

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P938661

Luminaire Tested: HLB4LSFS5-700LM-2700K

Issue Date: 1/15/2025

Test Information

Test Method: LM-79-2019
Report Number: P938661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2404364A001)
Test Lab:
Issue Date: 1/15/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLB4LSFS5-700LM-2700K
Description: 4IN SELECTABLE LUMENS, 90CRI, DIMMING TO 10%
Light Source: SELECTABLE CCT 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 769.7 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.3 / 1.38
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

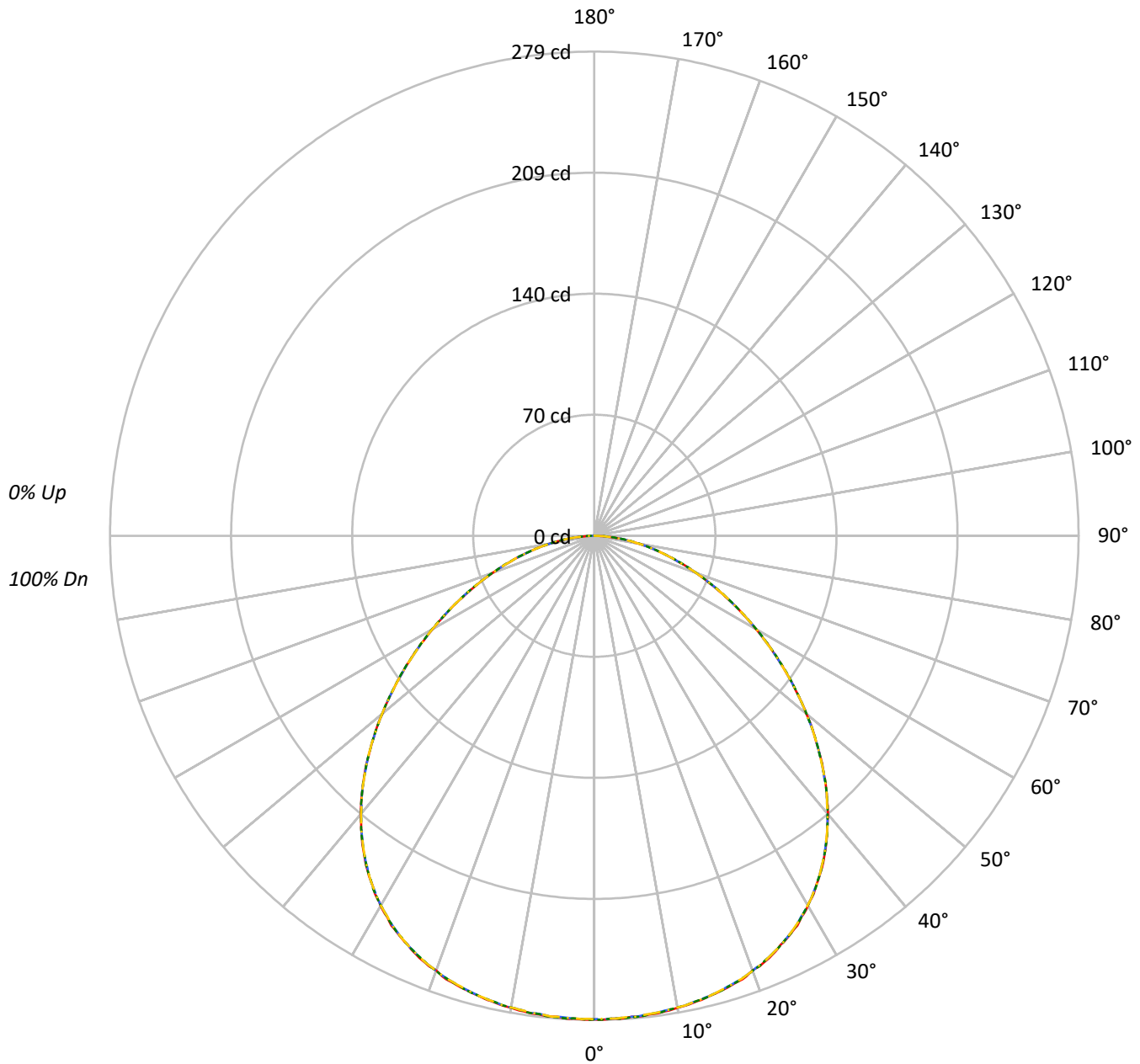
Input Watts (W): 7.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85		
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71		
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60		
4	83	72	63	56	81	70	62	56	68	61	55	66	59	55	63	58	54	52		
5	77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	52	47	45		
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31		
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28		
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	35074	35074	35074	35074
5°	35145	35158	35145	35158
10°	35296	35270	35296	35270
15°	35530	35530	35530	35530
20°	35691	35718	35691	35718
25°	35868	35854	35868	35854
30°	35777	35748	35777	35748
35°	35321	35274	35321	35274
40°	34401	34352	34401	34352
45°	33033	33015	33033	33015
50°	31209	31248	31209	31248
55°	29270	29292	29270	29292
60°	27108	27209	27108	27209
65°	24925	25044	24925	25044
70°	22814	22961	22814	22961
75°	20811	21006	20811	21006
80°	18843	19133	18843	19133
85°	16172	16461	16172	16461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 89.5°

Luminance: 34612 cd/sqm



TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	3.4
10°-20°	77.0	10.0
20°-30°	118.9	15.5
30°-40°	143.3	18.6
40°-50°	142.7	18.5
50°-60°	119.2	15.5
60°-70°	83.4	10.8
70°-80°	45.7	5.9
80°-90°	13.0	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	222.4	28.9
0°-40°	365.7	47.5
0°-60°	627.7	81.5
0°-90°	769.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	769.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	279	279	279	279	279	
5°	278	278	278	278	278	26
15°	273	273	273	273	273	77
25°	258	258	258	258	258	119
35°	230	230	230	230	230	143
45°	186	186	186	186	186	143
55°	133	134	133	134	133	119
65°	84	84	84	84	84	83
75°	43	43	43	43	43	46
85°	11	11	11	11	11	13
90°	0	0	0	0	0	

TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	278.7	278.7	278.7	278.7	278.7	278.7	278.7	278.7	278.7	278.7	278.7
0.5°	278.9	278.7	278.4	278.5	278.9	278.5	278.4	278.7	278.9	278.7	278.4
1°	278.8	278.4	278.4	278.4	278.9	278.4	278.4	278.4	278.8	278.4	278.4
1.5°	278.8	278.6	278.6	278.5	278.6	278.5	278.6	278.6	278.8	278.6	278.6
2°	278.5	278.6	278.4	278.4	278.4	278.4	278.4	278.6	278.5	278.6	278.4
2.5°	278.4	278.4	278.4	278.4	278.3	278.4	278.4	278.4	278.4	278.4	278.4
3°	278.8	278.4	278.3	278.4	278.7	278.4	278.3	278.4	278.8	278.4	278.3
3.5°	278.6	278.6	278.1	278.2	278.6	278.2	278.1	278.6	278.6	278.6	278.1
4°	278.3	278.2	278.0	278.0	278.4	278.0	278.0	278.2	278.3	278.2	278.0
4.5°	278.0	278.0	278.0	278.0	278.3	278.0	278.0	278.0	278.0	278.0	278.0
5°	278.2	278.1	278.1	278.0	278.3	278.0	278.1	278.1	278.2	278.1	278.1
5.5°	278.2	278.0	278.0	277.8	278.3	277.8	278.0	278.0	278.2	278.0	278.0
6°	278.0	277.7	277.6	277.6	278.0	277.6	277.6	277.7	278.0	277.7	277.6
6.5°	277.7	277.6	277.3	277.6	277.5	277.6	277.3	277.6	277.7	277.6	277.3
7°	277.6	277.4	277.3	277.3	277.3	277.3	277.3	277.4	277.6	277.4	277.3
7.5°	277.6	277.3	277.1	277.1	277.4	277.1	277.1	277.3	277.6	277.3	277.1
8°	277.3	277.1	276.9	276.9	277.3	276.9	276.9	277.1	277.3	277.1	276.9
8.5°	277.0	276.9	276.6	276.8	276.7	276.8	276.6	276.9	277.0	276.9	276.6
9°	276.9	276.6	276.5	276.5	276.5	276.5	276.5	276.6	276.9	276.6	276.5
9.5°	276.6	276.5	276.1	276.3	276.2	276.3	276.1	276.5	276.6	276.5	276.1
10°	276.2	276.2	276.1	276.0	276.0	276.0	276.1	276.2	276.2	276.2	276.1
10.5°	276.0	276.0	275.9	275.8	275.8	275.8	275.9	276.0	276.0	276.0	275.9
11°	275.8	275.6	275.7	275.6	275.7	275.6	275.7	275.6	275.8	275.6	275.7
11.5°	275.5	275.3	275.2	275.1	275.2	275.1	275.2	275.3	275.5	275.3	275.2
12°	275.0	274.9	274.8	274.7	274.8	274.7	274.8	274.9	275.0	274.9	274.8
12.5°	274.7	274.6	274.5	274.3	274.4	274.3	274.5	274.6	274.7	274.6	274.5
13°	274.5	274.4	274.2	274.3	274.1	274.3	274.2	274.4	274.5	274.4	274.2
13.5°	273.9	274.1	273.7	274.1	273.9	274.1	273.7	274.1	273.9	274.1	273.7
14°	273.5	273.6	273.4	273.4	273.5	273.4	273.4	273.6	273.5	273.6	273.4
14.5°	273.1	273.0	273.0	272.9	273.0	272.9	273.0	273.0	273.1	273.0	273.0
15°	272.7	272.5	272.4	272.5	272.7	272.5	272.4	272.5	272.7	272.5	272.4
15.5°	272.1	272.0	271.9	272.0	272.3	272.0	271.9	272.0	272.1	272.0	271.9
16°	271.8	271.6	271.5	271.5	271.8	271.5	271.5	271.6	271.8	271.6	271.5
16.5°	271.4	271.2	270.9	271.2	271.1	271.2	270.9	271.2	271.4	271.2	270.9
17°	270.8	270.6	270.5	270.5	270.6	270.5	270.5	270.6	270.8	270.6	270.5
17.5°	270.3	270.0	269.9	269.9	270.1	269.9	269.9	270.0	270.3	270.0	269.9
18°	269.8	269.4	269.4	269.2	269.6	269.2	269.4	269.4	269.8	269.4	269.4
18.5°	269.4	268.9	268.9	268.7	268.8	268.7	268.9	268.9	269.4	268.9	268.9
19°	268.6	268.4	268.1	268.0	268.3	268.0	268.1	268.4	268.6	268.4	268.1
19.5°	267.5	267.6	267.4	267.5	267.6	267.5	267.4	267.6	267.5	267.6	267.4
20°	266.5	267.0	266.9	266.8	266.7	266.8	266.9	267.0	266.5	267.0	266.9
20.5°	266.1	266.3	265.9	266.1	266.1	266.1	265.9	266.3	266.1	266.3	265.9
21°	265.7	265.6	265.2	265.1	265.6	265.1	265.2	265.6	265.7	265.6	265.2

TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	263.3	263.0	262.8	262.9	262.8	262.9	262.8	263.0	263.3	263.0	262.8
23°	262.3	262.1	261.9	261.9	261.9	261.9	261.9	262.1	262.3	262.1	261.9
23.5°	261.4	261.0	260.9	261.0	261.0	261.0	260.9	261.0	261.4	261.0	260.9
24°	260.3	260.3	260.1	259.9	260.1	259.9	260.1	260.3	260.3	260.3	260.1
24.5°	259.0	259.5	259.1	259.0	259.2	259.0	259.1	259.5	259.0	259.5	259.1
25°	258.3	258.1	258.1	258.0	258.2	258.0	258.1	258.1	258.3	258.1	258.1
25.5°	257.4	257.0	257.1	257.0	257.0	257.0	257.1	257.0	257.4	257.0	257.1
26°	256.3	256.1	256.0	256.0	256.2	256.0	256.0	256.1	256.3	256.1	256.0
26.5°	255.1	255.0	254.8	254.8	255.1	254.8	254.8	255.0	255.1	255.0	254.8
27°	254.1	253.9	253.7	253.6	253.8	253.6	253.7	253.9	254.1	253.9	253.7
27.5°	253.3	252.8	252.5	252.6	252.6	252.6	252.5	252.8	253.3	252.8	252.5
28°	251.7	251.4	251.3	251.3	251.4	251.3	251.3	251.4	251.7	251.4	251.3
28.5°	250.0	250.0	249.8	250.0	250.0	250.0	249.8	250.0	250.0	250.0	249.8
29°	249.0	248.8	248.6	248.6	248.7	248.6	248.6	248.8	249.0	248.8	248.6
29.5°	247.7	247.4	247.2	247.1	247.3	247.1	247.2	247.4	247.7	247.4	247.2
30°	246.2	246.0	245.9	245.7	246.0	245.7	245.9	246.0	246.2	246.0	245.9
30.5°	244.5	244.4	244.5	244.4	244.7	244.4	244.5	244.4	244.5	244.4	244.5
31°	243.3	243.0	243.0	242.9	243.1	242.9	243.0	243.0	243.3	243.0	243.0
31.5°	241.9	241.7	241.3	241.3	241.6	241.3	241.3	241.7	241.9	241.7	241.3
32°	240.0	240.0	239.8	239.7	240.2	239.7	239.8	240.0	240.0	240.0	239.8
32.5°	238.2	238.3	238.3	238.1	238.4	238.1	238.3	238.3	238.2	238.3	238.3
33°	236.7	236.7	236.8	236.5	236.5	236.5	236.8	236.7	236.7	236.7	236.8
33.5°	235.1	235.1	234.9	234.9	234.9	234.9	234.9	235.1	235.1	235.1	234.9
34°	233.3	233.4	233.0	233.1	233.3	233.1	233.0	233.4	233.3	233.4	233.0
34.5°	231.7	231.4	231.2	231.2	231.6	231.2	231.2	231.4	231.7	231.4	231.2
35°	229.9	229.4	229.5	229.4	229.6	229.4	229.5	229.4	229.9	229.4	229.5
35.5°	227.9	227.8	227.6	227.6	227.6	227.6	227.6	227.8	227.9	227.8	227.6
36°	225.9	226.0	225.7	225.8	225.9	225.8	225.7	226.0	225.9	226.0	225.7
36.5°	224.0	224.0	223.7	223.9	223.8	223.9	223.7	224.0	224.0	224.0	223.7
37°	222.1	221.9	221.7	221.7	221.9	221.7	221.7	221.9	222.1	221.9	221.7
37.5°	219.9	219.9	219.6	219.7	219.9	219.7	219.6	219.9	219.9	219.9	219.6
38°	217.8	217.9	217.7	217.7	217.9	217.7	217.7	217.9	217.8	217.9	217.7
38.5°	215.7	215.8	215.5	215.6	215.7	215.6	215.5	215.8	215.7	215.8	215.5
39°	213.5	213.5	213.5	213.4	213.5	213.4	213.5	213.5	213.5	213.5	213.5
39.5°	211.5	211.3	211.3	211.3	211.2	211.3	211.3	211.3	211.5	211.3	211.3
40°	209.4	209.2	209.1	209.1	209.1	209.1	209.1	209.2	209.4	209.2	209.1
40.5°	207.1	206.9	206.7	206.8	206.9	206.8	206.7	206.9	207.1	206.9	206.7
41°	204.8	204.5	204.4	204.4	204.9	204.4	204.4	204.5	204.8	204.5	204.4
41.5°	202.4	202.2	202.2	202.2	202.3	202.2	202.2	202.2	202.4	202.2	202.2
42°	200.0	200.0	200.0	199.8	200.0	199.8	200.0	200.0	200.0	200.0	200.0
42.5°	197.7	197.6	197.6	197.6	197.7	197.6	197.6	197.6	197.7	197.6	197.6
43°	195.4	195.2	195.1	195.1	195.4	195.1	195.1	195.2	195.4	195.2	195.1
43.5°	193.0	192.7	192.6	192.7	192.9	192.7	192.6	192.7	193.0	192.7	192.6

TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	185.6	185.3	185.3	185.4	185.5	185.4	185.3	185.3	185.6	185.3	185.3
45.5°	182.9	182.8	182.8	182.8	182.8	182.8	182.8	182.8	182.9	182.8	182.8
46°	180.3	180.4	180.4	180.3	180.2	180.3	180.4	180.4	180.3	180.4	180.4
46.5°	177.7	177.8	177.8	177.8	177.7	177.8	177.8	177.8	177.7	177.8	177.8
47°	175.1	175.1	175.3	175.2	175.2	175.2	175.3	175.1	175.1	175.1	175.3
47.5°	172.6	172.4	172.5	172.5	172.8	172.5	172.5	172.4	172.6	172.4	172.5
48°	170.1	170.0	169.9	169.9	170.2	169.9	169.9	170.0	170.1	170.0	169.9
48.5°	167.6	167.5	167.5	167.4	167.5	167.4	167.5	167.5	167.6	167.5	167.5
49°	165.0	164.9	164.9	164.8	164.9	164.8	164.9	164.9	165.0	164.9	164.9
49.5°	162.2	162.2	162.1	162.2	162.3	162.2	162.1	162.2	162.2	162.2	162.1
50°	159.4	159.5	159.5	159.7	159.6	159.7	159.5	159.5	159.4	159.5	159.5
50.5°	157.0	156.8	156.9	157.1	157.0	157.1	156.9	156.8	157.0	156.8	156.9
51°	154.3	154.3	154.3	154.3	154.4	154.3	154.3	154.3	154.3	154.3	154.3
51.5°	151.6	151.6	151.6	151.7	151.8	151.7	151.6	151.6	151.6	151.6	151.6
52°	149.0	149.0	149.0	149.0	149.1	149.0	149.0	149.0	149.0	149.0	149.0
52.5°	146.3	146.3	146.3	146.4	146.5	146.4	146.3	146.3	146.3	146.3	146.3
53°	143.8	143.7	143.7	143.8	143.9	143.8	143.7	143.7	143.8	143.7	143.7
53.5°	141.2	141.0	141.0	141.2	141.3	141.2	141.0	141.0	141.2	141.0	141.0
54°	138.4	138.3	138.4	138.6	138.8	138.6	138.4	138.3	138.4	138.3	138.4
54.5°	135.7	135.7	135.8	136.0	136.2	136.0	135.8	135.7	135.7	135.7	135.8
55°	133.4	133.2	133.2	133.5	133.5	133.5	133.2	133.2	133.4	133.2	133.2
55.5°	130.8	130.5	130.7	130.8	130.9	130.8	130.7	130.5	130.8	130.5	130.7
56°	128.0	127.9	128.0	128.2	128.2	128.2	128.0	127.9	128.0	127.9	128.0
56.5°	125.6	125.4	125.4	125.6	125.7	125.6	125.4	125.4	125.6	125.4	125.4
57°	122.9	122.9	122.8	123.0	123.2	123.0	122.8	122.9	122.9	122.9	122.8
57.5°	120.3	120.1	120.3	120.3	120.7	120.3	120.3	120.1	120.3	120.1	120.3
58°	117.9	117.6	117.7	117.9	117.9	117.9	117.7	117.6	117.9	117.6	117.7
58.5°	115.2	115.2	115.2	115.4	115.5	115.4	115.2	115.2	115.2	115.2	115.2
59°	112.6	112.7	112.8	112.9	112.9	112.9	112.8	112.7	112.6	112.7	112.8
59.5°	110.2	110.1	110.3	110.3	110.5	110.3	110.3	110.1	110.2	110.1	110.3
60°	107.7	107.7	107.8	107.9	108.1	107.9	107.8	107.7	107.7	107.7	107.8
60.5°	105.2	105.2	105.3	105.5	105.6	105.5	105.3	105.2	105.2	105.2	105.3
61°	102.8	102.8	102.8	103.0	103.1	103.0	102.8	102.8	102.8	102.8	102.8
61.5°	100.3	100.4	100.5	100.5	100.6	100.5	100.5	100.4	100.3	100.4	100.5
62°	97.9	98.0	98.0	98.2	98.2	98.2	98.0	98.0	97.9	98.0	98.0
62.5°	95.5	95.5	95.6	95.8	95.8	95.8	95.6	95.5	95.5	95.5	95.6
63°	93.1	93.1	93.2	93.3	93.3	93.3	93.2	93.1	93.1	93.1	93.2
63.5°	90.7	90.8	90.9	90.9	91.1	90.9	90.9	90.8	90.7	90.8	90.9
64°	88.4	88.5	88.6	88.7	88.7	88.7	88.6	88.5	88.4	88.5	88.6
64.5°	86.0	86.1	86.3	86.3	86.3	86.3	86.3	86.1	86.0	86.1	86.3
65°	83.7	83.8	84.0	84.1	84.1	84.1	84.0	83.8	83.7	83.8	84.0
65.5°	81.5	81.6	81.7	81.8	81.8	81.8	81.7	81.6	81.5	81.6	81.7
66°	79.3	79.3	79.4	79.4	79.6	79.4	79.4	79.3	79.3	79.3	79.4

TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	72.6	72.7	72.7	72.9	73.0	72.9	72.7	72.7	72.6	72.7	72.7
68°	70.5	70.5	70.6	70.7	70.8	70.7	70.6	70.5	70.5	70.5	70.6
68.5°	68.3	68.4	68.4	68.6	68.6	68.6	68.4	68.4	68.3	68.4	68.4
69°	66.2	66.2	66.4	66.5	66.5	66.5	66.4	66.2	66.2	66.2	66.4
69.5°	64.2	64.2	64.2	64.4	64.5	64.4	64.2	64.2	64.2	64.2	64.2
70°	62.0	62.1	62.2	62.3	62.4	62.3	62.2	62.1	62.0	62.1	62.2
70.5°	60.0	60.0	60.2	60.3	60.4	60.3	60.2	60.0	60.0	60.0	60.2
71°	58.0	58.0	58.1	58.3	58.4	58.3	58.1	58.0	58.0	58.0	58.1
71.5°	56.0	56.0	56.0	56.3	56.4	56.3	56.0	56.0	56.0	56.0	56.0
72°	54.1	54.1	54.1	54.3	54.5	54.3	54.1	54.1	54.1	54.1	54.1
72.5°	52.1	52.1	52.2	52.4	52.5	52.4	52.2	52.1	52.1	52.1	52.2
73°	50.3	50.2	50.3	50.5	50.6	50.5	50.3	50.2	50.3	50.2	50.3
73.5°	48.4	48.3	48.4	48.6	48.7	48.6	48.4	48.3	48.4	48.3	48.4
74°	46.5	46.5	46.5	46.7	46.9	46.7	46.5	46.5	46.5	46.5	46.5
74.5°	44.7	44.5	44.7	44.9	45.1	44.9	44.7	44.5	44.7	44.5	44.7
75°	42.8	42.8	42.9	43.1	43.2	43.1	42.9	42.8	42.8	42.8	42.9
75.5°	41.1	41.0	41.1	41.3	41.4	41.3	41.1	41.0	41.1	41.0	41.1
76°	39.3	39.2	39.3	39.4	39.7	39.4	39.3	39.2	39.3	39.2	39.3
76.5°	37.6	37.5	37.6	37.7	37.9	37.7	37.6	37.5	37.6	37.5	37.6
77°	35.9	35.8	35.9	36.1	36.2	36.1	35.9	35.8	35.9	35.8	35.9
77.5°	34.2	34.1	34.2	34.4	34.5	34.4	34.2	34.1	34.2	34.1	34.2
78°	32.5	32.4	32.5	32.7	32.8	32.7	32.5	32.4	32.5	32.4	32.5
78.5°	30.8	30.8	30.8	31.0	31.3	31.0	30.8	30.8	30.8	30.8	30.8
79°	29.2	29.2	29.3	29.4	29.7	29.4	29.3	29.2	29.2	29.2	29.3
79.5°	27.6	27.6	27.6	27.8	27.9	27.8	27.6	27.6	27.6	27.6	27.6
80°	26.0	26.0	26.0	26.2	26.4	26.2	26.0	26.0	26.0	26.0	26.0
80.5°	24.4	24.5	24.4	24.6	24.7	24.6	24.4	24.5	24.4	24.5	24.4
81°	22.9	22.9	22.9	23.1	23.2	23.1	22.9	22.9	22.9	22.9	22.9
81.5°	21.3	21.4	21.4	21.5	21.6	21.5	21.4	21.4	21.3	21.4	21.4
82°	19.8	19.8	19.9	20.0	20.1	20.0	19.9	19.8	19.8	19.8	19.9
82.5°	18.3	18.4	18.4	18.6	18.6	18.6	18.4	18.4	18.3	18.4	18.4
83°	16.9	16.9	16.9	17.1	17.1	17.1	16.9	16.9	16.9	16.9	16.9
83.5°	15.4	15.4	15.5	15.6	15.7	15.6	15.5	15.4	15.4	15.4	15.5
84°	14.0	14.0	14.0	14.2	14.2	14.2	14.0	14.0	14.0	14.0	14.0
84.5°	12.6	12.6	12.7	12.7	12.8	12.7	12.7	12.6	12.6	12.6	12.7
85°	11.2	11.2	11.3	11.4	11.4	11.4	11.3	11.2	11.2	11.2	11.3
85.5°	9.8	9.8	9.8	9.9	10.0	9.9	9.8	9.8	9.8	9.8	9.8
86°	8.5	8.5	8.5	8.5	8.6	8.5	8.5	8.5	8.5	8.5	8.5
86.5°	7.1	7.1	7.3	7.4	7.6	7.4	7.3	7.1	7.1	7.1	7.3
87°	5.8	6.0	6.2	6.2	6.5	6.2	6.2	6.0	5.8	6.0	6.2
87.5°	4.4	4.8	5.0	5.0	5.5	5.0	5.0	4.8	4.4	4.8	5.0
88°	3.5	3.6	3.9	4.1	4.5	4.1	3.9	3.6	3.5	3.6	3.9
88.5°	2.5	2.7	2.8	3.4	3.8	3.4	2.8	2.7	2.5	2.7	2.8



TEST NUMBER: P938661
CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	278.7	278.7	278.7	278.7	278.7	278.7
0.5°	278.5	278.9	278.5	278.4	278.7	278.9
1°	278.4	278.9	278.4	278.4	278.4	278.8
1.5°	278.5	278.6	278.5	278.6	278.6	278.8
2°	278.4	278.4	278.4	278.4	278.6	278.5
2.5°	278.4	278.3	278.4	278.4	278.4	278.4
3°	278.4	278.7	278.4	278.3	278.4	278.8
3.5°	278.2	278.6	278.2	278.1	278.6	278.6
4°	278.0	278.4	278.0	278.0	278.2	278.3
4.5°	278.0	278.3	278.0	278.0	278.0	278.0
5°	278.0	278.3	278.0	278.1	278.1	278.2
5.5°	277.8	278.3	277.8	278.0	278.0	278.2
6°	277.6	278.0	277.6	277.6	277.7	278.0
6.5°	277.6	277.5	277.6	277.3	277.6	277.7
7°	277.3	277.3	277.3	277.3	277.4	277.6
7.5°	277.1	277.4	277.1	277.1	277.3	277.6
8°	276.9	277.3	276.9	276.9	277.1	277.3
8.5°	276.8	276.7	276.8	276.6	276.9	277.0
9°	276.5	276.5	276.5	276.5	276.6	276.9
9.5°	276.3	276.2	276.3	276.1	276.5	276.6
10°	276.0	276.0	276.0	276.1	276.2	276.2
10.5°	275.8	275.8	275.8	275.9	276.0	276.0
11°	275.6	275.7	275.6	275.7	275.6	275.8
11.5°	275.1	275.2	275.1	275.2	275.3	275.5
12°	274.7	274.8	274.7	274.8	274.9	275.0
12.5°	274.3	274.4	274.3	274.5	274.6	274.7
13°	274.3	274.1	274.3	274.2	274.4	274.5
13.5°	274.1	273.9	274.1	273.7	274.1	273.9
14°	273.4	273.5	273.4	273.4	273.6	273.5
14.5°	272.9	273.0	272.9	273.0	273.0	273.1
15°	272.5	272.7	272.5	272.4	272.5	272.7
15.5°	272.0	272.3	272.0	271.9	272.0	272.1
16°	271.5	271.8	271.5	271.5	271.6	271.8
16.5°	271.2	271.1	271.2	270.9	271.2	271.4
17°	270.5	270.6	270.5	270.5	270.6	270.8
17.5°	269.9	270.1	269.9	269.9	270.0	270.3
18°	269.2	269.6	269.2	269.4	269.4	269.8
18.5°	268.7	268.8	268.7	268.9	268.9	269.4
19°	268.0	268.3	268.0	268.1	268.4	268.6
19.5°	267.5	267.6	267.5	267.4	267.6	267.5
20°	266.8	266.7	266.8	266.9	267.0	266.5
20.5°	266.1	266.1	266.1	265.9	266.3	266.1
21°	265.1	265.6	265.1	265.2	265.6	265.7



TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	262.9	262.8	262.9	262.8	263.0	263.3
23°	261.9	261.9	261.9	261.9	262.1	262.3
23.5°	261.0	261.0	261.0	260.9	261.0	261.4
24°	259.9	260.1	259.9	260.1	260.3	260.3
24.5°	259.0	259.2	259.0	259.1	259.5	259.0
25°	258.0	258.2	258.0	258.1	258.1	258.3
25.5°	257.0	257.0	257.0	257.1	257.0	257.4
26°	256.0	256.2	256.0	256.0	256.1	256.3
26.5°	254.8	255.1	254.8	254.8	255.0	255.1
27°	253.6	253.8	253.6	253.7	253.9	254.1
27.5°	252.6	252.6	252.6	252.5	252.8	253.3
28°	251.3	251.4	251.3	251.3	251.4	251.7
28.5°	250.0	250.0	250.0	249.8	250.0	250.0
29°	248.6	248.7	248.6	248.6	248.8	249.0
29.5°	247.1	247.3	247.1	247.2	247.4	247.7
30°	245.7	246.0	245.7	245.9	246.0	246.2
30.5°	244.4	244.7	244.4	244.5	244.4	244.5
31°	242.9	243.1	242.9	243.0	243.0	243.3
31.5°	241.3	241.6	241.3	241.3	241.7	241.9
32°	239.7	240.2	239.7	239.8	240.0	240.0
32.5°	238.1	238.4	238.1	238.3	238.3	238.2
33°	236.5	236.5	236.5	236.8	236.7	236.7
33.5°	234.9	234.9	234.9	234.9	235.1	235.1
34°	233.1	233.3	233.1	233.0	233.4	233.3
34.5°	231.2	231.6	231.2	231.2	231.4	231.7
35°	229.4	229.6	229.4	229.5	229.4	229.9
35.5°	227.6	227.6	227.6	227.6	227.8	227.9
36°	225.8	225.9	225.8	225.7	226.0	225.9
36.5°	223.9	223.8	223.9	223.7	224.0	224.0
37°	221.7	221.9	221.7	221.7	221.9	222.1
37.5°	219.7	219.9	219.7	219.6	219.9	219.9
38°	217.7	217.9	217.7	217.7	217.9	217.8
38.5°	215.6	215.7	215.6	215.5	215.8	215.7
39°	213.4	213.5	213.4	213.5	213.5	213.5
39.5°	211.3	211.2	211.3	211.3	211.3	211.5
40°	209.1	209.1	209.1	209.1	209.2	209.4
40.5°	206.8	206.9	206.8	206.7	206.9	207.1
41°	204.4	204.9	204.4	204.4	204.5	204.8
41.5°	202.2	202.3	202.2	202.2	202.2	202.4
42°	199.8	200.0	199.8	200.0	200.0	200.0
42.5°	197.6	197.7	197.6	197.6	197.6	197.7
43°	195.1	195.4	195.1	195.1	195.2	195.4
43.5°	192.7	192.9	192.7	192.6	192.7	193.0



TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	185.4	185.5	185.4	185.3	185.3	185.6
45.5°	182.8	182.8	182.8	182.8	182.8	182.9
46°	180.3	180.2	180.3	180.4	180.4	180.3
46.5°	177.8	177.7	177.8	177.8	177.8	177.7
47°	175.2	175.2	175.2	175.3	175.1	175.1
47.5°	172.5	172.8	172.5	172.5	172.4	172.6
48°	169.9	170.2	169.9	169.9	170.0	170.1
48.5°	167.4	167.5	167.4	167.5	167.5	167.6
49°	164.8	164.9	164.8	164.9	164.9	165.0
49.5°	162.2	162.3	162.2	162.1	162.2	162.2
50°	159.7	159.6	159.7	159.5	159.5	159.4
50.5°	157.1	157.0	157.1	156.9	156.8	157.0
51°	154.3	154.4	154.3	154.3	154.3	154.3
51.5°	151.7	151.8	151.7	151.6	151.6	151.6
52°	149.0	149.1	149.0	149.0	149.0	149.0
52.5°	146.4	146.5	146.4	146.3	146.3	146.3
53°	143.8	143.9	143.8	143.7	143.7	143.8
53.5°	141.2	141.3	141.2	141.0	141.0	141.2
54°	138.6	138.8	138.6	138.4	138.3	138.4
54.5°	136.0	136.2	136.0	135.8	135.7	135.7
55°	133.5	133.5	133.5	133.2	133.2	133.4
55.5°	130.8	130.9	130.8	130.7	130.5	130.8
56°	128.2	128.2	128.2	128.0	127.9	128.0
56.5°	125.6	125.7	125.6	125.4	125.4	125.6
57°	123.0	123.2	123.0	122.8	122.9	122.9
57.5°	120.3	120.7	120.3	120.3	120.1	120.3
58°	117.9	117.9	117.9	117.7	117.6	117.9
58.5°	115.4	115.5	115.4	115.2	115.2	115.2
59°	112.9	112.9	112.9	112.8	112.7	112.6
59.5°	110.3	110.5	110.3	110.3	110.1	110.2
60°	107.9	108.1	107.9	107.8	107.7	107.7
60.5°	105.5	105.6	105.5	105.3	105.2	105.2
61°	103.0	103.1	103.0	102.8	102.8	102.8
61.5°	100.5	100.6	100.5	100.5	100.4	100.3
62°	98.2	98.2	98.2	98.0	98.0	97.9
62.5°	95.8	95.8	95.8	95.6	95.5	95.5
63°	93.3	93.3	93.3	93.2	93.1	93.1
63.5°	90.9	91.1	90.9	90.9	90.8	90.7
64°	88.7	88.7	88.7	88.6	88.5	88.4
64.5°	86.3	86.3	86.3	86.3	86.1	86.0
65°	84.1	84.1	84.1	84.0	83.8	83.7
65.5°	81.8	81.8	81.8	81.7	81.6	81.5
66°	79.4	79.6	79.4	79.4	79.3	79.3



TEST NUMBER: P938661

CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	72.9	73.0	72.9	72.7	72.7	72.6
68°	70.7	70.8	70.7	70.6	70.5	70.5
68.5°	68.6	68.6	68.6	68.4	68.4	68.3
69°	66.5	66.5	66.5	66.4	66.2	66.2
69.5°	64.4	64.5	64.4	64.2	64.2	64.2
70°	62.3	62.4	62.3	62.2	62.1	62.0
70.5°	60.3	60.4	60.3	60.2	60.0	60.0
71°	58.3	58.4	58.3	58.1	58.0	58.0
71.5°	56.3	56.4	56.3	56.0	56.0	56.0
72°	54.3	54.5	54.3	54.1	54.1	54.1
72.5°	52.4	52.5	52.4	52.2	52.1	52.1
73°	50.5	50.6	50.5	50.3	50.2	50.3
73.5°	48.6	48.7	48.6	48.4	48.3	48.4
74°	46.7	46.9	46.7	46.5	46.5	46.5
74.5°	44.9	45.1	44.9	44.7	44.5	44.7
75°	43.1	43.2	43.1	42.9	42.8	42.8
75.5°	41.3	41.4	41.3	41.1	41.0	41.1
76°	39.4	39.7	39.4	39.3	39.2	39.3
76.5°	37.7	37.9	37.7	37.6	37.5	37.6
77°	36.1	36.2	36.1	35.9	35.8	35.9
77.5°	34.4	34.5	34.4	34.2	34.1	34.2
78°	32.7	32.8	32.7	32.5	32.4	32.5
78.5°	31.0	31.3	31.0	30.8	30.8	30.8
79°	29.4	29.7	29.4	29.3	29.2	29.2
79.5°	27.8	27.9	27.8	27.6	27.6	27.6
80°	26.2	26.4	26.2	26.0	26.0	26.0
80.5°	24.6	24.7	24.6	24.4	24.5	24.4
81°	23.1	23.2	23.1	22.9	22.9	22.9
81.5°	21.5	21.6	21.5	21.4	21.4	21.3
82°	20.0	20.1	20.0	19.9	19.8	19.8
82.5°	18.6	18.6	18.6	18.4	18.4	18.3
83°	17.1	17.1	17.1	16.9	16.9	16.9
83.5°	15.6	15.7	15.6	15.5	15.4	15.4
84°	14.2	14.2	14.2	14.0	14.0	14.0
84.5°	12.7	12.8	12.7	12.7	12.6	12.6
85°	11.4	11.4	11.4	11.3	11.2	11.2
85.5°	9.9	10.0	9.9	9.8	9.8	9.8
86°	8.5	8.6	8.5	8.5	8.5	8.5
86.5°	7.4	7.6	7.4	7.3	7.1	7.1
87°	6.2	6.5	6.2	6.2	6.0	5.8
87.5°	5.0	5.5	5.0	5.0	4.8	4.4
88°	4.1	4.5	4.1	3.9	3.6	3.5
88.5°	3.4	3.8	3.4	2.8	2.7	2.5



TEST NUMBER: P938661
CATALOG NUMBER: HLB4LSFS5-700LM-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-T8S5UU9





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







21.5°	264.8	264.7	264.6	264.3	264.5	264.3	264.6	264.7	264.8	264.7	264.6
22°	264.1	263.8	263.7	263.6	263.6	263.6	263.7	263.8	264.1	263.8	263.7



44°	190.4	190.3	190.2	190.3	190.3	190.3	190.2	190.3	190.4	190.3	190.2
44.5°	188.0	187.9	187.7	187.9	187.9	187.9	187.7	187.9	188.0	187.9	187.7



66.5°	77.0	77.0	77.2	77.2	77.3	77.2	77.2	77.0	77.0	77.0	77.2
67°	74.8	74.9	74.9	75.1	75.2	75.1	74.9	74.9	74.8	74.9	74.9



89°	1.6	1.8	2.1	2.7	3.1	2.7	2.1	1.8	1.6	1.8	2.1
89.5°	0.7	1.2	1.7	2.1	2.4	2.1	1.7	1.2	0.7	1.2	1.7





21.5°	264.3	264.5	264.3	264.6	264.7	264.8
22°	263.6	263.6	263.6	263.7	263.8	264.1



44°	190.3	190.3	190.3	190.2	190.3	190.4
44.5°	187.9	187.9	187.9	187.7	187.9	188.0



66.5°	77.2	77.3	77.2	77.2	77.0	77.0
67°	75.1	75.2	75.1	74.9	74.9	74.8



89°	2.7	3.1	2.7	2.1	1.8	1.6
89.5°	2.1	2.4	2.1	1.7	1.2	0.7



(END OF REPORT)