

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: P565400

Luminaire Tested: **HLBQL4069FS1E-5000K-UNIT**

Issue Date: 8/31/2021

Test Information

Test Method: LM-79-08
Report Number: P565400
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-5000K-UNIT
Description: 4in Surface Mount Downlight Fixture with Color Selectable Switch
Light Source: (48) 5000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

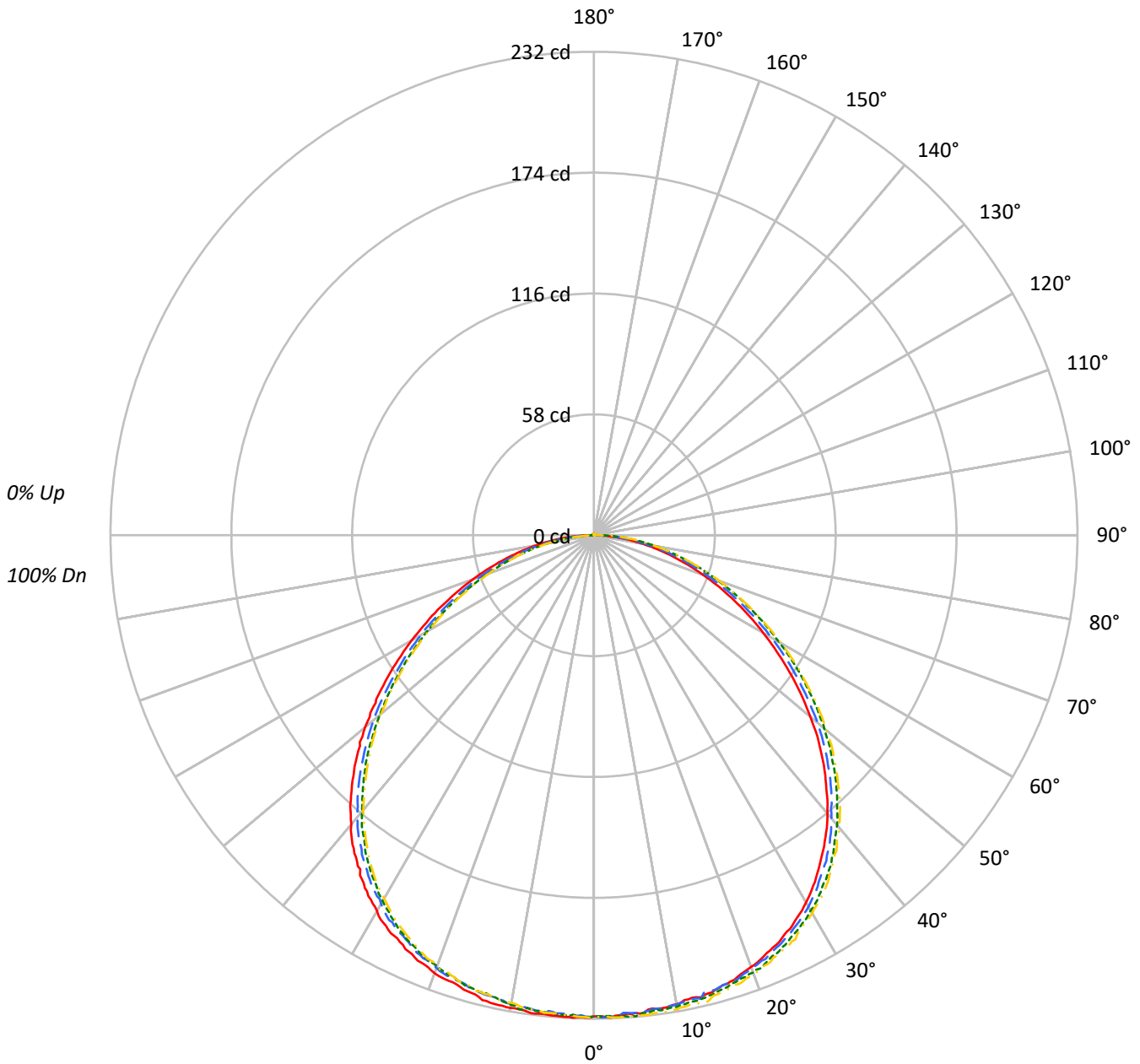
Lumens per Lamp: N/A
Luminaire Lumens: 670.1 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.31 / 1.4
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 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: P565400
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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°	2651	2651	2651	2651
5°	2651	2672	2666	2651
10°	2664	2679	2685	2669
15°	2684	2697	2702	2677
20°	2694	2730	2732	2689
25°	2704	2749	2747	2704
30°	2698	2756	2760	2687
35°	2663	2754	2742	2659
40°	2613	2722	2713	2596
45°	2533	2660	2650	2515
50°	2422	2576	2560	2397
55°	2294	2474	2446	2266
60°	2156	2358	2319	2129
65°	2021	2241	2198	1978
70°	1877	2122	2071	1826
75°	1730	2019	1952	1673
80°	1580	1970	1878	1501
85°	1370	2082	1897	1225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	3.3
10°-20°	63.9	9.5
20°-30°	99.0	14.8
30°-40°	120.5	18.0
40°-50°	122.6	18.3
50°-60°	105.7	15.8
60°-70°	76.8	11.5
70°-80°	44.1	6.6
80°-90°	13.9	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°	184.9	27.6
0°-40°	305.4	45.6
0°-60°	533.7	79.6
0°-90°	668.5	99.8
90°-120°	0.3	0.0
90°-150°	0.9	0.1
90°-180°	2.0	0.3
0°-180°	670.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	231	231	231	231	231	
5°	230	232	231	230	230	22
15°	226	227	227	225	226	64
25°	213	217	217	213	213	98
35°	190	196	196	190	190	119
45°	156	164	163	155	156	120
55°	115	124	122	113	115	102
65°	74	82	81	73	74	74
75°	39	46	44	38	39	41
85°	10	16	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°	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9	230.9
0.5°	230.9	230.9	231.2	229.7	230.9	231.9	231.2	231.1	231.5	231.0	231.0
1°	230.9	230.9	231.5	229.9	230.9	232.5	231.2	231.1	231.5	231.2	231.0
1.5°	231.3	230.8	231.4	229.9	230.8	232.3	231.1	231.2	231.4	230.9	230.4
2°	231.7	230.8	231.1	230.1	230.9	232.3	231.5	231.2	231.4	230.9	230.8
2.5°	230.8	230.6	230.9	230.1	231.5	231.7	231.6	231.3	231.8	231.1	230.3
3°	230.7	230.2	230.8	230.1	231.1	232.1	231.7	231.3	231.5	231.4	230.7
3.5°	230.7	230.7	229.6	229.4	231.0	232.1	231.7	230.6	231.5	230.3	230.0
4°	230.1	230.0	229.8	230.2	231.6	231.8	231.7	230.8	231.5	230.3	230.0
4.5°	230.6	230.0	230.0	230.2	231.5	231.7	231.7	230.8	231.3	230.2	230.1
5°	230.0	230.5	230.1	229.9	231.8	231.6	231.4	230.7	231.3	230.2	229.5
5.5°	230.7	230.2	230.1	230.3	230.7	231.7	231.5	230.7	231.1	230.2	229.4
6°	230.3	229.5	229.9	230.2	230.7	231.5	231.5	230.7	231.0	230.3	229.8
6.5°	229.1	229.6	229.8	229.8	230.7	231.5	231.6	230.5	231.0	230.1	229.8
7°	228.8	229.6	229.2	229.8	230.0	231.7	231.2	230.4	231.3	228.9	229.7
7.5°	229.2	229.2	229.2	229.8	229.7	231.6	231.2	230.3	231.3	229.2	229.3
8°	229.3	228.7	229.2	229.6	230.2	231.6	231.5	230.0	230.8	229.1	229.1
8.5°	229.2	228.6	228.9	229.5	230.1	231.1	231.4	230.3	230.4	228.8	228.8
9°	229.1	228.5	228.8	228.6	229.8	230.7	231.4	230.4	230.3	229.1	228.8
9.5°	228.6	228.5	228.8	228.8	229.6	230.6	231.1	230.1	230.2	229.1	228.8
10°	228.5	228.1	228.6	228.8	229.8	230.6	230.8	230.1	230.3	228.9	228.2
10.5°	228.2	228.1	228.3	228.8	229.2	229.4	230.4	229.8	230.3	228.9	228.3
11°	227.3	227.4	227.9	228.5	229.2	229.7	230.4	229.8	230.0	228.5	227.6
11.5°	227.3	227.9	227.2	228.3	228.7	229.9	230.1	229.8	230.0	228.2	227.3
12°	226.9	227.2	227.6	227.8	228.7	229.6	230.1	229.7	229.9	228.0	227.3
12.5°	227.1	226.6	227.6	227.6	228.8	229.1	230.1	228.8	229.8	227.3	226.6
13°	227.7	226.5	228.3	227.6	228.4	229.1	230.6	228.8	229.4	227.2	226.6
13.5°	226.9	226.5	225.9	227.4	228.2	229.2	230.6	228.5	229.5	227.2	226.5
14°	226.6	225.8	225.9	226.0	227.7	228.1	229.8	228.5	228.3	227.0	226.0
14.5°	226.6	225.7	225.8	225.9	227.6	228.0	228.3	227.7	227.6	226.5	225.7
15°	225.8	225.3	225.8	225.7	226.9	227.9	228.2	227.7	227.3	227.1	225.0
15.5°	225.3	225.1	225.1	225.4	226.6	227.8	227.9	227.2	227.1	225.6	225.0
16°	224.5	225.1	224.7	225.4	226.3	227.2	227.7	226.8	226.8	225.6	224.1
16.5°	224.6	224.6	224.5	225.1	226.1	227.3	227.2	226.7	226.0	225.6	223.8
17°	223.9	223.8	224.3	225.1	225.0	226.9	226.4	226.6	225.4	224.9	223.6
17.5°	223.7	223.4	224.0	224.5	225.0	225.6	226.2	226.0	225.0	224.2	223.5
18°	222.9	223.2	223.9	223.5	224.7	225.6	226.2	225.7	224.9	223.3	222.9
18.5°	222.1	222.3	223.0	223.0	224.1	225.4	225.7	225.3	224.8	223.2	222.8
19°	221.6	221.9	222.3	223.3	224.1	224.9	224.8	224.4	224.5	223.1	222.3
19.5°	221.0	221.8	222.0	222.7	223.4	224.7	224.7	224.3	224.2	222.3	221.8
20°	220.5	221.3	221.4	222.7	223.4	224.1	224.3	224.1	223.6	222.0	220.9
20.5°	220.0	220.7	220.7	221.8	222.6	223.9	223.7	222.9	222.9	221.5	220.4
21°	219.4	220.1	220.2	221.0	222.7	223.0	223.0	222.9	222.1	220.2	219.7
21.5°	218.6	219.5	219.4	220.2	221.9	222.3	222.2	222.8	221.5	220.1	219.1
22°	217.8	218.7	219.4	219.9	221.0	221.8	222.0	222.5	221.2	219.4	218.9



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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°	217.0	217.9	218.5	219.7	220.1	221.5	221.5	221.6	221.0	218.7	218.0
23°	216.4	216.9	217.9	218.3	219.3	220.7	220.2	220.7	220.1	218.9	217.6
23.5°	215.6	216.4	216.9	218.2	219.1	220.0	220.1	220.0	219.1	217.9	216.3
24°	215.2	215.7	216.3	217.5	218.5	220.0	219.5	219.3	218.7	217.8	215.7
24.5°	214.4	214.6	215.7	217.5	217.4	218.6	218.7	218.3	218.2	216.6	214.6
25°	213.4	213.6	214.9	216.4	217.0	218.0	218.4	217.4	216.8	214.9	213.8
25.5°	212.3	213.0	214.0	215.4	216.2	217.4	217.8	217.1	216.3	214.3	212.8
26°	211.5	212.2	213.3	214.2	215.0	217.0	216.8	216.0	215.2	213.6	212.3
26.5°	211.0	211.3	212.5	213.8	214.3	216.0	216.7	215.2	214.8	212.9	211.6
27°	209.9	210.3	211.5	212.5	213.6	214.5	214.9	215.1	214.5	212.2	210.7
27.5°	208.8	209.3	210.7	212.1	212.8	214.3	213.9	213.6	213.6	211.3	209.5
28°	207.8	208.4	209.8	210.6	211.9	213.6	212.8	212.9	212.4	210.5	209.2
28.5°	206.8	207.4	208.8	209.7	211.0	212.1	211.9	212.2	211.7	209.5	208.1
29°	205.9	206.5	207.7	208.8	210.3	211.3	211.6	211.1	211.0	208.4	207.0
29.5°	204.7	205.3	206.9	208.0	209.1	210.3	210.4	209.9	209.9	207.6	205.5
30°	203.5	204.3	205.9	206.8	207.9	209.3	209.5	209.1	208.2	206.6	204.3
30.5°	202.4	203.2	204.7	205.5	207.3	207.9	208.1	208.0	207.0	204.7	202.6
31°	201.1	201.9	203.4	204.5	206.2	207.1	207.3	206.8	206.1	204.1	202.1
31.5°	199.9	200.6	202.2	203.5	205.3	206.0	206.5	205.9	205.0	203.1	200.9
32°	198.4	199.2	201.2	202.1	203.8	205.2	205.4	204.9	204.2	202.0	200.3
32.5°	197.3	197.9	199.8	201.0	202.8	204.2	204.4	203.7	202.6	200.4	198.8
33°	195.8	196.7	198.2	199.7	201.1	203.4	203.2	202.1	201.9	199.8	197.2
33.5°	194.4	195.4	196.8	198.2	200.0	201.5	201.9	201.0	200.2	198.0	196.0
34°	192.9	194.0	195.5	197.2	199.1	200.3	200.7	199.4	199.1	196.7	194.6
34.5°	191.4	192.8	194.3	195.9	197.7	199.1	199.2	198.4	198.1	195.2	193.2
35°	190.0	191.3	193.0	194.7	196.5	197.9	197.7	196.6	195.6	193.8	192.0
35.5°	188.4	189.8	192.0	193.3	195.3	196.0	196.3	195.5	195.1	193.1	190.6
36°	187.0	188.2	190.1	191.6	193.8	195.0	194.9	194.7	193.4	191.3	189.5
36.5°	185.7	186.8	188.7	190.3	192.1	193.3	193.6	192.7	192.1	190.4	187.4
37°	184.0	185.2	187.2	188.9	190.9	192.2	191.9	191.3	191.1	188.7	186.0
37.5°	182.5	183.8	185.9	187.4	189.2	190.4	191.0	189.9	189.4	186.9	185.4
38°	181.0	182.3	184.1	185.8	187.5	189.1	189.3	188.7	188.3	185.5	183.4
38.5°	179.5	180.7	182.6	184.3	185.8	187.9	187.3	186.8	186.5	183.5	181.8
39°	177.9	179.0	180.8	182.6	184.5	186.2	186.2	185.6	185.0	182.3	180.2
39.5°	176.2	177.4	179.0	181.0	182.9	184.6	184.8	184.5	183.5	180.0	178.3
40°	174.3	175.7	177.3	179.3	181.6	182.9	183.1	182.9	181.0	178.6	176.7
40.5°	172.5	173.8	175.5	177.7	179.8	181.0	181.5	180.9	179.6	177.1	174.9
41°	170.9	172.0	173.4	175.9	178.1	179.6	179.9	179.4	177.8	175.3	172.6
41.5°	169.1	170.1	172.2	174.2	176.1	178.0	178.1	177.7	176.3	173.8	171.1
42°	167.1	168.4	170.4	172.3	174.4	176.5	176.6	176.1	174.8	171.9	169.5
42.5°	165.1	166.5	168.7	170.3	172.8	174.8	174.8	174.1	172.7	169.6	167.7
43°	163.4	164.7	167.0	168.7	171.1	172.8	173.0	172.4	170.8	168.0	165.7
43.5°	161.5	162.8	165.1	166.9	169.1	170.7	171.0	170.6	169.0	166.1	163.8
44°	159.7	161.0	163.3	165.0	167.4	169.0	169.1	168.6	167.2	164.2	162.0
44.5°	157.8	159.2	161.5	163.2	165.8	166.9	167.0	166.6	165.3	162.3	160.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	156.0	157.3	159.5	161.2	163.8	165.4	165.4	164.8	163.2	160.2	158.3
45.5°	154.0	155.6	157.4	159.4	162.0	163.5	163.4	162.7	161.4	158.5	156.0
46°	152.0	153.6	155.7	157.5	160.0	161.4	161.4	160.5	159.7	156.4	153.9
46.5°	149.9	151.8	153.9	155.5	157.9	159.7	159.8	158.9	157.4	154.9	152.0
47°	148.1	149.9	151.9	153.9	156.1	157.4	157.6	157.3	155.4	152.7	150.2
47.5°	146.2	147.9	150.1	152.0	154.2	155.8	156.0	155.0	153.5	150.9	148.1
48°	144.3	145.9	148.0	150.1	152.5	153.6	154.0	152.9	151.0	148.9	146.0
48.5°	142.1	143.8	146.1	148.0	150.4	151.8	152.1	150.7	150.0	146.9	144.2
49°	139.9	141.7	144.0	145.9	148.1	149.8	150.0	148.8	147.2	144.9	142.0
49.5°	137.6	139.7	142.0	143.9	146.2	147.9	147.9	146.9	145.4	142.8	140.2
50°	135.6	137.7	140.4	141.8	144.2	146.0	145.6	145.0	143.3	140.5	137.8
50.5°	133.4	135.6	137.9	139.8	142.7	143.2	143.8	142.9	141.0	138.4	136.1
51°	131.3	133.6	135.8	137.8	140.1	141.6	141.7	140.8	138.5	136.1	133.9
51.5°	129.4	131.6	133.6	136.5	138.1	139.5	139.6	138.5	137.1	134.4	131.8
52°	127.4	129.6	131.6	133.5	136.2	137.2	137.4	136.3	134.7	132.4	129.7
52.5°	125.2	127.6	129.5	131.6	133.9	135.1	135.7	134.2	132.1	130.2	127.5
53°	123.1	125.6	127.4	129.4	132.0	133.0	133.3	132.0	130.8	127.9	125.3
53.5°	121.0	123.3	125.4	127.4	129.8	130.7	131.3	130.1	128.5	125.8	123.2
54°	119.0	121.3	123.1	125.4	127.8	128.8	129.1	127.7	126.4	123.7	121.1
54.5°	116.7	119.3	121.2	123.4	125.7	126.4	126.8	125.7	124.1	121.8	118.9
55°	114.6	117.1	119.1	121.3	123.6	124.5	124.8	123.7	122.2	119.5	116.6
55.5°	112.5	115.0	116.9	119.1	121.6	122.2	122.6	121.6	120.0	117.5	114.5
56°	110.4	113.0	115.0	117.0	119.5	120.0	120.5	119.5	117.9	115.3	112.5
56.5°	108.4	110.9	112.9	115.0	117.5	117.9	118.6	117.4	115.8	113.2	110.4
57°	106.3	108.8	110.9	112.9	115.4	115.8	116.8	115.5	113.4	111.1	108.5
57.5°	104.0	106.6	108.6	110.6	113.1	113.7	114.6	113.2	111.4	109.1	106.3
58°	102.1	104.4	106.8	108.6	111.1	111.7	112.3	110.7	109.2	106.9	104.2
58.5°	100.0	102.5	104.7	106.6	109.1	109.6	110.2	108.9	107.3	105.0	102.3
59°	98.0	100.3	102.6	104.5	107.1	107.5	108.1	106.8	105.3	102.9	100.0
59.5°	95.9	98.3	100.4	102.5	104.8	105.4	106.0	104.9	103.1	100.7	98.0
60°	93.9	96.2	98.3	100.4	102.7	103.3	103.8	102.7	101.0	98.7	96.0
60.5°	91.9	94.1	96.2	98.4	100.5	101.1	101.7	100.6	99.1	96.5	94.0
61°	89.8	92.1	94.4	96.3	98.8	99.1	99.6	98.4	96.7	94.7	92.0
61.5°	88.1	90.1	92.3	94.1	96.3	97.1	97.5	96.2	94.5	92.6	89.9
62°	86.2	88.2	90.0	92.1	94.5	95.0	95.5	94.3	92.7	90.5	88.0
62.5°	84.1	86.3	88.3	90.1	92.4	93.0	93.2	92.0	90.5	88.6	86.0
63°	82.1	84.1	86.4	88.2	90.5	91.2	91.4	90.2	88.7	86.8	84.0
63.5°	80.2	82.1	84.4	86.2	88.3	89.1	89.2	88.4	86.9	84.6	82.0
64°	78.3	80.2	82.3	84.3	86.5	87.4	87.3	86.4	84.7	82.7	80.0
64.5°	76.3	78.3	80.4	82.3	84.3	85.4	85.2	84.3	83.0	80.7	78.1
65°	74.4	76.4	78.4	80.3	82.5	83.4	83.1	82.4	80.9	78.7	76.2
65.5°	72.5	74.4	76.4	78.4	80.4	81.4	81.2	80.2	78.6	76.6	74.2
66°	70.6	72.5	74.4	76.4	78.6	79.4	79.2	78.2	76.7	74.7	72.3
66.5°	68.8	70.5	72.5	74.5	76.6	77.3	77.2	76.2	74.8	72.7	70.4
67°	66.9	68.5	70.7	72.5	74.6	75.4	75.2	74.3	73.1	70.8	68.5



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	65.1	66.7	68.8	70.5	72.7	73.6	73.3	72.4	71.0	68.7	66.7
68°	63.2	64.9	66.9	68.7	70.8	71.6	71.4	70.6	69.1	66.9	64.8
68.5°	61.4	63.1	64.9	66.9	68.9	69.7	69.5	68.6	67.4	64.8	63.0
69°	59.6	61.2	63.1	65.0	66.9	67.7	67.7	66.5	65.4	63.0	61.2
69.5°	57.7	59.4	61.2	63.2	65.0	65.8	65.8	64.8	63.6	61.1	59.3
70°	55.9	57.7	59.4	61.4	63.2	63.9	63.9	62.8	61.7	59.4	57.5
70.5°	54.2	55.9	57.6	59.5	61.3	62.1	62.2	61.0	60.0	57.7	55.8
71°	52.5	54.1	55.8	57.6	59.5	60.2	60.1	59.3	58.1	55.9	54.0
71.5°	50.6	52.3	54.2	55.8	57.6	58.3	58.4	57.3	56.2	54.1	52.3
72°	49.0	50.6	52.4	54.2	56.0	56.5	56.4	55.7	54.5	52.3	50.6
72.5°	47.3	48.9	50.6	52.5	54.4	54.9	54.9	54.0	52.6	50.6	48.8
73°	45.5	47.1	49.0	50.7	52.4	53.2	53.1	52.2	50.8	48.9	47.2
73.5°	43.8	45.4	47.2	49.0	50.7	51.4	51.3	50.3	49.1	47.1	45.5
74°	42.2	43.8	45.6	47.3	48.9	49.7	49.6	48.7	47.6	45.5	43.9
74.5°	40.5	42.2	43.9	45.7	47.2	47.9	47.8	47.0	45.8	43.8	42.2
75°	39.0	40.6	42.3	43.9	45.5	46.2	46.2	45.3	44.0	42.1	40.6
75.5°	37.4	38.9	40.6	42.2	43.9	44.5	44.5	43.6	42.5	40.6	39.1
76°	35.8	37.4	39.1	40.6	42.2	42.8	42.8	42.0	40.8	39.0	37.4
76.5°	34.3	35.8	37.5	38.9	40.6	41.1	41.2	40.3	39.1	37.4	35.9
77°	32.7	34.3	35.8	37.3	39.0	39.5	39.5	38.8	37.5	35.9	34.3
77.5°	31.2	32.7	34.3	35.8	37.4	38.0	38.1	37.2	36.0	34.3	32.9
78°	29.6	31.2	32.6	34.2	35.8	36.3	36.4	35.6	34.4	32.9	31.4
78.5°	28.1	29.7	31.1	32.6	34.3	34.9	34.7	34.1	32.9	31.3	29.8
79°	26.7	28.3	29.6	31.1	32.8	33.2	33.2	32.5	31.3	29.8	28.3
79.5°	25.3	26.8	28.1	29.6	31.4	31.7	31.7	30.9	29.8	28.4	26.8
80°	23.9	25.4	26.6	28.0	29.8	30.2	30.1	29.5	28.4	26.8	25.4
80.5°	22.6	23.9	25.1	26.5	28.4	28.7	28.7	27.9	26.9	25.7	23.9
81°	21.1	22.6	23.6	25.0	26.9	27.3	27.2	26.5	25.4	24.1	22.5
81.5°	19.7	21.2	22.4	23.6	25.6	26.0	25.8	25.0	23.9	22.6	21.2
82°	18.4	19.9	21.1	22.4	24.0	24.3	24.3	23.5	22.4	21.4	19.9
82.5°	17.0	18.5	19.7	21.0	22.5	22.8	22.8	22.1	21.2	20.0	18.5
83°	15.7	17.1	18.3	19.5	21.4	21.6	21.6	20.9	19.7	18.6	17.2
83.5°	14.4	15.8	16.9	18.2	20.0	20.1	20.3	19.5	18.4	17.2	16.0
84°	13.0	14.4	15.5	16.8	18.5	18.5	18.8	18.1	17.2	15.9	14.3
84.5°	11.7	13.1	14.1	15.5	17.2	17.3	17.4	16.8	15.7	14.6	13.1
85°	10.4	11.8	12.8	14.1	15.8	16.1	16.1	15.3	14.4	13.3	11.9
85.5°	9.1	10.5	11.5	12.8	14.5	14.7	14.7	14.0	13.1	12.0	10.6
86°	8.0	9.1	10.3	11.4	13.2	13.4	13.4	12.9	11.9	10.6	9.3
86.5°	6.7	7.9	8.9	10.1	11.9	12.1	12.1	11.5	10.5	9.4	8.1
87°	5.5	6.7	7.6	8.8	10.6	10.8	10.8	10.1	9.1	8.1	6.9
87.5°	4.3	5.5	6.4	7.6	9.3	9.5	9.5	8.8	7.9	6.9	5.6
88°	3.0	4.2	5.3	6.3	7.9	8.1	8.2	7.6	6.7	5.7	4.5
88.5°	1.9	2.9	3.9	5.1	6.7	6.9	7.0	6.4	5.5	4.7	3.2
89°	1.0	1.7	2.7	3.7	5.5	5.6	5.6	5.1	4.3	3.1	1.9
89.5°	0.4	0.7	1.6	2.4	4.2	4.5	4.5	3.8	2.9	1.8	0.7



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-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	2.7	3.0	3.1	2.6	1.7	0.7	0.0
90.5°	0.1	0.2	0.2	0.6	1.5	1.6	1.7	1.4	0.6	0.0	0.0
91°	0.1	0.2	0.1	0.2	0.4	0.6	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: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
113°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3
113.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	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	0.3	0.2	0.2	0.2	0.2	0.3
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	0.3
118.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.3
119°	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3
119.5°	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3
120°	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.3
120.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3
121°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3
121.5°	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3
122°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3
122.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3
123°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3
123.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3
124°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3
124.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.3	0.3
125°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.4	0.3	0.4	0.3
125.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.4	0.4	0.3	0.4	0.3
126°	0.0	0.1	0.0	0.1	0.3	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	0.5
130°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.5
130.5°	0.0	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.5	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	0.5	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	0.5
134°	0.0	0.1	0.0	0.1	0.3	0.5	0.4	0.4	0.4	0.4	0.4
134.5°	0.0	0.1	0.0	0.1	0.5	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-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	0.5	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	0.5	0.5
136.5°	0.0	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5
137°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.5
137.5°	0.1	0.1	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.5	0.5
138°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.5	0.5	0.5
138.5°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.5	0.5	0.5
139°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.5	0.5	0.5	0.5
139.5°	0.2	0.1	0.1	0.1	0.4	0.5	0.4	0.5	0.5	0.5	0.6
140°	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.5	0.5	0.5	0.6
140.5°	0.3	0.3	0.1	0.1	0.4	0.4	0.4	0.5	0.5	0.5	0.5
141°	0.3	0.3	0.1	0.1	0.4	0.5	0.4	0.5	0.5	0.5	0.5
141.5°	0.3	0.3	0.1	0.1	0.4	0.5	0.4	0.5	0.5	0.6	0.5
142°	0.3	0.4	0.1	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.5
142.5°	0.3	0.4	0.1	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.5
143°	0.4	0.5	0.1	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5
143.5°	0.4	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144°	0.4	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144.5°	0.4	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
145°	0.4	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
145.5°	0.4	0.5	0.1	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5
146°	0.4	0.5	0.1	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6
146.5°	0.5	0.5	0.1	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.6
147°	0.4	0.5	0.1	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
147.5°	0.4	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7
148°	0.5	0.5	0.1	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.7
148.5°	0.5	0.5	0.3	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6
149°	0.6	0.5	0.3	0.5	0.5	0.6	0.6	0.6	0.7	0.6	0.6
149.5°	0.6	0.5	0.3	0.5	0.6	0.7	0.6	0.6	0.6	0.7	0.7
150°	0.7	0.6	0.2	0.5	0.6	0.7	0.6	0.6	0.6	0.6	0.7
150.5°	0.7	0.6	0.2	0.5	0.6	0.6	0.7	0.6	0.6	0.7	0.7
151°	0.7	0.7	0.3	0.5	0.6	0.6	0.7	0.6	0.6	0.7	0.7
151.5°	0.7	0.7	0.3	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7
152°	0.8	0.7	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
152.5°	0.7	0.7	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
153°	0.7	0.7	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
153.5°	0.7	0.7	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.8
154°	0.7	0.7	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.8
154.5°	0.7	0.7	0.5	0.5	0.7	0.7	0.7	0.8	0.7	0.7	0.7
155°	0.9	0.7	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
155.5°	0.8	0.8	0.5	0.6	0.7	0.7	0.8	0.7	0.7	0.8	0.7
156°	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.8	0.7
156.5°	0.8	0.8	0.6	0.6	0.8	0.8	0.7	0.7	0.7	0.7	0.7
157°	0.8	0.8	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P565400
CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	230.9	230.9	230.9	230.9	230.9	230.9
0.5°	231.0	231.2	231.4	231.5	230.9	230.9
1°	230.2	231.2	231.5	231.3	230.7	230.9
1.5°	230.2	231.0	231.1	231.2	230.7	231.3
2°	230.3	230.8	231.2	231.1	230.6	231.7
2.5°	230.2	230.5	230.2	230.8	230.5	230.8
3°	229.9	230.8	231.2	230.8	230.7	230.7
3.5°	229.8	230.6	231.1	230.6	230.5	230.7
4°	229.8	230.7	230.8	230.3	230.4	230.1
4.5°	229.8	230.4	231.1	230.2	229.6	230.6
5°	229.7	230.0	230.5	230.2	229.6	230.0
5.5°	229.6	230.0	230.2	230.3	229.4	230.7
6°	229.2	230.2	230.2	230.4	229.1	230.3
6.5°	229.2	230.0	230.2	229.8	228.8	229.1
7°	228.8	230.0	229.1	229.5	228.8	228.8
7.5°	228.7	229.7	230.3	229.5	229.0	229.2
8°	228.6	229.1	230.3	229.6	228.5	229.3
8.5°	228.6	230.3	229.6	229.3	228.6	229.2
9°	228.6	230.2	229.2	228.7	228.5	229.1
9.5°	227.8	228.9	228.7	228.1	228.3	228.6
10°	227.1	228.9	228.6	227.9	227.8	228.5
10.5°	226.9	228.3	228.3	228.0	227.5	228.2
11°	226.9	228.0	227.7	227.8	227.6	227.3
11.5°	226.9	227.6	227.4	227.7	227.3	227.3
12°	226.4	226.8	227.6	227.1	227.2	226.9
12.5°	225.7	226.8	226.7	226.6	227.0	227.1
13°	225.7	226.2	226.2	226.2	226.7	227.7
13.5°	225.1	225.5	226.3	226.2	225.5	226.9
14°	225.1	226.0	225.0	225.8	225.2	226.6
14.5°	224.7	225.3	226.2	225.8	225.2	226.6
15°	223.9	225.2	225.3	225.0	224.4	225.8
15.5°	224.0	224.8	224.1	224.3	224.0	225.3
16°	223.6	224.7	224.3	224.1	223.7	224.5
16.5°	223.4	223.9	224.0	223.9	223.6	224.6
17°	223.3	223.4	224.0	223.4	222.7	223.9
17.5°	222.7	222.5	222.6	222.4	222.6	223.7
18°	221.8	222.1	222.1	222.0	221.8	222.9
18.5°	221.6	222.0	221.8	221.2	221.3	222.1
19°	220.6	221.4	221.0	221.2	220.5	221.6
19.5°	220.1	220.9	220.1	221.2	220.5	221.0
20°	219.3	220.1	220.1	220.1	219.5	220.5
20.5°	218.6	219.5	219.5	218.9	219.3	220.0
21°	218.0	219.2	218.8	218.6	218.7	219.4
21.5°	217.5	218.5	218.4	218.3	217.9	218.6
22°	216.7	218.0	218.0	217.3	217.1	217.8



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	216.2	217.2	216.5	216.5	216.5	217.0
23°	215.4	216.6	215.5	215.6	215.6	216.4
23.5°	214.5	215.5	215.0	214.7	214.8	215.6
24°	214.1	214.9	214.4	213.9	214.4	215.2
24.5°	213.1	214.3	214.0	212.9	213.7	214.4
25°	212.1	213.4	213.1	212.1	212.4	213.4
25.5°	211.4	212.2	212.1	211.2	211.2	212.3
26°	210.5	211.6	211.0	210.2	210.5	211.5
26.5°	210.1	210.6	210.1	209.2	209.4	211.0
27°	208.9	209.4	208.4	208.2	208.3	209.9
27.5°	207.9	208.3	207.6	207.2	207.4	208.8
28°	206.8	207.3	207.2	206.0	206.2	207.8
28.5°	206.2	206.0	206.0	204.9	205.5	206.8
29°	205.0	205.0	205.0	203.7	204.4	205.9
29.5°	203.9	203.9	203.9	202.4	203.3	204.7
30°	202.7	202.7	202.5	201.3	202.3	203.5
30.5°	201.5	201.6	201.3	200.2	201.3	202.4
31°	200.5	200.5	199.8	199.1	199.7	201.1
31.5°	199.3	199.1	198.5	198.0	198.2	199.9
32°	198.0	197.5	197.1	196.7	197.0	198.4
32.5°	196.5	196.3	195.7	195.4	195.8	197.3
33°	195.4	195.2	194.4	194.1	194.1	195.8
33.5°	193.9	193.9	193.1	192.6	193.3	194.4
34°	192.5	192.4	191.8	191.2	191.5	192.9
34.5°	191.5	191.1	190.4	189.8	189.8	191.4
35°	189.9	189.7	189.1	188.3	188.6	190.0
35.5°	188.6	188.4	187.4	186.7	187.1	188.4
36°	187.0	186.7	185.8	185.1	185.5	187.0
36.5°	185.9	184.8	184.2	183.7	184.3	185.7
37°	184.5	183.1	182.4	182.0	182.7	184.0
37.5°	183.0	181.7	181.0	180.4	180.7	182.5
38°	181.5	180.3	179.5	178.9	179.1	181.0
38.5°	178.8	178.8	177.9	177.2	177.7	179.5
39°	177.7	177.0	176.2	175.4	175.9	177.9
39.5°	176.2	175.1	174.3	173.8	174.1	176.2
40°	174.5	173.2	172.5	172.2	172.3	174.3
40.5°	172.3	171.3	170.7	170.2	170.7	172.5
41°	170.5	169.5	168.9	168.4	169.1	170.9
41.5°	168.8	167.6	167.0	166.5	166.9	169.1
42°	166.9	165.9	165.2	164.5	165.1	167.1
42.5°	165.0	164.1	163.4	162.6	163.3	165.1
43°	163.3	162.2	161.6	160.7	161.4	163.4
43.5°	161.3	160.4	159.6	158.9	159.6	161.5
44°	159.4	158.4	157.5	156.9	157.8	159.7
44.5°	157.6	156.5	155.7	155.0	156.0	157.8



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	155.4	154.9	153.7	153.1	154.0	156.0
45.5°	153.5	152.9	151.7	151.1	151.9	154.0
46°	151.5	150.9	149.7	149.2	149.9	152.0
46.5°	149.7	148.8	147.7	147.2	147.8	149.9
47°	147.9	146.8	145.5	145.3	145.8	148.1
47.5°	145.7	144.6	143.5	143.3	143.7	146.2
48°	143.7	142.6	141.3	141.3	141.7	144.3
48.5°	141.5	140.6	139.1	139.2	139.9	142.1
49°	139.3	138.4	137.0	137.0	138.0	139.9
49.5°	137.3	136.3	135.0	135.1	135.8	137.6
50°	135.5	134.2	132.9	133.1	133.9	135.6
50.5°	133.2	132.0	130.9	131.0	131.6	133.4
51°	131.2	129.9	128.9	128.8	129.5	131.3
51.5°	129.2	127.8	126.9	127.0	127.6	129.4
52°	127.2	125.8	124.7	124.9	125.4	127.4
52.5°	124.8	123.7	122.7	122.8	123.3	125.2
53°	122.8	121.8	120.5	120.5	121.2	123.1
53.5°	121.1	119.8	118.4	118.3	119.2	121.0
54°	118.5	117.4	116.2	116.1	116.9	119.0
54.5°	116.7	115.3	114.1	114.2	114.9	116.7
55°	114.5	113.2	112.0	112.1	113.0	114.6
55.5°	112.4	111.1	110.1	110.0	111.0	112.5
56°	110.1	109.1	107.8	107.8	108.7	110.4
56.5°	108.0	107.1	105.7	105.9	106.5	108.4
57°	106.1	104.9	103.7	103.8	104.6	106.3
57.5°	103.9	102.8	101.7	101.8	102.6	104.0
58°	102.0	100.8	99.5	99.6	100.4	102.1
58.5°	100.0	98.8	97.4	97.4	98.5	100.0
59°	97.8	96.7	95.4	95.7	96.4	98.0
59.5°	95.8	94.6	93.4	93.6	94.3	95.9
60°	93.9	92.7	91.3	91.3	92.4	93.9
60.5°	91.9	90.6	89.5	89.5	90.2	91.9
61°	89.8	88.6	87.5	87.5	88.4	89.8
61.5°	88.0	86.7	85.5	85.5	86.5	88.1
62°	86.0	84.7	83.8	83.5	84.6	86.2
62.5°	84.0	82.8	81.8	81.4	82.5	84.1
63°	81.9	80.7	79.8	79.4	80.6	82.1
63.5°	79.9	78.7	77.9	77.7	78.7	80.2
64°	77.9	76.7	76.0	75.8	76.7	78.3
64.5°	76.2	74.7	74.1	73.9	74.8	76.3
65°	74.0	72.8	72.3	71.9	72.9	74.4
65.5°	72.0	70.9	70.4	70.0	71.0	72.5
66°	70.2	69.1	68.4	68.0	69.0	70.6
66.5°	68.3	67.2	66.4	66.2	67.2	68.8
67°	66.5	65.3	64.6	64.3	65.3	66.9



TEST NUMBER: P565400

CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	64.6	63.5	62.7	62.6	63.5	65.1
68°	62.8	61.6	60.9	60.6	61.7	63.2
68.5°	60.9	59.8	59.0	59.0	59.9	61.4
69°	59.2	57.8	57.2	57.0	58.1	59.6
69.5°	57.2	56.1	55.6	55.5	56.2	57.7
70°	55.5	54.4	53.7	53.6	54.6	55.9
70.5°	53.9	52.6	52.0	52.0	52.8	54.2
71°	52.3	51.0	50.3	50.2	51.1	52.5
71.5°	50.5	49.2	48.7	48.4	49.3	50.6
72°	48.8	47.4	46.9	46.8	47.7	49.0
72.5°	47.2	45.7	45.3	45.2	46.1	47.3
73°	45.4	43.9	43.6	43.6	44.4	45.5
73.5°	43.9	42.4	41.9	41.9	42.7	43.8
74°	42.3	40.8	40.2	40.3	41.0	42.2
74.5°	40.6	39.2	38.8	38.9	39.3	40.5
75°	39.1	37.7	37.0	37.0	37.9	39.0
75.5°	37.5	36.0	35.4	35.6	36.3	37.4
76°	35.9	34.5	33.8	34.0	34.7	35.8
76.5°	34.4	33.0	32.3	32.4	33.1	34.3
77°	32.9	31.5	30.9	30.9	31.6	32.7
77.5°	31.4	29.9	29.4	29.4	30.1	31.2
78°	29.8	28.5	27.8	27.9	28.6	29.6
78.5°	28.5	27.0	26.4	26.5	27.1	28.1
79°	26.9	25.5	24.8	25.1	25.6	26.7
79.5°	25.5	24.0	23.5	23.6	24.2	25.3
80°	24.0	22.7	22.2	22.4	22.8	23.9
80.5°	22.6	21.4	20.8	21.0	21.6	22.6
81°	21.4	20.0	19.3	19.6	20.2	21.1
81.5°	19.9	18.6	18.0	18.1	18.8	19.7
82°	18.6	17.3	16.7	16.8	17.5	18.4
82.5°	17.3	15.9	15.3	15.4	16.1	17.0
83°	15.9	14.5	13.9	14.2	14.7	15.7
83.5°	14.7	13.1	12.7	12.8	13.4	14.4
84°	13.3	11.8	11.3	11.5	12.1	13.0
84.5°	12.0	10.5	10.0	10.2	10.9	11.7
85°	10.8	9.3	8.8	8.9	9.6	10.4
85.5°	9.5	8.1	7.5	7.6	8.4	9.1
86°	8.3	6.8	6.3	6.4	7.1	8.0
86.5°	6.9	5.5	5.1	5.3	5.9	6.7
87°	5.7	4.4	3.9	4.0	4.6	5.5
87.5°	4.5	3.1	2.7	2.7	3.4	4.3
88°	3.3	1.8	1.6	1.6	2.2	3.0
88.5°	1.9	1.0	0.6	0.8	1.1	1.9
89°	0.7	0.4	0.2	0.3	0.5	1.0
89.5°	0.0	0.1	0.1	0.1	0.2	0.4



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-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: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-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°	0.3	0.1	0.1	0.0	0.0	0.0
115.5°	0.3	0.1	0.1	0.0	0.0	0.0
116°	0.3	0.1	0.1	0.0	0.0	0.0
116.5°	0.3	0.1	0.1	0.0	0.0	0.0
117°	0.3	0.1	0.1	0.0	0.0	0.0
117.5°	0.3	0.1	0.1	0.0	0.0	0.0
118°	0.3	0.1	0.1	0.0	0.0	0.0
118.5°	0.3	0.1	0.1	0.0	0.0	0.0
119°	0.3	0.1	0.1	0.0	0.0	0.0
119.5°	0.3	0.1	0.1	0.0	0.0	0.0
120°	0.3	0.1	0.1	0.0	0.0	0.0
120.5°	0.3	0.1	0.1	0.0	0.0	0.0
121°	0.3	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°	0.3	0.1	0.1	0.0	0.0	0.0
123°	0.3	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	0.3	0.1	0.0	0.0	0.0
134°	0.4	0.3	0.1	0.0	0.0	0.0
134.5°	0.4	0.2	0.1	0.0	0.0	0.0



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-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°	0.5	0.2	0.1	0.0	0.0	0.0
136°	0.5	0.3	0.1	0.0	0.0	0.0
136.5°	0.5	0.2	0.1	0.0	0.0	0.0
137°	0.5	0.2	0.1	0.0	0.0	0.1
137.5°	0.5	0.3	0.1	0.0	0.0	0.1
138°	0.5	0.3	0.1	0.0	0.1	0.1
138.5°	0.5	0.3	0.1	0.0	0.4	0.1
139°	0.5	0.3	0.1	0.0	0.4	0.1
139.5°	0.5	0.3	0.1	0.0	0.3	0.2
140°	0.5	0.3	0.1	0.0	0.3	0.1
140.5°	0.5	0.4	0.1	0.0	0.3	0.3
141°	0.5	0.5	0.1	0.0	0.5	0.3
141.5°	0.5	0.5	0.3	0.1	0.5	0.3
142°	0.5	0.6	0.3	0.1	0.5	0.3
142.5°	0.5	0.6	0.3	0.4	0.5	0.3
143°	0.5	0.6	0.3	0.3	0.5	0.4
143.5°	0.5	0.6	0.5	0.3	0.5	0.4
144°	0.5	0.6	0.5	0.3	0.5	0.4
144.5°	0.5	0.6	0.5	0.4	0.5	0.4
145°	0.5	0.6	0.5	0.4	0.5	0.4
145.5°	0.5	0.6	0.5	0.4	0.5	0.4
146°	0.5	0.6	0.5	0.5	0.5	0.4
146.5°	0.5	0.6	0.5	0.4	0.5	0.5
147°	0.5	0.6	0.5	0.5	0.7	0.4
147.5°	0.6	0.6	0.5	0.5	0.7	0.4
148°	0.6	0.6	0.5	0.5	0.7	0.5
148.5°	0.6	0.6	0.5	0.7	0.7	0.5
149°	0.6	0.6	0.5	0.7	0.7	0.6
149.5°	0.6	0.6	0.7	0.7	0.7	0.6
150°	0.6	0.6	0.7	0.7	0.7	0.7
150.5°	0.6	0.6	0.6	0.7	0.7	0.7
151°	0.7	0.6	0.7	0.7	0.7	0.7
151.5°	0.7	0.6	0.6	0.8	0.7	0.7
152°	0.7	0.6	0.7	0.8	0.7	0.8
152.5°	0.7	0.6	0.7	0.8	0.7	0.7
153°	0.7	0.7	0.7	0.8	0.7	0.7
153.5°	0.7	0.7	0.7	0.8	0.7	0.7
154°	0.7	0.6	0.7	0.8	0.8	0.7
154.5°	0.7	0.7	0.7	0.8	0.8	0.7
155°	0.7	0.7	0.7	0.8	0.8	0.9
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	0.9	0.8



TEST NUMBER: P565400
 CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.7	0.7	0.8	0.8	0.9	0.8
158°	0.8	0.7	0.8	0.8	0.9	0.8
158.5°	0.8	0.7	0.8	0.9	0.9	0.8
159°	0.8	0.7	0.8	0.9	0.9	0.8
159.5°	0.8	0.7	0.8	0.9	0.9	0.8
160°	0.8	0.7	0.8	0.9	0.9	0.8
160.5°	0.8	0.7	0.8	0.9	0.9	0.8
161°	0.8	0.7	0.8	0.9	0.9	0.8
161.5°	0.9	0.7	0.8	0.9	0.9	0.8
162°	0.8	0.7	0.8	0.9	0.9	0.8
162.5°	0.9	0.7	0.8	0.9	0.9	0.8
163°	0.9	0.7	0.8	0.9	0.9	0.8
163.5°	0.8	0.7	0.8	0.9	0.9	0.8
164°	0.8	0.7	0.8	0.9	0.9	0.8
164.5°	0.8	0.7	0.8	0.9	0.9	0.9
165°	0.8	0.7	0.8	0.9	0.9	0.9
165.5°	0.8	0.7	0.8	0.9	0.9	0.9
166°	0.8	0.7	0.8	0.9	0.9	0.9
166.5°	0.8	0.7	0.8	0.9	0.9	0.9
167°	0.8	0.7	0.8	0.9	0.9	0.9
167.5°	1.0	0.7	0.8	0.9	0.9	0.9
168°	0.9	0.7	0.8	0.9	0.9	0.9
168.5°	0.9	0.7	0.8	0.9	0.9	0.9
169°	0.9	0.7	0.8	0.9	0.9	0.9
169.5°	0.9	0.7	0.8	0.9	0.9	0.9
170°	0.9	0.7	0.8	0.9	0.9	0.9
170.5°	0.9	0.7	0.8	0.9	0.9	0.9
171°	0.9	0.7	0.8	0.9	0.9	0.9
171.5°	0.9	0.7	0.8	0.9	0.9	0.9
172°	0.9	0.7	0.8	0.9	0.9	0.9
172.5°	0.9	0.7	0.8	0.9	0.9	0.9
173°	1.0	0.7	0.8	0.9	0.9	0.9
173.5°	0.9	0.7	0.8	0.9	0.9	0.9
174°	0.9	0.7	0.8	0.9	0.9	0.9
174.5°	0.9	0.7	0.8	0.9	0.9	0.9
175°	0.8	0.7	0.8	0.9	0.9	0.9
175.5°	0.8	0.7	0.8	0.9	0.9	0.9
176°	0.8	0.7	0.8	0.9	0.9	0.9
176.5°	0.8	0.7	0.8	0.9	0.9	0.9
177°	0.9	0.7	0.8	0.9	0.9	0.9
177.5°	0.9	0.7	0.8	0.9	0.9	0.9
178°	0.9	0.7	0.8	0.9	0.8	0.8
178.5°	0.8	0.7	0.8	0.9	0.9	0.8
179°	0.8	0.7	0.8	0.9	0.8	0.8
179.5°	0.8	0.7	0.8	0.9	0.8	0.8



TEST NUMBER: P565400
CATALOG NUMBER: HLBQL4069FS1E-5000K-UNIT

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.8	0.8	0.8	0.8	0.8	0.8

(END OF REPORT)