

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: P855574

Luminaire Tested: **HLCE4079FS1EWH-3000K**

Issue Date: 7/16/2024

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

Test Information

Test Method: LM-79-08
 Report Number: P855574
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLCE4079FS1EWH-3000K
 Description: 4IN 1000LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 1049.6 (1 lamp)
 Luminaire Lumens: 1040.0 lumens
 Efficiency: 99.1%
 Efficacy: 83.2 lumens/watt
 Spacing Criteria (0/90/45): 1.25 / 1.26 / 1.37
 Luminous Opening: Circular (Dia: 0.33' x H: 0')
 CIE Type: Direct

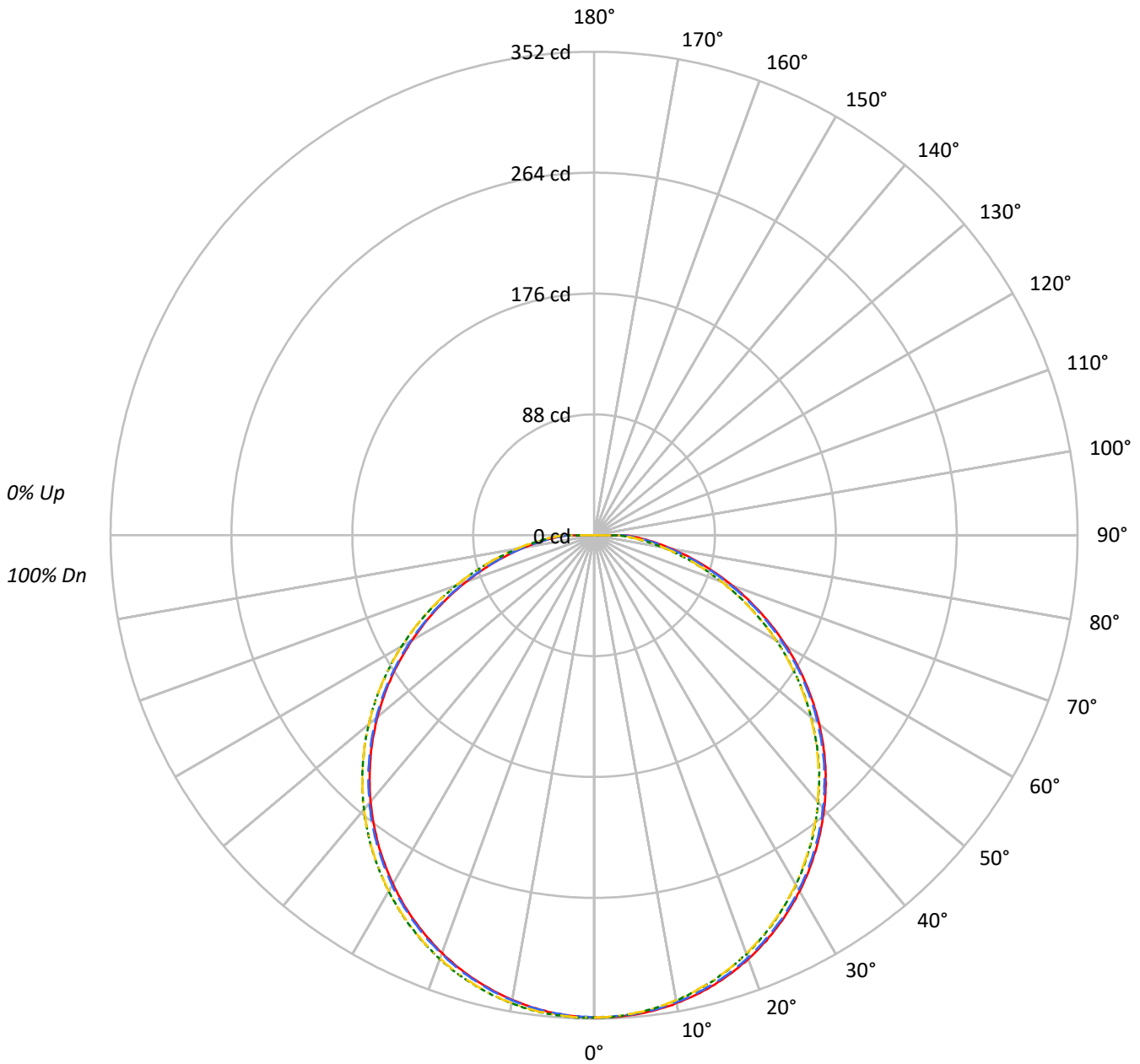
Input Watts (W): 12.5
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



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

TEST NUMBER: P855574
CATALOG NUMBER: HLCE4079FS1EWH-3000K

Luminous Intensity Polar Plot



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

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0
RCR																					
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	101	101	101	99			
1	107	102	97	93	104	99	95	91	95	92	89	91	88	86	88	85	83	81			
2	97	88	81	75	94	86	80	74	83	77	72	79	75	71	76	73	69	67			
3	88	77	69	62	86	76	68	62	73	66	60	70	64	59	67	62	58	56			
4	81	68	59	52	78	67	59	52	64	57	51	62	56	51	60	54	50	48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41			
6	68	55	46	39	66	54	45	39	52	44	39	50	44	38	49	43	38	36			
7	63	50	41	35	62	49	40	35	47	40	34	46	39	34	45	38	34	32			
8	59	45	37	31	57	45	36	31	43	36	31	42	35	30	41	35	30	28			
9	55	42	33	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	25	23			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	44186	44186	44186	44186
5°	44241	44115	44077	44228
10°	44190	43922	43909	44216
15°	44142	43738	43647	44103
20°	43955	43486	43339	43981
25°	43769	43130	42991	43755
30°	43494	42680	42564	43479
35°	43187	42219	42096	43156
40°	42780	41679	41597	42813
45°	42412	41095	40971	42394
50°	41918	40391	40273	41918
55°	41315	39538	39494	41381
60°	40675	38535	38510	40750
65°	39993	37402	37432	39993
70°	39409	36281	36428	39335
75°	39483	35593	35982	39191
80°	41890	36599	37469	41238
85°	55304	45918	48084	53138

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	33.2	3.2	3.2
10°-20°	95.1	9.1	9.1
20°-30°	144.0	13.8	13.7
30°-40°	173.7	16.7	16.5
40°-50°	180.7	17.4	17.2
50°-60°	164.6	15.8	15.7
60°-70°	128.6	12.4	12.3
70°-80°	81.9	7.9	7.8
80°-90°	38.2	3.7	3.6
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°	272.2	26.2	25.9
0°-40°	445.9	42.9	42.5
0°-60°	791.2	76.1	75.4
0°-90°	1040.0	100.0	99.1
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°	1040.0	100.0	99.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	351	351	351	351	351	
5°	350	349	349	350	350	33
15°	339	336	335	338	339	96
25°	315	311	310	315	315	145
35°	281	275	274	281	281	176
45°	238	231	230	238	238	184
55°	188	180	180	189	188	168
65°	134	126	126	134	134	133
75°	81	73	74	81	81	86
85°	38	32	33	37	38	42
90°	0	0	0	0	0	

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	351.1	351.1	351.1	351.1	351.1	351.1	351.1	351.1	351.1	351.1	351.1
0.5°	351.3	351.1	350.9	350.6	351.3	351.3	351.1	350.9	351.0	351.1	350.9
1°	351.0	351.1	350.8	350.9	351.4	350.6	351.0	351.0	351.0	350.8	350.5
1.5°	351.2	351.1	350.9	350.6	351.1	350.9	350.9	350.7	350.8	350.6	350.8
2°	351.1	350.9	350.8	350.6	351.0	350.7	350.6	350.8	350.6	350.5	350.3
2.5°	351.1	350.9	350.4	350.4	350.8	350.4	350.6	350.2	350.4	350.4	350.5
3°	350.9	350.9	350.6	350.1	350.6	350.0	350.2	350.3	350.2	350.0	349.9
3.5°	350.8	350.7	350.4	350.2	350.4	350.0	350.1	349.7	350.0	349.8	350.0
4°	350.6	350.6	350.2	349.8	350.0	349.5	349.6	349.5	349.5	349.4	349.4
4.5°	350.3	350.3	349.9	349.6	349.6	349.4	349.6	349.2	349.5	349.2	349.3
5°	350.2	350.0	349.6	349.2	349.2	348.8	348.9	348.8	348.9	348.6	348.9
5.5°	349.9	350.0	349.4	349.1	348.9	348.5	348.7	348.4	348.8	348.4	348.4
6°	349.6	349.4	349.0	348.5	348.5	348.1	348.4	347.8	347.9	347.8	348.3
6.5°	349.1	349.2	348.7	348.2	347.8	347.6	347.8	347.5	347.9	347.5	347.6
7°	348.9	348.8	348.3	348.0	347.7	347.3	347.2	346.9	347.0	347.1	347.4
7.5°	348.6	348.4	347.9	347.2	347.0	346.6	347.0	346.5	346.8	346.2	346.7
8°	347.9	348.0	347.5	346.9	346.3	346.1	346.1	345.6	345.9	345.8	346.5
8.5°	347.7	347.6	346.9	346.3	345.8	345.5	345.8	345.3	345.5	345.2	345.5
9°	347.0	347.2	346.5	345.9	345.3	344.9	345.0	344.5	344.8	344.7	345.2
9.5°	346.7	346.7	345.9	344.9	344.6	344.1	344.4	343.9	344.0	343.7	344.5
10°	345.8	345.9	345.2	344.7	343.7	343.9	343.8	343.2	343.6	343.4	343.8
10.5°	345.5	345.5	344.6	343.9	343.5	342.8	343.1	342.5	342.7	342.5	343.2
11°	344.7	344.7	344.0	343.3	342.3	342.3	342.4	341.9	342.1	341.9	342.4
11.5°	344.1	344.2	343.4	342.5	341.8	341.5	341.5	340.8	341.2	341.0	341.8
12°	343.5	343.3	342.4	342.0	340.9	340.6	340.9	340.3	340.5	340.5	340.8
12.5°	342.6	342.9	342.1	341.1	340.3	339.9	340.1	339.1	339.6	339.2	340.3
13°	342.1	342.1	341.0	340.2	339.0	339.0	339.0	338.5	338.6	338.6	339.3
13.5°	341.0	341.3	340.5	339.5	338.4	338.0	338.0	337.3	337.9	337.5	338.5
14°	340.5	340.5	339.3	338.5	337.4	337.0	337.5	336.7	336.9	336.8	337.4
14.5°	339.4	339.5	338.7	337.8	336.6	336.5	336.3	335.7	336.0	335.6	336.7
15°	338.8	338.9	337.6	336.8	335.7	335.2	335.4	334.5	335.0	334.9	335.5
15.5°	337.5	337.7	336.7	335.9	334.7	334.3	334.3	333.6	334.1	333.7	334.8
16°	336.9	337.0	335.9	334.9	333.3	332.9	333.3	332.5	333.0	332.8	333.6
16.5°	335.9	336.0	334.8	334.0	332.6	332.4	332.3	331.5	331.9	331.7	332.7
17°	334.8	335.2	334.1	332.9	331.5	330.9	331.2	330.3	330.8	330.5	331.4
17.5°	333.9	334.0	332.8	331.7	330.3	330.0	330.1	329.3	329.8	329.4	330.5
18°	332.7	333.0	331.9	330.9	329.1	328.7	328.8	328.1	328.6	328.4	329.2
18.5°	331.8	331.8	330.7	329.4	328.1	327.7	327.8	326.8	327.3	327.1	328.2
19°	330.4	331.0	329.7	328.6	326.8	326.2	326.5	325.7	326.1	325.8	327.1
19.5°	329.6	329.5	328.5	327.3	325.4	325.4	325.2	324.4	325.1	324.6	325.6
20°	328.2	328.7	327.4	326.3	324.7	323.7	324.1	323.3	323.6	323.4	324.5
20.5°	327.2	327.3	326.2	324.6	323.0	322.5	322.8	321.7	322.6	322.0	323.2
21°	325.9	326.3	324.8	323.8	322.0	321.5	321.4	320.7	321.1	320.8	321.8
21.5°	324.7	324.6	323.6	322.4	320.4	319.8	320.1	319.1	319.8	319.5	320.4
22°	323.4	323.9	322.3	321.1	319.2	318.5	318.7	317.8	318.2	317.9	319.3

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	321.9	322.3	321.1	319.7	317.7	317.2	317.4	316.2	317.1	316.8	318.0
23°	320.9	321.2	319.4	318.3	316.5	315.8	315.8	315.1	315.6	315.1	316.3
23.5°	319.1	319.5	318.4	317.1	314.8	314.3	314.6	313.4	314.0	313.8	315.1
24°	318.1	318.4	316.8	315.5	313.3	312.9	312.9	311.9	312.7	312.2	313.5
24.5°	316.4	316.9	315.5	314.3	311.9	311.2	311.6	310.5	311.1	310.9	311.9
25°	315.2	315.5	313.9	312.6	310.6	309.9	309.9	309.0	309.6	309.1	310.6
25.5°	313.5	313.9	312.5	311.1	308.6	308.2	308.5	307.2	308.1	307.8	309.0
26°	312.2	312.5	311.1	309.6	307.4	306.8	306.8	305.8	306.5	306.1	307.5
26.5°	310.5	311.0	309.6	308.2	305.5	305.0	305.3	304.1	304.9	304.5	305.7
27°	309.0	309.6	308.0	306.5	304.1	303.6	303.5	302.7	303.3	302.7	304.5
27.5°	307.4	307.9	306.3	304.8	302.3	301.9	302.1	300.7	301.7	301.4	302.5
28°	305.9	306.4	304.8	303.4	300.8	300.2	300.2	299.2	299.8	299.4	301.0
28.5°	304.1	304.8	303.1	301.5	298.9	298.4	298.7	297.3	298.4	297.7	299.3
29°	302.8	303.1	301.5	300.2	297.2	296.9	296.8	295.7	296.4	296.0	297.6
29.5°	300.6	301.4	299.8	298.2	295.7	294.9	295.3	293.8	294.8	294.3	296.0
30°	299.3	299.6	298.2	296.8	293.7	293.4	293.2	292.1	292.9	292.5	294.1
30.5°	297.6	298.1	296.3	294.8	292.1	291.4	291.6	290.3	291.2	290.7	292.3
31°	295.8	296.1	294.7	293.2	290.2	289.7	289.7	288.5	289.3	288.9	290.4
31.5°	293.9	294.7	292.8	291.2	288.5	287.8	287.9	286.5	287.4	286.9	288.9
32°	292.2	292.7	291.1	289.6	286.4	286.0	286.1	284.7	285.7	285.3	286.7
32.5°	290.4	290.9	289.1	287.7	284.8	284.0	284.1	282.9	283.7	283.2	285.1
33°	288.5	289.0	287.4	285.8	282.7	282.2	282.2	280.8	282.0	281.3	283.1
33.5°	286.6	287.2	285.4	283.9	280.7	280.2	280.3	278.9	280.1	279.3	281.1
34°	284.9	285.4	283.6	282.1	278.9	278.3	278.4	277.1	277.9	277.6	279.2
34.5°	282.7	283.4	281.6	280.1	276.8	276.3	276.4	274.9	276.2	275.4	277.4
35°	281.1	281.6	279.7	278.1	274.8	274.2	274.4	272.9	274.0	273.6	275.5
35.5°	279.0	279.4	277.9	276.2	272.8	272.4	272.4	270.9	272.1	271.5	273.2
36°	277.1	277.8	275.8	274.2	270.9	270.2	270.4	268.9	269.9	269.4	271.4
36.5°	274.9	275.6	273.9	272.2	268.5	268.3	268.1	266.7	268.1	267.3	269.3
37°	273.0	273.7	271.7	270.2	266.8	266.1	266.3	264.8	265.9	265.4	267.1
37.5°	271.0	271.6	269.8	268.1	264.6	264.1	264.1	262.6	263.8	263.3	265.1
38°	268.8	269.8	267.5	266.2	262.5	261.9	262.1	260.4	261.7	261.0	263.2
38.5°	266.9	267.4	265.7	263.8	260.2	259.9	259.7	258.2	259.6	259.0	261.0
39°	264.6	265.4	263.6	261.9	258.2	257.7	257.8	256.3	257.5	256.9	258.7
39.5°	262.7	263.3	261.3	259.6	256.1	255.7	255.4	253.9	255.2	254.6	256.8
40°	260.4	261.3	259.2	257.8	253.7	253.2	253.4	251.8	253.2	252.5	254.4
40.5°	258.4	258.8	257.2	255.2	251.6	251.2	251.1	249.5	250.9	250.3	252.2
41°	256.2	257.0	254.9	253.3	249.2	248.9	248.9	247.2	248.6	248.0	250.0
41.5°	253.9	254.5	252.6	251.0	247.2	246.7	246.7	245.0	246.6	245.9	247.8
42°	251.8	252.5	250.6	248.8	244.8	244.3	244.3	242.9	244.2	243.5	245.6
42.5°	249.5	250.1	248.1	246.5	242.6	242.1	242.1	240.4	241.9	241.3	243.3
43°	247.6	248.1	246.0	244.3	240.3	239.8	239.8	238.1	239.6	239.0	241.0
43.5°	244.9	245.7	243.7	242.0	238.1	237.6	237.6	235.8	237.4	236.7	238.7
44°	242.9	243.6	241.4	239.6	235.5	235.0	235.0	233.4	235.0	234.0	236.5
44.5°	240.4	241.1	239.0	237.4	233.4	232.8	232.9	231.2	232.6	232.0	234.0

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	238.3	238.9	236.8	235.0	230.9	230.6	230.5	228.7	230.2	229.5	231.7
45.5°	235.6	236.5	234.5	232.8	228.5	228.0	228.0	226.5	227.8	227.2	229.3
46°	233.4	234.3	232.0	230.3	226.0	225.7	225.5	223.8	225.6	224.7	226.8
46.5°	231.1	231.7	229.7	228.0	223.8	223.1	223.2	221.7	223.0	222.3	224.5
47°	228.5	229.4	227.1	225.6	221.2	220.8	220.6	219.0	220.6	220.0	222.0
47.5°	226.3	227.0	224.9	223.1	218.7	218.4	218.4	216.7	218.3	217.3	219.7
48°	223.9	224.7	222.4	220.7	216.3	215.9	215.7	214.1	215.7	215.0	217.2
48.5°	221.2	222.0	220.1	218.2	213.8	213.4	213.5	211.8	213.2	212.5	214.7
49°	218.9	219.7	217.4	215.8	211.3	210.9	210.8	209.0	210.9	210.0	212.3
49.5°	216.4	217.3	215.1	213.3	208.8	208.3	208.4	206.8	208.3	207.4	209.6
50°	214.1	214.8	212.6	210.8	206.3	205.9	205.7	204.1	205.7	205.0	207.2
50.5°	211.4	212.2	210.0	208.3	203.8	203.2	203.3	201.6	203.2	202.4	204.7
51°	209.0	209.8	207.5	205.8	201.1	200.8	200.7	199.0	200.7	200.0	202.2
51.5°	206.4	207.1	205.0	203.1	198.8	198.1	198.2	196.6	198.2	197.3	199.5
52°	203.7	204.8	202.4	200.8	196.1	195.6	195.5	193.8	195.5	194.8	197.1
52.5°	201.4	202.1	199.8	198.1	193.5	193.0	193.1	191.4	193.0	192.3	194.4
53°	198.8	199.6	197.2	195.6	190.8	190.4	190.4	188.6	190.4	189.5	191.9
53.5°	196.1	197.0	194.7	192.8	188.2	187.8	187.8	186.1	187.7	187.1	189.2
54°	193.5	194.4	192.1	190.4	185.6	185.2	185.1	183.3	185.3	184.3	186.6
54.5°	191.1	191.8	189.4	187.6	182.9	182.5	182.5	180.9	182.4	181.8	184.0
55°	188.3	189.1	186.8	185.3	180.2	180.0	179.8	178.0	180.0	179.1	181.3
55.5°	185.7	186.7	184.1	182.3	177.6	177.1	177.1	175.4	177.1	176.4	178.9
56°	183.1	183.8	181.6	179.9	174.9	174.4	174.5	172.8	174.7	173.8	176.0
56.5°	180.4	181.3	178.9	177.1	172.2	171.9	171.8	170.1	171.9	171.0	173.3
57°	177.8	178.6	176.2	174.5	169.5	169.1	169.1	167.4	169.2	168.3	170.6
57.5°	175.0	176.0	173.5	171.7	166.9	166.4	166.4	164.7	166.5	165.8	168.0
58°	172.5	173.2	170.8	169.0	164.1	163.6	163.7	162.0	163.7	163.0	165.4
58.5°	169.7	170.6	168.1	166.4	161.4	161.0	161.0	159.3	161.2	160.3	162.6
59°	167.1	167.9	165.5	163.6	158.7	158.1	158.3	156.6	158.3	157.5	159.9
59.5°	164.3	165.2	162.8	161.0	155.9	155.6	155.5	153.9	155.7	154.9	157.1
60°	161.6	162.4	159.9	158.2	153.1	152.7	152.9	151.1	153.0	152.0	154.4
60.5°	158.9	159.7	157.2	155.5	150.4	150.1	150.1	148.4	150.3	149.4	151.6
61°	156.1	157.0	154.5	152.7	147.7	147.3	147.3	145.8	147.5	146.7	149.0
61.5°	153.4	154.2	151.8	150.0	144.9	144.6	144.6	142.9	144.8	144.0	146.3
62°	150.8	151.5	148.9	147.3	142.2	141.8	141.9	140.4	142.1	141.2	143.4
62.5°	148.0	148.7	146.4	144.5	139.5	139.1	139.1	137.5	139.3	138.4	140.8
63°	145.2	146.1	143.5	141.8	136.6	136.3	136.3	134.8	136.7	135.7	137.9
63.5°	142.4	143.2	140.8	138.9	133.9	133.6	133.7	131.9	133.9	133.1	135.3
64°	139.9	140.5	137.9	136.2	131.0	130.7	130.9	129.4	131.2	130.3	132.4
64.5°	136.9	137.7	135.3	133.5	128.4	128.1	128.2	126.6	128.4	127.5	129.8
65°	134.3	135.1	132.5	130.7	125.6	125.2	125.3	123.8	125.7	124.9	127.1
65.5°	131.5	132.1	129.8	127.9	122.9	122.6	122.8	121.1	123.0	122.2	124.2
66°	128.8	129.5	127.1	125.2	120.1	119.7	120.0	118.5	120.3	119.3	121.6
66.5°	125.9	126.8	124.2	122.5	117.4	117.1	117.3	115.6	117.6	116.8	118.8
67°	123.3	124.1	121.6	119.6	114.7	114.4	114.5	113.0	115.0	114.0	116.2

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	120.7	121.2	118.8	117.0	111.9	111.7	111.9	110.3	112.1	111.3	113.4
68°	117.8	118.5	116.1	114.3	109.3	108.9	109.1	107.9	109.5	108.6	110.8
68.5°	115.3	115.8	113.5	111.5	106.5	106.2	106.5	105.0	106.9	106.0	108.1
69°	112.4	113.1	110.7	108.9	103.9	103.6	103.7	102.4	104.2	103.3	105.3
69.5°	109.8	110.4	108.0	106.2	101.2	101.0	101.3	99.6	101.6	100.8	102.7
70°	107.1	107.7	105.3	103.5	98.6	98.3	98.5	97.2	99.0	98.1	100.0
70.5°	104.4	105.0	102.5	100.9	95.9	95.7	96.0	94.6	96.4	95.5	97.5
71°	101.8	102.3	100.0	98.2	93.3	93.1	93.3	92.0	93.8	92.9	94.8
71.5°	99.2	99.8	97.2	95.6	90.7	90.5	90.8	89.4	91.2	90.3	92.2
72°	96.6	97.1	94.8	92.9	88.3	88.0	88.2	87.0	88.8	87.9	89.6
72.5°	94.0	94.5	92.0	90.4	85.7	85.4	85.7	84.5	86.2	85.4	87.1
73°	91.4	91.8	89.6	87.8	83.2	83.0	83.3	82.1	83.8	82.9	84.6
73.5°	88.8	89.3	86.8	85.1	80.7	80.4	80.7	79.5	81.4	80.4	82.1
74°	86.2	86.7	84.4	82.6	78.2	78.0	78.3	77.0	78.9	78.0	79.5
74.5°	83.7	84.2	81.9	80.1	75.7	75.5	75.9	74.7	76.5	75.6	77.0
75°	81.2	81.7	79.4	77.6	73.2	73.0	73.4	72.2	74.0	73.1	74.8
75.5°	78.7	79.1	76.9	75.2	70.8	70.6	71.1	69.9	71.6	70.7	72.3
76°	76.3	76.8	74.6	72.7	68.4	68.3	68.7	67.5	69.4	68.4	69.9
76.5°	73.8	74.1	72.0	70.3	66.0	65.8	66.3	65.3	66.9	66.0	67.5
77°	71.4	71.9	69.7	67.9	63.7	63.6	64.0	63.0	64.8	63.8	65.2
77.5°	69.2	69.5	67.1	65.6	61.4	61.3	61.8	60.7	62.5	61.4	62.9
78°	66.8	67.1	65.0	63.3	59.2	59.1	59.5	58.5	60.2	59.2	60.6
78.5°	64.5	64.8	62.7	60.9	57.0	56.9	57.4	56.4	58.1	57.1	58.4
79°	62.2	62.6	60.3	58.8	54.7	54.6	55.2	54.2	55.9	54.9	56.2
79.5°	60.0	60.3	58.1	56.5	52.6	52.5	53.1	52.2	53.8	52.8	54.0
80°	57.8	58.0	56.0	54.3	50.5	50.5	51.0	50.2	51.7	50.8	51.9
80.5°	55.7	55.9	53.8	52.2	48.4	48.3	49.0	48.0	49.8	48.8	49.9
81°	53.6	53.7	51.6	50.1	46.4	46.4	46.9	46.1	47.7	46.8	47.8
81.5°	51.5	51.7	49.7	48.0	44.5	44.4	45.0	44.2	45.8	44.9	45.8
82°	49.5	49.6	47.5	46.0	42.6	42.6	43.1	42.4	43.9	42.9	43.9
82.5°	47.5	47.6	45.6	44.1	40.6	40.6	41.1	40.4	42.0	41.0	41.9
83°	45.6	45.6	43.7	42.0	38.7	38.8	39.3	38.6	40.2	39.2	40.1
83.5°	43.7	43.8	41.7	40.2	36.9	37.0	37.6	37.0	38.4	37.4	38.3
84°	41.8	41.8	39.8	38.4	35.1	35.2	35.8	35.1	36.7	35.7	36.5
84.5°	40.0	40.0	38.0	36.7	33.5	33.5	34.0	33.5	34.9	33.9	34.7
85°	38.3	38.3	36.3	34.9	31.8	31.9	32.4	31.8	33.3	32.3	33.0
85.5°	36.5	36.5	34.6	33.3	30.1	30.2	30.8	30.3	31.6	30.6	31.3
86°	34.8	34.8	33.0	31.7	28.5	28.6	29.3	28.7	30.1	29.0	29.8
86.5°	33.2	33.2	31.4	30.1	27.0	27.1	27.6	27.2	28.4	27.4	28.1
87°	31.7	31.7	29.8	28.4	25.5	25.6	26.2	25.8	26.9	26.0	26.7
87.5°	30.1	30.1	28.1	26.8	24.1	24.2	24.7	24.3	25.4	24.5	25.2
88°	28.4	28.4	26.7	25.4	22.6	22.8	23.4	23.0	24.0	23.1	23.8
88.5°	26.8	26.9	25.2	23.9	21.2	21.4	21.9	21.5	22.4	21.7	22.3
89°	25.3	25.4	23.8	22.5	19.9	20.1	20.6	20.3	21.0	20.4	21.0
89.5°	23.8	23.9	22.3	21.1	18.7	18.8	19.4	19.0	19.8	19.1	19.7

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



TEST NUMBER: P855574
CATALOG NUMBER: HLCE4079FS1EWH-3000K

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: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	351.1	351.1	351.1	351.1	351.1	351.1
0.5°	350.6	351.6	351.3	351.4	351.2	351.3
1°	350.9	351.3	351.0	351.0	351.1	351.0
1.5°	350.4	351.4	351.2	351.3	351.4	351.2
2°	350.6	351.4	351.0	351.2	351.1	351.1
2.5°	350.4	351.4	350.8	351.1	351.3	351.1
3°	350.2	350.9	350.7	350.8	350.9	350.9
3.5°	350.0	351.0	350.6	350.8	351.1	350.8
4°	349.8	350.6	350.5	350.4	350.6	350.6
4.5°	349.4	350.6	350.4	350.5	350.7	350.3
5°	348.9	350.1	350.0	350.0	350.3	350.2
5.5°	349.0	350.1	349.6	349.8	350.1	349.9
6°	348.4	349.6	349.6	349.3	349.9	349.6
6.5°	348.1	349.5	349.1	349.3	349.4	349.1
7°	347.5	348.8	348.7	348.8	349.2	348.9
7.5°	347.2	348.7	348.3	348.3	348.8	348.6
8°	346.6	348.0	348.0	348.0	348.5	347.9
8.5°	346.0	347.8	347.3	347.5	347.8	347.7
9°	345.7	346.9	347.2	346.9	347.6	347.0
9.5°	344.7	346.6	346.1	346.3	347.0	346.7
10°	344.5	346.0	345.7	345.9	346.2	345.8
10.5°	343.6	345.5	345.3	345.1	345.7	345.5
11°	343.1	344.6	344.6	344.8	345.2	344.7
11.5°	342.2	344.3	343.8	343.8	344.7	344.1
12°	341.8	343.3	343.2	343.3	343.7	343.5
12.5°	340.8	342.8	342.5	342.4	343.4	342.6
13°	340.1	341.9	341.8	342.0	342.3	342.1
13.5°	339.1	341.3	341.0	340.8	341.8	341.0
14°	338.2	340.3	340.2	340.2	340.8	340.5
14.5°	337.1	339.6	339.3	339.2	340.3	339.4
15°	336.6	338.5	338.4	338.5	339.2	338.8
15.5°	335.4	337.8	337.6	337.2	338.3	337.5
16°	334.6	336.9	336.5	336.8	337.4	336.9
16.5°	333.2	335.8	335.8	335.5	336.4	335.9
17°	332.5	335.0	334.8	334.7	335.7	334.8
17.5°	331.1	333.9	333.6	333.6	334.4	333.9
18°	330.2	333.0	332.5	332.5	333.6	332.7
18.5°	329.1	331.7	331.7	331.3	332.3	331.8
19°	327.8	330.6	330.4	330.5	331.4	330.4
19.5°	326.7	329.6	329.5	329.1	330.1	329.6
20°	325.3	328.4	328.1	328.1	329.1	328.2
20.5°	324.2	327.1	327.3	326.7	328.1	327.2
21°	322.8	325.9	325.6	325.8	326.5	325.9
21.5°	321.8	324.4	324.7	324.2	325.5	324.7
22°	320.1	323.4	323.1	323.0	324.2	323.4

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	318.9	321.9	322.1	321.9	323.1	321.9
23°	317.7	320.8	320.6	320.4	321.4	320.9
23.5°	316.1	319.2	319.5	319.0	320.6	319.1
24°	314.8	318.1	317.7	317.7	318.7	318.1
24.5°	313.2	316.3	316.5	316.2	317.5	316.4
25°	311.9	315.1	315.1	314.9	316.0	315.2
25.5°	310.1	313.5	313.6	313.4	314.7	313.5
26°	308.9	312.2	312.1	311.8	313.0	312.2
26.5°	307.0	310.5	310.6	310.4	311.5	310.5
27°	305.5	309.2	309.2	308.9	310.2	309.0
27.5°	303.9	307.4	307.5	307.3	308.5	307.4
28°	302.4	305.9	306.0	305.5	307.0	305.9
28.5°	300.7	304.0	304.2	304.1	305.3	304.1
29°	298.8	302.8	302.8	302.5	303.8	302.8
29.5°	297.3	300.9	300.9	300.8	302.1	300.6
30°	295.5	299.2	299.5	299.0	300.4	299.3
30.5°	293.8	297.4	297.5	297.5	298.7	297.6
31°	291.8	295.8	296.0	295.5	296.9	295.8
31.5°	290.2	294.0	294.1	293.9	295.4	293.9
32°	288.4	292.1	292.4	292.0	293.2	292.2
32.5°	286.5	290.4	290.5	290.3	291.7	290.4
33°	284.5	288.4	288.9	288.5	289.8	288.5
33.5°	282.7	286.8	286.8	286.7	288.1	286.6
34°	280.8	284.7	285.1	284.6	285.9	284.9
34.5°	278.7	282.9	283.1	282.8	284.4	282.7
35°	276.9	280.9	281.1	280.8	282.3	281.1
35.5°	274.8	279.1	279.3	279.0	280.3	279.0
36°	273.0	277.1	277.3	276.9	278.4	277.1
36.5°	270.8	275.3	275.3	274.9	276.5	274.9
37°	269.0	273.2	273.3	273.0	274.4	273.0
37.5°	266.7	271.0	271.3	271.0	272.3	271.0
38°	264.6	269.1	269.3	269.0	270.4	268.8
38.5°	262.5	266.9	267.1	266.8	268.1	266.9
39°	260.4	265.1	265.2	264.7	266.2	264.6
39.5°	258.3	262.8	263.2	262.8	264.1	262.7
40°	256.0	260.6	260.8	260.4	261.9	260.4
40.5°	253.9	258.4	258.9	258.4	259.8	258.4
41°	251.7	256.4	256.5	256.3	257.7	256.2
41.5°	249.6	254.0	254.4	254.1	255.5	253.9
42°	247.2	251.9	252.2	251.7	253.2	251.8
42.5°	245.0	249.7	250.1	249.6	251.3	249.5
43°	242.7	247.3	247.6	247.4	248.6	247.6
43.5°	240.3	245.1	245.6	245.2	246.6	244.9
44°	238.2	242.9	243.2	242.6	244.3	242.9
44.5°	235.7	240.5	240.9	240.6	242.1	240.4

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	233.5	238.2	238.5	238.1	239.5	238.3
45.5°	231.0	235.9	236.2	236.0	237.5	235.6
46°	228.7	233.5	233.9	233.5	235.0	233.4
46.5°	226.2	231.2	231.6	231.2	232.6	231.1
47°	223.9	228.6	229.0	228.6	230.3	228.5
47.5°	221.4	226.5	226.7	226.5	227.9	226.3
48°	219.0	223.8	224.3	223.9	225.5	223.9
48.5°	216.5	221.7	222.0	221.6	222.9	221.2
49°	214.0	219.0	219.4	219.0	220.7	218.9
49.5°	211.6	216.6	217.1	216.7	218.1	216.4
50°	208.9	214.1	214.5	214.0	215.7	214.1
50.5°	206.6	211.7	212.0	211.7	213.2	211.4
51°	204.1	209.1	209.5	209.0	210.7	209.0
51.5°	201.5	206.6	206.9	206.6	208.2	206.4
52°	198.9	204.2	204.5	204.1	205.6	203.7
52.5°	196.3	201.4	201.9	201.5	202.9	201.4
53°	193.7	199.0	199.4	199.0	200.5	198.8
53.5°	191.1	196.3	196.7	196.4	198.1	196.1
54°	188.6	193.8	194.2	193.8	195.3	193.5
54.5°	185.9	191.1	191.6	191.3	192.7	191.1
55°	183.3	188.6	188.9	188.5	190.1	188.3
55.5°	180.6	185.9	186.3	186.1	187.5	185.7
56°	178.0	183.3	183.6	183.2	184.9	183.1
56.5°	175.2	180.6	181.0	180.7	182.1	180.4
57°	172.7	178.0	178.3	178.0	179.6	177.8
57.5°	169.9	175.2	175.6	175.3	176.8	175.0
58°	167.2	172.8	172.9	172.7	174.2	172.5
58.5°	164.5	169.8	170.4	169.9	171.4	169.7
59°	161.8	167.3	167.6	167.2	168.9	167.1
59.5°	159.1	164.4	164.9	164.5	166.1	164.3
60°	156.2	161.9	162.2	161.8	163.4	161.6
60.5°	153.7	159.0	159.5	159.1	160.7	158.9
61°	150.8	156.3	156.7	156.3	157.8	156.1
61.5°	148.2	153.7	154.0	153.7	155.3	153.4
62°	145.3	150.8	151.3	150.9	152.5	150.8
62.5°	142.6	148.0	148.5	148.2	149.7	148.0
63°	139.8	145.3	145.6	145.4	146.9	145.2
63.5°	137.0	142.6	142.9	142.7	144.2	142.4
64°	134.4	139.8	140.2	139.9	141.4	139.9
64.5°	131.6	137.0	137.4	137.1	138.8	136.9
65°	128.9	134.3	134.7	134.5	135.9	134.3
65.5°	126.0	131.5	131.9	131.6	133.3	131.5
66°	123.4	128.8	129.2	129.0	130.5	128.8
66.5°	120.7	125.9	126.5	126.0	127.7	125.9
67°	117.9	123.2	123.7	123.4	125.0	123.3

TEST NUMBER: P855574
 CATALOG NUMBER: HLCE4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	115.1	120.6	120.9	120.7	122.2	120.7
68°	112.4	117.7	118.2	118.0	119.5	117.8
68.5°	109.7	115.0	115.5	115.2	116.8	115.3
69°	107.1	112.2	112.7	112.5	114.2	112.4
69.5°	104.3	109.6	110.0	109.8	111.4	109.8
70°	101.7	106.9	107.4	107.2	108.7	107.1
70.5°	98.9	104.1	104.5	104.3	106.0	104.4
71°	96.4	101.6	102.0	101.8	103.3	101.8
71.5°	93.7	98.8	99.2	99.1	100.8	99.2
72°	91.2	96.1	96.6	96.5	98.0	96.6
72.5°	88.6	93.5	94.0	93.8	95.5	94.0
73°	86.0	90.9	91.4	91.2	92.8	91.4
73.5°	83.6	88.3	88.7	88.7	90.3	88.8
74°	81.1	85.7	86.2	86.1	87.7	86.2
74.5°	78.5	83.2	83.6	83.5	85.2	83.7
75°	76.0	80.6	81.1	81.0	82.7	81.2
75.5°	73.5	78.1	78.4	78.5	80.1	78.7
76°	71.2	75.7	76.1	76.0	77.6	76.3
76.5°	68.8	73.1	73.5	73.5	75.3	73.8
77°	66.4	70.8	71.1	71.2	72.8	71.4
77.5°	64.1	68.4	68.7	68.8	70.4	69.2
78°	61.8	66.0	66.4	66.4	68.1	66.8
78.5°	59.5	63.7	64.0	64.1	65.7	64.5
79°	57.3	61.3	61.8	61.8	63.4	62.2
79.5°	55.1	59.0	59.3	59.5	61.1	60.0
80°	52.9	56.9	57.2	57.3	58.9	57.8
80.5°	50.8	54.7	55.1	55.2	56.7	55.7
81°	48.8	52.4	52.9	52.9	54.5	53.6
81.5°	46.7	50.4	50.7	50.9	52.5	51.5
82°	44.8	48.3	48.7	48.9	50.3	49.5
82.5°	42.8	46.3	46.6	46.8	48.3	47.5
83°	40.8	44.3	44.7	44.8	46.3	45.6
83.5°	39.0	42.4	42.7	42.9	44.4	43.7
84°	37.2	40.4	40.8	40.9	42.5	41.8
84.5°	35.3	38.6	38.9	39.1	40.6	40.0
85°	33.7	36.8	37.1	37.3	38.7	38.3
85.5°	32.0	35.1	35.5	35.8	37.0	36.5
86°	30.4	33.5	33.8	34.0	35.3	34.8
86.5°	28.7	31.9	32.2	32.4	33.7	33.2
87°	27.3	30.2	30.6	30.7	32.1	31.7
87.5°	25.8	28.5	28.8	29.0	30.5	30.1
88°	24.3	27.0	27.3	27.5	28.8	28.4
88.5°	23.0	25.5	25.8	26.0	27.3	26.8
89°	21.5	24.1	24.4	24.5	25.8	25.3
89.5°	20.2	22.6	23.0	23.1	24.4	23.8

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


NVLAP Lab Code: 200050-0



TEST NUMBER: P855574
CATALOG NUMBER: HLCE4079FS1EWH-3000K

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)