

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: P869800

Luminaire Tested: HLBSL609FS5-4000K

Issue Date: 9/3/2024

Test Information

Test Method: LM-79-2019
Report Number: P869800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2402870-01B001)
Test Lab:
Issue Date: 9/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLBSL609FS5-4000K
Description: 6IN 900LM, 90CRI, DIMMING TO 10%
Light Source: SELECTABLE CCT 90CRI / 4000K CCT
Ballast/Driver: -

Summary

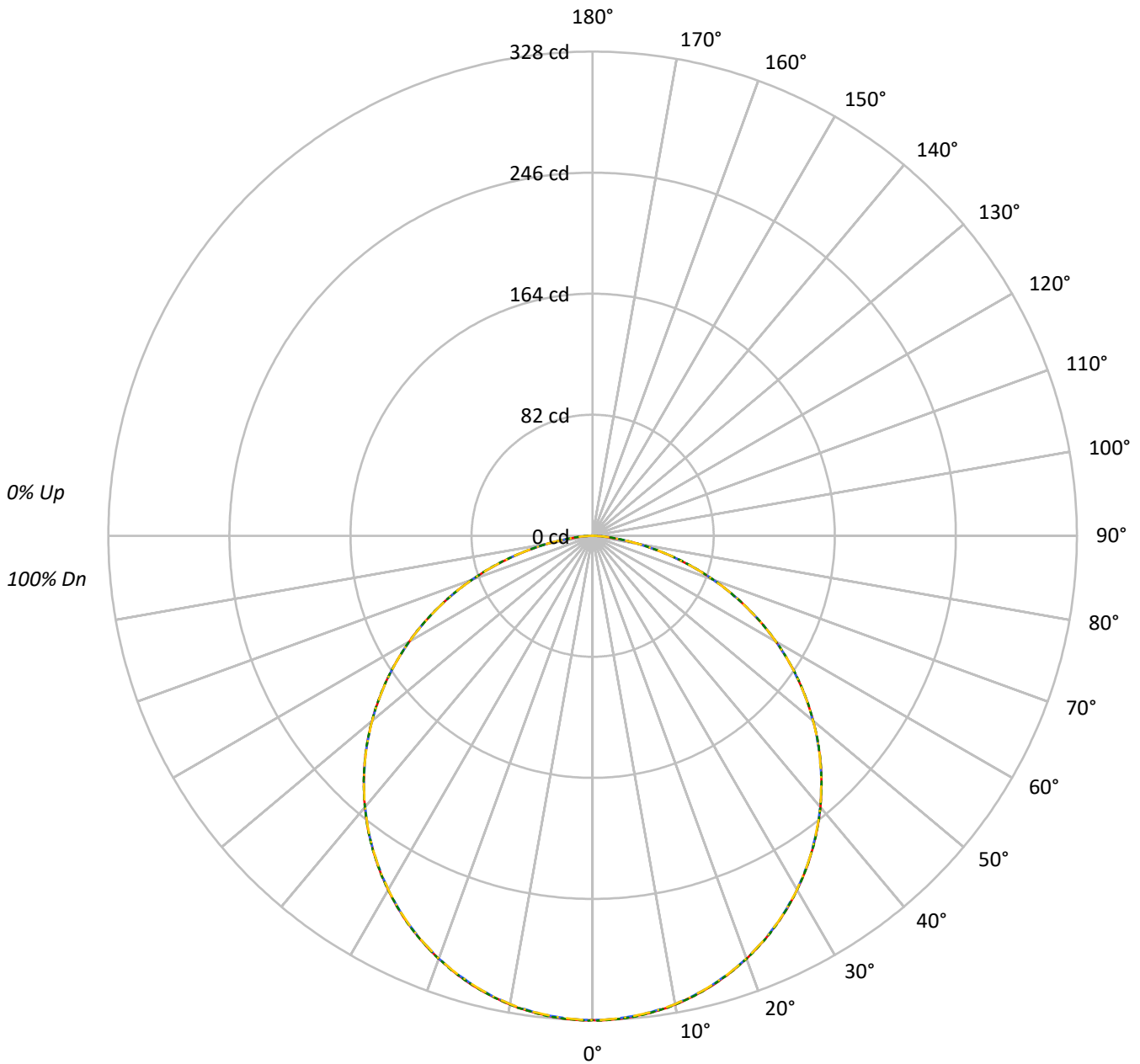
Lumens per Lamp: N/A
Luminaire Lumens: 925.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
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										
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	100								
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84								
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70								
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59								
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50								
5	76	63	54	47	74	62	53	47	60	52	47	58	51	46	56	50	46	43								
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38								
7	65	51	43	36	63	51	42	36	49	42	36	48	41	36	46	40	36	34								
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	30								
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27								
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17986	17986	17986	17986
5°	17984	17995	17984	17995
10°	17947	17952	17947	17952
15°	17883	17878	17883	17878
20°	17793	17787	17793	17787
25°	17674	17680	17674	17680
30°	17534	17534	17534	17534
35°	17367	17373	17367	17373
40°	17175	17175	17175	17175
45°	16932	16940	16932	16940
50°	16631	16639	16631	16639
55°	16248	16257	16248	16257
60°	15722	15733	15722	15733
65°	14982	15008	14982	15008
70°	13897	13929	13897	13929
75°	12264	12370	12264	12370
80°	9723	9976	9723	9976
85°	5661	6919	5661	6919

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16940 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	3.4
10°-20°	88.8	9.6
20°-30°	134.5	14.5
30°-40°	162.2	17.5
40°-50°	168.3	18.2
50°-60°	151.7	16.4
60°-70°	114.1	12.3
70°-80°	61.5	6.6
80°-90°	12.9	1.4
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°	254.4	27.5
0°-40°	416.6	45.0
0°-60°	736.6	79.6
0°-90°	925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	925.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	328	328	328	328	328	
5°	327	327	327	327	327	31
15°	315	315	315	315	315	89
25°	292	292	292	292	292	135
35°	260	260	260	260	260	162
45°	218	218	218	218	218	168
55°	170	170	170	170	170	152
65°	116	116	116	116	116	114
75°	58	58	58	58	58	61
85°	9	11	9	11	9	12
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°	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1
0.5°	328.3	328.1	328.0	327.6	328.5	327.6	328.0	328.1	328.3	328.1	328.0
1°	328.3	328.0	328.0	327.6	328.4	327.6	328.0	328.0	328.3	328.0	328.0
1.5°	328.2	328.0	327.9	327.5	328.3	327.5	327.9	328.0	328.2	328.0	327.9
2°	328.1	327.9	327.7	327.4	328.2	327.4	327.7	327.9	328.1	327.9	327.7
2.5°	327.9	327.7	327.5	327.3	328.0	327.3	327.5	327.7	327.9	327.7	327.5
3°	327.8	327.5	327.4	327.2	327.9	327.2	327.4	327.5	327.8	327.5	327.4
3.5°	327.6	327.3	327.2	326.9	327.6	326.9	327.2	327.3	327.6	327.3	327.2
4°	327.3	327.2	327.0	326.7	327.5	326.7	327.0	327.2	327.3	327.2	327.0
4.5°	327.1	326.9	326.7	326.4	327.2	326.4	326.7	326.9	327.1	326.9	326.7
5°	326.8	326.6	326.5	326.2	327.0	326.2	326.5	326.6	326.8	326.6	326.5
5.5°	326.4	326.3	326.1	325.9	326.7	325.9	326.1	326.3	326.4	326.3	326.1
6°	326.2	325.9	325.8	325.6	326.3	325.6	325.8	325.9	326.2	325.9	325.8
6.5°	325.8	325.5	325.4	325.2	325.9	325.2	325.4	325.5	325.8	325.5	325.4
7°	325.4	325.1	325.1	324.8	325.5	324.8	325.1	325.1	325.4	325.1	325.1
7.5°	324.9	324.7	324.5	324.3	325.0	324.3	324.5	324.7	324.9	324.7	324.5
8°	324.5	324.3	324.1	323.9	324.6	323.9	324.1	324.3	324.5	324.3	324.1
8.5°	324.0	323.9	323.7	323.5	324.1	323.5	323.7	323.9	324.0	323.9	323.7
9°	323.7	323.3	323.2	322.9	323.7	322.9	323.2	323.3	323.7	323.3	323.2
9.5°	323.0	322.7	322.7	322.4	323.1	322.4	322.7	322.7	323.0	322.7	322.7
10°	322.4	322.2	322.1	321.8	322.5	321.8	322.1	322.2	322.4	322.2	322.1
10.5°	321.8	321.6	321.4	321.1	321.8	321.1	321.4	321.6	321.8	321.6	321.4
11°	321.2	320.9	320.8	320.5	321.1	320.5	320.8	320.9	321.2	320.9	320.8
11.5°	320.4	320.3	320.1	319.8	320.5	319.8	320.1	320.3	320.4	320.3	320.1
12°	319.8	319.6	319.4	319.1	319.8	319.1	319.4	319.6	319.8	319.6	319.4
12.5°	319.1	318.8	318.7	318.3	319.1	318.3	318.7	318.8	319.1	318.8	318.7
13°	318.3	318.1	317.9	317.6	318.3	317.6	317.9	318.1	318.3	318.1	317.9
13.5°	317.5	317.4	317.2	316.9	317.6	316.9	317.2	317.4	317.5	317.4	317.2
14°	316.7	316.6	316.4	316.1	316.8	316.1	316.4	316.6	316.7	316.6	316.4
14.5°	315.9	315.7	315.5	315.2	315.8	315.2	315.5	315.7	315.9	315.7	315.5
15°	315.1	314.9	314.7	314.4	315.0	314.4	314.7	314.9	315.1	314.9	314.7
15.5°	314.2	314.0	313.8	313.5	314.1	313.5	313.8	314.0	314.2	314.0	313.8
16°	313.2	313.0	312.8	312.6	313.2	312.6	312.8	313.0	313.2	313.0	312.8
16.5°	312.2	312.0	311.8	311.6	312.2	311.6	311.8	312.0	312.2	312.0	311.8
17°	311.4	311.2	311.0	310.7	311.3	310.7	311.0	311.2	311.4	311.2	311.0
17.5°	310.3	310.2	310.0	309.7	310.3	309.7	310.0	310.2	310.3	310.2	310.0
18°	309.3	309.1	308.9	308.6	309.4	308.6	308.9	309.1	309.3	309.1	308.9
18.5°	308.2	308.1	307.9	307.5	308.3	307.5	307.9	308.1	308.2	308.1	307.9
19°	307.1	306.9	306.8	306.5	307.1	306.5	306.8	306.9	307.1	306.9	306.8
19.5°	306.0	305.8	305.7	305.3	306.0	305.3	305.7	305.8	306.0	305.8	305.7
20°	305.0	304.7	304.7	304.3	304.9	304.3	304.7	304.7	305.0	304.7	304.7
20.5°	303.7	303.6	303.5	303.2	303.8	303.2	303.5	303.6	303.7	303.6	303.5
21°	302.5	302.4	302.3	302.0	302.7	302.0	302.3	302.4	302.5	302.4	302.3



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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°	298.8	298.8	298.6	298.3	298.8	298.3	298.6	298.8	298.8	298.8	298.6
23°	297.6	297.5	297.3	297.0	297.6	297.0	297.3	297.5	297.6	297.5	297.3
23.5°	296.2	296.1	295.9	295.7	296.3	295.7	295.9	296.1	296.2	296.1	295.9
24°	294.9	294.7	294.6	294.4	295.0	294.4	294.6	294.7	294.9	294.7	294.6
24.5°	293.5	293.4	293.3	293.0	293.6	293.0	293.3	293.4	293.5	293.4	293.3
25°	292.2	292.1	291.9	291.6	292.3	291.6	291.9	292.1	292.2	292.1	291.9
25.5°	290.8	290.6	290.5	290.2	290.9	290.2	290.5	290.6	290.8	290.6	290.5
26°	289.4	289.2	289.0	288.7	289.3	288.7	289.0	289.2	289.4	289.2	289.0
26.5°	287.9	287.7	287.6	287.3	287.8	287.3	287.6	287.7	287.9	287.7	287.6
27°	286.4	286.2	286.2	285.9	286.3	285.9	286.2	286.2	286.4	286.2	286.2
27.5°	285.0	284.7	284.6	284.4	284.9	284.4	284.6	284.7	285.0	284.7	284.6
28°	283.4	283.2	283.0	282.8	283.4	282.8	283.0	283.2	283.4	283.2	283.0
28.5°	281.8	281.7	281.5	281.2	281.8	281.2	281.5	281.7	281.8	281.7	281.5
29°	280.2	280.0	279.9	279.7	280.2	279.7	279.9	280.0	280.2	280.0	279.9
29.5°	278.6	278.5	278.4	278.1	278.6	278.1	278.4	278.5	278.6	278.5	278.4
30°	277.0	276.8	276.7	276.5	277.0	276.5	276.7	276.8	277.0	276.8	276.7
30.5°	275.3	275.2	275.0	274.8	275.4	274.8	275.0	275.2	275.3	275.2	275.0
31°	273.6	273.5	273.4	273.2	273.7	273.2	273.4	273.5	273.6	273.5	273.4
31.5°	272.0	271.9	271.7	271.5	272.1	271.5	271.7	271.9	272.0	271.9	271.7
32°	270.3	270.1	270.0	269.7	270.3	269.7	270.0	270.1	270.3	270.1	270.0
32.5°	268.5	268.4	268.2	268.0	268.5	268.0	268.2	268.4	268.5	268.4	268.2
33°	266.8	266.7	266.6	266.3	266.9	266.3	266.6	266.7	266.8	266.7	266.6
33.5°	265.1	264.8	264.8	264.5	265.0	264.5	264.8	264.8	265.1	264.8	264.8
34°	263.2	263.0	262.9	262.7	263.2	262.7	262.9	263.0	263.2	263.0	262.9
34.5°	261.3	261.2	261.1	260.9	261.3	260.9	261.1	261.2	261.3	261.2	261.1
35°	259.5	259.4	259.3	259.0	259.6	259.0	259.3	259.4	259.5	259.4	259.3
35.5°	257.6	257.6	257.4	257.2	257.8	257.2	257.4	257.6	257.6	257.6	257.4
36°	255.7	255.6	255.5	255.3	255.8	255.3	255.5	255.6	255.7	255.6	255.5
36.5°	253.9	253.8	253.7	253.4	253.9	253.4	253.7	253.8	253.9	253.8	253.7
37°	252.0	251.8	251.7	251.5	252.0	251.5	251.7	251.8	252.0	251.8	251.7
37.5°	250.0	249.8	249.7	249.5	250.0	249.5	249.7	249.8	250.0	249.8	249.7
38°	248.0	248.0	247.8	247.7	248.1	247.7	247.8	248.0	248.0	248.0	247.8
38.5°	246.0	246.0	245.8	245.6	246.1	245.6	245.8	246.0	246.0	246.0	245.8
39°	244.1	243.9	243.8	243.5	244.1	243.5	243.8	243.9	244.1	243.9	243.8
39.5°	242.1	241.9	241.8	241.6	242.1	241.6	241.8	241.9	242.1	241.9	241.8
40°	240.0	239.9	239.7	239.5	240.0	239.5	239.7	239.9	240.0	239.9	239.7
40.5°	237.8	237.8	237.6	237.5	237.9	237.5	237.6	237.8	237.8	237.8	237.6
41°	235.9	235.7	235.7	235.5	235.9	235.5	235.7	235.7	235.9	235.7	235.7
41.5°	233.7	233.6	233.5	233.3	233.7	233.3	233.5	233.6	233.7	233.6	233.5
42°	231.5	231.5	231.3	231.1	231.6	231.1	231.3	231.5	231.5	231.5	231.3
42.5°	229.4	229.4	229.2	229.0	229.5	229.0	229.2	229.4	229.4	229.4	229.2
43°	227.3	227.2	227.0	226.9	227.4	226.9	227.0	227.2	227.3	227.2	227.0
43.5°	225.0	224.9	224.8	224.6	225.1	224.6	224.8	224.9	225.0	224.9	224.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	218.4	218.3	218.1	218.0	218.5	218.0	218.1	218.3	218.4	218.3	218.1
45.5°	216.1	216.0	216.0	215.8	216.3	215.8	216.0	216.0	216.1	216.0	216.0
46°	213.9	213.8	213.7	213.5	214.0	213.5	213.7	213.8	213.9	213.8	213.7
46.5°	211.6	211.4	211.4	211.2	211.6	211.2	211.4	211.4	211.6	211.4	211.4
47°	209.3	209.2	209.1	208.9	209.4	208.9	209.1	209.2	209.3	209.2	209.1
47.5°	206.9	206.8	206.7	206.6	207.0	206.6	206.7	206.8	206.9	206.8	206.7
48°	204.6	204.4	204.4	204.3	204.6	204.3	204.4	204.4	204.6	204.4	204.4
48.5°	202.2	202.2	202.1	201.9	202.4	201.9	202.1	202.2	202.2	202.2	202.1
49°	199.8	199.7	199.6	199.5	199.9	199.5	199.6	199.7	199.8	199.7	199.6
49.5°	197.5	197.4	197.3	197.1	197.5	197.1	197.3	197.4	197.5	197.4	197.3
50°	195.0	195.0	194.8	194.7	195.1	194.7	194.8	195.0	195.0	195.0	194.8
50.5°	192.6	192.5	192.3	192.2	192.6	192.2	192.3	192.5	192.6	192.5	192.3
51°	190.2	190.1	190.0	189.9	190.2	189.9	190.0	190.1	190.2	190.1	190.0
51.5°	187.7	187.6	187.5	187.4	187.8	187.4	187.5	187.6	187.7	187.6	187.5
52°	185.2	185.2	185.1	185.0	185.3	185.0	185.1	185.2	185.2	185.2	185.1
52.5°	182.7	182.7	182.6	182.4	182.8	182.4	182.6	182.7	182.7	182.7	182.6
53°	180.2	180.1	180.0	179.9	180.3	179.9	180.0	180.1	180.2	180.1	180.0
53.5°	177.7	177.6	177.5	177.4	177.8	177.4	177.5	177.6	177.7	177.6	177.5
54°	175.1	175.0	174.9	174.8	175.2	174.8	174.9	175.0	175.1	175.0	174.9
54.5°	172.6	172.5	172.4	172.3	172.7	172.3	172.4	172.5	172.6	172.5	172.4
55°	170.0	169.9	169.9	169.7	170.1	169.7	169.9	169.9	170.0	169.9	169.9
55.5°	167.4	167.3	167.2	167.1	167.5	167.1	167.2	167.3	167.4	167.3	167.2
56°	164.8	164.7	164.7	164.6	164.9	164.6	164.7	164.7	164.8	164.7	164.7
56.5°	162.2	162.1	162.0	161.9	162.2	161.9	162.0	162.1	162.2	162.1	162.0
57°	159.5	159.5	159.4	159.3	159.6	159.3	159.4	159.5	159.5	159.5	159.4
57.5°	156.8	156.8	156.7	156.6	157.0	156.6	156.7	156.8	156.8	156.8	156.7
58°	154.1	154.1	154.1	154.0	154.2	154.0	154.1	154.1	154.1	154.1	154.1
58.5°	151.5	151.5	151.4	151.3	151.6	151.3	151.4	151.5	151.5	151.5	151.4
59°	148.8	148.7	148.7	148.5	148.9	148.5	148.7	148.7	148.8	148.7	148.7
59.5°	146.1	146.1	146.0	145.9	146.2	145.9	146.0	146.1	146.1	146.1	146.0
60°	143.4	143.3	143.2	143.1	143.5	143.1	143.2	143.3	143.4	143.3	143.2
60.5°	140.7	140.6	140.6	140.5	140.8	140.5	140.6	140.6	140.7	140.6	140.6
61°	137.9	137.8	137.8	137.7	138.0	137.7	137.8	137.8	137.9	137.8	137.8
61.5°	135.2	135.1	135.1	135.0	135.2	135.0	135.1	135.1	135.2	135.1	135.1
62°	132.4	132.3	132.3	132.2	132.5	132.2	132.3	132.3	132.4	132.3	132.3
62.5°	129.5	129.5	129.5	129.4	129.7	129.4	129.5	129.5	129.5	129.5	129.5
63°	126.8	126.7	126.7	126.6	126.9	126.6	126.7	126.7	126.8	126.7	126.7
63.5°	123.9	123.9	123.8	123.8	124.1	123.8	123.8	123.9	123.9	123.9	123.8
64°	121.2	121.1	121.1	121.1	121.3	121.1	121.1	121.1	121.2	121.1	121.1
64.5°	118.3	118.3	118.2	118.2	118.5	118.2	118.2	118.3	118.3	118.3	118.2
65°	115.5	115.5	115.5	115.4	115.7	115.4	115.5	115.5	115.5	115.5	115.5
65.5°	112.6	112.6	112.6	112.6	112.8	112.6	112.6	112.6	112.6	112.6	112.6
66°	109.8	109.8	109.8	109.7	110.0	109.7	109.8	109.8	109.8	109.8	109.8



TEST NUMBER: P869800
 CATALOG NUMBER: HLBSL609FS5-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	101.2	101.2	101.2	101.1	101.4	101.1	101.2	101.2	101.2	101.2	101.2
68°	98.2	98.2	98.2	98.2	98.4	98.2	98.2	98.2	98.2	98.2	98.2
68.5°	95.4	95.4	95.4	95.4	95.6	95.4	95.4	95.4	95.4	95.4	95.4
69°	92.5	92.4	92.4	92.4	92.7	92.4	92.4	92.4	92.5	92.4	92.4
69.5°	89.6	89.6	89.6	89.6	89.9	89.6	89.6	89.6	89.6	89.6	89.6
70°	86.7	86.6	86.7	86.7	86.9	86.7	86.7	86.6	86.7	86.6	86.7
70.5°	83.8	83.8	83.9	83.9	84.1	83.9	83.9	83.8	83.8	83.8	83.9
71°	80.8	80.9	80.9	81.0	81.2	81.0	80.9	80.9	80.8	80.9	80.9
71.5°	78.0	78.1	78.1	78.2	78.4	78.2	78.1	78.1	78.0	78.1	78.1
72°	75.1	75.1	75.2	75.2	75.4	75.2	75.2	75.1	75.1	75.1	75.2
72.5°	72.3	72.3	72.3	72.3	72.5	72.3	72.3	72.3	72.3	72.3	72.3
73°	69.3	69.4	69.4	69.5	69.7	69.5	69.4	69.4	69.3	69.4	69.4
73.5°	66.4	66.4	66.5	66.6	66.8	66.6	66.5	66.4	66.4	66.4	66.5
74°	63.6	63.6	63.7	63.8	64.0	63.8	63.7	63.6	63.6	63.6	63.7
74.5°	60.7	60.7	60.8	60.9	61.2	60.9	60.8	60.7	60.7	60.7	60.8
75°	57.9	57.9	58.0	58.1	58.4	58.1	58.0	57.9	57.9	57.9	58.0
75.5°	55.0	55.1	55.1	55.3	55.5	55.3	55.1	55.1	55.0	55.1	55.1
76°	52.2	52.3	52.4	52.5	52.8	52.5	52.4	52.3	52.2	52.3	52.4
76.5°	49.3	49.4	49.5	49.7	50.0	49.7	49.5	49.4	49.3	49.4	49.5
77°	46.6	46.7	46.8	47.1	47.3	47.1	46.8	46.7	46.6	46.7	46.8
77.5°	43.9	43.9	44.1	44.3	44.7	44.3	44.1	43.9	43.9	43.9	44.1
78°	41.1	41.2	41.4	41.6	41.9	41.6	41.4	41.2	41.1	41.2	41.4
78.5°	38.5	38.6	38.8	39.0	39.3	39.0	38.8	38.6	38.5	38.6	38.8
79°	35.9	35.9	36.1	36.3	36.7	36.3	36.1	35.9	35.9	35.9	36.1
79.5°	33.4	33.4	33.6	33.8	34.1	33.8	33.6	33.4	33.4	33.4	33.6
80°	30.8	30.8	31.0	31.2	31.6	31.2	31.0	30.8	30.8	30.8	31.0
80.5°	28.3	28.3	28.5	28.8	29.1	28.8	28.5	28.3	28.3	28.3	28.5
81°	25.8	25.9	26.1	26.4	26.8	26.4	26.1	25.9	25.8	25.9	26.1
81.5°	23.3	23.5	23.7	24.1	24.4	24.1	23.7	23.5	23.3	23.5	23.7
82°	21.0	21.2	21.5	21.9	22.1	21.9	21.5	21.2	21.0	21.2	21.5
82.5°	18.7	18.9	19.3	19.8	20.0	19.8	19.3	18.9	18.7	18.9	19.3
83°	16.5	16.7	17.2	17.7	17.9	17.7	17.2	16.7	16.5	16.7	17.2
83.5°	14.5	14.7	15.3	15.7	15.9	15.7	15.3	14.7	14.5	14.7	15.3
84°	12.5	12.8	13.3	13.8	14.1	13.8	13.3	12.8	12.5	12.8	13.3
84.5°	10.6	10.9	11.4	12.0	12.5	12.0	11.4	10.9	10.6	10.9	11.4
85°	9.0	9.2	9.7	10.4	11.0	10.4	9.7	9.2	9.0	9.2	9.7
85.5°	7.4	7.6	8.2	8.9	9.5	8.9	8.2	7.6	7.4	7.6	8.2
86°	6.0	6.2	6.8	7.5	8.1	7.5	6.8	6.2	6.0	6.2	6.8
86.5°	4.7	4.9	5.5	6.1	6.7	6.1	5.5	4.9	4.7	4.9	5.5
87°	3.5	3.7	4.4	5.1	5.7	5.1	4.4	3.7	3.5	3.7	4.4
87.5°	2.6	2.8	3.4	4.2	4.8	4.2	3.4	2.8	2.6	2.8	3.4
88°	1.7	2.0	2.7	3.4	4.0	3.4	2.7	2.0	1.7	2.0	2.7
88.5°	0.9	1.4	2.0	2.7	3.1	2.7	2.0	1.4	0.9	1.4	2.0



TEST NUMBER: P869800
CATALOG NUMBER: HLBSL609FS5-4000K

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: P869800

CATALOG NUMBER: HLBSL609FS5-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	328.1	328.1	328.1	328.1	328.1	328.1
0.5°	327.6	328.5	327.6	328.0	328.1	328.3
1°	327.6	328.4	327.6	328.0	328.0	328.3
1.5°	327.5	328.3	327.5	327.9	328.0	328.2
2°	327.4	328.2	327.4	327.7	327.9	328.1
2.5°	327.3	328.0	327.3	327.5	327.7	327.9
3°	327.2	327.9	327.2	327.4	327.5	327.8
3.5°	326.9	327.6	326.9	327.2	327.3	327.6
4°	326.7	327.5	326.7	327.0	327.2	327.3
4.5°	326.4	327.2	326.4	326.7	326.9	327.1
5°	326.2	327.0	326.2	326.5	326.6	326.8
5.5°	325.9	326.7	325.9	326.1	326.3	326.4
6°	325.6	326.3	325.6	325.8	325.9	326.2
6.5°	325.2	325.9	325.2	325.4	325.5	325.8
7°	324.8	325.5	324.8	325.1	325.1	325.4
7.5°	324.3	325.0	324.3	324.5	324.7	324.9
8°	323.9	324.6	323.9	324.1	324.3	324.5
8.5°	323.5	324.1	323.5	323.7	323.9	324.0
9°	322.9	323.7	322.9	323.2	323.3	323.7
9.5°	322.4	323.1	322.4	322.7	322.7	323.0
10°	321.8	322.5	321.8	322.1	322.2	322.4
10.5°	321.1	321.8	321.1	321.4	321.6	321.8
11°	320.5	321.1	320.5	320.8	320.9	321.2
11.5°	319.8	320.5	319.8	320.1	320.3	320.4
12°	319.1	319.8	319.1	319.4	319.6	319.8
12.5°	318.3	319.1	318.3	318.7	318.8	319.1
13°	317.6	318.3	317.6	317.9	318.1	318.3
13.5°	316.9	317.6	316.9	317.2	317.4	317.5
14°	316.1	316.8	316.1	316.4	316.6	316.7
14.5°	315.2	315.8	315.2	315.5	315.7	315.9
15°	314.4	315.0	314.4	314.7	314.9	315.1
15.5°	313.5	314.1	313.5	313.8	314.0	314.2
16°	312.6	313.2	312.6	312.8	313.0	313.2
16.5°	311.6	312.2	311.6	311.8	312.0	312.2
17°	310.7	311.3	310.7	311.0	311.2	311.4
17.5°	309.7	310.3	309.7	310.0	310.2	310.3
18°	308.6	309.4	308.6	308.9	309.1	309.3
18.5°	307.5	308.3	307.5	307.9	308.1	308.2
19°	306.5	307.1	306.5	306.8	306.9	307.1
19.5°	305.3	306.0	305.3	305.7	305.8	306.0
20°	304.3	304.9	304.3	304.7	304.7	305.0
20.5°	303.2	303.8	303.2	303.5	303.6	303.7
21°	302.0	302.7	302.0	302.3	302.4	302.5



TEST NUMBER: P869800
 CATALOG NUMBER: HLBSL609FS5-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	298.3	298.8	298.3	298.6	298.8	298.8
23°	297.0	297.6	297.0	297.3	297.5	297.6
23.5°	295.7	296.3	295.7	295.9	296.1	296.2
24°	294.4	295.0	294.4	294.6	294.7	294.9
24.5°	293.0	293.6	293.0	293.3	293.4	293.5
25°	291.6	292.3	291.6	291.9	292.1	292.2
25.5°	290.2	290.9	290.2	290.5	290.6	290.8
26°	288.7	289.3	288.7	289.0	289.2	289.4
26.5°	287.3	287.8	287.3	287.6	287.7	287.9
27°	285.9	286.3	285.9	286.2	286.2	286.4
27.5°	284.4	284.9	284.4	284.6	284.7	285.0
28°	282.8	283.4	282.8	283.0	283.2	283.4
28.5°	281.2	281.8	281.2	281.5	281.7	281.8
29°	279.7	280.2	279.7	279.9	280.0	280.2
29.5°	278.1	278.6	278.1	278.4	278.5	278.6
30°	276.5	277.0	276.5	276.7	276.8	277.0
30.5°	274.8	275.4	274.8	275.0	275.2	275.3
31°	273.2	273.7	273.2	273.4	273.5	273.6
31.5°	271.5	272.1	271.5	271.7	271.9	272.0
32°	269.7	270.3	269.7	270.0	270.1	270.3
32.5°	268.0	268.5	268.0	268.2	268.4	268.5
33°	266.3	266.9	266.3	266.6	266.7	266.8
33.5°	264.5	265.0	264.5	264.8	264.8	265.1
34°	262.7	263.2	262.7	262.9	263.0	263.2
34.5°	260.9	261.3	260.9	261.1	261.2	261.3
35°	259.0	259.6	259.0	259.3	259.4	259.5
35.5°	257.2	257.8	257.2	257.4	257.6	257.6
36°	255.3	255.8	255.3	255.5	255.6	255.7
36.5°	253.4	253.9	253.4	253.7	253.8	253.9
37°	251.5	252.0	251.5	251.7	251.8	252.0
37.5°	249.5	250.0	249.5	249.7	249.8	250.0
38°	247.7	248.1	247.7	247.8	248.0	248.0
38.5°	245.6	246.1	245.6	245.8	246.0	246.0
39°	243.5	244.1	243.5	243.8	243.9	244.1
39.5°	241.6	242.1	241.6	241.8	241.9	242.1
40°	239.5	240.0	239.5	239.7	239.9	240.0
40.5°	237.5	237.9	237.5	237.6	237.8	237.8
41°	235.5	235.9	235.5	235.7	235.7	235.9
41.5°	233.3	233.7	233.3	233.5	233.6	233.7
42°	231.1	231.6	231.1	231.3	231.5	231.5
42.5°	229.0	229.5	229.0	229.2	229.4	229.4
43°	226.9	227.4	226.9	227.0	227.2	227.3
43.5°	224.6	225.1	224.6	224.8	224.9	225.0



TEST NUMBER: P869800
 CATALOG NUMBER: HLBSL609FS5-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	218.0	218.5	218.0	218.1	218.3	218.4
45.5°	215.8	216.3	215.8	216.0	216.0	216.1
46°	213.5	214.0	213.5	213.7	213.8	213.9
46.5°	211.2	211.6	211.2	211.4	211.4	211.6
47°	208.9	209.4	208.9	209.1	209.2	209.3
47.5°	206.6	207.0	206.6	206.7	206.8	206.9
48°	204.3	204.6	204.3	204.4	204.4	204.6
48.5°	201.9	202.4	201.9	202.1	202.2	202.2
49°	199.5	199.9	199.5	199.6	199.7	199.8
49.5°	197.1	197.5	197.1	197.3	197.4	197.5
50°	194.7	195.1	194.7	194.8	195.0	195.0
50.5°	192.2	192.6	192.2	192.3	192.5	192.6
51°	189.9	190.2	189.9	190.0	190.1	190.2
51.5°	187.4	187.8	187.4	187.5	187.6	187.7
52°	185.0	185.3	185.0	185.1	185.2	185.2
52.5°	182.4	182.8	182.4	182.6	182.7	182.7
53°	179.9	180.3	179.9	180.0	180.1	180.2
53.5°	177.4	177.8	177.4	177.5	177.6	177.7
54°	174.8	175.2	174.8	174.9	175.0	175.1
54.5°	172.3	172.7	172.3	172.4	172.5	172.6
55°	169.7	170.1	169.7	169.9	169.9	170.0
55.5°	167.1	167.5	167.1	167.2	167.3	167.4
56°	164.6	164.9	164.6	164.7	164.7	164.8
56.5°	161.9	162.2	161.9	162.0	162.1	162.2
57°	159.3	159.6	159.3	159.4	159.5	159.5
57.5°	156.6	157.0	156.6	156.7	156.8	156.8
58°	154.0	154.2	154.0	154.1	154.1	154.1
58.5°	151.3	151.6	151.3	151.4	151.5	151.5
59°	148.5	148.9	148.5	148.7	148.7	148.8
59.5°	145.9	146.2	145.9	146.0	146.1	146.1
60°	143.1	143.5	143.1	143.2	143.3	143.4
60.5°	140.5	140.8	140.5	140.6	140.6	140.7
61°	137.7	138.0	137.7	137.8	137.8	137.9
61.5°	135.0	135.2	135.0	135.1	135.1	135.2
62°	132.2	132.5	132.2	132.3	132.3	132.4
62.5°	129.4	129.7	129.4	129.5	129.5	129.5
63°	126.6	126.9	126.6	126.7	126.7	126.8
63.5°	123.8	124.1	123.8	123.8	123.9	123.9
64°	121.1	121.3	121.1	121.1	121.1	121.2
64.5°	118.2	118.5	118.2	118.2	118.3	118.3
65°	115.4	115.7	115.4	115.5	115.5	115.5
65.5°	112.6	112.8	112.6	112.6	112.6	112.6
66°	109.7	110.0	109.7	109.8	109.8	109.8



TEST NUMBER: P869800
 CATALOG NUMBER: HLBSL609FS5-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	101.1	101.4	101.1	101.2	101.2	101.2
68°	98.2	98.4	98.2	98.2	98.2	98.2
68.5°	95.4	95.6	95.4	95.4	95.4	95.4
69°	92.4	92.7	92.4	92.4	92.4	92.5
69.5°	89.6	89.9	89.6	89.6	89.6	89.6
70°	86.7	86.9	86.7	86.7	86.6	86.7
70.5°	83.9	84.1	83.9	83.9	83.8	83.8
71°	81.0	81.2	81.0	80.9	80.9	80.8
71.5°	78.2	78.4	78.2	78.1	78.1	78.0
72°	75.2	75.4	75.2	75.2	75.1	75.1
72.5°	72.3	72.5	72.3	72.3	72.3	72.3
73°	69.5	69.7	69.5	69.4	69.4	69.3
73.5°	66.6	66.8	66.6	66.5	66.4	66.4
74°	63.8	64.0	63.8	63.7	63.6	63.6
74.5°	60.9	61.2	60.9	60.8	60.7	60.7
75°	58.1	58.4	58.1	58.0	57.9	57.9
75.5°	55.3	55.5	55.3	55.1	55.1	55.0
76°	52.5	52.8	52.5	52.4	52.3	52.2
76.5°	49.7	50.0	49.7	49.5	49.4	49.3
77°	47.1	47.3	47.1	46.8	46.7	46.6
77.5°	44.3	44.7	44.3	44.1	43.9	43.9
78°	41.6	41.9	41.6	41.4	41.2	41.1
78.5°	39.0	39.3	39.0	38.8	38.6	38.5
79°	36.3	36.7	36.3	36.1	35.9	35.9
79.5°	33.8	34.1	33.8	33.6	33.4	33.4
80°	31.2	31.6	31.2	31.0	30.8	30.8
80.5°	28.8	29.1	28.8	28.5	28.3	28.3
81°	26.4	26.8	26.4	26.1	25.9	25.8
81.5°	24.1	24.4	24.1	23.7	23.5	23.3
82°	21.9	22.1	21.9	21.5	21.2	21.0
82.5°	19.8	20.0	19.8	19.3	18.9	18.7
83°	17.7	17.9	17.7	17.2	16.7	16.5
83.5°	15.7	15.9	15.7	15.3	14.7	14.5
84°	13.8	14.1	13.8	13.3	12.8	12.5
84.5°	12.0	12.5	12.0	11.4	10.9	10.6
85°	10.4	11.0	10.4	9.7	9.2	9.0
85.5°	8.9	9.5	8.9	8.2	7.6	7.4
86°	7.5	8.1	7.5	6.8	6.2	6.0
86.5°	6.1	6.7	6.1	5.5	4.9	4.7
87°	5.1	5.7	5.1	4.4	3.7	3.5
87.5°	4.2	4.8	4.2	3.4	2.8	2.6
88°	3.4	4.0	3.4	2.7	2.0	1.7
88.5°	2.7	3.1	2.7	2.0	1.4	0.9



TEST NUMBER: P869800
CATALOG NUMBER: HLBSL609FS5-4000K

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

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

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21.5°	301.3	301.1	301.0	300.8	301.4	300.8	301.0	301.1	301.3	301.1	301.0
22°	300.1	299.9	299.7	299.5	300.1	299.5	299.7	299.9	300.1	299.9	299.7



44°	222.9	222.8	222.7	222.5	222.9	222.5	222.7	222.8	222.9	222.8	222.7
44.5°	220.7	220.5	220.4	220.3	220.7	220.3	220.4	220.5	220.7	220.5	220.4



66.5°	106.9	106.9	106.9	106.9	107.1	106.9	106.9	106.9	106.9	106.9	106.9
67°	103.9	103.9	103.9	103.9	104.1	103.9	103.9	103.9	103.9	103.9	103.9



89°	0.5	0.8	1.5	2.0	2.4	2.0	1.5	0.8	0.5	0.8	1.5
89.5°	0.2	0.4	1.0	1.5	1.8	1.5	1.0	0.4	0.2	0.4	1.0

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21.5°	300.8	301.4	300.8	301.0	301.1	301.3
22°	299.5	300.1	299.5	299.7	299.9	300.1



44°	222.5	222.9	222.5	222.7	222.8	222.9
44.5°	220.3	220.7	220.3	220.4	220.5	220.7



66.5°	106.9	107.1	106.9	106.9	106.9	106.9
67°	103.9	104.1	103.9	103.9	103.9	103.9



89°	2.0	2.4	2.0	1.5	0.8	0.5
89.5°	1.5	1.8	1.5	1.0	0.4	0.2

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(END OF REPORT)