT**

Issue Date: 8/31/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565396  
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-2700K-UNIT  
Description: 4in Surface Mount Downlight Fixture with Color Selectable Switch  
Light Source: (48) 2700K CCT, 93 CRI LEDS  
Ballast/Driver: -

**Summary**

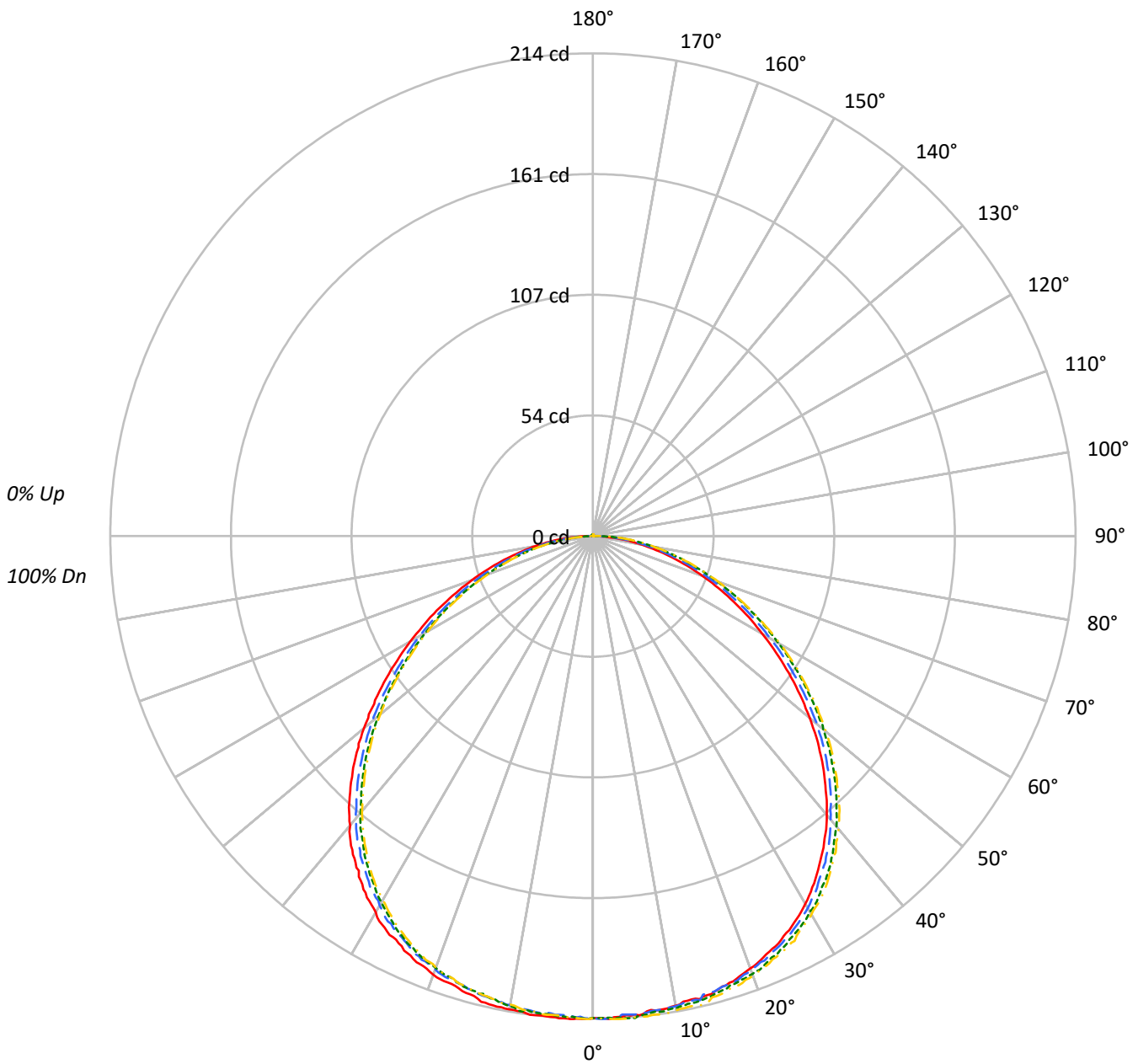
Lumens per Lamp: N/A  
Luminaire Lumens: 620.1 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.31 / 1.4  
Luminous Opening: Circular (Dia: 0.33m x H: 0m)  
CIE Type: Direct

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



TEST NUMBER: P565396  
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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	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	93	91	88	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	53	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	42	68	56	47	41	54	47	41	52	46	41	51	45	40	40	40	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	36	36	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	36	32	32	32	32	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	36	30	26	26	26	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	2454	2454	2454	2454
5°	2454	2472	2467	2454
10°	2465	2479	2485	2469
15°	2484	2495	2500	2477
20°	2493	2526	2528	2489
25°	2502	2544	2541	2501
30°	2497	2551	2554	2486
35°	2464	2548	2537	2460
40°	2418	2520	2511	2401
45°	2343	2460	2452	2327
50°	2242	2383	2369	2219
55°	2124	2290	2264	2098
60°	1993	2184	2147	1968
65°	1872	2073	2032	1831
70°	1736	1964	1917	1689
75°	1602	1868	1806	1548
80°	1461	1825	1732	1389
85°	1265	1937	1752	1133



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.3	3.3
10°-20°	59.1	9.5
20°-30°	91.6	14.8
30°-40°	111.5	18.0
40°-50°	113.4	18.3
50°-60°	97.8	15.8
60°-70°	71.1	11.5
70°-80°	40.8	6.6
80°-90°	12.8	2.1
90°-100°	0.1	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.1	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°	171.1	27.6
0°-40°	282.6	45.6
0°-60°	493.9	79.6
0°-90°	618.6	99.8
90°-120°	0.3	0.0
90°-150°	0.9	0.1
90°-180°	1.0	0.2
0°-180°	620.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	214	214	214	214	214	
5°	213	214	214	213	213	20
15°	209	210	210	208	209	59
25°	198	201	201	197	198	91
35°	176	182	181	176	176	110
45°	144	152	151	143	144	111
55°	106	114	113	105	106	95
65°	69	76	75	67	69	68
75°	36	42	41	35	36	38
85°	10	15	13	9	10	10
90°	0	2	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	0	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°	213.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
0.5°	213.7	213.6	213.9	212.6	213.7	214.6	213.9	213.9	214.2	213.8	213.8
1°	213.7	213.6	214.2	212.7	213.7	215.2	213.9	213.9	214.3	213.9	213.8
1.5°	214.0	213.6	214.1	212.7	213.6	215.0	213.9	213.9	214.1	213.7	213.2
2°	214.4	213.6	213.9	212.9	213.7	215.0	214.2	213.9	214.1	213.7	213.6
2.5°	213.5	213.3	213.7	212.9	214.2	214.4	214.3	214.0	214.5	213.8	213.1
3°	213.5	213.0	213.6	212.9	213.9	214.8	214.4	214.0	214.2	214.1	213.5
3.5°	213.5	213.5	212.5	212.3	213.8	214.8	214.4	213.3	214.2	213.1	212.8
4°	212.9	212.9	212.6	213.0	214.3	214.5	214.4	213.6	214.3	213.2	212.8
4.5°	213.3	212.8	212.8	213.0	214.3	214.4	214.4	213.6	214.0	213.0	212.9
5°	212.9	213.3	212.9	212.7	214.5	214.3	214.1	213.5	214.0	213.0	212.4
5.5°	213.5	213.0	212.9	213.1	213.5	214.4	214.2	213.5	213.9	213.0	212.3
6°	213.1	212.4	212.7	213.0	213.5	214.2	214.2	213.5	213.8	213.1	212.7
6.5°	212.0	212.4	212.7	212.6	213.5	214.2	214.3	213.3	213.8	213.0	212.6
7°	211.7	212.4	212.1	212.6	212.9	214.4	213.9	213.2	214.0	211.8	212.5
7.5°	212.1	212.1	212.1	212.6	212.6	214.3	213.9	213.1	214.1	212.1	212.2
8°	212.2	211.6	212.1	212.5	213.0	214.4	214.2	212.9	213.6	212.0	212.0
8.5°	212.1	211.5	211.8	212.4	213.0	213.9	214.1	213.2	213.2	211.7	211.8
9°	212.0	211.4	211.8	211.6	212.6	213.5	214.1	213.2	213.2	212.0	211.8
9.5°	211.5	211.4	211.8	211.7	212.4	213.3	213.9	212.9	213.0	212.0	211.7
10°	211.4	211.0	211.6	211.7	212.6	213.4	213.5	212.9	213.1	211.8	211.2
10.5°	211.2	211.0	211.3	211.7	212.1	212.3	213.2	212.6	213.1	211.8	211.2
11°	210.3	210.4	210.9	211.4	212.1	212.6	213.2	212.6	212.8	211.5	210.6
11.5°	210.3	210.9	210.3	211.2	211.6	212.7	212.9	212.6	212.9	211.2	210.4
12°	210.0	210.2	210.6	210.8	211.7	212.4	212.9	212.5	212.7	211.0	210.3
12.5°	210.1	209.7	210.6	210.6	211.7	212.0	213.0	211.7	212.6	210.3	209.7
13°	210.7	209.6	211.2	210.6	211.4	212.0	213.4	211.7	212.3	210.2	209.6
13.5°	209.9	209.6	209.0	210.4	211.2	212.1	213.3	211.4	212.4	210.3	209.6
14°	209.7	209.0	209.0	209.1	210.7	211.0	212.6	211.4	211.3	210.1	209.2
14.5°	209.7	208.8	209.0	209.1	210.6	211.0	211.2	210.7	210.6	209.6	208.9
15°	209.0	208.5	209.0	208.8	209.9	210.9	211.2	210.7	210.3	210.1	208.2
15.5°	208.5	208.3	208.3	208.5	209.7	210.8	210.9	210.2	210.2	208.8	208.2
16°	207.8	208.3	207.9	208.6	209.4	210.3	210.7	209.8	209.9	208.8	207.4
16.5°	207.8	207.8	207.8	208.3	209.2	210.4	210.3	209.8	209.2	208.8	207.1
17°	207.1	207.1	207.5	208.3	208.2	210.0	209.5	209.6	208.6	208.1	206.9
17.5°	207.0	206.7	207.3	207.7	208.2	208.7	209.3	209.2	208.2	207.5	206.8
18°	206.3	206.5	207.2	206.8	207.9	208.7	209.3	208.9	208.1	206.6	206.3
18.5°	205.6	205.7	206.4	206.4	207.4	208.6	208.9	208.5	208.1	206.6	206.2
19°	205.1	205.3	205.7	206.6	207.4	208.1	208.0	207.6	207.8	206.5	205.7
19.5°	204.5	205.2	205.5	206.0	206.8	207.9	207.9	207.6	207.5	205.7	205.2
20°	204.0	204.8	204.9	206.0	206.7	207.3	207.5	207.3	206.9	205.4	204.4
20.5°	203.6	204.2	204.2	205.2	206.0	207.2	207.0	206.3	206.3	205.0	204.0
21°	203.0	203.6	203.8	204.5	206.1	206.3	206.4	206.3	205.5	203.8	203.3
21.5°	202.3	203.1	203.0	203.7	205.4	205.7	205.7	206.2	205.0	203.7	202.7
22°	201.6	202.4	203.0	203.5	204.5	205.3	205.5	205.9	204.7	203.1	202.6



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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°	200.8	201.7	202.2	203.3	203.7	205.0	204.9	205.1	204.5	202.4	201.7
23°	200.2	200.7	201.7	202.0	202.9	204.2	203.8	204.2	203.7	202.6	201.3
23.5°	199.5	200.2	200.7	202.0	202.7	203.6	203.6	203.6	202.7	201.6	200.2
24°	199.1	199.6	200.2	201.3	202.2	203.6	203.1	202.9	202.4	201.5	199.6
24.5°	198.4	198.6	199.6	201.3	201.2	202.3	202.4	202.0	202.0	200.4	198.6
25°	197.5	197.7	198.9	200.3	200.8	201.8	202.1	201.2	200.6	198.9	197.9
25.5°	196.5	197.1	198.0	199.3	200.0	201.2	201.6	200.9	200.1	198.3	197.0
26°	195.7	196.3	197.4	198.2	198.9	200.8	200.6	199.9	199.1	197.7	196.5
26.5°	195.2	195.5	196.7	197.8	198.3	199.9	200.5	199.2	198.7	197.1	195.8
27°	194.2	194.6	195.8	196.6	197.6	198.5	198.9	199.1	198.5	196.3	195.0
27.5°	193.2	193.7	195.0	196.2	197.0	198.3	197.9	197.7	197.6	195.5	193.8
28°	192.3	192.8	194.2	194.9	196.1	197.7	197.0	197.0	196.6	194.8	193.6
28.5°	191.4	191.9	193.2	194.1	195.3	196.3	196.1	196.3	195.9	193.8	192.6
29°	190.5	191.1	192.2	193.2	194.6	195.6	195.8	195.4	195.3	192.8	191.5
29.5°	189.4	190.0	191.5	192.5	193.5	194.6	194.7	194.3	194.2	192.1	190.2
30°	188.3	189.0	190.5	191.3	192.4	193.6	193.8	193.5	192.6	191.2	189.1
30.5°	187.3	188.0	189.4	190.2	191.8	192.4	192.6	192.5	191.5	189.4	187.5
31°	186.1	186.8	188.2	189.2	190.8	191.7	191.9	191.3	190.7	188.9	187.0
31.5°	185.0	185.6	187.1	188.3	190.0	190.6	191.1	190.5	189.7	188.0	185.9
32°	183.6	184.3	186.1	187.1	188.6	189.9	190.1	189.6	189.0	186.9	185.3
32.5°	182.6	183.2	184.9	186.0	187.6	188.9	189.1	188.5	187.5	185.4	184.0
33°	181.2	182.1	183.4	184.8	186.1	188.2	188.1	187.0	186.8	184.9	182.5
33.5°	179.8	180.8	182.1	183.4	185.1	186.5	186.8	186.0	185.2	183.2	181.4
34°	178.5	179.5	180.9	182.4	184.3	185.4	185.7	184.6	184.2	182.0	180.1
34.5°	177.1	178.4	179.8	181.3	183.0	184.2	184.3	183.6	183.3	180.6	178.8
35°	175.8	177.0	178.6	180.2	181.8	183.1	183.0	181.9	181.0	179.4	177.6
35.5°	174.4	175.7	177.6	178.9	180.7	181.4	181.7	180.9	180.6	178.7	176.4
36°	173.1	174.1	175.9	177.3	179.4	180.4	180.3	180.1	179.0	177.0	175.4
36.5°	171.9	172.9	174.6	176.1	177.8	178.8	179.2	178.4	177.8	176.2	173.4
37°	170.3	171.4	173.2	174.8	176.7	177.9	177.5	177.0	176.9	174.6	172.2
37.5°	168.8	170.0	172.0	173.4	175.1	176.2	176.8	175.7	175.3	173.0	171.6
38°	167.5	168.7	170.4	172.0	173.5	175.0	175.2	174.6	174.2	171.6	169.7
38.5°	166.1	167.2	168.9	170.5	172.0	173.9	173.3	172.9	172.6	169.8	168.2
39°	164.6	165.6	167.3	169.0	170.7	172.3	172.3	171.8	171.2	168.7	166.8
39.5°	163.0	164.1	165.7	167.5	169.2	170.8	171.0	170.7	169.8	166.6	165.0
40°	161.3	162.6	164.0	166.0	168.1	169.3	169.5	169.3	167.5	165.3	163.5
40.5°	159.7	160.8	162.4	164.4	166.4	167.5	168.0	167.4	166.2	163.9	161.9
41°	158.1	159.2	160.5	162.8	164.8	166.2	166.5	166.0	164.5	162.2	159.8
41.5°	156.5	157.4	159.3	161.2	162.9	164.7	164.8	164.5	163.1	160.8	158.3
42°	154.6	155.8	157.7	159.5	161.4	163.4	163.5	162.9	161.7	159.1	156.8
42.5°	152.8	154.0	156.1	157.5	159.9	161.7	161.7	161.1	159.8	157.0	155.2
43°	151.2	152.4	154.5	156.1	158.3	159.9	160.1	159.6	158.1	155.4	153.3
43.5°	149.5	150.6	152.8	154.4	156.5	157.9	158.2	157.9	156.3	153.7	151.6
44°	147.8	149.0	151.1	152.7	154.9	156.4	156.5	156.0	154.7	151.9	149.9
44.5°	146.1	147.3	149.5	151.0	153.4	154.5	154.5	154.2	153.0	150.2	148.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	144.3	145.5	147.6	149.2	151.5	153.1	153.0	152.5	151.0	148.3	146.5
45.5°	142.5	144.0	145.7	147.5	149.9	151.3	151.2	150.5	149.3	146.7	144.3
46°	140.7	142.2	144.1	145.8	148.1	149.4	149.3	148.6	147.7	144.7	142.4
46.5°	138.7	140.5	142.4	143.9	146.1	147.7	147.9	147.0	145.7	143.3	140.7
47°	137.1	138.7	140.6	142.4	144.5	145.6	145.9	145.5	143.8	141.3	139.0
47.5°	135.3	136.8	138.9	140.7	142.7	144.2	144.3	143.4	142.1	139.6	137.1
48°	133.5	135.0	136.9	138.9	141.1	142.2	142.5	141.5	139.8	137.8	135.1
48.5°	131.5	133.1	135.2	136.9	139.2	140.5	140.7	139.5	138.8	135.9	133.4
49°	129.4	131.2	133.2	135.0	137.1	138.6	138.8	137.7	136.2	134.1	131.4
49.5°	127.4	129.3	131.4	133.1	135.2	136.8	136.8	135.9	134.6	132.2	129.8
50°	125.5	127.4	129.9	131.2	133.4	135.1	134.7	134.2	132.6	130.0	127.5
50.5°	123.5	125.4	127.6	129.4	132.0	132.5	133.1	132.2	130.5	128.1	126.0
51°	121.5	123.6	125.6	127.5	129.6	131.0	131.1	130.3	128.1	126.0	123.9
51.5°	119.8	121.8	123.6	126.3	127.8	129.1	129.2	128.1	126.9	124.3	121.9
52°	117.9	120.0	121.8	123.6	126.0	127.0	127.1	126.2	124.6	122.6	120.1
52.5°	115.9	118.1	119.8	121.8	123.9	125.1	125.6	124.2	122.3	120.5	118.0
53°	113.9	116.2	117.9	119.7	122.2	123.1	123.4	122.1	121.0	118.4	116.0
53.5°	112.0	114.1	116.0	117.9	120.1	121.0	121.5	120.4	118.9	116.4	114.0
54°	110.1	112.3	113.9	116.1	118.2	119.2	119.5	118.2	116.9	114.4	112.1
54.5°	108.0	110.4	112.2	114.2	116.4	117.0	117.3	116.3	114.9	112.7	110.0
55°	106.1	108.4	110.2	112.3	114.4	115.2	115.5	114.5	113.1	110.6	107.9
55.5°	104.1	106.4	108.2	110.3	112.5	113.0	113.5	112.6	111.0	108.8	106.0
56°	102.2	104.6	106.4	108.3	110.6	111.0	111.5	110.6	109.1	106.7	104.1
56.5°	100.3	102.6	104.5	106.4	108.7	109.1	109.7	108.6	107.2	104.7	102.1
57°	98.4	100.7	102.6	104.5	106.8	107.1	108.1	106.9	104.9	102.8	100.4
57.5°	96.3	98.6	100.5	102.3	104.6	105.2	106.0	104.7	103.0	100.9	98.4
58°	94.5	96.6	98.8	100.5	102.8	103.4	103.9	102.5	101.1	99.0	96.4
58.5°	92.6	94.8	96.9	98.7	100.9	101.4	102.0	100.8	99.3	97.2	94.6
59°	90.7	92.9	95.0	96.7	99.1	99.5	100.1	98.8	97.4	95.2	92.6
59.5°	88.7	90.9	92.9	94.8	97.0	97.5	98.1	97.1	95.4	93.2	90.7
60°	86.8	89.0	90.9	92.9	95.1	95.6	96.0	95.0	93.5	91.3	88.8
60.5°	85.0	87.1	89.0	91.0	93.0	93.6	94.1	93.1	91.7	89.3	87.0
61°	83.1	85.2	87.3	89.1	91.4	91.7	92.2	91.1	89.5	87.6	85.1
61.5°	81.5	83.4	85.4	87.1	89.1	89.8	90.2	89.0	87.4	85.7	83.2
62°	79.8	81.7	83.3	85.2	87.5	87.9	88.4	87.3	85.8	83.7	81.4
62.5°	77.9	79.9	81.7	83.3	85.5	86.1	86.2	85.1	83.8	82.0	79.6
63°	76.0	77.9	79.9	81.6	83.8	84.4	84.6	83.5	82.1	80.3	77.8
63.5°	74.2	76.0	78.1	79.8	81.7	82.4	82.5	81.8	80.4	78.3	75.9
64°	72.4	74.3	76.1	78.0	80.1	80.9	80.8	80.0	78.4	76.6	74.0
64.5°	70.6	72.5	74.4	76.1	78.0	79.1	78.9	78.0	76.8	74.7	72.3
65°	68.9	70.7	72.5	74.3	76.3	77.2	76.9	76.2	74.8	72.8	70.5
65.5°	67.1	68.8	70.7	72.5	74.4	75.3	75.1	74.2	72.8	70.9	68.7
66°	65.3	67.0	68.8	70.7	72.7	73.5	73.3	72.3	71.0	69.1	66.9
66.5°	63.6	65.3	67.1	68.9	70.9	71.5	71.4	70.5	69.2	67.3	65.1
67°	62.0	63.4	65.4	67.1	69.1	69.8	69.6	68.7	67.6	65.5	63.4





TEST NUMBER: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	60.3	61.8	63.7	65.2	67.2	68.1	67.8	67.0	65.7	63.6	61.7
68°	58.5	60.1	61.9	63.6	65.5	66.3	66.1	65.3	64.0	61.9	60.0
68.5°	56.8	58.4	60.1	61.9	63.7	64.5	64.3	63.5	62.3	60.0	58.3
69°	55.2	56.6	58.4	60.1	61.9	62.7	62.6	61.5	60.5	58.3	56.6
69.5°	53.4	55.0	56.7	58.5	60.1	60.9	60.9	60.0	58.8	56.5	54.9
70°	51.7	53.4	55.0	56.8	58.5	59.1	59.2	58.1	57.1	55.0	53.2
70.5°	50.1	51.7	53.3	55.1	56.7	57.5	57.6	56.5	55.5	53.4	51.6
71°	48.6	50.1	51.6	53.3	55.1	55.8	55.6	54.9	53.7	51.7	50.0
71.5°	46.9	48.4	50.1	51.7	53.3	54.0	54.0	53.1	52.0	50.1	48.4
72°	45.3	46.8	48.5	50.1	51.8	52.3	52.2	51.5	50.5	48.4	46.8
72.5°	43.8	45.2	46.9	48.5	50.3	50.8	50.8	50.0	48.7	46.8	45.2
73°	42.1	43.6	45.3	47.0	48.5	49.2	49.1	48.3	47.0	45.2	43.7
73.5°	40.5	42.0	43.7	45.3	47.0	47.6	47.5	46.6	45.5	43.6	42.1
74°	39.0	40.5	42.2	43.8	45.3	46.0	45.9	45.1	44.0	42.1	40.7
74.5°	37.5	39.0	40.6	42.3	43.7	44.3	44.3	43.5	42.4	40.5	39.1
75°	36.1	37.6	39.1	40.7	42.1	42.7	42.7	41.9	40.7	39.0	37.6
75.5°	34.6	36.0	37.5	39.1	40.7	41.2	41.2	40.3	39.3	37.6	36.1
76°	33.1	34.6	36.1	37.5	39.0	39.6	39.6	38.8	37.7	36.1	34.6
76.5°	31.8	33.1	34.7	36.0	37.6	38.0	38.1	37.3	36.2	34.6	33.2
77°	30.2	31.7	33.2	34.5	36.1	36.6	36.6	35.9	34.7	33.2	31.8
77.5°	28.9	30.3	31.7	33.1	34.6	35.2	35.2	34.4	33.3	31.8	30.5
78°	27.4	28.8	30.2	31.7	33.2	33.6	33.7	33.0	31.8	30.4	29.0
78.5°	26.0	27.5	28.8	30.2	31.8	32.3	32.1	31.5	30.4	29.0	27.6
79°	24.7	26.2	27.4	28.7	30.4	30.7	30.7	30.0	29.0	27.6	26.2
79.5°	23.4	24.8	26.0	27.4	29.0	29.3	29.3	28.6	27.6	26.3	24.8
80°	22.1	23.5	24.6	25.9	27.6	27.9	27.8	27.3	26.2	24.8	23.5
80.5°	20.9	22.1	23.2	24.5	26.3	26.6	26.6	25.8	24.9	23.8	22.1
81°	19.5	20.9	21.9	23.2	24.9	25.3	25.2	24.5	23.5	22.3	20.8
81.5°	18.3	19.6	20.8	21.9	23.7	24.1	23.9	23.1	22.1	20.9	19.6
82°	17.0	18.4	19.5	20.7	22.2	22.5	22.5	21.8	20.8	19.8	18.4
82.5°	15.7	17.1	18.2	19.4	20.8	21.1	21.1	20.4	19.6	18.5	17.1
83°	14.5	15.9	16.9	18.0	19.8	20.0	20.0	19.3	18.3	17.2	15.9
83.5°	13.3	14.6	15.6	16.8	18.5	18.6	18.7	18.0	17.0	15.9	14.8
84°	12.0	13.4	14.3	15.5	17.1	17.1	17.4	16.7	15.9	14.7	13.2
84.5°	10.9	12.1	13.1	14.3	15.9	16.1	16.1	15.5	14.5	13.5	12.1
85°	9.6	10.9	11.8	13.0	14.7	14.9	14.9	14.1	13.3	12.3	11.0
85.5°	8.4	9.7	10.6	11.8	13.4	13.6	13.6	13.0	12.1	11.1	9.8
86°	7.4	8.5	9.5	10.6	12.2	12.4	12.4	11.9	11.0	9.8	8.6
86.5°	6.2	7.3	8.3	9.4	11.0	11.2	11.2	10.6	9.7	8.7	7.5
87°	5.1	6.2	7.1	8.1	9.8	10.0	10.0	9.3	8.5	7.5	6.4
87.5°	4.0	5.1	6.0	7.0	8.6	8.8	8.8	8.2	7.3	6.3	5.2
88°	2.8	3.9	4.9	5.8	7.3	7.5	7.6	7.1	6.2	5.2	4.2
88.5°	1.7	2.7	3.6	4.7	6.2	6.4	6.4	6.0	5.1	4.4	2.9
89°	0.9	1.6	2.5	3.4	5.0	5.2	5.2	4.8	4.0	2.9	1.7
89.5°	0.4	0.7	1.4	2.3	3.9	4.2	4.1	3.5	2.7	1.7	0.6



TEST NUMBER: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-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	1.2	2.5	2.8	2.8	2.4	1.6	0.6	0.0
90.5°	0.1	0.2	0.2	0.5	1.4	1.5	1.6	1.2	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: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-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	0.2	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	0.2
118°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
118.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2
120.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.2
121°	0.0	0.1	0.0	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.2
121.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122°	0.0	0.1	0.0	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2
122.5°	0.0	0.1	0.0	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2
123°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.2
124°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
124.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.2	0.4	0.2	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	0.2	0.4	0.3	0.3	0.3	0.3
126.5°	0.0	0.1	0.0	0.1	0.2	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: P565396

CATALOG NUMBER: HLBQL4069FS1E-2700K-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	0.5
140°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5
140.5°	0.3	0.2	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°	0.2	0.3	0.1	0.1	0.4	0.5	0.4	0.4	0.4	0.5	0.5
142°	0.2	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
142.5°	0.2	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	0.5	0.5	0.5	0.4	0.5	0.5	0.5
146°	0.4	0.4	0.1	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5
146.5°	0.4	0.4	0.1	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5
147°	0.4	0.4	0.1	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
147.5°	0.4	0.4	0.2	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6
148°	0.5	0.4	0.1	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6
148.5°	0.4	0.4	0.2	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5
149°	0.5	0.4	0.2	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5
149.5°	0.5	0.5	0.2	0.4	0.5	0.6	0.5	0.5	0.5	0.6	0.6
150°	0.6	0.5	0.2	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.6
150.5°	0.6	0.5	0.2	0.4	0.5	0.5	0.6	0.5	0.5	0.7	0.7
151°	0.6	0.6	0.3	0.4	0.5	0.5	0.6	0.5	0.5	0.7	0.7
151.5°	0.6	0.6	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.6	0.6
152°	0.7	0.6	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.6	0.7
152.5°	0.7	0.6	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.7
153°	0.7	0.6	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6
153.5°	0.7	0.6	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.7
154°	0.7	0.6	0.5	0.4	0.5	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	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7
156°	0.7	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7
156.5°	0.7	0.7	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
157°	0.7	0.7	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	0.7	0.7	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
158°	0.7	0.7	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
158.5°	0.7	0.7	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
159°	0.7	0.7	0.5	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7
159.5°	0.7	0.7	0.5	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7
160°	0.7	0.7	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8
160.5°	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8
161°	0.7	0.7	0.6	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.8
161.5°	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8
162°	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8
162.5°	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8
163°	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
163.5°	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
164°	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
164.5°	0.8	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
165°	0.8	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
165.5°	0.8	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
166°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
166.5°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
167°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
167.5°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
168°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
168.5°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
169°	0.8	0.8	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7
169.5°	0.8	0.8	0.6	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
170°	0.8	0.9	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
170.5°	0.8	0.9	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
171°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
171.5°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
172°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
172.5°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
173°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
173.5°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
174°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
174.5°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
175°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
175.5°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7
176°	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.7
176.5°	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7
177°	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7
177.5°	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7
178°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
178.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
179°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
179.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P565396  
CATALOG NUMBER: HLBQL4069FS1E-2700K-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: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	213.7	213.7	213.7	213.7	213.7	213.7
0.5°	213.7	213.9	214.1	214.2	213.7	213.7
1°	213.0	214.0	214.2	214.1	213.5	213.7
1.5°	213.0	213.8	213.8	214.0	213.5	214.0
2°	213.1	213.6	213.9	213.8	213.4	214.4
2.5°	213.0	213.3	213.0	213.6	213.3	213.5
3°	212.7	213.6	213.9	213.6	213.5	213.5
3.5°	212.6	213.4	213.9	213.4	213.3	213.5
4°	212.7	213.5	213.6	213.1	213.2	212.9
4.5°	212.7	213.2	213.8	213.0	212.4	213.3
5°	212.6	212.9	213.3	213.0	212.5	212.9
5.5°	212.4	212.9	213.1	213.2	212.2	213.5
6°	212.1	213.0	213.0	213.2	212.0	213.1
6.5°	212.1	212.9	213.0	212.7	211.8	212.0
7°	211.8	212.9	212.0	212.4	211.8	211.7
7.5°	211.6	212.6	213.1	212.4	211.9	212.1
8°	211.5	212.0	213.2	212.4	211.4	212.2
8.5°	211.5	213.1	212.5	212.2	211.6	212.1
9°	211.5	213.0	212.1	211.6	211.4	212.0
9.5°	210.8	211.8	211.6	211.1	211.3	211.5
10°	210.1	211.8	211.6	210.9	210.8	211.4
10.5°	210.0	211.3	211.2	211.0	210.6	211.2
11°	210.0	211.0	210.7	210.8	210.6	210.3
11.5°	210.0	210.6	210.4	210.7	210.3	210.3
12°	209.5	209.8	210.6	210.2	210.3	210.0
12.5°	208.9	209.9	209.8	209.7	210.0	210.1
13°	208.8	209.3	209.3	209.3	209.8	210.7
13.5°	208.3	208.7	209.4	209.3	208.7	209.9
14°	208.3	209.1	208.3	208.9	208.4	209.7
14.5°	208.0	208.5	209.3	209.0	208.4	209.7
15°	207.2	208.4	208.5	208.2	207.7	209.0
15.5°	207.2	208.0	207.4	207.6	207.3	208.5
16°	206.9	207.9	207.5	207.3	207.0	207.8
16.5°	206.7	207.2	207.3	207.2	206.9	207.8
17°	206.7	206.7	207.3	206.7	206.1	207.1
17.5°	206.0	205.9	206.0	205.8	206.0	207.0
18°	205.3	205.5	205.5	205.4	205.2	206.3
18.5°	205.1	205.5	205.2	204.7	204.8	205.6
19°	204.2	204.9	204.5	204.7	204.0	205.1
19.5°	203.7	204.4	203.6	204.7	204.0	204.5
20°	202.9	203.7	203.6	203.6	203.1	204.0
20.5°	202.3	203.1	203.1	202.6	202.9	203.6
21°	201.7	202.8	202.4	202.3	202.4	203.0
21.5°	201.3	202.2	202.1	202.0	201.6	202.3
22°	200.5	201.7	201.8	201.1	200.9	201.6



TEST NUMBER: P565396

CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	200.1	201.0	200.4	200.4	200.3	200.8
23°	199.3	200.4	199.5	199.5	199.5	200.2
23.5°	198.5	199.4	198.9	198.7	198.8	199.5
24°	198.1	198.9	198.4	198.0	198.4	199.1
24.5°	197.2	198.3	198.1	197.1	197.7	198.4
25°	196.2	197.4	197.2	196.3	196.5	197.5
25.5°	195.6	196.4	196.2	195.4	195.5	196.5
26°	194.8	195.8	195.2	194.5	194.8	195.7
26.5°	194.4	194.9	194.5	193.6	193.8	195.2
27°	193.3	193.8	192.9	192.7	192.8	194.2
27.5°	192.4	192.7	192.1	191.7	191.9	193.2
28°	191.4	191.8	191.7	190.6	190.8	192.3
28.5°	190.8	190.6	190.7	189.6	190.2	191.4
29°	189.7	189.7	189.7	188.5	189.2	190.5
29.5°	188.7	188.7	188.7	187.3	188.1	189.4
30°	187.6	187.5	187.4	186.3	187.2	188.3
30.5°	186.5	186.5	186.3	185.3	186.2	187.3
31°	185.6	185.5	184.9	184.2	184.8	186.1
31.5°	184.5	184.2	183.7	183.2	183.4	185.0
32°	183.2	182.8	182.4	182.0	182.3	183.6
32.5°	181.8	181.6	181.1	180.8	181.2	182.6
33°	180.8	180.6	179.9	179.7	179.6	181.2
33.5°	179.4	179.4	178.7	178.2	178.8	179.8
34°	178.1	178.0	177.5	176.9	177.2	178.5
34.5°	177.2	176.8	176.2	175.6	175.6	177.1
35°	175.7	175.5	174.9	174.3	174.5	175.8
35.5°	174.5	174.3	173.4	172.7	173.1	174.4
36°	173.0	172.8	172.0	171.3	171.7	173.1
36.5°	172.0	171.0	170.4	170.0	170.5	171.9
37°	170.8	169.4	168.8	168.4	169.1	170.3
37.5°	169.3	168.2	167.4	167.0	167.2	168.8
38°	167.9	166.8	166.1	165.5	165.7	167.5
38.5°	165.5	165.5	164.6	164.0	164.4	166.1
39°	164.5	163.8	163.0	162.3	162.7	164.6
39.5°	163.1	162.1	161.3	160.9	161.1	163.0
40°	161.5	160.2	159.6	159.3	159.4	161.3
40.5°	159.5	158.5	158.0	157.5	158.0	159.7
41°	157.8	156.8	156.3	155.8	156.5	158.1
41.5°	156.2	155.1	154.5	154.0	154.5	156.5
42°	154.5	153.5	152.9	152.2	152.8	154.6
42.5°	152.7	151.9	151.2	150.4	151.1	152.8
43°	151.2	150.1	149.5	148.7	149.4	151.2
43.5°	149.3	148.4	147.7	147.1	147.7	149.5
44°	147.6	146.6	145.8	145.2	146.0	147.8
44.5°	145.9	144.8	144.1	143.4	144.4	146.1





TEST NUMBER: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	143.8	143.3	142.2	141.6	142.5	144.3
45.5°	142.0	141.4	140.4	139.8	140.6	142.5
46°	140.2	139.6	138.6	138.1	138.7	140.7
46.5°	138.5	137.7	136.7	136.2	136.8	138.7
47°	136.9	135.9	134.7	134.4	134.9	137.1
47.5°	134.8	133.8	132.8	132.6	133.0	135.3
48°	133.0	132.0	130.8	130.7	131.1	133.5
48.5°	130.9	130.1	128.8	128.8	129.5	131.5
49°	128.9	128.0	126.8	126.8	127.7	129.4
49.5°	127.0	126.1	124.9	125.0	125.7	127.4
50°	125.4	124.2	123.0	123.2	123.9	125.5
50.5°	123.2	122.2	121.1	121.2	121.8	123.5
51°	121.4	120.2	119.3	119.2	119.8	121.5
51.5°	119.6	118.3	117.4	117.5	118.1	119.8
52°	117.7	116.4	115.4	115.6	116.0	117.9
52.5°	115.5	114.5	113.5	113.7	114.1	115.9
53°	113.6	112.7	111.5	111.5	112.2	113.9
53.5°	112.0	110.8	109.5	109.5	110.3	112.0
54°	109.7	108.7	107.6	107.4	108.2	110.1
54.5°	108.0	106.7	105.6	105.6	106.3	108.0
55°	106.0	104.8	103.7	103.7	104.5	106.1
55.5°	104.0	102.8	101.9	101.8	102.7	104.1
56°	101.9	101.0	99.7	99.8	100.6	102.2
56.5°	100.0	99.1	97.8	98.0	98.6	100.3
57°	98.1	97.1	96.0	96.0	96.8	98.4
57.5°	96.2	95.1	94.1	94.2	94.9	96.3
58°	94.4	93.3	92.0	92.2	92.9	94.5
58.5°	92.5	91.4	90.2	90.2	91.1	92.6
59°	90.5	89.5	88.3	88.5	89.2	90.7
59.5°	88.7	87.6	86.5	86.6	87.2	88.7
60°	86.9	85.7	84.5	84.5	85.5	86.8
60.5°	85.1	83.9	82.8	82.8	83.5	85.0
61°	83.1	82.0	81.0	81.0	81.8	83.1
61.5°	81.4	80.2	79.2	79.2	80.0	81.5
62°	79.5	78.4	77.6	77.3	78.2	79.8
62.5°	77.7	76.6	75.7	75.3	76.3	77.9
63°	75.8	74.7	73.8	73.5	74.5	76.0
63.5°	74.0	72.8	72.1	71.9	72.8	74.2
64°	72.1	71.0	70.3	70.1	71.0	72.4
64.5°	70.5	69.1	68.5	68.4	69.2	70.6
65°	68.4	67.4	66.9	66.5	67.5	68.9
65.5°	66.6	65.6	65.1	64.7	65.7	67.1
66°	65.0	63.9	63.3	63.0	63.9	65.3
66.5°	63.2	62.2	61.5	61.3	62.2	63.6
67°	61.6	60.4	59.8	59.5	60.4	62.0



TEST NUMBER: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	59.8	58.7	58.0	57.9	58.8	60.3
68°	58.1	57.0	56.4	56.1	57.1	58.5
68.5°	56.3	55.3	54.6	54.6	55.4	56.8
69°	54.8	53.5	52.9	52.8	53.7	55.2
69.5°	53.0	51.9	51.5	51.3	52.0	53.4
70°	51.4	50.3	49.7	49.6	50.5	51.7
70.5°	49.9	48.7	48.1	48.2	48.8	50.1
71°	48.4	47.2	46.6	46.5	47.3	48.6
71.5°	46.8	45.5	45.1	44.8	45.7	46.9
72°	45.1	43.9	43.4	43.3	44.1	45.3
72.5°	43.7	42.2	41.9	41.8	42.6	43.8
73°	42.0	40.7	40.3	40.3	41.1	42.1
73.5°	40.6	39.2	38.8	38.8	39.5	40.5
74°	39.1	37.8	37.2	37.3	37.9	39.0
74.5°	37.6	36.3	35.9	36.0	36.4	37.5
75°	36.2	34.9	34.3	34.3	35.0	36.1
75.5°	34.7	33.3	32.7	33.0	33.6	34.6
76°	33.2	31.9	31.3	31.5	32.1	33.1
76.5°	31.8	30.5	29.9	30.0	30.6	31.8
77°	30.4	29.1	28.6	28.6	29.3	30.2
77.5°	29.1	27.7	27.2	27.2	27.9	28.9
78°	27.6	26.3	25.7	25.8	26.4	27.4
78.5°	26.4	25.0	24.4	24.5	25.0	26.0
79°	24.9	23.6	23.0	23.3	23.7	24.7
79.5°	23.6	22.2	21.7	21.9	22.4	23.4
80°	22.2	21.0	20.6	20.7	21.1	22.1
80.5°	20.9	19.8	19.2	19.5	20.0	20.9
81°	19.8	18.5	17.9	18.1	18.7	19.5
81.5°	18.5	17.2	16.7	16.8	17.4	18.3
82°	17.2	16.0	15.5	15.5	16.2	17.0
82.5°	16.0	14.7	14.2	14.3	14.9	15.7
83°	14.7	13.4	12.9	13.1	13.6	14.5
83.5°	13.6	12.2	11.7	11.9	12.4	13.3
84°	12.3	10.9	10.5	10.7	11.2	12.0
84.5°	11.1	9.7	9.3	9.5	10.1	10.9
85°	9.9	8.6	8.2	8.3	8.9	9.6
85.5°	8.8	7.5	7.0	7.1	7.8	8.4
86°	7.6	6.3	5.8	6.0	6.6	7.4
86.5°	6.4	5.1	4.7	4.9	5.5	6.2
87°	5.3	4.0	3.6	3.7	4.3	5.1
87.5°	4.2	2.9	2.5	2.5	3.1	4.0
88°	3.0	1.7	1.4	1.5	2.1	2.8
88.5°	1.7	0.9	0.6	0.7	1.0	1.7
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: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-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: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-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°	0.2	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: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-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	0.2	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	0.2	0.1	0.4	0.2
142°	0.4	0.6	0.2	0.1	0.4	0.2
142.5°	0.5	0.5	0.2	0.4	0.4	0.2
143°	0.5	0.5	0.3	0.3	0.4	0.4
143.5°	0.5	0.5	0.5	0.3	0.4	0.4
144°	0.5	0.5	0.5	0.3	0.4	0.4
144.5°	0.5	0.5	0.4	0.4	0.4	0.4
145°	0.5	0.5	0.4	0.4	0.5	0.4
145.5°	0.5	0.5	0.4	0.4	0.5	0.4
146°	0.5	0.5	0.4	0.4	0.5	0.4
146.5°	0.5	0.5	0.4	0.4	0.5	0.4
147°	0.5	0.5	0.4	0.4	0.6	0.4
147.5°	0.5	0.5	0.4	0.5	0.6	0.4
148°	0.5	0.5	0.4	0.5	0.6	0.5
148.5°	0.5	0.5	0.5	0.6	0.6	0.4
149°	0.5	0.5	0.5	0.7	0.7	0.5
149.5°	0.5	0.5	0.6	0.7	0.6	0.5
150°	0.5	0.5	0.6	0.6	0.6	0.6
150.5°	0.5	0.5	0.5	0.7	0.6	0.6
151°	0.6	0.5	0.6	0.7	0.6	0.6
151.5°	0.6	0.5	0.5	0.7	0.6	0.6
152°	0.6	0.5	0.7	0.7	0.7	0.7
152.5°	0.6	0.5	0.7	0.7	0.7	0.7
153°	0.6	0.6	0.6	0.7	0.7	0.7
153.5°	0.6	0.6	0.6	0.7	0.7	0.7
154°	0.7	0.5	0.6	0.7	0.7	0.7
154.5°	0.7	0.7	0.6	0.7	0.7	0.7
155°	0.7	0.7	0.6	0.7	0.7	0.8
155.5°	0.7	0.7	0.7	0.7	0.7	0.8
156°	0.7	0.7	0.7	0.7	0.7	0.7
156.5°	0.7	0.7	0.7	0.7	0.7	0.7
157°	0.7	0.7	0.7	0.7	0.8	0.7



TEST NUMBER: P565396  
 CATALOG NUMBER: HLBQL4069FS1E-2700K-UNIT

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P565396  
CATALOG NUMBER: HLBQL4069FS1E-2700K-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)