

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: P938665

Luminaire Tested: HLB4LSFS5-700LM-5000K

Issue Date: 1/15/2025

Test Information

Test Method: LM-79-2019
Report Number: P938665
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-5000K
Description: 4IN SELECTABLE LUMENS, 90CRI, DIMMING TO 10%
Light Source: SELECTABLE CCT 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 822.2 lumens
Efficiency: N/A
Efficacy: 106.8 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

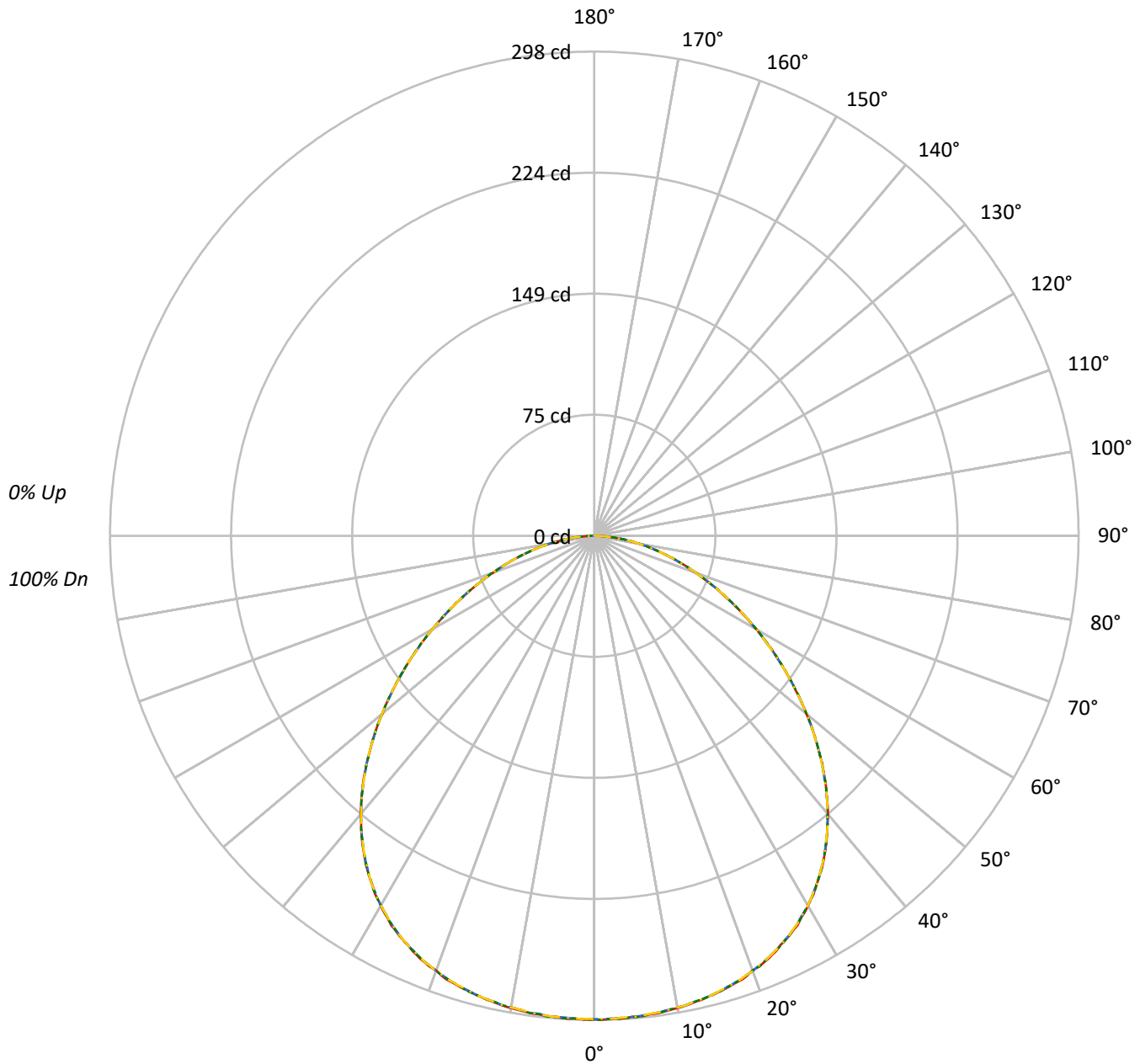
Input Watts (W): 7.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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°	37465	37465	37465	37465
5°	37545	37558	37545	37558
10°	37711	37686	37711	37686
15°	37953	37953	37953	37953
20°	38129	38156	38129	38156
25°	38325	38298	38325	38298
30°	38204	38190	38204	38190
35°	37733	37671	37733	37671
40°	36751	36685	36751	36685
45°	35275	35275	35275	35275
50°	33343	33382	33343	33382
55°	31266	31288	31266	31288
60°	28971	29046	28971	29046
65°	26622	26771	26622	26771
70°	24396	24543	24396	24543
75°	22221	22465	22221	22465
80°	20148	20438	20148	20438
85°	17328	17616	17328	17616

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 89.5°

Luminance: 37496 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.3	3.4
10°-20°	82.3	10.0
20°-30°	127.0	15.5
30°-40°	153.1	18.6
40°-50°	152.5	18.5
50°-60°	127.3	15.5
60°-70°	89.0	10.8
70°-80°	48.8	5.9
80°-90°	13.9	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°	237.6	28.9
0°-40°	390.7	47.5
0°-60°	670.5	81.5
0°-90°	822.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	822.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	298	298	298	298	298	
5°	297	297	297	297	297	28
15°	291	291	291	291	291	82
25°	276	276	276	276	276	127
35°	246	245	246	245	246	153
45°	198	198	198	198	198	153
55°	142	143	142	143	142	127
65°	89	90	89	90	89	89
75°	46	46	46	46	46	49
85°	12	12	12	12	12	14
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7
0.5°	297.9	297.7	297.4	297.5	297.9	297.5	297.4	297.7	297.9	297.7	297.4
1°	297.8	297.4	297.4	297.4	297.9	297.4	297.4	297.4	297.8	297.4	297.4
1.5°	297.8	297.6	297.6	297.5	297.6	297.5	297.6	297.6	297.8	297.6	297.6
2°	297.5	297.6	297.4	297.4	297.4	297.4	297.4	297.6	297.5	297.6	297.4
2.5°	297.4	297.4	297.4	297.4	297.3	297.4	297.4	297.4	297.4	297.4	297.4
3°	297.8	297.4	297.3	297.4	297.7	297.4	297.3	297.4	297.8	297.4	297.3
3.5°	297.6	297.6	297.1	297.1	297.6	297.1	297.1	297.6	297.6	297.6	297.1
4°	297.3	297.1	297.0	296.9	297.4	296.9	297.0	297.1	297.3	297.1	297.0
4.5°	296.9	296.9	297.0	297.0	297.3	297.0	297.0	296.9	296.9	296.9	297.0
5°	297.2	297.1	297.1	296.9	297.3	296.9	297.1	297.1	297.2	297.1	297.1
5.5°	297.2	296.9	296.9	296.8	297.3	296.8	296.9	296.9	297.2	296.9	296.9
6°	296.9	296.6	296.6	296.6	296.9	296.6	296.6	296.6	296.9	296.6	296.6
6.5°	296.6	296.5	296.2	296.5	296.4	296.5	296.2	296.5	296.6	296.5	296.2
7°	296.6	296.3	296.2	296.2	296.2	296.2	296.2	296.3	296.6	296.3	296.2
7.5°	296.5	296.2	296.0	296.0	296.3	296.0	296.0	296.2	296.5	296.2	296.0
8°	296.3	296.0	295.8	295.8	296.2	295.8	295.8	296.0	296.3	296.0	295.8
8.5°	295.9	295.7	295.4	295.7	295.6	295.7	295.4	295.7	295.9	295.7	295.4
9°	295.7	295.4	295.3	295.4	295.3	295.4	295.3	295.4	295.7	295.4	295.3
9.5°	295.4	295.3	294.9	295.2	295.1	295.2	294.9	295.3	295.4	295.3	294.9
10°	295.1	295.1	294.9	294.8	294.9	294.8	294.9	295.1	295.1	295.1	294.9
10.5°	294.9	294.8	294.7	294.6	294.6	294.6	294.7	294.8	294.9	294.8	294.7
11°	294.6	294.4	294.5	294.3	294.5	294.3	294.5	294.4	294.6	294.4	294.5
11.5°	294.3	294.1	294.0	293.9	294.0	293.9	294.0	294.1	294.3	294.1	294.0
12°	293.8	293.7	293.5	293.4	293.5	293.4	293.5	293.7	293.8	293.7	293.5
12.5°	293.4	293.3	293.2	293.0	293.1	293.0	293.2	293.3	293.4	293.3	293.2
13°	293.2	293.1	292.9	292.9	292.8	292.9	292.9	293.1	293.2	293.1	292.9
13.5°	292.6	292.8	292.4	292.8	292.6	292.8	292.4	292.8	292.6	292.8	292.4
14°	292.1	292.3	292.1	292.1	292.1	292.1	292.1	292.3	292.1	292.3	292.1
14.5°	291.8	291.6	291.6	291.5	291.6	291.5	291.6	291.6	291.8	291.6	291.6
15°	291.3	291.0	291.0	291.0	291.3	291.0	291.0	291.0	291.3	291.0	291.0
15.5°	290.7	290.6	290.4	290.6	290.9	290.6	290.4	290.6	290.7	290.6	290.4
16°	290.4	290.2	290.0	290.0	290.4	290.0	290.0	290.2	290.4	290.2	290.0
16.5°	289.9	289.6	289.4	289.6	289.6	289.6	289.4	289.6	289.9	289.6	289.4
17°	289.3	289.1	289.0	288.9	289.1	288.9	289.0	289.1	289.3	289.1	289.0
17.5°	288.7	288.4	288.3	288.3	288.5	288.3	288.3	288.4	288.7	288.4	288.3
18°	288.2	287.8	287.8	287.6	287.9	287.6	287.8	287.8	288.2	287.8	287.8
18.5°	287.8	287.2	287.2	287.1	287.1	287.1	287.2	287.2	287.8	287.2	287.2
19°	286.9	286.7	286.3	286.3	286.6	286.3	286.3	286.7	286.9	286.7	286.3
19.5°	285.7	285.8	285.6	285.7	285.8	285.7	285.6	285.8	285.7	285.8	285.6
20°	284.7	285.2	285.1	285.0	284.9	285.0	285.1	285.2	284.7	285.2	285.1
20.5°	284.2	284.4	284.1	284.3	284.2	284.3	284.1	284.4	284.2	284.4	284.1
21°	283.8	283.7	283.2	283.2	283.8	283.2	283.2	283.7	283.8	283.7	283.2

TEST NUMBER: P938665

CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	281.3	281.0	280.7	280.8	280.7	280.8	280.7	281.0	281.3	281.0	280.7
23°	280.2	280.0	279.8	279.8	279.7	279.8	279.8	280.0	280.2	280.0	279.8
23.5°	279.3	278.8	278.7	278.8	278.8	278.8	278.7	278.8	279.3	278.8	278.7
24°	278.1	278.1	277.9	277.7	277.9	277.7	277.9	278.1	278.1	278.1	277.9
24.5°	276.7	277.2	276.8	276.7	276.8	276.7	276.8	277.2	276.7	277.2	276.8
25°	276.0	275.7	275.7	275.6	275.8	275.6	275.7	275.7	276.0	275.7	275.7
25.5°	274.9	274.6	274.6	274.6	274.6	274.6	274.6	274.6	274.9	274.6	274.6
26°	273.8	273.5	273.5	273.5	273.7	273.5	273.5	273.5	273.8	273.5	273.5
26.5°	272.5	272.4	272.2	272.1	272.5	272.1	272.2	272.4	272.5	272.4	272.2
27°	271.4	271.2	271.0	270.9	271.1	270.9	271.0	271.2	271.4	271.2	271.0
27.5°	270.5	270.0	269.7	269.8	269.8	269.8	269.7	270.0	270.5	270.0	269.7
28°	268.8	268.5	268.4	268.4	268.5	268.4	268.4	268.5	268.8	268.5	268.4
28.5°	267.1	267.1	266.8	267.0	267.1	267.0	266.8	267.1	267.1	267.1	266.8
29°	266.0	265.7	265.5	265.5	265.7	265.5	265.5	265.7	266.0	265.7	265.5
29.5°	264.6	264.3	264.1	263.9	264.2	263.9	264.1	264.3	264.6	264.3	264.1
30°	262.9	262.7	262.7	262.4	262.8	262.4	262.7	262.7	262.9	262.7	262.7
30.5°	261.2	261.0	261.2	261.0	261.4	261.0	261.2	261.0	261.2	261.0	261.2
31°	259.9	259.6	259.6	259.5	259.7	259.5	259.6	259.6	259.9	259.6	259.6
31.5°	258.4	258.2	257.7	257.8	258.1	257.8	257.7	258.2	258.4	258.2	257.7
32°	256.4	256.4	256.1	256.0	256.6	256.0	256.1	256.4	256.4	256.4	256.1
32.5°	254.4	254.6	254.6	254.3	254.6	254.3	254.6	254.6	254.4	254.6	254.6
33°	252.8	252.8	252.9	252.7	252.6	252.7	252.9	252.8	252.8	252.8	252.9
33.5°	251.1	251.1	250.9	250.9	250.9	250.9	250.9	251.1	251.1	251.1	250.9
34°	249.2	249.3	248.9	249.0	249.2	249.0	248.9	249.3	249.2	249.3	248.9
34.5°	247.5	247.2	247.0	246.9	247.4	246.9	247.0	247.2	247.5	247.2	247.0
35°	245.6	245.1	245.2	245.1	245.2	245.1	245.2	245.1	245.6	245.1	245.2
35.5°	243.5	243.3	243.1	243.2	243.2	243.2	243.1	243.3	243.5	243.3	243.1
36°	241.3	241.4	241.0	241.2	241.3	241.2	241.0	241.4	241.3	241.4	241.0
36.5°	239.3	239.3	239.0	239.1	239.1	239.1	239.0	239.3	239.3	239.3	239.0
37°	237.2	237.1	236.8	236.8	237.0	236.8	236.8	237.1	237.2	237.1	236.8
37.5°	234.9	234.9	234.6	234.6	234.9	234.6	234.6	234.9	234.9	234.9	234.6
38°	232.7	232.8	232.5	232.5	232.7	232.5	232.5	232.8	232.7	232.8	232.5
38.5°	230.4	230.5	230.2	230.3	230.4	230.3	230.2	230.5	230.4	230.5	230.2
39°	228.0	228.0	228.0	227.9	228.1	227.9	228.0	228.0	228.0	228.0	228.0
39.5°	225.9	225.7	225.7	225.7	225.6	225.7	225.7	225.7	225.9	225.7	225.7
40°	223.7	223.5	223.3	223.4	223.3	223.4	223.3	223.5	223.7	223.5	223.3
40.5°	221.3	221.0	220.7	220.9	221.0	220.9	220.7	221.0	221.3	221.0	220.7
41°	218.8	218.5	218.4	218.4	218.8	218.4	218.4	218.5	218.8	218.5	218.4
41.5°	216.2	216.0	216.0	216.0	216.1	216.0	216.0	216.0	216.2	216.0	216.0
42°	213.6	213.6	213.6	213.5	213.7	213.5	213.6	213.6	213.6	213.6	213.6
42.5°	211.2	211.1	211.0	211.0	211.2	211.0	211.0	211.1	211.2	211.1	211.0
43°	208.7	208.5	208.4	208.4	208.7	208.4	208.4	208.5	208.7	208.5	208.4
43.5°	206.2	205.9	205.7	205.9	206.0	205.9	205.7	205.9	206.2	205.9	205.7

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CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	198.2	197.9	197.9	198.0	198.2	198.0	197.9	197.9	198.2	197.9	197.9
45.5°	195.4	195.3	195.3	195.3	195.2	195.3	195.3	195.3	195.4	195.3	195.3
46°	192.6	192.7	192.7	192.6	192.5	192.6	192.7	192.7	192.6	192.7	192.7
46.5°	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9
47°	187.1	187.1	187.2	187.1	187.1	187.1	187.2	187.1	187.1	187.1	187.2
47.5°	184.4	184.2	184.3	184.3	184.6	184.3	184.3	184.2	184.4	184.2	184.3
48°	181.7	181.5	181.5	181.5	181.8	181.5	181.5	181.5	181.7	181.5	181.5
48.5°	179.0	178.9	178.9	178.8	178.9	178.8	178.9	178.9	179.0	178.9	178.9
49°	176.3	176.2	176.1	176.0	176.2	176.0	176.1	176.2	176.3	176.2	176.1
49.5°	173.2	173.2	173.2	173.2	173.4	173.2	173.2	173.2	173.2	173.2	173.2
50°	170.3	170.4	170.4	170.6	170.5	170.6	170.4	170.4	170.3	170.4	170.4
50.5°	167.7	167.5	167.6	167.8	167.7	167.8	167.6	167.5	167.7	167.5	167.6
51°	164.9	164.8	164.8	164.9	164.9	164.9	164.8	164.8	164.9	164.8	164.8
51.5°	161.9	161.9	162.0	162.1	162.1	162.1	162.0	161.9	161.9	161.9	162.0
52°	159.1	159.1	159.1	159.2	159.3	159.2	159.1	159.1	159.1	159.1	159.1
52.5°	156.3	156.3	156.3	156.4	156.5	156.4	156.3	156.3	156.3	156.3	156.3
53°	153.6	153.5	153.5	153.6	153.7	153.6	153.5	153.5	153.6	153.5	153.5
53.5°	150.8	150.6	150.7	150.8	151.0	150.8	150.7	150.6	150.8	150.6	150.7
54°	147.8	147.7	147.8	148.0	148.2	148.0	147.8	147.7	147.8	147.7	147.8
54.5°	144.9	144.9	145.1	145.3	145.4	145.3	145.1	144.9	144.9	144.9	145.1
55°	142.5	142.3	142.3	142.6	142.6	142.6	142.3	142.3	142.5	142.3	142.3
55.5°	139.7	139.4	139.6	139.7	139.9	139.7	139.6	139.4	139.7	139.4	139.6
56°	136.8	136.6	136.8	136.9	136.9	136.9	136.8	136.6	136.8	136.6	136.8
56.5°	134.1	134.0	134.0	134.1	134.3	134.1	134.0	134.0	134.1	134.0	134.0
57°	131.3	131.3	131.2	131.4	131.5	131.4	131.2	131.3	131.3	131.3	131.2
57.5°	128.5	128.3	128.5	128.5	128.9	128.5	128.5	128.3	128.5	128.3	128.5
58°	125.9	125.7	125.7	126.0	126.0	126.0	125.7	125.7	125.9	125.7	125.7
58.5°	123.1	123.1	123.1	123.2	123.4	123.2	123.1	123.1	123.1	123.1	123.1
59°	120.3	120.4	120.4	120.6	120.6	120.6	120.4	120.4	120.3	120.4	120.4
59.5°	117.7	117.7	117.8	117.8	118.0	117.8	117.8	117.7	117.7	117.7	117.8
60°	115.1	115.0	115.2	115.2	115.4	115.2	115.2	115.0	115.1	115.0	115.2
60.5°	112.4	112.4	112.4	112.7	112.8	112.7	112.4	112.4	112.4	112.4	112.4
61°	109.8	109.8	109.9	110.0	110.1	110.0	109.9	109.8	109.8	109.8	109.9
61.5°	107.1	107.2	107.4	107.4	107.5	107.4	107.4	107.2	107.1	107.2	107.4
62°	104.6	104.6	104.7	104.9	104.9	104.9	104.7	104.6	104.6	104.6	104.7
62.5°	102.0	102.1	102.1	102.3	102.4	102.3	102.1	102.1	102.0	102.1	102.1
63°	99.4	99.4	99.6	99.6	99.7	99.6	99.6	99.4	99.4	99.4	99.6
63.5°	96.9	97.0	97.1	97.1	97.3	97.1	97.1	97.0	96.9	97.0	97.1
64°	94.4	94.5	94.6	94.7	94.8	94.7	94.6	94.5	94.4	94.5	94.6
64.5°	91.8	92.0	92.1	92.2	92.2	92.2	92.1	92.0	91.8	92.0	92.1
65°	89.4	89.6	89.7	89.8	89.9	89.8	89.7	89.6	89.4	89.6	89.7
65.5°	87.1	87.1	87.3	87.4	87.4	87.4	87.3	87.1	87.1	87.1	87.3
66°	84.7	84.7	84.9	84.9	85.0	84.9	84.9	84.7	84.7	84.7	84.9

TEST NUMBER: P938665

CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	77.6	77.6	77.6	77.9	77.9	77.9	77.6	77.6	77.6	77.6	77.6
68°	75.3	75.3	75.4	75.5	75.7	75.5	75.4	75.3	75.3	75.3	75.4
68.5°	72.9	73.0	73.1	73.2	73.3	73.2	73.1	73.0	72.9	73.0	73.1
69°	70.7	70.7	70.9	71.0	71.0	71.0	70.9	70.7	70.7	70.7	70.9
69.5°	68.5	68.5	68.6	68.8	68.9	68.8	68.6	68.5	68.5	68.5	68.6
70°	66.3	66.3	66.4	66.5	66.7	66.5	66.4	66.3	66.3	66.3	66.4
70.5°	64.1	64.1	64.3	64.4	64.5	64.4	64.3	64.1	64.1	64.1	64.3
71°	62.0	62.0	62.1	62.3	62.4	62.3	62.1	62.0	62.0	62.0	62.1
71.5°	59.9	59.9	59.9	60.1	60.3	60.1	59.9	59.9	59.9	59.9	59.9
72°	57.8	57.8	57.8	58.0	58.2	58.0	57.8	57.8	57.8	57.8	57.8
72.5°	55.7	55.7	55.8	56.0	56.1	56.0	55.8	55.7	55.7	55.7	55.8
73°	53.7	53.6	53.8	54.0	54.0	54.0	53.8	53.6	53.7	53.6	53.8
73.5°	51.7	51.5	51.7	51.9	52.1	51.9	51.7	51.5	51.7	51.5	51.7
74°	49.6	49.6	49.6	49.9	50.1	49.9	49.6	49.6	49.6	49.6	49.6
74.5°	47.7	47.6	47.7	47.9	48.2	47.9	47.7	47.6	47.7	47.6	47.7
75°	45.7	45.7	45.8	46.0	46.2	46.0	45.8	45.7	45.7	45.7	45.8
75.5°	43.9	43.8	43.9	44.1	44.3	44.1	43.9	43.8	43.9	43.8	43.9
76°	42.0	41.9	42.0	42.1	42.4	42.1	42.0	41.9	42.0	41.9	42.0
76.5°	40.1	40.1	40.1	40.3	40.4	40.3	40.1	40.1	40.1	40.1	40.1
77°	38.3	38.2	38.3	38.5	38.7	38.5	38.3	38.2	38.3	38.2	38.3
77.5°	36.5	36.5	36.5	36.7	36.8	36.7	36.5	36.5	36.5	36.5	36.5
78°	34.7	34.6	34.7	34.9	35.1	34.9	34.7	34.6	34.7	34.6	34.7
78.5°	32.9	32.9	32.9	33.2	33.5	33.2	32.9	32.9	32.9	32.9	32.9
79°	31.2	31.2	31.3	31.4	31.7	31.4	31.3	31.2	31.2	31.2	31.3
79.5°	29.5	29.5	29.5	29.7	29.9	29.7	29.5	29.5	29.5	29.5	29.5
80°	27.8	27.7	27.8	27.9	28.2	27.9	27.8	27.7	27.8	27.7	27.8
80.5°	26.1	26.2	26.1	26.3	26.4	26.3	26.1	26.2	26.1	26.2	26.1
81°	24.4	24.5	24.5	24.6	24.8	24.6	24.5	24.5	24.4	24.5	24.5
81.5°	22.8	22.9	22.9	23.0	23.1	23.0	22.9	22.9	22.8	22.9	22.9
82°	21.2	21.2	21.3	21.4	21.5	21.4	21.3	21.2	21.2	21.2	21.3
82.5°	19.6	19.6	19.7	19.9	19.9	19.9	19.7	19.6	19.6	19.6	19.7
83°	18.0	18.0	18.1	18.2	18.3	18.2	18.1	18.0	18.0	18.0	18.1
83.5°	16.5	16.5	16.5	16.7	16.8	16.7	16.5	16.5	16.5	16.5	16.5
84°	14.9	14.9	15.0	15.1	15.2	15.1	15.0	14.9	14.9	14.9	15.0
84.5°	13.5	13.5	13.5	13.6	13.7	13.6	13.5	13.5	13.5	13.5	13.5
85°	12.0	12.0	12.1	12.1	12.2	12.1	12.1	12.0	12.0	12.0	12.1
85.5°	10.5	10.5	10.5	10.6	10.7	10.6	10.5	10.5	10.5	10.5	10.5
86°	9.0	9.0	9.1	9.1	9.2	9.1	9.1	9.0	9.0	9.0	9.1
86.5°	7.6	7.6	7.8	7.9	8.1	7.9	7.8	7.6	7.6	7.6	7.8
87°	6.2	6.4	6.6	6.6	7.0	6.6	6.6	6.4	6.2	6.4	6.6
87.5°	4.7	5.1	5.4	5.4	5.9	5.4	5.4	5.1	4.7	5.1	5.4
88°	3.8	3.9	4.1	4.3	4.8	4.3	4.1	3.9	3.8	3.9	4.1
88.5°	2.7	2.9	3.0	3.6	4.0	3.6	3.0	2.9	2.7	2.9	3.0



TEST NUMBER: P938665
CATALOG NUMBER: HLB4LSFS5-700LM-5000K

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: P938665

CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	297.7	297.7	297.7	297.7	297.7	297.7
0.5°	297.5	297.9	297.5	297.4	297.7	297.9
1°	297.4	297.9	297.4	297.4	297.4	297.8
1.5°	297.5	297.6	297.5	297.6	297.6	297.8
2°	297.4	297.4	297.4	297.4	297.6	297.5
2.5°	297.4	297.3	297.4	297.4	297.4	297.4
3°	297.4	297.7	297.4	297.3	297.4	297.8
3.5°	297.1	297.6	297.1	297.1	297.6	297.6
4°	296.9	297.4	296.9	297.0	297.1	297.3
4.5°	297.0	297.3	297.0	297.0	296.9	296.9
5°	296.9	297.3	296.9	297.1	297.1	297.2
5.5°	296.8	297.3	296.8	296.9	296.9	297.2
6°	296.6	296.9	296.6	296.6	296.6	296.9
6.5°	296.5	296.4	296.5	296.2	296.5	296.6
7°	296.2	296.2	296.2	296.2	296.3	296.6
7.5°	296.0	296.3	296.0	296.0	296.2	296.5
8°	295.8	296.2	295.8	295.8	296.0	296.3
8.5°	295.7	295.6	295.7	295.4	295.7	295.9
9°	295.4	295.3	295.4	295.3	295.4	295.7
9.5°	295.2	295.1	295.2	294.9	295.3	295.4
10°	294.8	294.9	294.8	294.9	295.1	295.1
10.5°	294.6	294.6	294.6	294.7	294.8	294.9
11°	294.3	294.5	294.3	294.5	294.4	294.6
11.5°	293.9	294.0	293.9	294.0	294.1	294.3
12°	293.4	293.5	293.4	293.5	293.7	293.8
12.5°	293.0	293.1	293.0	293.2	293.3	293.4
13°	292.9	292.8	292.9	292.9	293.1	293.2
13.5°	292.8	292.6	292.8	292.4	292.8	292.6
14°	292.1	292.1	292.1	292.1	292.3	292.1
14.5°	291.5	291.6	291.5	291.6	291.6	291.8
15°	291.0	291.3	291.0	291.0	291.0	291.3
15.5°	290.6	290.9	290.6	290.4	290.6	290.7
16°	290.0	290.4	290.0	290.0	290.2	290.4
16.5°	289.6	289.6	289.6	289.4	289.6	289.9
17°	288.9	289.1	288.9	289.0	289.1	289.3
17.5°	288.3	288.5	288.3	288.3	288.4	288.7
18°	287.6	287.9	287.6	287.8	287.8	288.2
18.5°	287.1	287.1	287.1	287.2	287.2	287.8
19°	286.3	286.6	286.3	286.3	286.7	286.9
19.5°	285.7	285.8	285.7	285.6	285.8	285.7
20°	285.0	284.9	285.0	285.1	285.2	284.7
20.5°	284.3	284.2	284.3	284.1	284.4	284.2
21°	283.2	283.8	283.2	283.2	283.7	283.8



TEST NUMBER: P938665

CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	280.8	280.7	280.8	280.7	281.0	281.3
23°	279.8	279.7	279.8	279.8	280.0	280.2
23.5°	278.8	278.8	278.8	278.7	278.8	279.3
24°	277.7	277.9	277.7	277.9	278.1	278.1
24.5°	276.7	276.8	276.7	276.8	277.2	276.7
25°	275.6	275.8	275.6	275.7	275.7	276.0
25.5°	274.6	274.6	274.6	274.6	274.6	274.9
26°	273.5	273.7	273.5	273.5	273.5	273.8
26.5°	272.1	272.5	272.1	272.2	272.4	272.5
27°	270.9	271.1	270.9	271.0	271.2	271.4
27.5°	269.8	269.8	269.8	269.7	270.0	270.5
28°	268.4	268.5	268.4	268.4	268.5	268.8
28.5°	267.0	267.1	267.0	266.8	267.1	267.1
29°	265.5	265.7	265.5	265.5	265.7	266.0
29.5°	263.9	264.2	263.9	264.1	264.3	264.6
30°	262.4	262.8	262.4	262.7	262.7	262.9
30.5°	261.0	261.4	261.0	261.2	261.0	261.2
31°	259.5	259.7	259.5	259.6	259.6	259.9
31.5°	257.8	258.1	257.8	257.7	258.2	258.4
32°	256.0	256.6	256.0	256.1	256.4	256.4
32.5°	254.3	254.6	254.3	254.6	254.6	254.4
33°	252.7	252.6	252.7	252.9	252.8	252.8
33.5°	250.9	250.9	250.9	250.9	251.1	251.1
34°	249.0	249.2	249.0	248.9	249.3	249.2
34.5°	246.9	247.4	246.9	247.0	247.2	247.5
35°	245.1	245.2	245.1	245.2	245.1	245.6
35.5°	243.2	243.2	243.2	243.1	243.3	243.5
36°	241.2	241.3	241.2	241.0	241.4	241.3
36.5°	239.1	239.1	239.1	239.0	239.3	239.3
37°	236.8	237.0	236.8	236.8	237.1	237.2
37.5°	234.6	234.9	234.6	234.6	234.9	234.9
38°	232.5	232.7	232.5	232.5	232.8	232.7
38.5°	230.3	230.4	230.3	230.2	230.5	230.4
39°	227.9	228.1	227.9	228.0	228.0	228.0
39.5°	225.7	225.6	225.7	225.7	225.7	225.9
40°	223.4	223.3	223.4	223.3	223.5	223.7
40.5°	220.9	221.0	220.9	220.7	221.0	221.3
41°	218.4	218.8	218.4	218.4	218.5	218.8
41.5°	216.0	216.1	216.0	216.0	216.0	216.2
42°	213.5	213.7	213.5	213.6	213.6	213.6
42.5°	211.0	211.2	211.0	211.0	211.1	211.2
43°	208.4	208.7	208.4	208.4	208.5	208.7
43.5°	205.9	206.0	205.9	205.7	205.9	206.2



TEST NUMBER: P938665

CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	198.0	198.2	198.0	197.9	197.9	198.2
45.5°	195.3	195.2	195.3	195.3	195.3	195.4
46°	192.6	192.5	192.6	192.7	192.7	192.6
46.5°	189.9	189.9	189.9	189.9	189.9	189.9
47°	187.1	187.1	187.1	187.2	187.1	187.1
47.5°	184.3	184.6	184.3	184.3	184.2	184.4
48°	181.5	181.8	181.5	181.5	181.5	181.7
48.5°	178.8	178.9	178.8	178.9	178.9	179.0
49°	176.0	176.2	176.0	176.1	176.2	176.3
49.5°	173.2	173.4	173.2	173.2	173.2	173.2
50°	170.6	170.5	170.6	170.4	170.4	170.3
50.5°	167.8	167.7	167.8	167.6	167.5	167.7
51°	164.9	164.9	164.9	164.8	164.8	164.9
51.5°	162.1	162.1	162.1	162.0	161.9	161.9
52°	159.2	159.3	159.2	159.1	159.1	159.1
52.5°	156.4	156.5	156.4	156.3	156.3	156.3
53°	153.6	153.7	153.6	153.5	153.5	153.6
53.5°	150.8	151.0	150.8	150.7	150.6	150.8
54°	148.0	148.2	148.0	147.8	147.7	147.8
54.5°	145.3	145.4	145.3	145.1	144.9	144.9
55°	142.6	142.6	142.6	142.3	142.3	142.5
55.5°	139.7	139.9	139.7	139.6	139.4	139.7
56°	136.9	136.9	136.9	136.8	136.6	136.8
56.5°	134.1	134.3	134.1	134.0	134.0	134.1
57°	131.4	131.5	131.4	131.2	131.3	131.3
57.5°	128.5	128.9	128.5	128.5	128.3	128.5
58°	126.0	126.0	126.0	125.7	125.7	125.9
58.5°	123.2	123.4	123.2	123.1	123.1	123.1
59°	120.6	120.6	120.6	120.4	120.4	120.3
59.5°	117.8	118.0	117.8	117.8	117.7	117.7
60°	115.2	115.4	115.2	115.2	115.0	115.1
60.5°	112.7	112.8	112.7	112.4	112.4	112.4
61°	110.0	110.1	110.0	109.9	109.8	109.8
61.5°	107.4	107.5	107.4	107.4	107.2	107.1
62°	104.9	104.9	104.9	104.7	104.6	104.6
62.5°	102.3	102.4	102.3	102.1	102.1	102.0
63°	99.6	99.7	99.6	99.6	99.4	99.4
63.5°	97.1	97.3	97.1	97.1	97.0	96.9
64°	94.7	94.8	94.7	94.6	94.5	94.4
64.5°	92.2	92.2	92.2	92.1	92.0	91.8
65°	89.8	89.9	89.8	89.7	89.6	89.4
65.5°	87.4	87.4	87.4	87.3	87.1	87.1
66°	84.9	85.0	84.9	84.9	84.7	84.7



TEST NUMBER: P938665

CATALOG NUMBER: HLB4LSFS5-700LM-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	77.9	77.9	77.9	77.6	77.6	77.6
68°	75.5	75.7	75.5	75.4	75.3	75.3
68.5°	73.2	73.3	73.2	73.1	73.0	72.9
69°	71.0	71.0	71.0	70.9	70.7	70.7
69.5°	68.8	68.9	68.8	68.6	68.5	68.5
70°	66.5	66.7	66.5	66.4	66.3	66.3
70.5°	64.4	64.5	64.4	64.3	64.1	64.1
71°	62.3	62.4	62.3	62.1	62.0	62.0
71.5°	60.1	60.3	60.1	59.9	59.9	59.9
72°	58.0	58.2	58.0	57.8	57.8	57.8
72.5°	56.0	56.1	56.0	55.8	55.7	55.7
73°	54.0	54.0	54.0	53.8	53.6	53.7
73.5°	51.9	52.1	51.9	51.7	51.5	51.7
74°	49.9	50.1	49.9	49.6	49.6	49.6
74.5°	47.9	48.2	47.9	47.7	47.6	47.7
75°	46.0	46.2	46.0	45.8	45.7	45.7
75.5°	44.1	44.3	44.1	43.9	43.8	43.9
76°	42.1	42.4	42.1	42.0	41.9	42.0
76.5°	40.3	40.4	40.3	40.1	40.1	40.1
77°	38.5	38.7	38.5	38.3	38.2	38.3
77.5°	36.7	36.8	36.7	36.5	36.5	36.5
78°	34.9	35.1	34.9	34.7	34.6	34.7
78.5°	33.2	33.5	33.2	32.9	32.9	32.9
79°	31.4	31.7	31.4	31.3	31.2	31.2
79.5°	29.7	29.9	29.7	29.5	29.5	29.5
80°	27.9	28.2	27.9	27.8	27.7	27.8
80.5°	26.3	26.4	26.3	26.1	26.2	26.1
81°	24.6	24.8	24.6	24.5	24.5	24.4
81.5°	23.0	23.1	23.0	22.9	22.9	22.8
82°	21.4	21.5	21.4	21.3	21.2	21.2
82.5°	19.9	19.9	19.9	19.7	19.6	19.6
83°	18.2	18.3	18.2	18.1	18.0	18.0
83.5°	16.7	16.8	16.7	16.5	16.5	16.5
84°	15.1	15.2	15.1	15.0	14.9	14.9
84.5°	13.6	13.7	13.6	13.5	13.5	13.5
85°	12.1	12.2	12.1	12.1	12.0	12.0
85.5°	10.6	10.7	10.6	10.5	10.5	10.5
86°	9.1	9.2	9.1	9.1	9.0	9.0
86.5°	7.9	8.1	7.9	7.8	7.6	7.6
87°	6.6	7.0	6.6	6.6	6.4	6.2
87.5°	5.4	5.9	5.4	5.4	5.1	4.7
88°	4.3	4.8	4.3	4.1	3.9	3.8
88.5°	3.6	4.0	3.6	3.0	2.9	2.7



TEST NUMBER: P938665
CATALOG NUMBER: HLB4LSFS5-700LM-5000K

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°	282.9	282.7	282.7	282.4	282.6	282.4	282.7	282.7	282.9	282.7	282.7
22°	282.1	281.8	281.7	281.6	281.6	281.6	281.7	281.8	282.1	281.8	281.7



44°	203.4	203.3	203.2	203.3	203.3	203.3	203.2	203.3	203.4	203.3	203.2
44.5°	200.8	200.7	200.5	200.7	200.7	200.7	200.5	200.7	200.8	200.7	200.5



66.5°	82.2	82.3	82.4	82.5	82.6	82.5	82.4	82.3	82.2	82.3	82.4
67°	79.9	80.0	80.0	80.2	80.3	80.2	80.0	80.0	79.9	80.0	80.0



89°	1.7	1.9	2.3	2.9	3.3	2.9	2.3	1.9	1.7	1.9	2.3
89.5°	0.7	1.3	1.8	2.2	2.6	2.2	1.8	1.3	0.7	1.3	1.8





21.5°	282.4	282.6	282.4	282.7	282.7	282.9
22°	281.6	281.6	281.6	281.7	281.8	282.1



44°	203.3	203.3	203.3	203.2	203.3	203.4
44.5°	200.7	200.7	200.7	200.5	200.7	200.8



66.5°	82.5	82.6	82.5	82.4	82.3	82.2
67°	80.2	80.3	80.2	80.0	80.0	79.9



89°	2.9	3.3	2.9	2.3	1.9	1.7
89.5°	2.2	2.6	2.2	1.8	1.3	0.7



(END OF REPORT)