

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: P938664

Luminaire Tested: HLB4LSFS5-700LM-4000K

Issue Date: 1/15/2025

Test Information

Test Method: LM-79-2019
Report Number: P938664
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-4000K
Description: 4IN SELECTABLE LUMENS, 90CRI, DIMMING TO 10%
Light Source: SELECTABLE CCT 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 808.2 lumens
Efficiency: N/A
Efficacy: 103.6 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

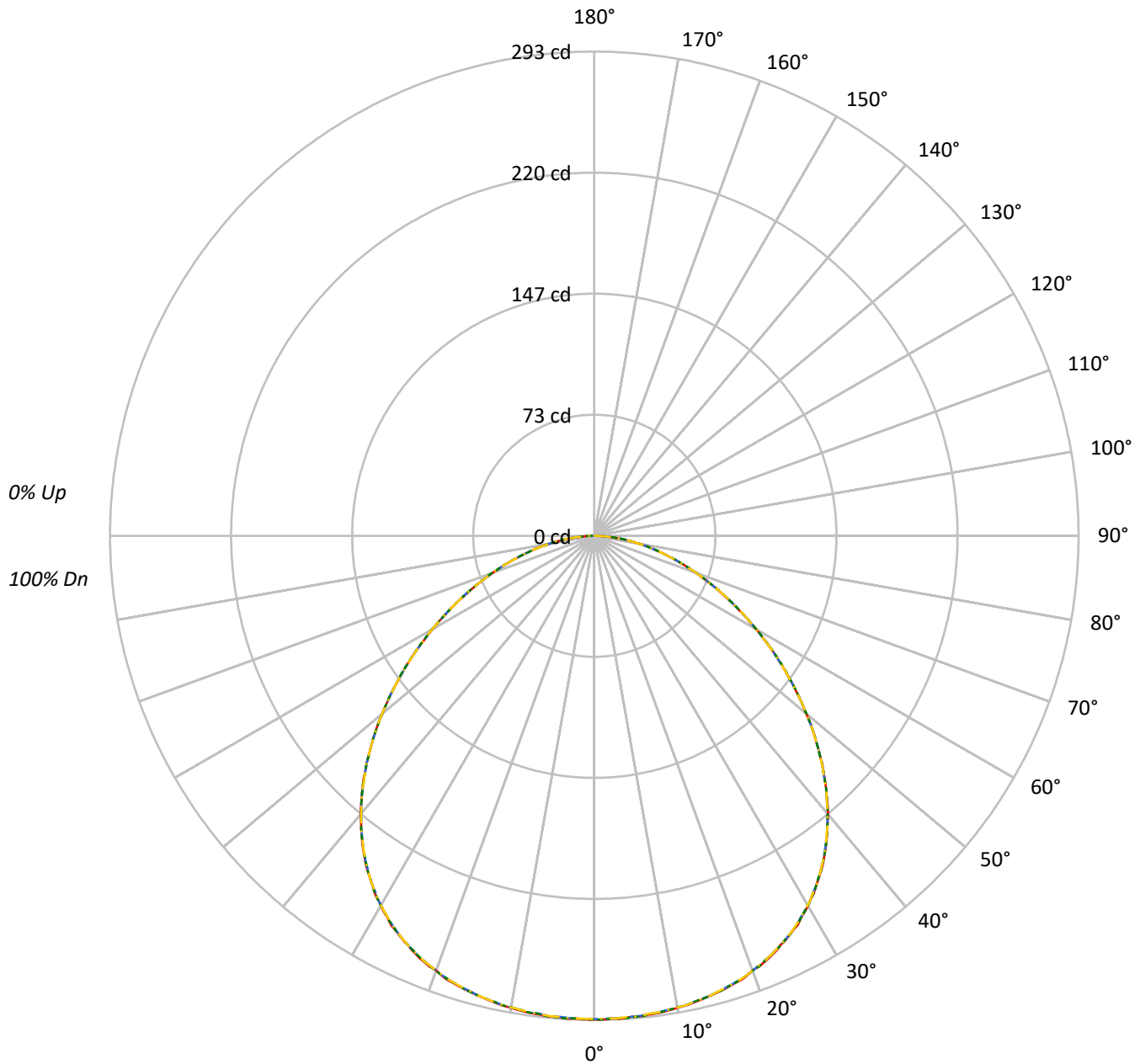
Input Watts (W): 7.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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CATALOG NUMBER: HLB4LSFS5-700LM-4000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	36824	36824	36824	36824
5°	36914	36914	36914	36914
10°	37072	37034	37072	37034
15°	37302	37302	37302	37302
20°	37486	37513	37486	37513
25°	37673	37645	37673	37645
30°	37565	37536	37565	37536
35°	37087	37041	37087	37041
40°	36126	36061	36126	36061
45°	34688	34670	34688	34670
50°	32775	32814	32775	32814
55°	30740	30762	30740	30762
60°	28467	28568	28467	28568
65°	26175	26295	26175	26295
70°	23954	24138	23954	24138
75°	21881	22076	21881	22076
80°	19785	20075	19785	20075
85°	17039	17328	17039	17328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 89.5°

Luminance: 36054 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.8	3.4
10°-20°	80.9	10.0
20°-30°	124.9	15.5
30°-40°	150.5	18.6
40°-50°	149.9	18.5
50°-60°	125.2	15.5
60°-70°	87.5	10.8
70°-80°	48.0	5.9
80°-90°	13.6	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°	233.5	28.9
0°-40°	384.0	47.5
0°-60°	659.0	81.5
0°-90°	808.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	293	293	293	293	293	
5°	292	292	292	292	292	28
15°	286	286	286	286	286	81
25°	271	271	271	271	271	125
35°	241	241	241	241	241	151
45°	195	195	195	195	195	150
55°	140	140	140	140	140	125
65°	88	88	88	88	88	87
75°	45	45	45	45	45	48
85°	12	12	12	12	12	13
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°	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6
0.5°	292.9	292.6	292.3	292.4	292.8	292.4	292.3	292.6	292.9	292.6	292.3
1°	292.7	292.4	292.3	292.4	292.8	292.4	292.3	292.4	292.7	292.4	292.3
1.5°	292.7	292.5	292.5	292.4	292.5	292.4	292.5	292.5	292.7	292.5	292.5
2°	292.4	292.5	292.4	292.4	292.3	292.4	292.4	292.5	292.4	292.5	292.4
2.5°	292.4	292.4	292.3	292.4	292.2	292.4	292.3	292.4	292.4	292.4	292.3
3°	292.7	292.4	292.2	292.3	292.6	292.3	292.2	292.4	292.7	292.4	292.2
3.5°	292.5	292.5	292.0	292.1	292.5	292.1	292.0	292.5	292.5	292.5	292.0
4°	292.2	292.1	291.9	291.9	292.4	291.9	291.9	292.1	292.2	292.1	291.9
4.5°	291.9	291.9	291.9	291.9	292.2	291.9	291.9	291.9	291.9	291.9	291.9
5°	292.2	292.0	292.0	291.9	292.2	291.9	292.0	292.0	292.2	292.0	292.0
5.5°	292.2	291.9	291.9	291.7	292.2	291.7	291.9	291.9	292.2	291.9	291.9
6°	291.9	291.6	291.5	291.5	291.9	291.5	291.5	291.6	291.9	291.6	291.5
6.5°	291.6	291.4	291.1	291.4	291.4	291.4	291.1	291.4	291.6	291.4	291.1
7°	291.5	291.3	291.1	291.1	291.1	291.1	291.1	291.3	291.5	291.3	291.1
7.5°	291.4	291.1	291.0	291.0	291.3	291.0	291.0	291.1	291.4	291.1	291.0
8°	291.2	291.0	290.8	290.8	291.1	290.8	290.8	291.0	291.2	291.0	290.8
8.5°	290.9	290.7	290.4	290.6	290.6	290.6	290.4	290.7	290.9	290.7	290.4
9°	290.7	290.4	290.3	290.3	290.3	290.3	290.3	290.4	290.7	290.4	290.3
9.5°	290.4	290.3	289.9	290.1	290.1	290.1	289.9	290.3	290.4	290.3	289.9
10°	290.1	290.1	289.9	289.8	289.8	289.8	289.9	290.1	290.1	290.1	289.9
10.5°	289.8	289.8	289.7	289.6	289.6	289.6	289.7	289.8	289.8	289.8	289.7
11°	289.6	289.4	289.5	289.3	289.5	289.3	289.5	289.4	289.6	289.4	289.5
11.5°	289.3	289.0	289.0	288.9	289.0	288.9	289.0	289.0	289.3	289.0	289.0
12°	288.8	288.7	288.5	288.4	288.5	288.4	288.5	288.7	288.8	288.7	288.5
12.5°	288.4	288.3	288.2	288.0	288.1	288.0	288.2	288.3	288.4	288.3	288.2
13°	288.2	288.1	287.9	288.0	287.8	288.0	287.9	288.1	288.2	288.1	287.9
13.5°	287.6	287.8	287.4	287.8	287.6	287.8	287.4	287.8	287.6	287.8	287.4
14°	287.2	287.3	287.1	287.1	287.2	287.1	287.1	287.3	287.2	287.3	287.1
14.5°	286.8	286.7	286.7	286.5	286.7	286.5	286.7	286.7	286.8	286.7	286.7
15°	286.3	286.1	286.0	286.1	286.3	286.1	286.0	286.1	286.3	286.1	286.0
15.5°	285.7	285.6	285.5	285.6	285.9	285.6	285.5	285.6	285.7	285.6	285.5
16°	285.4	285.2	285.1	285.1	285.4	285.1	285.1	285.2	285.4	285.2	285.1
16.5°	284.9	284.7	284.5	284.7	284.6	284.7	284.5	284.7	284.9	284.7	284.5
17°	284.3	284.1	284.1	284.0	284.1	284.0	284.1	284.1	284.3	284.1	284.1
17.5°	283.8	283.5	283.4	283.4	283.6	283.4	283.4	283.5	283.8	283.5	283.4
18°	283.3	282.9	282.9	282.7	283.0	282.7	282.9	282.9	283.3	282.9	282.9
18.5°	282.9	282.3	282.3	282.2	282.3	282.2	282.3	282.3	282.9	282.3	282.3
19°	282.0	281.8	281.5	281.4	281.7	281.4	281.5	281.8	282.0	281.8	281.5
19.5°	280.9	281.0	280.7	280.9	281.0	280.9	280.7	281.0	280.9	281.0	280.7
20°	279.9	280.3	280.2	280.2	280.1	280.2	280.2	280.3	279.9	280.3	280.2
20.5°	279.4	279.6	279.2	279.4	279.4	279.4	279.2	279.6	279.4	279.6	279.2
21°	279.0	278.9	278.4	278.3	278.9	278.3	278.4	278.9	279.0	278.9	278.4

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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°	276.5	276.2	275.9	276.0	276.0	276.0	275.9	276.2	276.5	276.2	275.9
23°	275.5	275.2	275.0	275.0	275.0	275.0	275.0	275.2	275.5	275.2	275.0
23.5°	274.5	274.1	273.9	274.0	274.0	274.0	273.9	274.1	274.5	274.1	273.9
24°	273.4	273.4	273.1	272.9	273.1	272.9	273.1	273.4	273.4	273.4	273.1
24.5°	272.0	272.5	272.1	272.0	272.1	272.0	272.1	272.5	272.0	272.5	272.1
25°	271.3	271.0	271.0	270.9	271.1	270.9	271.0	271.0	271.3	271.0	271.0
25.5°	270.3	269.9	270.0	269.9	269.9	269.9	270.0	269.9	270.3	269.9	270.0
26°	269.1	268.9	268.8	268.8	269.0	268.8	268.8	268.9	269.1	268.9	268.8
26.5°	267.9	267.7	267.6	267.5	267.9	267.5	267.6	267.7	267.9	267.7	267.6
27°	266.8	266.6	266.4	266.3	266.5	266.3	266.4	266.6	266.8	266.6	266.4
27.5°	265.9	265.4	265.1	265.2	265.2	265.2	265.1	265.4	265.9	265.4	265.1
28°	264.3	264.0	263.8	263.8	264.0	263.8	263.8	264.0	264.3	264.0	263.8
28.5°	262.5	262.5	262.3	262.4	262.5	262.4	262.3	262.5	262.5	262.5	262.3
29°	261.4	261.2	261.0	261.0	261.1	261.0	261.0	261.2	261.4	261.2	261.0
29.5°	260.1	259.8	259.6	259.4	259.7	259.4	259.6	259.8	260.1	259.8	259.6
30°	258.5	258.3	258.2	258.0	258.3	258.0	258.2	258.3	258.5	258.3	258.2
30.5°	256.7	256.6	256.7	256.6	257.0	256.6	256.7	256.6	256.7	256.6	256.7
31°	255.4	255.1	255.1	255.1	255.3	255.1	255.1	255.1	255.4	255.1	255.1
31.5°	254.0	253.8	253.3	253.4	253.7	253.4	253.3	253.8	254.0	253.8	253.3
32°	252.0	252.0	251.8	251.7	252.2	251.7	251.8	252.0	252.0	252.0	251.8
32.5°	250.1	250.2	250.2	250.0	250.3	250.0	250.2	250.2	250.1	250.2	250.2
33°	248.5	248.5	248.6	248.4	248.3	248.4	248.6	248.5	248.5	248.5	248.6
33.5°	246.8	246.8	246.6	246.6	246.6	246.6	246.6	246.8	246.8	246.8	246.6
34°	245.0	245.1	244.7	244.7	245.0	244.7	244.7	245.1	245.0	245.1	244.7
34.5°	243.3	243.0	242.8	242.7	243.1	242.7	242.8	243.0	243.3	243.0	242.8
35°	241.4	240.9	241.0	240.9	241.1	240.9	241.0	240.9	241.4	240.9	241.0
35.5°	239.3	239.2	239.0	239.0	239.0	239.0	239.0	239.2	239.3	239.2	239.0
36°	237.2	237.3	236.9	237.1	237.2	237.1	236.9	237.3	237.2	237.3	236.9
36.5°	235.2	235.2	234.9	235.1	235.0	235.1	234.9	235.2	235.2	235.2	234.9
37°	233.2	233.0	232.8	232.8	233.0	232.8	232.8	233.0	233.2	233.0	232.8
37.5°	230.9	230.9	230.6	230.6	230.9	230.6	230.6	230.9	230.9	230.9	230.6
38°	228.7	228.8	228.5	228.5	228.8	228.5	228.5	228.8	228.7	228.8	228.5
38.5°	226.5	226.6	226.3	226.4	226.5	226.4	226.3	226.6	226.5	226.6	226.3
39°	224.1	224.1	224.1	224.1	224.2	224.1	224.1	224.1	224.1	224.1	224.1
39.5°	222.0	221.9	221.8	221.8	221.8	221.8	221.8	221.9	222.0	221.9	221.8
40°	219.9	219.7	219.5	219.6	219.5	219.6	219.5	219.7	219.9	219.7	219.5
40.5°	217.5	217.2	217.0	217.1	217.3	217.1	217.0	217.2	217.5	217.2	217.0
41°	215.0	214.7	214.7	214.7	215.1	214.7	214.7	214.7	215.0	214.7	214.7
41.5°	212.5	212.4	212.3	212.3	212.4	212.3	212.3	212.4	212.5	212.4	212.3
42°	210.0	210.0	210.0	209.8	210.0	209.8	210.0	210.0	210.0	210.0	210.0
42.5°	207.6	207.5	207.4	207.4	207.6	207.4	207.4	207.5	207.6	207.5	207.4
43°	205.1	205.0	204.8	204.8	205.1	204.8	204.8	205.0	205.1	205.0	204.8
43.5°	202.7	202.4	202.2	202.4	202.5	202.4	202.2	202.4	202.7	202.4	202.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	194.9	194.6	194.6	194.6	194.8	194.6	194.6	194.6	194.9	194.6	194.6
45.5°	192.0	192.0	192.0	192.0	191.9	192.0	192.0	192.0	192.0	192.0	192.0
46°	189.3	189.4	189.4	189.3	189.2	189.3	189.4	189.4	189.3	189.4	189.4
46.5°	186.6	186.7	186.7	186.7	186.6	186.7	186.7	186.7	186.6	186.7	186.7
47°	183.9	183.9	184.0	184.0	184.0	184.0	184.0	183.9	183.9	183.9	184.0
47.5°	181.3	181.1	181.1	181.1	181.4	181.1	181.1	181.1	181.3	181.1	181.1
48°	178.6	178.5	178.4	178.4	178.7	178.4	178.4	178.5	178.6	178.5	178.4
48.5°	175.9	175.9	175.9	175.8	175.9	175.8	175.9	175.9	175.9	175.9	175.9
49°	173.3	173.2	173.1	173.0	173.2	173.0	173.1	173.2	173.3	173.2	173.1
49.5°	170.3	170.3	170.2	170.3	170.4	170.3	170.2	170.3	170.3	170.3	170.2
50°	167.4	167.5	167.5	167.7	167.6	167.7	167.5	167.5	167.4	167.5	167.5
50.5°	164.8	164.7	164.7	164.9	164.8	164.9	164.7	164.7	164.8	164.7	164.7
51°	162.1	162.0	162.0	162.1	162.1	162.1	162.0	162.0	162.1	162.0	162.0
51.5°	159.2	159.2	159.2	159.3	159.4	159.3	159.2	159.2	159.2	159.2	159.2
52°	156.4	156.4	156.4	156.5	156.6	156.5	156.4	156.4	156.4	156.4	156.4
52.5°	153.7	153.6	153.7	153.7	153.8	153.7	153.7	153.6	153.7	153.6	153.7
53°	151.0	150.9	150.8	151.0	151.1	151.0	150.8	150.9	151.0	150.9	150.8
53.5°	148.2	148.0	148.1	148.2	148.4	148.2	148.1	148.0	148.2	148.0	148.1
54°	145.3	145.2	145.3	145.5	145.7	145.5	145.3	145.2	145.3	145.2	145.3
54.5°	142.5	142.5	142.6	142.8	143.0	142.8	142.6	142.5	142.5	142.5	142.6
55°	140.1	139.9	139.9	140.2	140.2	140.2	139.9	139.9	140.1	139.9	139.9
55.5°	137.3	137.0	137.2	137.3	137.5	137.3	137.2	137.0	137.3	137.0	137.2
56°	134.4	134.3	134.4	134.6	134.6	134.6	134.4	134.3	134.4	134.3	134.4
56.5°	131.8	131.7	131.7	131.8	132.0	131.8	131.7	131.7	131.8	131.7	131.7
57°	129.1	129.0	128.9	129.2	129.3	129.2	128.9	129.0	129.1	129.0	128.9
57.5°	126.3	126.1	126.3	126.3	126.7	126.3	126.3	126.1	126.3	126.1	126.3
58°	123.7	123.5	123.6	123.8	123.8	123.8	123.6	123.5	123.7	123.5	123.6
58.5°	121.0	121.0	121.0	121.1	121.3	121.1	121.0	121.0	121.0	121.0	121.0
59°	118.2	118.3	118.4	118.5	118.5	118.5	118.4	118.3	118.2	118.3	118.4
59.5°	115.7	115.6	115.8	115.8	116.0	115.8	115.8	115.6	115.7	115.6	115.8
60°	113.1	113.0	113.2	113.3	113.5	113.3	113.2	113.0	113.1	113.0	113.2
60.5°	110.4	110.4	110.5	110.7	110.9	110.7	110.5	110.4	110.4	110.4	110.5
61°	107.9	107.9	108.0	108.1	108.2	108.1	108.0	107.9	107.9	107.9	108.0
61.5°	105.3	105.4	105.5	105.5	105.7	105.5	105.5	105.4	105.3	105.4	105.5
62°	102.8	102.9	102.9	103.1	103.1	103.1	102.9	102.9	102.8	102.9	102.9
62.5°	100.3	100.3	100.4	100.5	100.6	100.5	100.4	100.3	100.3	100.3	100.4
63°	97.7	97.7	97.9	97.9	98.0	97.9	97.9	97.7	97.7	97.7	97.9
63.5°	95.3	95.3	95.4	95.5	95.6	95.5	95.4	95.3	95.3	95.3	95.4
64°	92.8	92.9	93.0	93.1	93.2	93.1	93.0	92.9	92.8	92.9	93.0
64.5°	90.3	90.4	90.6	90.6	90.6	90.6	90.6	90.4	90.3	90.4	90.6
65°	87.9	88.0	88.2	88.3	88.3	88.3	88.2	88.0	87.9	88.0	88.2
65.5°	85.6	85.7	85.8	85.9	85.9	85.9	85.8	85.7	85.6	85.7	85.8
66°	83.3	83.3	83.4	83.4	83.6	83.4	83.4	83.3	83.3	83.3	83.4

TEST NUMBER: P938664

CATALOG NUMBER: HLB4LSFS5-700LM-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	76.3	76.3	76.3	76.5	76.6	76.5	76.3	76.3	76.3	76.3	76.3
68°	74.0	74.0	74.1	74.2	74.4	74.2	74.1	74.0	74.0	74.0	74.1
68.5°	71.7	71.8	71.8	72.0	72.1	72.0	71.8	71.8	71.7	71.8	71.8
69°	69.5	69.5	69.7	69.8	69.8	69.8	69.7	69.5	69.5	69.5	69.7
69.5°	67.4	67.4	67.4	67.6	67.7	67.6	67.4	67.4	67.4	67.4	67.4
70°	65.1	65.2	65.3	65.4	65.6	65.4	65.3	65.2	65.1	65.2	65.3
70.5°	63.0	63.0	63.2	63.3	63.4	63.3	63.2	63.0	63.0	63.0	63.2
71°	60.9	60.9	61.0	61.2	61.3	61.2	61.0	60.9	60.9	60.9	61.0
71.5°	58.8	58.8	58.8	59.1	59.3	59.1	58.8	58.8	58.8	58.8	58.8
72°	56.8	56.8	56.8	57.0	57.2	57.0	56.8	56.8	56.8	56.8	56.8
72.5°	54.7	54.7	54.9	55.0	55.1	55.0	54.9	54.7	54.7	54.7	54.9
73°	52.8	52.7	52.8	53.1	53.1	53.1	52.8	52.7	52.8	52.7	52.8
73.5°	50.8	50.7	50.8	51.0	51.2	51.0	50.8	50.7	50.8	50.7	50.8
74°	48.8	48.8	48.8	49.1	49.3	49.1	48.8	48.8	48.8	48.8	48.8
74.5°	46.9	46.8	46.9	47.1	47.3	47.1	46.9	46.8	46.9	46.8	46.9
75°	45.0	45.0	45.0	45.2	45.4	45.2	45.0	45.0	45.0	45.0	45.0
75.5°	43.2	43.1	43.2	43.4	43.5	43.4	43.2	43.1	43.2	43.1	43.2
76°	41.3	41.2	41.3	41.4	41.6	41.4	41.3	41.2	41.3	41.2	41.3
76.5°	39.5	39.4	39.5	39.6	39.8	39.6	39.5	39.4	39.5	39.4	39.5
77°	37.7	37.6	37.7	37.9	38.0	37.9	37.7	37.6	37.7	37.6	37.7
77.5°	35.9	35.9	35.9	36.1	36.2	36.1	35.9	35.9	35.9	35.9	35.9
78°	34.1	34.0	34.1	34.3	34.5	34.3	34.1	34.0	34.1	34.0	34.1
78.5°	32.4	32.3	32.4	32.6	32.9	32.6	32.4	32.3	32.4	32.3	32.4
79°	30.6	30.6	30.7	30.9	31.2	30.9	30.7	30.6	30.6	30.6	30.7
79.5°	29.0	29.0	29.0	29.2	29.3	29.2	29.0	29.0	29.0	29.0	29.0
80°	27.3	27.2	27.3	27.5	27.7	27.5	27.3	27.2	27.3	27.2	27.3
80.5°	25.7	25.7	25.7	25.8	25.9	25.8	25.7	25.7	25.7	25.7	25.7
81°	24.0	24.1	24.1	24.2	24.4	24.2	24.1	24.1	24.0	24.1	24.1
81.5°	22.4	22.5	22.5	22.6	22.7	22.6	22.5	22.5	22.4	22.5	22.5
82°	20.8	20.8	20.9	21.0	21.1	21.0	20.9	20.8	20.8	20.8	20.9
82.5°	19.2	19.3	19.4	19.5	19.5	19.5	19.4	19.3	19.2	19.3	19.4
83°	17.7	17.7	17.8	17.9	18.0	17.9	17.8	17.7	17.7	17.7	17.8
83.5°	16.2	16.2	16.3	16.4	16.5	16.4	16.3	16.2	16.2	16.2	16.3
84°	14.7	14.7	14.7	14.9	15.0	14.9	14.7	14.7	14.7	14.7	14.7
84.5°	13.2	13.2	13.3	13.4	13.4	13.4	13.3	13.2	13.2	13.2	13.3
85°	11.8	11.8	11.9	11.9	12.0	11.9	11.9	11.8	11.8	11.8	11.9
85.5°	10.3	10.3	10.3	10.4	10.5	10.4	10.3	10.3	10.3	10.3	10.3
86°	8.9	8.9	9.0	9.0	9.0	9.0	9.0	8.9	8.9	8.9	9.0
86.5°	7.4	7.4	7.7	7.7	8.0	7.7	7.7	7.4	7.4	7.4	7.7
87°	6.1	6.3	6.5	6.5	6.9	6.5	6.5	6.3	6.1	6.3	6.5
87.5°	4.6	5.1	5.3	5.3	5.8	5.3	5.3	5.1	4.6	5.1	5.3
88°	3.7	3.8	4.0	4.3	4.7	4.3	4.0	3.8	3.7	3.8	4.0
88.5°	2.7	2.8	3.0	3.5	4.0	3.5	3.0	2.8	2.7	2.8	3.0



TEST NUMBER: P938664
CATALOG NUMBER: HLB4LSFS5-700LM-4000K

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: P938664

CATALOG NUMBER: HLB4LSFS5-700LM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	292.6	292.6	292.6	292.6	292.6	292.6
0.5°	292.4	292.8	292.4	292.3	292.6	292.9
1°	292.4	292.8	292.4	292.3	292.4	292.7
1.5°	292.4	292.5	292.4	292.5	292.5	292.7
2°	292.4	292.3	292.4	292.4	292.5	292.4
2.5°	292.4	292.2	292.4	292.3	292.4	292.4
3°	292.3	292.6	292.3	292.2	292.4	292.7
3.5°	292.1	292.5	292.1	292.0	292.5	292.5
4°	291.9	292.4	291.9	291.9	292.1	292.2
4.5°	291.9	292.2	291.9	291.9	291.9	291.9
5°	291.9	292.2	291.9	292.0	292.0	292.2
5.5°	291.7	292.2	291.7	291.9	291.9	292.2
6°	291.5	291.9	291.5	291.5	291.6	291.9
6.5°	291.4	291.4	291.4	291.1	291.4	291.6
7°	291.1	291.1	291.1	291.1	291.3	291.5
7.5°	291.0	291.3	291.0	291.0	291.1	291.4
8°	290.8	291.1	290.8	290.8	291.0	291.2
8.5°	290.6	290.6	290.6	290.4	290.7	290.9
9°	290.3	290.3	290.3	290.3	290.4	290.7
9.5°	290.1	290.1	290.1	289.9	290.3	290.4
10°	289.8	289.8	289.8	289.9	290.1	290.1
10.5°	289.6	289.6	289.6	289.7	289.8	289.8
11°	289.3	289.5	289.3	289.5	289.4	289.6
11.5°	288.9	289.0	288.9	289.0	289.0	289.3
12°	288.4	288.5	288.4	288.5	288.7	288.8
12.5°	288.0	288.1	288.0	288.2	288.3	288.4
13°	288.0	287.8	288.0	287.9	288.1	288.2
13.5°	287.8	287.6	287.8	287.4	287.8	287.6
14°	287.1	287.2	287.1	287.1	287.3	287.2
14.5°	286.5	286.7	286.5	286.7	286.7	286.8
15°	286.1	286.3	286.1	286.0	286.1	286.3
15.5°	285.6	285.9	285.6	285.5	285.6	285.7
16°	285.1	285.4	285.1	285.1	285.2	285.4
16.5°	284.7	284.6	284.7	284.5	284.7	284.9
17°	284.0	284.1	284.0	284.1	284.1	284.3
17.5°	283.4	283.6	283.4	283.4	283.5	283.8
18°	282.7	283.0	282.7	282.9	282.9	283.3
18.5°	282.2	282.3	282.2	282.3	282.3	282.9
19°	281.4	281.7	281.4	281.5	281.8	282.0
19.5°	280.9	281.0	280.9	280.7	281.0	280.9
20°	280.2	280.1	280.2	280.2	280.3	279.9
20.5°	279.4	279.4	279.4	279.2	279.6	279.4
21°	278.3	278.9	278.3	278.4	278.9	279.0



TEST NUMBER: P938664

CATALOG NUMBER: HLB4LSFS5-700LM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	276.0	276.0	276.0	275.9	276.2	276.5
23°	275.0	275.0	275.0	275.0	275.2	275.5
23.5°	274.0	274.0	274.0	273.9	274.1	274.5
24°	272.9	273.1	272.9	273.1	273.4	273.4
24.5°	272.0	272.1	272.0	272.1	272.5	272.0
25°	270.9	271.1	270.9	271.0	271.0	271.3
25.5°	269.9	269.9	269.9	270.0	269.9	270.3
26°	268.8	269.0	268.8	268.8	268.9	269.1
26.5°	267.5	267.9	267.5	267.6	267.7	267.9
27°	266.3	266.5	266.3	266.4	266.6	266.8
27.5°	265.2	265.2	265.2	265.1	265.4	265.9
28°	263.8	264.0	263.8	263.8	264.0	264.3
28.5°	262.4	262.5	262.4	262.3	262.5	262.5
29°	261.0	261.1	261.0	261.0	261.2	261.4
29.5°	259.4	259.7	259.4	259.6	259.8	260.1
30°	258.0	258.3	258.0	258.2	258.3	258.5
30.5°	256.6	257.0	256.6	256.7	256.6	256.7
31°	255.1	255.3	255.1	255.1	255.1	255.4
31.5°	253.4	253.7	253.4	253.3	253.8	254.0
32°	251.7	252.2	251.7	251.8	252.0	252.0
32.5°	250.0	250.3	250.0	250.2	250.2	250.1
33°	248.4	248.3	248.4	248.6	248.5	248.5
33.5°	246.6	246.6	246.6	246.6	246.8	246.8
34°	244.7	245.0	244.7	244.7	245.1	245.0
34.5°	242.7	243.1	242.7	242.8	243.0	243.3
35°	240.9	241.1	240.9	241.0	240.9	241.4
35.5°	239.0	239.0	239.0	239.0	239.2	239.3
36°	237.1	237.2	237.1	236.9	237.3	237.2
36.5°	235.1	235.0	235.1	234.9	235.2	235.2
37°	232.8	233.0	232.8	232.8	233.0	233.2
37.5°	230.6	230.9	230.6	230.6	230.9	230.9
38°	228.5	228.8	228.5	228.5	228.8	228.7
38.5°	226.4	226.5	226.4	226.3	226.6	226.5
39°	224.1	224.2	224.1	224.1	224.1	224.1
39.5°	221.8	221.8	221.8	221.8	221.9	222.0
40°	219.6	219.5	219.6	219.5	219.7	219.9
40.5°	217.1	217.3	217.1	217.0	217.2	217.5
41°	214.7	215.1	214.7	214.7	214.7	215.0
41.5°	212.3	212.4	212.3	212.3	212.4	212.5
42°	209.8	210.0	209.8	210.0	210.0	210.0
42.5°	207.4	207.6	207.4	207.4	207.5	207.6
43°	204.8	205.1	204.8	204.8	205.0	205.1
43.5°	202.4	202.5	202.4	202.2	202.4	202.7



TEST NUMBER: P938664

CATALOG NUMBER: HLB4LSFS5-700LM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	194.6	194.8	194.6	194.6	194.6	194.9
45.5°	192.0	191.9	192.0	192.0	192.0	192.0
46°	189.3	189.2	189.3	189.4	189.4	189.3
46.5°	186.7	186.6	186.7	186.7	186.7	186.6
47°	184.0	184.0	184.0	184.0	183.9	183.9
47.5°	181.1	181.4	181.1	181.1	181.1	181.3
48°	178.4	178.7	178.4	178.4	178.5	178.6
48.5°	175.8	175.9	175.8	175.9	175.9	175.9
49°	173.0	173.2	173.0	173.1	173.2	173.3
49.5°	170.3	170.4	170.3	170.2	170.3	170.3
50°	167.7	167.6	167.7	167.5	167.5	167.4
50.5°	164.9	164.8	164.9	164.7	164.7	164.8
51°	162.1	162.1	162.1	162.0	162.0	162.1
51.5°	159.3	159.4	159.3	159.2	159.2	159.2
52°	156.5	156.6	156.5	156.4	156.4	156.4
52.5°	153.7	153.8	153.7	153.7	153.6	153.7
53°	151.0	151.1	151.0	150.8	150.9	151.0
53.5°	148.2	148.4	148.2	148.1	148.0	148.2
54°	145.5	145.7	145.5	145.3	145.2	145.3
54.5°	142.8	143.0	142.8	142.6	142.5	142.5
55°	140.2	140.2	140.2	139.9	139.9	140.1
55.5°	137.3	137.5	137.3	137.2	137.0	137.3
56°	134.6	134.6	134.6	134.4	134.3	134.4
56.5°	131.8	132.0	131.8	131.7	131.7	131.8
57°	129.2	129.3	129.2	128.9	129.0	129.1
57.5°	126.3	126.7	126.3	126.3	126.1	126.3
58°	123.8	123.8	123.8	123.6	123.5	123.7
58.5°	121.1	121.3	121.1	121.0	121.0	121.0
59°	118.5	118.5	118.5	118.4	118.3	118.2
59.5°	115.8	116.0	115.8	115.8	115.6	115.7
60°	113.3	113.5	113.3	113.2	113.0	113.1
60.5°	110.7	110.9	110.7	110.5	110.4	110.4
61°	108.1	108.2	108.1	108.0	107.9	107.9
61.5°	105.5	105.7	105.5	105.5	105.4	105.3
62°	103.1	103.1	103.1	102.9	102.9	102.8
62.5°	100.5	100.6	100.5	100.4	100.3	100.3
63°	97.9	98.0	97.9	97.9	97.7	97.7
63.5°	95.5	95.6	95.5	95.4	95.3	95.3
64°	93.1	93.2	93.1	93.0	92.9	92.8
64.5°	90.6	90.6	90.6	90.6	90.4	90.3
65°	88.3	88.3	88.3	88.2	88.0	87.9
65.5°	85.9	85.9	85.9	85.8	85.7	85.6
66°	83.4	83.6	83.4	83.4	83.3	83.3



TEST NUMBER: P938664

CATALOG NUMBER: HLB4LSFS5-700LM-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	76.5	76.6	76.5	76.3	76.3	76.3
68°	74.2	74.4	74.2	74.1	74.0	74.0
68.5°	72.0	72.1	72.0	71.8	71.8	71.7
69°	69.8	69.8	69.8	69.7	69.5	69.5
69.5°	67.6	67.7	67.6	67.4	67.4	67.4
70°	65.4	65.6	65.4	65.3	65.2	65.1
70.5°	63.3	63.4	63.3	63.2	63.0	63.0
71°	61.2	61.3	61.2	61.0	60.9	60.9
71.5°	59.1	59.3	59.1	58.8	58.8	58.8
72°	57.0	57.2	57.0	56.8	56.8	56.8
72.5°	55.0	55.1	55.0	54.9	54.7	54.7
73°	53.1	53.1	53.1	52.8	52.7	52.8
73.5°	51.0	51.2	51.0	50.8	50.7	50.8
74°	49.1	49.3	49.1	48.8	48.8	48.8
74.5°	47.1	47.3	47.1	46.9	46.8	46.9
75°	45.2	45.4	45.2	45.0	45.0	45.0
75.5°	43.4	43.5	43.4	43.2	43.1	43.2
76°	41.4	41.6	41.4	41.3	41.2	41.3
76.5°	39.6	39.8	39.6	39.5	39.4	39.5
77°	37.9	38.0	37.9	37.7	37.6	37.7
77.5°	36.1	36.2	36.1	35.9	35.9	35.9
78°	34.3	34.5	34.3	34.1	34.0	34.1
78.5°	32.6	32.9	32.6	32.4	32.3	32.4
79°	30.9	31.2	30.9	30.7	30.6	30.6
79.5°	29.2	29.3	29.2	29.0	29.0	29.0
80°	27.5	27.7	27.5	27.3	27.2	27.3
80.5°	25.8	25.9	25.8	25.7	25.7	25.7
81°	24.2	24.4	24.2	24.1	24.1	24.0
81.5°	22.6	22.7	22.6	22.5	22.5	22.4
82°	21.0	21.1	21.0	20.9	20.8	20.8
82.5°	19.5	19.5	19.5	19.4	19.3	19.2
83°	17.9	18.0	17.9	17.8	17.7	17.7
83.5°	16.4	16.5	16.4	16.3	16.2	16.2
84°	14.9	15.0	14.9	14.7	14.7	14.7
84.5°	13.4	13.4	13.4	13.3	13.2	13.2
85°	11.9	12.0	11.9	11.9	11.8	11.8
85.5°	10.4	10.5	10.4	10.3	10.3	10.3
86°	9.0	9.0	9.0	9.0	8.9	8.9
86.5°	7.7	8.0	7.7	7.7	7.4	7.4
87°	6.5	6.9	6.5	6.5	6.3	6.1
87.5°	5.3	5.8	5.3	5.3	5.1	4.6
88°	4.3	4.7	4.3	4.0	3.8	3.7
88.5°	3.5	4.0	3.5	3.0	2.8	2.7



TEST NUMBER: P938664
CATALOG NUMBER: HLB4LSFS5-700LM-4000K

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°	278.1	277.9	277.8	277.6	277.8	277.6	277.8	277.9	278.1	277.9	277.8
22°	277.3	277.0	276.9	276.8	276.8	276.8	276.9	277.0	277.3	277.0	276.9



44°	199.9	199.9	199.7	199.9	199.9	199.9	199.7	199.9	199.9	199.9	199.7
44.5°	197.4	197.3	197.1	197.3	197.3	197.3	197.1	197.3	197.4	197.3	197.1



66.5°	80.8	80.9	81.0	81.1	81.2	81.1	81.0	80.9	80.8	80.9	81.0
67°	78.5	78.6	78.6	78.9	78.9	78.9	78.6	78.6	78.5	78.6	78.6



89°	1.7	1.9	2.2	2.8	3.3	2.8	2.2	1.9	1.7	1.9	2.2
89.5°	0.7	1.2	1.7	2.2	2.5	2.2	1.7	1.2	0.7	1.2	1.7





21.5°	277.6	277.8	277.6	277.8	277.9	278.1
22°	276.8	276.8	276.8	276.9	277.0	277.3



44°	199.9	199.9	199.9	199.7	199.9	199.9
44.5°	197.3	197.3	197.3	197.1	197.3	197.4



66.5°	81.1	81.2	81.1	81.0	80.9	80.8
67°	78.9	78.9	78.9	78.6	78.6	78.5



89°	2.8	3.3	2.8	2.2	1.9	1.7
89.5°	2.2	2.5	2.2	1.7	1.2	0.7



(END OF REPORT)