

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P855591

Luminaire Tested: **HLS6099FS1EWH-4000K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P855591
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLS6099FS1EWH-4000K
 Description: 6IN 900LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 925.48 (1 lamp)
 Luminaire Lumens: 960.0 lumens
 Efficiency: 103.7%
 Efficacy: 88.9 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

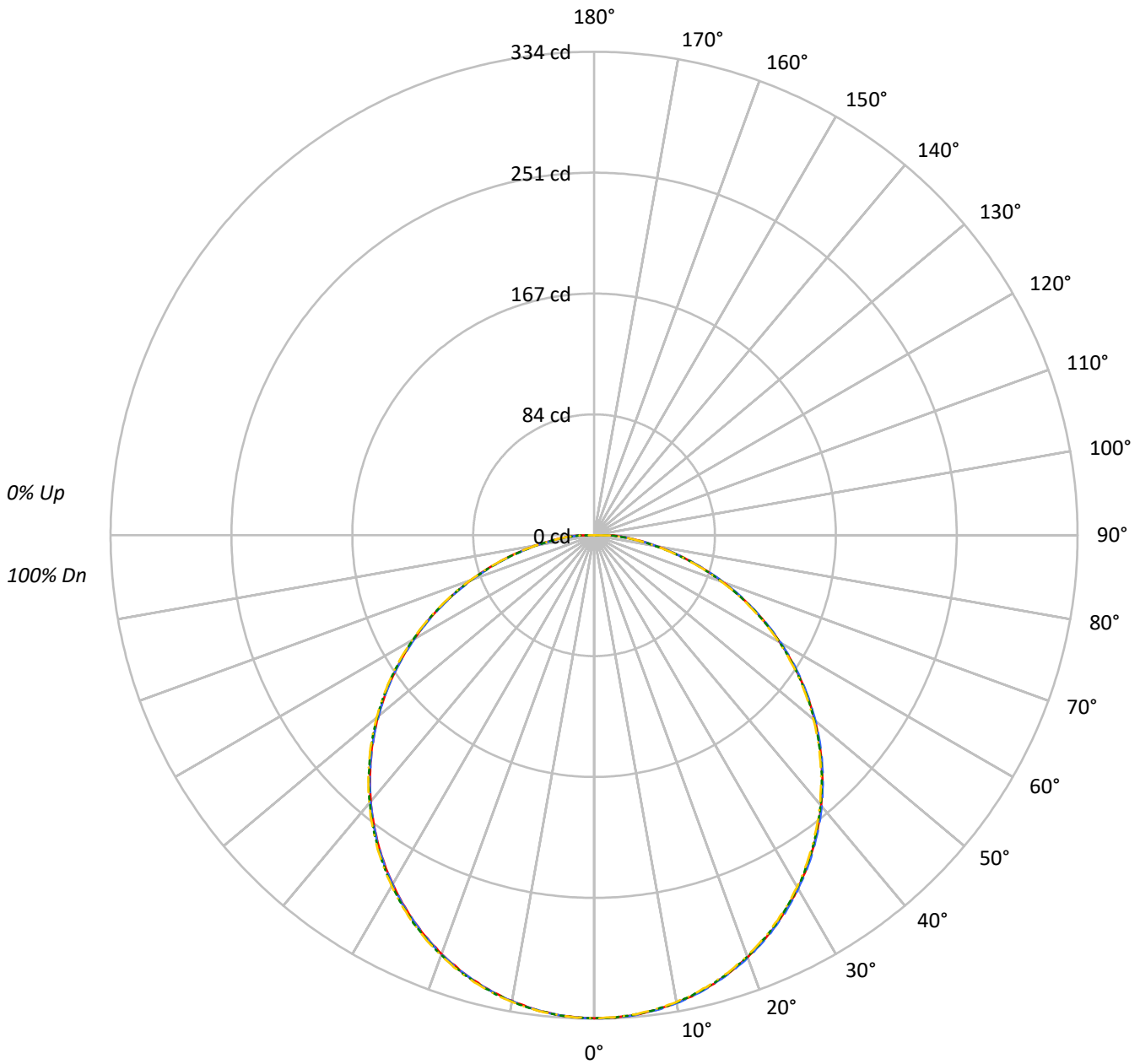
Input Watts (W): 10.8
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



Meas		Calibration Due Date	
Instrument	Identificatio		
Photometer	GONIO 1 11111111	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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Luminous Intensity Polar Plot



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

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	123	123	123	123	121	121	121	121	115	115	115	110	110	110	106	106	106	104
1	112	107	103	98	110	105	101	97	100	97	94	96	94	91	93	90	88	86
2	102	93	86	80	99	91	85	79	88	82	77	84	79	75	81	77	74	71
3	93	82	73	66	90	80	72	66	77	70	64	74	68	63	71	66	62	60
4	85	72	63	56	83	71	62	56	68	61	55	66	59	54	64	58	53	51
5	78	65	55	48	76	63	55	48	61	53	47	59	52	47	57	51	46	44
6	72	58	49	42	70	57	48	42	55	47	41	53	46	41	52	46	41	38
7	67	53	43	37	65	52	43	37	50	42	37	49	42	36	47	41	36	34
8	62	48	39	33	61	47	39	33	46	38	33	45	38	32	43	37	32	30
9	58	44	36	30	57	43	35	30	42	35	29	41	34	29	40	34	29	27
10	55	41	32	27	53	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	18293	18293	18293	18293
5°	18297	18275	18253	18270
10°	18253	18242	18180	18203
15°	18201	18184	18088	18133
20°	18097	18062	17962	17997
25°	17971	17947	17807	17874
30°	17832	17781	17610	17686
35°	17654	17621	17413	17474
40°	17476	17411	17175	17239
45°	17250	17203	16901	16994
50°	16989	16921	16579	16682
55°	16678	16640	16210	16315
60°	16293	16238	15755	15865
65°	15799	15747	15190	15255
70°	15195	15099	14474	14474
75°	14488	14382	13619	13535
80°	14017	13701	12944	12596
85°	15725	14781	13901	13272

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	31.6	3.3	3.4
10°-20°	90.2	9.4	9.7
20°-30°	136.4	14.2	14.7
30°-40°	164.0	17.1	17.7
40°-50°	170.0	17.7	18.4
50°-60°	153.8	16.0	16.6
60°-70°	118.1	12.3	12.8
70°-80°	70.1	7.3	7.6
80°-90°	25.8	2.7	2.8
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	258.1	26.9	27.9
0°-40°	422.1	44.0	45.6
0°-60°	745.9	77.7	80.6
0°-90°	960.0	100.0	103.7
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	960.0	100.0	103.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	334	334	334	334	334	
5°	332	332	332	332	332	32
15°	321	320	319	320	321	90
25°	297	297	294	296	297	137
35°	264	263	260	261	264	165
45°	222	222	218	219	222	172
55°	174	174	170	171	174	156
65°	122	121	117	118	122	121
75°	68	68	64	64	68	73
85°	25	24	22	21	25	28
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°	333.7	333.7	333.7	333.7	333.7	333.7	333.7	333.7	333.7	333.7	333.7
0.5°	333.7	333.8	333.8	334.1	333.6	333.8	333.8	333.7	333.6	333.5	333.5
1°	333.7	333.5	333.9	334.3	333.7	334.1	333.6	333.7	333.5	333.6	333.7
1.5°	333.7	333.4	333.6	333.9	333.6	333.8	333.2	333.5	333.4	333.2	333.5
2°	333.5	333.5	333.6	333.6	333.5	333.5	333.4	333.6	333.4	333.1	333.3
2.5°	333.6	333.4	333.5	333.8	333.6	333.7	333.3	333.4	333.1	333.3	333.2
3°	333.2	333.3	333.4	333.6	333.1	333.5	333.1	333.4	332.8	332.9	332.9
3.5°	333.0	333.2	333.2	333.4	332.9	333.1	332.9	332.8	332.8	332.7	332.7
4°	333.0	332.8	333.1	333.5	332.9	333.1	332.6	332.7	332.6	332.5	332.6
4.5°	332.8	332.5	332.8	332.9	332.6	332.8	332.1	332.8	332.3	331.8	332.1
5°	332.5	332.4	332.7	332.7	332.1	332.4	332.3	332.3	331.7	331.6	331.7
5.5°	332.3	332.1	332.3	332.7	332.0	332.3	331.6	331.8	331.3	331.6	331.6
6°	331.7	331.8	331.8	331.9	331.6	331.6	331.2	331.7	331.0	330.9	331.0
6.5°	331.3	331.4	331.4	331.6	331.1	331.4	331.0	330.9	330.9	330.6	330.6
7°	331.0	331.0	331.2	331.6	330.9	331.1	330.5	330.9	330.1	330.0	330.1
7.5°	330.8	330.6	330.9	330.8	330.3	330.3	329.9	330.3	329.6	329.3	329.7
8°	330.1	330.1	330.5	330.2	329.7	329.9	329.7	329.8	329.3	328.9	329.2
8.5°	329.5	329.6	329.9	329.9	329.5	329.6	329.1	329.4	328.4	328.7	328.9
9°	329.2	329.2	329.2	329.4	328.9	328.9	328.4	328.8	327.9	328.0	328.1
9.5°	328.4	328.7	328.8	328.7	328.0	328.5	328.2	327.8	327.6	327.4	327.4
10°	327.9	327.9	328.3	328.5	327.7	327.7	327.4	327.8	326.6	326.5	326.8
10.5°	327.4	327.4	327.7	327.4	327.2	327.1	326.5	326.8	326.2	325.9	326.3
11°	326.6	326.7	327.0	326.8	326.3	326.6	326.3	326.2	325.7	325.4	325.5
11.5°	326.0	326.1	326.3	326.4	325.9	325.9	325.5	325.5	324.5	324.5	324.7
12°	325.6	325.6	325.5	325.7	325.2	325.0	324.6	324.7	323.8	323.9	324.1
12.5°	324.4	324.8	324.8	324.7	324.1	324.6	324.0	324.1	323.4	323.1	323.2
13°	323.8	323.9	324.2	324.4	323.6	323.4	323.1	323.1	322.2	322.1	322.4
13.5°	323.1	323.1	323.4	323.4	322.8	322.6	322.1	322.5	321.4	321.6	321.7
14°	322.3	322.7	322.5	322.4	321.8	322.0	321.7	321.7	320.9	320.4	320.6
14.5°	321.4	321.4	321.8	321.9	321.0	321.1	320.6	320.5	319.5	319.5	319.8
15°	320.7	320.8	320.6	320.9	320.4	320.2	319.8	320.0	318.7	319.0	319.0
15.5°	319.4	319.9	319.6	319.8	319.1	319.1	318.7	318.8	318.1	317.7	317.8
16°	318.6	318.8	319.0	319.1	318.3	318.2	317.7	317.8	316.8	316.6	316.9
16.5°	317.7	317.8	318.1	317.9	317.4	317.5	316.7	317.0	315.8	315.9	315.9
17°	316.8	317.2	317.0	316.9	316.3	316.3	316.1	315.8	314.9	314.8	314.7
17.5°	315.6	315.7	316.1	316.3	315.4	315.5	314.9	314.9	313.5	313.5	313.7
18°	314.6	315.0	315.0	315.0	314.1	314.2	313.7	313.8	312.2	312.7	312.8
18.5°	313.5	313.9	313.8	313.8	312.9	313.0	312.5	312.7	311.6	311.3	311.5
19°	312.3	312.7	312.9	312.9	312.2	312.1	311.5	311.7	310.3	310.0	310.2
19.5°	311.3	311.4	311.8	311.7	310.9	310.9	310.4	310.3	309.0	309.2	309.2
20°	310.2	310.6	310.4	310.4	309.6	309.8	309.3	309.2	307.9	307.9	308.2
20.5°	308.9	309.3	309.4	309.5	308.6	308.7	307.9	308.1	306.6	306.4	306.8
21°	307.8	308.1	308.2	308.1	307.2	307.1	306.8	306.7	305.1	305.6	305.4
21.5°	306.6	306.9	306.7	306.9	306.0	306.0	305.6	305.7	304.2	304.0	304.3
22°	305.1	305.6	305.6	305.8	304.9	304.9	304.2	304.1	302.8	302.5	302.8

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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°	303.9	304.1	304.4	304.2	303.3	303.4	302.9	302.8	301.3	301.6	301.5
23°	302.8	303.2	303.0	302.9	302.2	302.1	301.5	301.7	300.0	300.2	300.4
23.5°	301.3	301.8	301.8	301.8	300.8	300.8	300.3	300.0	298.7	298.6	298.9
24°	299.9	300.3	300.5	300.4	299.4	299.3	299.1	298.9	297.0	297.3	297.2
24.5°	298.7	299.0	298.7	299.1	297.8	298.1	297.3	297.4	295.7	295.6	296.0
25°	297.1	297.6	297.5	297.5	296.7	296.4	295.8	295.7	294.4	294.2	294.4
25.5°	295.6	295.8	296.2	295.8	295.1	295.1	294.7	294.5	292.8	293.2	292.8
26°	294.3	294.5	294.5	294.6	293.7	293.9	292.9	293.1	291.4	291.4	291.5
26.5°	292.6	293.2	293.4	293.2	292.1	292.0	291.5	291.6	289.6	289.7	289.9
27°	291.1	291.5	291.7	291.5	290.5	290.4	290.2	290.0	288.0	288.3	288.3
27.5°	289.7	290.1	290.0	290.2	289.1	289.2	288.4	288.2	286.6	286.7	287.0
28°	288.2	288.7	288.6	288.5	287.5	287.3	286.8	287.0	285.0	284.9	285.1
28.5°	286.4	286.6	287.0	286.6	285.8	285.8	285.4	285.2	283.3	283.5	283.3
29°	285.1	285.2	285.4	285.3	284.5	284.3	283.6	283.4	281.7	281.6	281.9
29.5°	283.3	283.7	283.9	283.7	282.6	282.5	282.0	282.0	279.8	280.1	280.2
30°	281.7	281.9	282.0	281.9	280.9	280.9	280.7	280.1	278.2	278.4	278.4
30.5°	279.9	280.2	280.2	280.3	279.3	279.5	278.5	278.4	276.5	276.5	276.7
31°	278.2	278.7	278.7	278.4	277.8	277.5	276.9	276.9	274.7	274.6	275.0
31.5°	276.3	276.6	277.1	276.7	275.9	275.9	275.4	274.9	273.0	273.2	273.0
32°	274.8	275.0	275.1	275.3	274.3	274.0	273.5	273.2	271.4	271.2	271.4
32.5°	273.0	273.5	273.5	273.3	272.3	272.1	271.7	271.7	269.4	269.5	269.7
33°	271.2	271.4	271.7	271.5	270.5	270.3	270.1	269.6	267.5	267.6	267.7
33.5°	269.4	269.5	270.0	270.0	268.9	268.7	267.9	268.0	265.8	265.7	265.9
34°	267.6	268.2	268.2	267.9	267.0	266.8	266.2	266.0	263.8	263.8	264.2
34.5°	265.6	265.8	266.2	266.0	265.1	264.9	264.3	264.1	262.1	262.2	262.0
35°	263.8	264.1	264.2	264.2	263.3	262.8	262.4	262.3	260.2	260.0	260.1
35.5°	262.1	262.4	262.5	262.3	261.4	261.2	260.5	260.3	258.2	258.2	258.4
36°	260.1	260.4	260.4	260.5	259.4	259.1	258.7	258.5	256.2	256.4	256.3
36.5°	258.1	258.3	258.6	258.5	257.5	257.2	256.6	256.5	254.4	254.3	254.4
37°	256.3	256.6	256.8	256.5	255.4	255.5	254.8	254.5	252.3	252.2	252.5
37.5°	254.1	254.3	254.7	254.7	253.6	253.3	252.9	252.7	250.2	250.4	250.2
38°	252.2	252.5	252.7	252.7	251.5	251.1	250.9	250.4	248.2	248.2	248.2
38.5°	250.2	250.6	250.7	250.7	249.4	249.4	248.8	248.4	246.3	246.2	246.3
39°	248.1	248.4	248.6	248.8	247.6	247.3	246.8	246.8	244.1	244.2	244.1
39.5°	246.0	246.2	246.6	246.4	245.6	245.2	244.5	244.3	242.1	242.0	242.1
40°	244.2	244.5	244.6	244.5	243.3	243.2	242.7	242.3	240.0	239.8	240.2
40.5°	241.8	242.2	242.3	242.6	241.5	241.0	240.6	240.2	237.7	238.0	237.9
41°	239.8	240.1	240.5	240.2	239.1	238.8	238.4	238.0	235.7	235.6	235.6
41.5°	237.7	238.1	238.2	238.3	237.0	237.0	236.3	236.1	233.7	233.5	233.7
42°	235.6	235.9	235.9	236.3	235.0	234.7	234.1	233.8	231.4	231.5	231.5
42.5°	233.4	233.7	234.0	233.7	232.8	232.3	231.9	231.8	229.2	229.1	229.3
43°	231.4	231.7	231.8	231.8	230.5	230.4	229.9	229.5	227.0	226.8	227.2
43.5°	229.1	229.3	229.4	229.7	228.6	228.1	227.7	227.3	224.7	224.8	224.7
44°	226.8	226.9	227.5	227.3	226.2	225.8	225.4	225.2	222.5	222.5	222.4
44.5°	224.5	224.9	225.0	225.1	223.9	223.7	223.2	222.8	220.4	220.2	220.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	222.5	222.9	222.8	223.0	221.9	221.4	221.1	220.7	218.0	218.0	218.0
45.5°	220.1	220.4	220.8	220.6	219.5	219.2	218.6	218.5	215.7	215.7	215.7
46°	217.9	218.3	218.3	218.6	217.2	216.9	216.6	215.9	213.6	213.2	213.5
46.5°	215.6	215.9	216.1	216.1	215.0	214.5	214.2	213.9	211.3	211.2	211.0
47°	213.3	213.5	213.9	213.8	212.5	212.2	211.9	211.6	208.7	208.7	208.7
47.5°	210.9	211.3	211.5	211.6	210.3	210.2	209.6	209.1	206.5	206.4	206.5
48°	208.7	208.9	209.2	209.2	208.1	207.7	207.3	206.9	204.3	204.1	204.1
48.5°	206.2	206.5	206.8	206.7	205.5	205.3	204.7	204.4	201.7	201.7	201.6
49°	203.9	204.3	204.5	204.6	203.3	202.9	202.6	202.1	199.4	199.1	199.4
49.5°	201.7	201.9	202.3	202.1	200.9	200.6	200.2	199.8	197.1	197.0	196.7
50°	199.2	199.3	199.7	199.8	198.4	198.2	197.8	197.4	194.4	194.3	194.3
50.5°	196.6	197.0	197.2	197.2	196.2	195.9	195.4	194.9	192.1	192.0	192.0
51°	194.3	194.6	194.8	194.7	193.8	193.4	193.0	192.4	189.9	189.6	189.6
51.5°	191.9	192.1	192.5	192.5	191.2	191.0	190.3	190.1	187.2	187.1	187.2
52°	189.5	189.8	190.0	190.1	189.0	188.5	188.1	187.6	184.7	184.5	184.7
52.5°	187.1	187.2	187.7	187.6	186.4	185.9	185.6	185.1	182.3	182.2	182.1
53°	184.5	184.7	185.1	185.3	183.8	183.6	183.2	182.8	179.8	179.6	179.6
53.5°	182.0	182.2	182.5	182.5	181.5	181.1	180.6	180.1	177.4	177.1	177.1
54°	179.6	179.8	180.1	180.1	178.8	178.5	178.3	177.6	174.8	174.6	174.6
54.5°	177.1	177.3	177.5	177.8	176.5	176.2	175.4	175.2	172.3	172.0	172.1
55°	174.5	174.8	175.0	175.1	174.1	173.4	173.3	172.6	169.6	169.4	169.5
55.5°	172.1	172.2	172.6	172.6	171.2	171.0	170.7	170.2	167.1	167.1	167.0
56°	169.3	169.5	169.8	170.2	168.7	168.6	168.0	167.5	164.7	164.3	164.2
56.5°	166.9	167.1	167.4	167.4	166.3	165.9	165.5	165.0	161.9	161.8	161.7
57°	164.3	164.5	165.0	164.9	163.7	163.4	162.9	162.4	159.3	159.2	159.0
57.5°	161.7	161.9	162.2	162.5	161.3	160.8	160.2	159.9	156.9	156.6	156.6
58°	159.0	159.3	159.7	159.8	158.4	158.1	157.9	157.2	154.3	154.0	154.0
58.5°	156.6	156.7	157.1	157.1	155.8	155.5	155.3	154.7	151.5	151.5	151.2
59°	153.8	154.0	154.4	154.7	153.4	153.0	152.6	151.9	149.0	148.8	148.4
59.5°	151.2	151.5	151.8	151.9	150.8	150.3	150.0	149.5	146.3	146.1	146.0
60°	148.6	148.9	149.3	149.3	148.1	147.7	147.3	146.8	143.7	143.5	143.3
60.5°	146.0	146.2	146.5	146.7	145.5	145.0	144.6	144.1	141.1	140.7	140.7
61°	143.3	143.6	143.9	144.0	142.7	142.4	142.1	141.5	138.5	138.2	138.0
61.5°	140.8	140.8	141.2	141.4	140.2	139.9	139.4	138.8	135.7	135.6	135.3
62°	137.9	138.3	138.6	138.8	137.5	137.2	136.8	136.1	133.1	132.8	132.5
62.5°	135.3	135.6	135.9	136.0	134.8	134.4	134.0	133.6	130.4	130.0	130.1
63°	132.5	132.9	133.3	133.4	132.1	131.8	131.4	130.8	127.8	127.5	127.2
63.5°	130.1	130.2	130.5	130.7	129.5	129.2	128.6	128.2	125.0	124.7	124.5
64°	127.3	127.6	127.9	128.0	126.7	126.4	126.1	125.4	122.4	122.1	121.9
64.5°	124.6	124.8	125.0	125.3	124.0	123.7	123.2	122.8	119.6	119.4	119.2
65°	121.8	122.1	122.4	122.7	121.4	121.0	120.7	120.1	117.1	116.6	116.3
65.5°	119.2	119.4	119.8	119.9	118.7	118.3	118.0	117.5	114.4	114.0	113.8
66°	116.4	116.8	117.1	117.2	116.0	115.7	115.3	114.7	111.6	111.2	110.9
66.5°	113.8	114.0	114.3	114.5	113.2	112.8	112.5	112.1	108.9	108.5	108.2
67°	111.0	111.2	111.7	111.8	110.4	110.2	109.9	109.3	106.4	105.8	105.6

TEST NUMBER: P855591
 CATALOG NUMBER: HLS6099FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	108.3	108.5	108.8	109.0	107.9	107.5	107.1	106.7	103.5	103.2	102.9
68°	105.6	105.8	106.2	106.4	105.1	104.7	104.5	103.9	100.9	100.5	100.1
68.5°	103.0	103.2	103.6	103.6	102.3	102.1	101.8	101.3	98.2	97.8	97.5
69°	100.1	100.4	100.9	100.9	99.7	99.4	99.0	98.6	95.5	95.0	94.7
69.5°	97.6	97.7	98.1	98.2	96.9	96.6	96.3	95.9	92.8	92.5	92.0
70°	94.8	94.9	95.4	95.5	94.2	94.1	93.8	93.2	90.3	89.8	89.4
70.5°	92.2	92.3	92.7	92.8	91.6	91.3	91.0	90.7	87.6	87.2	86.8
71°	89.4	89.6	89.9	90.1	89.0	88.7	88.4	88.0	85.0	84.5	84.1
71.5°	86.7	87.0	87.3	87.3	86.2	86.0	85.8	85.4	82.3	81.9	81.5
72°	84.1	84.3	84.7	84.8	83.6	83.4	83.2	82.7	79.7	79.2	78.9
72.5°	81.5	81.7	81.9	82.1	80.9	80.7	80.5	80.1	77.0	76.6	76.1
73°	78.8	79.0	79.4	79.4	78.3	78.1	77.9	77.4	74.6	74.1	73.5
73.5°	76.2	76.4	76.7	76.8	75.8	75.4	75.1	74.9	71.8	71.5	71.0
74°	73.6	73.7	74.1	74.2	73.0	72.9	72.7	72.4	69.3	69.0	68.4
74.5°	71.0	71.3	71.5	71.5	70.5	70.2	70.0	69.7	66.9	66.3	65.8
75°	68.4	68.7	68.9	69.0	67.9	67.6	67.5	67.2	64.3	63.9	63.3
75.5°	66.0	66.1	66.3	66.3	65.3	65.2	64.9	64.7	61.9	61.3	60.7
76°	63.4	63.6	63.9	63.8	62.7	62.5	62.4	62.2	59.4	58.8	58.3
76.5°	60.9	61.0	61.2	61.2	60.2	60.1	59.9	59.8	56.9	56.5	55.9
77°	58.5	58.7	58.7	58.8	57.7	57.5	57.5	57.3	54.6	54.0	53.4
77.5°	56.0	56.3	56.4	56.3	55.3	55.1	55.0	54.9	52.2	51.6	51.0
78°	53.6	53.8	53.9	53.9	52.8	52.8	52.7	52.6	49.9	49.3	48.7
78.5°	51.4	51.4	51.5	51.5	50.3	50.3	50.2	50.1	47.5	47.0	46.3
79°	48.9	49.2	49.3	49.2	48.1	48.0	47.9	47.9	45.3	44.8	44.1
79.5°	46.7	46.8	46.8	46.8	45.8	45.7	45.6	45.6	43.0	42.5	41.8
80°	44.4	44.6	44.6	44.5	43.4	43.4	43.4	43.3	41.0	40.4	39.7
80.5°	42.3	42.3	42.3	42.3	41.2	41.2	41.2	41.2	38.8	38.2	37.6
81°	40.0	40.2	40.3	40.0	39.0	39.1	39.1	39.1	36.8	36.2	35.5
81.5°	38.0	38.0	38.1	37.9	36.9	36.9	36.9	37.0	34.8	34.1	33.5
82°	36.1	36.1	36.1	35.9	34.9	34.8	34.9	35.0	32.8	32.2	31.5
82.5°	34.2	34.2	34.1	34.0	32.7	32.7	32.8	32.8	30.8	30.3	29.6
83°	32.3	32.3	32.2	32.0	30.7	30.8	30.9	31.0	29.0	28.4	27.8
83.5°	30.3	30.4	30.2	30.0	28.8	28.9	29.0	29.1	27.2	26.7	26.0
84°	28.4	28.4	28.3	28.0	27.0	27.1	27.2	27.3	25.4	25.0	24.3
84.5°	26.7	26.6	26.5	26.3	25.2	25.3	25.4	25.6	23.8	23.3	22.6
85°	25.0	25.0	24.8	24.5	23.5	23.5	23.7	23.9	22.1	21.7	21.0
85.5°	23.3	23.3	23.0	22.8	21.8	21.9	22.0	22.2	20.6	20.1	19.5
86°	21.7	21.7	21.4	21.1	20.1	20.3	20.6	20.8	19.2	18.6	18.0
86.5°	20.2	20.1	19.9	19.5	18.6	18.8	19.1	19.3	17.7	17.3	16.6
87°	18.8	18.8	18.3	18.0	17.2	17.4	17.6	17.8	16.3	15.9	15.4
87.5°	17.4	17.3	17.0	16.6	15.8	16.0	16.2	16.4	15.0	14.6	14.1
88°	16.1	16.0	15.6	15.3	14.5	14.6	14.9	15.2	13.8	13.3	12.9
88.5°	14.7	14.6	14.3	14.0	13.2	13.3	13.7	13.9	12.6	12.2	11.8
89°	13.6	13.3	13.1	12.7	12.1	12.2	12.5	12.7	11.4	11.1	10.7
89.5°	12.3	12.3	12.0	11.5	10.9	11.0	11.3	11.5	10.3	10.2	9.9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



TEST NUMBER: P855591
CATALOG NUMBER: HLS6099FS1EWH-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: P855591
 CATALOG NUMBER: HLS6099FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	333.7	333.7	333.7	333.7	333.7	333.7
0.5°	333.8	333.7	333.8	333.5	333.6	333.7
1°	333.7	333.6	333.6	333.6	333.8	333.7
1.5°	333.7	333.4	333.9	333.3	333.6	333.7
2°	333.5	333.4	333.6	333.5	333.5	333.5
2.5°	333.4	333.2	333.3	333.2	333.5	333.6
3°	333.3	332.8	333.4	333.1	333.3	333.2
3.5°	332.8	332.8	333.0	332.8	333.0	333.0
4°	332.6	332.6	332.7	332.8	332.9	333.0
4.5°	332.5	332.3	332.8	332.1	332.4	332.8
5°	332.0	332.0	332.1	332.1	332.0	332.5
5.5°	331.8	331.3	331.9	331.7	331.9	332.3
6°	331.6	331.1	331.4	331.3	331.6	331.7
6.5°	330.7	330.9	331.1	331.0	331.0	331.3
7°	330.3	330.3	330.9	330.5	330.9	331.0
7.5°	329.9	329.9	330.1	329.9	330.0	330.8
8°	329.3	329.4	329.8	329.7	329.6	330.1
8.5°	329.0	328.7	329.4	329.0	329.2	329.5
9°	328.4	328.4	328.5	328.7	328.5	329.2
9.5°	327.6	327.7	328.2	328.0	328.0	328.4
10°	327.0	327.0	327.5	327.2	327.4	327.9
10.5°	326.4	326.5	326.7	326.6	326.4	327.4
11°	325.7	325.8	326.5	326.1	326.2	326.6
11.5°	325.2	324.8	325.3	325.4	325.6	326.0
12°	324.1	324.5	324.5	324.8	324.7	325.6
12.5°	323.4	323.6	324.2	323.8	324.1	324.4
13°	322.9	322.6	323.0	322.9	323.1	323.8
13.5°	321.9	322.1	322.3	322.3	322.2	323.1
14°	320.8	321.0	321.7	321.4	321.7	322.3
14.5°	320.3	320.1	320.4	320.4	320.6	321.4
15°	319.0	319.5	319.6	319.8	319.6	320.7
15.5°	318.2	318.3	318.8	318.6	319.0	319.4
16°	317.3	317.2	317.8	317.6	317.7	318.6
16.5°	316.0	316.6	316.9	316.8	316.7	317.7
17°	315.0	315.3	315.6	315.6	315.9	316.8
17.5°	314.2	314.1	314.6	314.7	314.8	315.6
18°	312.9	313.4	313.8	313.8	313.7	314.6
18.5°	311.6	312.1	312.5	312.3	312.7	313.5
19°	310.7	310.9	311.4	311.3	311.3	312.3
19.5°	309.5	309.8	310.2	310.3	310.2	311.3
20°	308.1	308.5	308.7	308.9	309.2	310.2
20.5°	306.9	307.4	307.8	307.7	307.8	308.9
21°	305.6	306.3	306.5	306.8	306.8	307.8
21.5°	304.5	304.8	305.2	305.2	305.3	306.6
22°	303.0	303.5	304.2	304.0	303.9	305.1

TEST NUMBER: P855591
 CATALOG NUMBER: HLS6099FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	301.6	302.2	302.5	302.8	302.8	303.9
23°	300.6	300.8	301.0	301.3	301.3	302.8
23.5°	298.9	299.5	300.2	299.9	300.0	301.3
24°	297.5	298.0	298.3	298.7	298.7	299.9
24.5°	296.1	296.7	297.0	297.0	296.9	298.7
25°	294.6	295.5	295.6	295.6	295.7	297.1
25.5°	293.3	293.4	294.0	294.3	294.3	295.6
26°	291.6	292.1	292.6	292.7	292.5	294.3
26.5°	289.9	290.7	290.9	291.0	291.3	292.6
27°	288.7	289.2	289.6	289.6	289.7	291.1
27.5°	286.8	287.4	288.1	288.0	288.0	289.7
28°	285.2	286.2	286.2	286.5	286.7	288.2
28.5°	283.8	284.3	284.7	284.8	284.9	286.4
29°	281.9	282.6	283.1	283.1	283.2	285.1
29.5°	280.1	281.0	281.3	281.6	281.6	283.3
30°	278.7	279.4	279.7	279.8	279.7	281.7
30.5°	276.7	277.6	278.0	278.0	278.1	279.9
31°	275.1	276.0	276.1	276.4	276.5	278.2
31.5°	273.3	274.3	274.6	274.7	274.6	276.3
32°	271.3	272.3	272.6	272.8	273.0	274.8
32.5°	269.6	270.4	270.7	271.2	271.1	273.0
33°	268.0	268.7	269.2	269.2	269.2	271.2
33.5°	266.0	266.9	267.1	267.2	267.5	269.4
34°	264.2	265.1	265.2	265.5	265.5	267.6
34.5°	262.3	263.3	263.6	263.8	263.7	265.6
35°	260.4	261.1	261.5	261.7	262.0	263.8
35.5°	258.5	259.1	259.5	260.0	259.7	262.1
36°	256.6	257.5	257.7	257.9	257.8	260.1
36.5°	254.6	255.4	255.5	255.8	256.2	258.1
37°	252.8	253.3	253.6	254.1	254.0	256.3
37.5°	250.5	251.5	251.7	251.8	252.0	254.1
38°	248.6	249.3	249.5	249.8	250.0	252.2
38.5°	246.6	247.3	247.6	248.1	247.8	250.2
39°	244.4	245.3	245.6	245.8	245.8	248.1
39.5°	242.4	243.2	243.4	243.6	243.9	246.0
40°	240.3	240.9	241.3	241.8	241.6	244.2
40.5°	238.0	239.1	239.1	239.5	239.5	241.8
41°	235.9	236.7	237.0	237.3	237.5	239.8
41.5°	233.9	234.5	235.0	235.3	235.2	237.7
42°	231.5	232.7	232.6	233.0	233.2	235.6
42.5°	229.5	230.3	230.4	230.8	231.1	233.4
43°	227.0	228.0	228.4	228.7	228.6	231.4
43.5°	224.7	226.0	226.1	226.4	226.6	229.1
44°	222.8	223.5	223.9	224.3	224.3	226.8
44.5°	220.5	221.3	221.6	222.1	222.1	224.5

TEST NUMBER: P855591
 CATALOG NUMBER: HLS6099FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	218.0	219.2	219.2	219.6	219.8	222.5
45.5°	215.9	216.8	217.0	217.4	217.4	220.1
46°	213.5	214.7	214.8	215.2	215.2	217.9
46.5°	211.3	212.4	212.4	212.8	213.0	215.6
47°	208.8	209.9	210.3	210.5	210.5	213.3
47.5°	206.5	207.6	207.7	208.0	208.3	210.9
48°	204.2	205.2	205.3	205.8	205.9	208.7
48.5°	201.7	202.9	203.0	203.5	203.5	206.2
49°	199.3	200.5	200.7	201.0	201.2	203.9
49.5°	197.1	198.0	198.2	198.5	198.7	201.7
50°	194.4	195.6	195.8	196.2	196.4	199.2
50.5°	192.1	193.2	193.2	193.7	194.0	196.6
51°	189.8	190.8	191.0	191.2	191.4	194.3
51.5°	187.1	188.3	188.4	188.9	189.1	191.9
52°	184.7	185.8	186.0	186.3	186.6	189.5
52.5°	182.3	183.3	183.6	183.9	184.0	187.1
53°	179.6	180.7	181.0	181.5	181.6	184.5
53.5°	177.3	178.3	178.4	178.7	179.1	182.0
54°	174.7	175.8	176.1	176.3	176.5	179.6
54.5°	172.1	173.2	173.4	173.9	174.0	177.1
55°	169.6	170.7	171.0	171.2	171.4	174.5
55.5°	167.1	168.1	168.4	168.7	168.9	172.1
56°	164.3	165.5	165.7	166.2	166.3	169.3
56.5°	161.9	162.9	163.2	163.4	163.7	166.9
57°	159.1	160.4	160.6	160.9	161.3	164.3
57.5°	156.6	157.8	158.0	158.3	158.4	161.7
58°	154.0	155.1	155.3	155.6	156.0	159.0
58.5°	151.4	152.6	152.8	153.0	153.4	156.6
59°	148.6	149.9	150.0	150.4	150.6	153.8
59.5°	146.2	147.3	147.4	147.7	148.1	151.2
60°	143.3	144.7	144.8	145.1	145.5	148.6
60.5°	140.7	141.9	142.1	142.4	142.6	146.0
61°	138.2	139.2	139.4	139.9	140.1	143.3
61.5°	135.4	136.6	136.7	137.1	137.5	140.8
62°	132.6	133.8	134.0	134.3	134.7	137.9
62.5°	129.9	131.1	131.4	131.6	132.0	135.3
63°	127.1	128.6	128.7	129.0	129.5	132.5
63.5°	124.6	125.8	125.9	126.2	126.6	130.1
64°	121.8	123.0	123.2	123.6	124.0	127.3
64.5°	119.1	120.3	120.5	120.9	121.2	124.6
65°	116.4	117.6	117.8	118.1	118.6	121.8
65.5°	113.7	114.8	115.0	115.4	115.8	119.2
66°	110.9	112.2	112.3	112.7	113.2	116.4
66.5°	108.3	109.3	109.7	109.9	110.3	113.8
67°	105.4	106.6	106.9	107.3	107.6	111.0

TEST NUMBER: P855591
 CATALOG NUMBER: HLS6099FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	102.8	103.9	104.1	104.5	105.0	108.3
68°	100.1	101.2	101.6	101.7	102.2	105.6
68.5°	97.3	98.5	98.7	99.2	99.5	103.0
69°	94.5	95.8	96.1	96.4	96.8	100.1
69.5°	92.0	93.0	93.2	93.7	94.1	97.6
70°	89.3	90.3	90.6	91.0	91.5	94.8
70.5°	86.7	87.6	87.8	88.3	88.7	92.2
71°	83.9	84.9	85.2	85.6	86.1	89.4
71.5°	81.3	82.1	82.5	83.0	83.4	86.7
72°	78.6	79.6	79.9	80.3	80.7	84.1
72.5°	75.9	76.9	77.1	77.6	78.2	81.5
73°	73.3	74.3	74.5	75.0	75.5	78.8
73.5°	70.7	71.5	71.8	72.3	72.9	76.2
74°	68.0	68.9	69.3	69.7	70.3	73.6
74.5°	65.5	66.4	66.7	67.2	67.8	71.0
75°	62.9	63.9	64.1	64.6	65.3	68.4
75.5°	60.4	61.2	61.7	62.1	62.7	66.0
76°	57.8	58.8	59.1	59.6	60.3	63.4
76.5°	55.4	56.3	56.6	57.1	57.7	60.9
77°	53.0	53.8	54.2	54.7	55.4	58.5
77.5°	50.5	51.4	51.8	52.3	53.0	56.0
78°	48.3	49.1	49.4	50.0	50.5	53.6
78.5°	45.9	46.7	47.0	47.7	48.3	51.4
79°	43.7	44.4	44.7	45.3	46.0	48.9
79.5°	41.3	42.2	42.5	43.0	43.8	46.7
80°	39.2	39.9	40.3	40.9	41.5	44.4
80.5°	37.1	37.8	38.1	38.8	39.4	42.3
81°	35.1	35.9	36.1	36.8	37.2	40.0
81.5°	32.9	33.9	34.1	34.9	35.3	38.0
82°	31.0	31.9	32.2	32.8	33.4	36.1
82.5°	29.0	29.9	30.2	30.9	31.5	34.2
83°	27.2	27.9	28.3	28.9	29.6	32.3
83.5°	25.5	26.2	26.5	27.0	27.8	30.3
84°	23.7	24.4	24.7	25.3	26.1	28.4
84.5°	22.0	22.8	23.0	23.6	24.4	26.7
85°	20.6	21.1	21.4	22.0	22.7	25.0
85.5°	19.0	19.6	19.8	20.4	21.1	23.3
86°	17.6	18.1	18.3	19.0	19.6	21.7
86.5°	16.2	16.7	17.0	17.5	18.1	20.2
87°	14.9	15.4	15.6	16.1	16.7	18.8
87.5°	13.7	14.1	14.3	14.8	15.5	17.4
88°	12.5	12.9	13.1	13.6	14.2	16.1
88.5°	11.3	11.8	12.0	12.4	13.0	14.7
89°	10.3	10.7	10.8	11.3	11.9	13.6
89.5°	9.4	9.6	9.9	10.3	10.8	12.3

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



TEST NUMBER: P855591
CATALOG NUMBER: HLS6099FS1EWH-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

(END OF REPORT)