

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: P855573

Luminaire Tested: **HLCE4079FS1EWH-2700K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P855573
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLCE4079FS1EWH-2700K
 Description: 4IN 1000LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 1049.6 (1 lamp)
 Luminaire Lumens: 1025.0 lumens
 Efficiency: 97.7%
 Efficacy: 80.1 lumens/watt
 Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
 Luminous Opening: Circular (Dia: 0.33' x H: 0')
 CIE Type: Direct

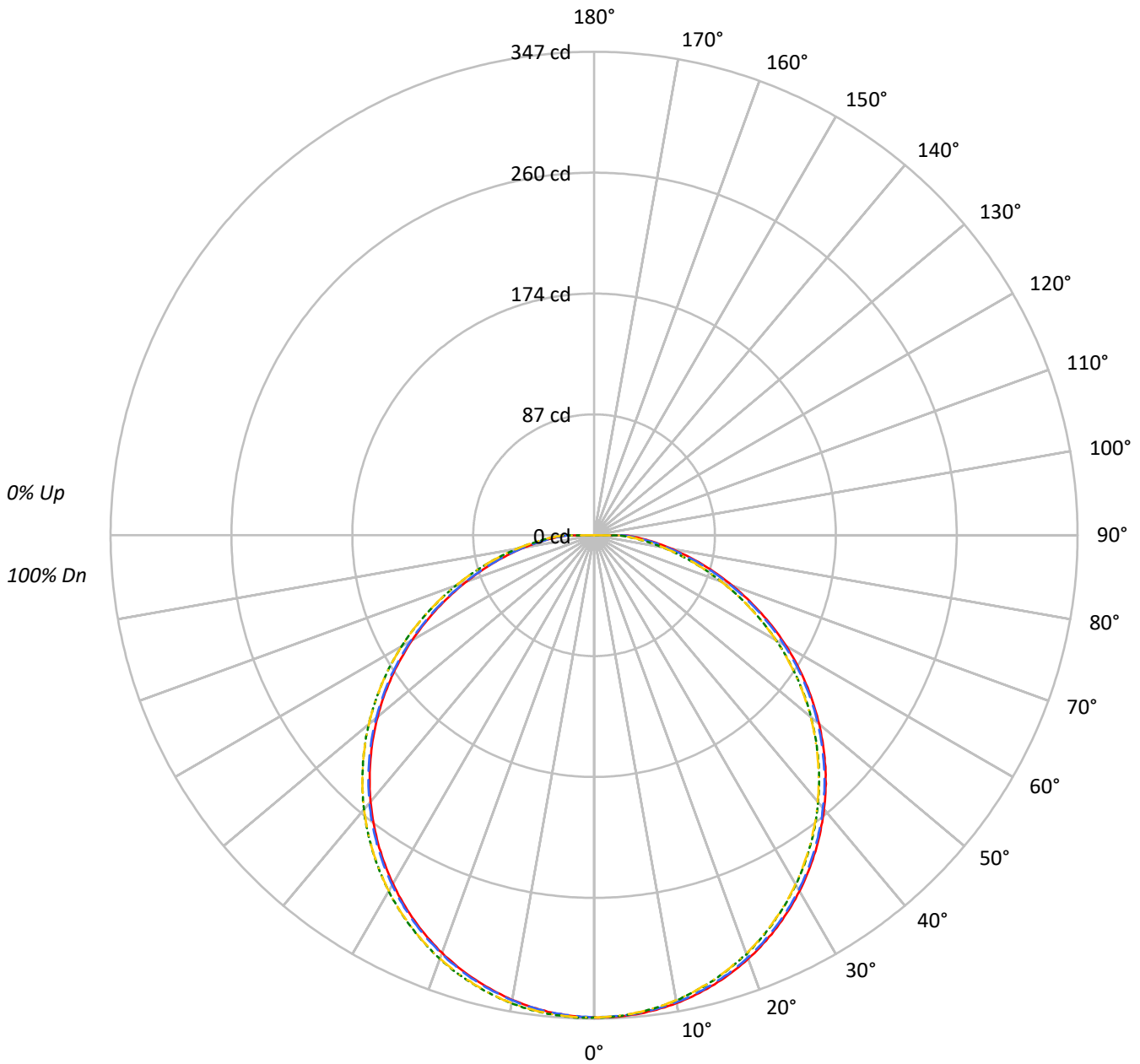
Input Watts (W): 12.8
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



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					
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	50	30	10	0		
RCR																										
0	116	116	116	116	114	114	114	114	109	109	109	104	104	104	100	100	100	98								
1	105	100	96	92	103	98	94	90	94	90	87	90	87	85	86	84	82	80								
2	95	87	80	74	93	85	79	73	82	76	71	78	74	70	75	72	68	66								
3	87	76	68	61	84	75	67	61	72	65	60	69	63	59	66	62	57	55								
4	79	67	58	52	77	66	58	51	64	56	51	61	55	50	59	54	49	47								
5	73	60	51	44	71	59	51	44	57	49	44	55	48	43	53	47	43	41								
6	67	54	45	39	65	53	45	39	51	44	38	50	43	38	48	42	37	35								
7	62	49	40	34	61	48	40	34	47	39	34	45	39	33	44	38	33	31								
8	58	45	36	30	57	44	36	30	43	35	30	41	35	30	40	34	30	28								
9	54	41	33	27	53	40	33	27	39	32	27	38	32	27	37	31	27	25								
10	51	38	30	25	50	37	30	25	36	29	25	35	29	24	35	29	24	23								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	43557	43557	43557	43557
5°	43609	43483	43445	43597
10°	43564	43296	43283	43590
15°	43504	43100	43008	43465
20°	43312	42856	42709	43339
25°	43130	42505	42366	43116
30°	42869	42070	41954	42855
35°	42572	41620	41497	42541
40°	42172	41088	41006	42205
45°	41789	40490	40366	41772
50°	41311	39804	39686	41311
55°	40723	38968	38924	40789
60°	40096	37981	37956	40171
65°	39397	36866	36896	39397
70°	38820	35766	35913	38746
75°	38900	35107	35496	38657
80°	41310	36092	36962	40658
85°	54437	45196	47362	52272

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	32.7	3.2	3.1
10°-20°	93.7	9.1	8.9
20°-30°	141.9	13.8	13.5
30°-40°	171.2	16.7	16.3
40°-50°	178.1	17.4	17.0
50°-60°	162.2	15.8	15.5
60°-70°	126.8	12.4	12.1
70°-80°	80.7	7.9	7.7
80°-90°	37.7	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°	268.3	26.2	25.6
0°-40°	439.5	42.9	41.9
0°-60°	779.8	76.1	74.3
0°-90°	1025.0	100.0	97.7
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°	1025.0	100.0	97.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	346	346	346	346	346	
5°	345	344	344	345	345	33
15°	334	331	330	334	334	94
25°	311	306	305	310	311	143
35°	277	271	270	277	277	173
45°	235	228	227	235	235	181
55°	186	178	177	186	186	166
65°	132	124	124	132	132	131
75°	80	72	73	80	80	85
85°	38	31	33	36	38	41
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°	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1
0.5°	346.3	346.1	345.9	345.6	346.3	346.3	346.1	345.9	346.0	346.1	345.9
1°	346.0	346.1	345.8	345.9	346.4	345.6	346.0	346.0	346.0	345.8	345.5
1.5°	346.2	346.1	345.9	345.6	346.1	345.9	345.9	345.7	345.8	345.6	345.8
2°	346.1	345.9	345.8	345.6	346.0	345.7	345.6	345.8	345.6	345.5	345.3
2.5°	346.1	345.9	345.4	345.4	345.8	345.4	345.6	345.2	345.4	345.4	345.5
3°	345.9	345.9	345.6	345.1	345.6	345.0	345.2	345.3	345.2	345.0	344.9
3.5°	345.8	345.7	345.4	345.2	345.4	345.0	345.1	344.7	345.0	344.8	345.0
4°	345.6	345.6	345.2	344.8	345.0	344.5	344.6	344.5	344.5	344.4	344.4
4.5°	345.3	345.3	344.9	344.6	344.6	344.4	344.6	344.2	344.5	344.2	344.3
5°	345.2	345.0	344.6	344.2	344.2	343.8	343.9	343.8	343.9	343.6	343.9
5.5°	344.9	345.0	344.4	344.1	343.9	343.5	343.7	343.4	343.8	343.4	343.4
6°	344.6	344.4	344.0	343.5	343.5	343.1	343.4	342.8	342.9	342.8	343.3
6.5°	344.1	344.2	343.7	343.2	342.8	342.6	342.8	342.5	342.9	342.5	342.6
7°	343.9	343.8	343.3	343.0	342.7	342.3	342.2	341.9	342.0	342.1	342.4
7.5°	343.6	343.4	342.9	342.2	342.0	341.6	342.0	341.5	341.8	341.3	341.7
8°	342.9	343.0	342.5	341.9	341.4	341.2	341.2	340.7	341.0	340.9	341.5
8.5°	342.7	342.6	341.9	341.4	340.9	340.6	340.9	340.4	340.6	340.3	340.6
9°	342.0	342.2	341.5	341.0	340.4	340.0	340.1	339.6	339.9	339.8	340.3
9.5°	341.7	341.7	341.0	340.0	339.7	339.2	339.5	339.0	339.1	338.8	339.6
10°	340.9	341.0	340.3	339.8	338.8	339.0	338.9	338.3	338.7	338.5	338.9
10.5°	340.6	340.6	339.7	339.0	338.6	337.8	338.1	337.5	337.7	337.5	338.3
11°	339.8	339.8	339.1	338.4	337.3	337.3	337.4	336.9	337.1	336.9	337.4
11.5°	339.2	339.3	338.5	337.5	336.8	336.5	336.5	335.8	336.2	336.0	336.8
12°	338.6	338.4	337.4	337.0	335.9	335.6	335.9	335.3	335.5	335.5	335.8
12.5°	337.6	337.9	337.1	336.1	335.3	335.0	335.1	334.2	334.7	334.3	335.3
13°	337.1	337.1	336.0	335.2	334.1	334.1	334.1	333.6	333.7	333.7	334.4
13.5°	336.0	336.3	335.5	334.6	333.5	333.1	333.1	332.4	333.0	332.6	333.6
14°	335.5	335.5	334.4	333.6	332.5	332.1	332.6	331.8	332.0	331.9	332.5
14.5°	334.5	334.6	333.8	332.9	331.7	331.6	331.4	330.8	331.1	330.7	331.8
15°	333.9	334.0	332.7	331.9	330.8	330.3	330.5	329.6	330.1	330.0	330.6
15.5°	332.6	332.8	331.8	331.0	329.8	329.4	329.4	328.7	329.2	328.8	329.9
16°	332.0	332.1	331.0	330.0	328.5	328.1	328.5	327.7	328.2	328.0	328.7
16.5°	331.0	331.1	329.9	329.1	327.8	327.6	327.5	326.7	327.1	326.9	327.9
17°	329.9	330.3	329.2	328.1	326.7	326.1	326.4	325.5	326.0	325.7	326.6
17.5°	329.0	329.1	328.0	326.9	325.5	325.2	325.3	324.5	325.0	324.6	325.7
18°	327.9	328.2	327.1	326.1	324.3	323.9	324.0	323.3	323.8	323.6	324.4
18.5°	327.0	327.0	325.9	324.6	323.3	322.9	323.0	322.1	322.5	322.3	323.4
19°	325.6	326.2	324.9	323.8	322.1	321.5	321.8	321.0	321.4	321.1	322.3
19.5°	324.8	324.7	323.7	322.5	320.7	320.7	320.5	319.7	320.4	319.9	320.9
20°	323.4	323.9	322.6	321.6	320.0	319.0	319.4	318.6	318.9	318.7	319.8
20.5°	322.4	322.5	321.5	319.9	318.3	317.8	318.1	317.0	317.9	317.3	318.5
21°	321.2	321.6	320.1	319.1	317.3	316.8	316.7	316.0	316.4	316.1	317.1
21.5°	320.0	319.9	318.9	317.7	315.8	315.2	315.5	314.5	315.2	314.9	315.8
22°	318.7	319.2	317.6	316.4	314.6	313.9	314.1	313.2	313.6	313.3	314.7

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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°	317.2	317.6	316.4	315.1	313.1	312.6	312.8	311.6	312.5	312.2	313.4
23°	316.2	316.5	314.8	313.7	311.9	311.2	311.2	310.5	311.0	310.5	311.7
23.5°	314.5	314.9	313.8	312.5	310.2	309.7	310.0	308.9	309.5	309.3	310.5
24°	313.5	313.8	312.2	310.9	308.8	308.4	308.4	307.4	308.2	307.7	309.0
24.5°	311.8	312.3	310.9	309.7	307.4	306.7	307.1	306.0	306.6	306.4	307.4
25°	310.6	310.9	309.4	308.1	306.1	305.4	305.4	304.5	305.1	304.6	306.1
25.5°	309.0	309.4	308.0	306.6	304.1	303.7	304.0	302.8	303.6	303.3	304.5
26°	307.7	308.0	306.6	305.1	303.0	302.4	302.4	301.4	302.1	301.7	303.1
26.5°	306.0	306.5	305.1	303.7	301.1	300.6	300.9	299.7	300.5	300.1	301.3
27°	304.5	305.1	303.5	302.1	299.7	299.2	299.1	298.3	298.9	298.3	300.1
27.5°	303.0	303.4	301.9	300.4	297.9	297.5	297.7	296.4	297.3	297.0	298.1
28°	301.5	302.0	300.4	299.0	296.5	295.9	295.9	294.9	295.5	295.1	296.7
28.5°	299.7	300.4	298.7	297.1	294.6	294.1	294.4	293.0	294.1	293.4	295.0
29°	298.4	298.7	297.1	295.9	292.9	292.6	292.5	291.4	292.1	291.7	293.3
29.5°	296.3	297.0	295.5	293.9	291.4	290.6	291.0	289.6	290.5	290.1	291.7
30°	295.0	295.3	293.9	292.5	289.5	289.2	289.0	287.9	288.7	288.3	289.9
30.5°	293.3	293.8	292.0	290.5	287.9	287.2	287.4	286.1	287.0	286.5	288.1
31°	291.5	291.8	290.4	289.0	286.0	285.5	285.5	284.3	285.1	284.7	286.2
31.5°	289.7	290.4	288.6	287.0	284.3	283.7	283.8	282.4	283.3	282.8	284.7
32°	288.0	288.5	286.9	285.4	282.3	281.9	282.0	280.6	281.6	281.2	282.6
32.5°	286.2	286.7	284.9	283.6	280.7	279.9	280.0	278.8	279.6	279.1	281.0
33°	284.3	284.8	283.3	281.7	278.6	278.1	278.1	276.8	277.9	277.3	279.0
33.5°	282.5	283.1	281.3	279.8	276.7	276.2	276.3	274.9	276.1	275.3	277.1
34°	280.8	281.3	279.5	278.0	274.9	274.3	274.4	273.1	273.9	273.6	275.2
34.5°	278.6	279.3	277.6	276.1	272.8	272.3	272.4	271.0	272.2	271.4	273.4
35°	277.1	277.6	275.7	274.1	270.9	270.3	270.5	269.0	270.1	269.7	271.5
35.5°	275.0	275.4	273.9	272.2	268.9	268.5	268.5	267.0	268.2	267.6	269.3
36°	273.1	273.8	271.8	270.3	267.0	266.3	266.5	265.0	266.0	265.5	267.5
36.5°	271.0	271.6	270.0	268.3	264.7	264.5	264.3	262.9	264.3	263.5	265.4
37°	269.1	269.8	267.8	266.3	263.0	262.3	262.5	261.0	262.1	261.6	263.3
37.5°	267.1	267.7	265.9	264.3	260.8	260.3	260.3	258.8	260.0	259.5	261.3
38°	264.9	265.9	263.7	262.4	258.7	258.2	258.4	256.7	258.0	257.3	259.4
38.5°	263.1	263.6	261.9	260.0	256.5	256.2	256.0	254.5	255.9	255.3	257.3
39°	260.8	261.6	259.8	258.2	254.5	254.0	254.1	252.6	253.8	253.2	255.0
39.5°	258.9	259.5	257.6	255.9	252.4	252.1	251.8	250.3	251.6	251.0	253.1
40°	256.7	257.6	255.5	254.1	250.1	249.6	249.8	248.2	249.6	248.9	250.8
40.5°	254.7	255.1	253.5	251.6	248.0	247.6	247.5	245.9	247.3	246.7	248.6
41°	252.5	253.3	251.3	249.7	245.7	245.4	245.4	243.7	245.1	244.5	246.4
41.5°	250.3	250.9	249.0	247.4	243.7	243.2	243.2	241.4	243.1	242.4	244.3
42°	248.2	248.9	247.0	245.3	241.2	240.7	240.7	239.3	240.6	239.9	242.1
42.5°	245.9	246.5	244.6	243.0	239.1	238.6	238.6	236.9	238.4	237.8	239.7
43°	244.1	244.6	242.5	240.7	236.8	236.3	236.3	234.6	236.1	235.5	237.5
43.5°	241.3	242.2	240.1	238.5	234.6	234.1	234.1	232.4	233.9	233.2	235.2
44°	239.3	240.0	237.9	236.1	232.1	231.6	231.6	230.0	231.6	230.6	233.0
44.5°	236.9	237.6	235.5	233.9	230.0	229.4	229.5	227.8	229.2	228.6	230.6

TEST NUMBER: P855573
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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	234.8	235.4	233.3	231.6	227.5	227.2	227.1	225.4	226.8	226.2	228.3
45.5°	232.2	233.0	231.1	229.4	225.2	224.7	224.7	223.2	224.5	223.9	226.0
46°	230.0	230.9	228.6	226.9	222.7	222.4	222.2	220.5	222.3	221.4	223.5
46.5°	227.7	228.3	226.4	224.7	220.5	219.9	220.0	218.5	219.8	219.1	221.2
47°	225.2	226.1	223.8	222.3	218.0	217.6	217.4	215.8	217.4	216.8	218.8
47.5°	223.0	223.7	221.6	219.9	215.5	215.2	215.2	213.6	215.1	214.1	216.5
48°	220.6	221.4	219.2	217.5	213.2	212.8	212.6	211.0	212.6	211.9	214.0
48.5°	218.0	218.8	216.9	215.0	210.7	210.3	210.4	208.7	210.1	209.4	211.6
49°	215.7	216.5	214.2	212.7	208.2	207.8	207.7	206.0	207.8	207.0	209.2
49.5°	213.3	214.1	212.0	210.2	205.8	205.3	205.4	203.8	205.3	204.4	206.6
50°	211.0	211.7	209.5	207.7	203.3	202.9	202.7	201.1	202.7	202.0	204.2
50.5°	208.3	209.1	207.0	205.3	200.9	200.3	200.4	198.7	200.3	199.5	201.7
51°	206.0	206.8	204.5	202.8	198.2	197.9	197.8	196.1	197.8	197.1	199.3
51.5°	203.4	204.1	202.0	200.2	195.9	195.2	195.3	193.8	195.3	194.5	196.6
52°	200.8	201.8	199.5	197.9	193.3	192.8	192.7	191.0	192.7	192.0	194.3
52.5°	198.5	199.2	196.9	195.2	190.7	190.2	190.3	188.6	190.2	189.5	191.6
53°	195.9	196.7	194.4	192.8	188.1	187.7	187.7	185.9	187.7	186.8	189.1
53.5°	193.3	194.2	191.9	190.0	185.5	185.1	185.1	183.4	185.0	184.4	186.5
54°	190.7	191.6	189.3	187.7	182.9	182.5	182.4	180.7	182.6	181.7	183.9
54.5°	188.3	189.0	186.7	184.9	180.3	179.9	179.9	178.3	179.8	179.2	181.4
55°	185.6	186.4	184.1	182.6	177.6	177.4	177.2	175.5	177.4	176.5	178.7
55.5°	183.0	184.0	181.5	179.7	175.1	174.6	174.6	172.9	174.6	173.9	176.3
56°	180.5	181.2	179.0	177.3	172.4	171.9	172.0	170.3	172.2	171.3	173.5
56.5°	177.8	178.7	176.3	174.6	169.7	169.4	169.3	167.7	169.4	168.6	170.8
57°	175.3	176.0	173.7	172.0	167.1	166.7	166.7	165.0	166.8	165.9	168.2
57.5°	172.5	173.5	171.0	169.2	164.5	164.0	164.0	162.4	164.1	163.4	165.6
58°	170.0	170.7	168.4	166.6	161.8	161.3	161.4	159.7	161.4	160.7	163.0
58.5°	167.3	168.2	165.7	164.0	159.1	158.7	158.7	157.0	158.9	158.0	160.3
59°	164.7	165.5	163.1	161.3	156.4	155.9	156.1	154.4	156.1	155.3	157.6
59.5°	162.0	162.8	160.5	158.7	153.7	153.4	153.3	151.7	153.5	152.7	154.9
60°	159.3	160.1	157.6	156.0	150.9	150.5	150.7	149.0	150.8	149.9	152.2
60.5°	156.6	157.4	155.0	153.3	148.3	148.0	148.0	146.3	148.2	147.3	149.5
61°	153.9	154.8	152.3	150.5	145.6	145.2	145.2	143.6	145.4	144.5	146.9
61.5°	151.2	152.0	149.7	147.9	142.8	142.5	142.5	140.8	142.7	141.9	144.1
62°	148.7	149.4	146.8	145.2	140.1	139.7	139.8	138.3	140.0	139.1	141.3
62.5°	145.9	146.6	144.2	142.4	137.4	137.1	137.1	135.5	137.2	136.4	138.7
63°	143.1	143.9	141.4	139.7	134.6	134.3	134.3	132.8	134.7	133.7	135.9
63.5°	140.3	141.1	138.7	136.9	131.9	131.6	131.7	130.0	131.9	131.1	133.3
64°	137.8	138.4	135.9	134.2	129.1	128.8	129.0	127.5	129.3	128.4	130.5
64.5°	134.9	135.7	133.3	131.5	126.5	126.2	126.3	124.7	126.5	125.6	127.9
65°	132.3	133.1	130.6	128.8	123.8	123.4	123.5	122.0	123.9	123.1	125.2
65.5°	129.6	130.2	127.9	126.0	121.1	120.8	121.0	119.3	121.2	120.4	122.4
66°	126.9	127.6	125.2	123.4	118.3	118.0	118.2	116.8	118.5	117.6	119.8
66.5°	124.1	124.9	122.4	120.7	115.7	115.4	115.6	113.9	115.9	115.1	117.1
67°	121.5	122.3	119.8	117.9	113.0	112.7	112.8	111.4	113.3	112.3	114.5

TEST NUMBER: P855573
 CATALOG NUMBER: HLCE4079FS1EWH-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	118.9	119.4	117.1	115.3	110.3	110.1	110.3	108.7	110.5	109.7	111.7
68°	116.1	116.8	114.4	112.6	107.7	107.3	107.5	106.3	107.9	107.0	109.2
68.5°	113.6	114.1	111.8	109.9	105.0	104.7	105.0	103.5	105.3	104.5	106.5
69°	110.8	111.5	109.1	107.3	102.4	102.1	102.2	100.9	102.7	101.8	103.8
69.5°	108.2	108.8	106.4	104.7	99.7	99.5	99.8	98.2	100.1	99.3	101.2
70°	105.5	106.1	103.8	102.0	97.2	96.9	97.1	95.8	97.6	96.7	98.6
70.5°	102.9	103.5	101.0	99.4	94.5	94.3	94.6	93.2	95.0	94.1	96.1
71°	100.3	100.8	98.6	96.8	92.0	91.8	92.0	90.7	92.5	91.6	93.4
71.5°	97.8	98.4	95.8	94.2	89.4	89.2	89.5	88.1	89.9	89.0	90.9
72°	95.2	95.7	93.4	91.6	87.0	86.7	86.9	85.8	87.5	86.6	88.3
72.5°	92.6	93.1	90.7	89.1	84.5	84.2	84.5	83.3	85.0	84.2	85.9
73°	90.1	90.5	88.3	86.5	82.0	81.8	82.1	80.9	82.6	81.7	83.4
73.5°	87.5	88.0	85.6	83.9	79.6	79.3	79.6	78.4	80.2	79.3	80.9
74°	85.0	85.5	83.2	81.4	77.1	76.9	77.2	75.9	77.8	76.9	78.4
74.5°	82.5	83.0	80.7	79.0	74.6	74.4	74.8	73.6	75.4	74.5	75.9
75°	80.0	80.5	78.3	76.5	72.2	72.0	72.4	71.2	73.0	72.1	73.7
75.5°	77.6	78.0	75.8	74.1	69.8	69.6	70.1	68.9	70.6	69.7	71.3
76°	75.2	75.7	73.5	71.7	67.4	67.3	67.7	66.6	68.4	67.4	68.9
76.5°	72.8	73.1	71.0	69.3	65.1	64.9	65.4	64.4	66.0	65.1	66.6
77°	70.4	70.9	68.7	67.0	62.8	62.7	63.1	62.1	63.9	62.9	64.3
77.5°	68.2	68.5	66.2	64.7	60.6	60.5	60.9	59.9	61.6	60.6	62.0
78°	65.9	66.2	64.1	62.4	58.4	58.3	58.7	57.7	59.4	58.4	59.8
78.5°	63.6	63.9	61.8	60.1	56.2	56.1	56.6	55.6	57.3	56.3	57.6
79°	61.3	61.7	59.5	58.0	54.0	53.9	54.4	53.5	55.1	54.2	55.4
79.5°	59.2	59.5	57.3	55.7	51.9	51.8	52.4	51.5	53.1	52.1	53.3
80°	57.0	57.2	55.2	53.6	49.8	49.8	50.3	49.5	51.0	50.1	51.2
80.5°	54.9	55.1	53.1	51.5	47.7	47.6	48.2	47.3	49.1	48.0	49.2
81°	52.9	53.0	50.9	49.4	45.7	45.7	46.2	45.4	47.0	46.1	47.1
81.5°	50.8	51.0	49.0	47.3	43.8	43.7	44.3	43.5	45.1	44.2	45.1
82°	48.8	48.9	46.8	45.3	41.9	41.9	42.4	41.7	43.2	42.2	43.2
82.5°	46.8	46.9	44.9	43.4	40.0	40.0	40.5	39.8	41.4	40.4	41.3
83°	44.9	44.9	43.0	41.4	38.1	38.2	38.7	38.0	39.6	38.6	39.5
83.5°	43.0	43.1	41.1	39.6	36.3	36.4	37.0	36.4	37.8	36.8	37.7
84°	41.2	41.2	39.2	37.8	34.6	34.7	35.2	34.6	36.1	35.1	35.9
84.5°	39.4	39.4	37.4	36.1	33.0	33.0	33.5	33.0	34.4	33.4	34.2
85°	37.7	37.7	35.7	34.4	31.3	31.4	31.9	31.3	32.8	31.8	32.5
85.5°	35.9	35.9	34.1	32.8	29.6	29.7	30.3	29.8	31.1	30.1	30.8
86°	34.3	34.3	32.5	31.2	28.1	28.2	28.8	28.3	29.6	28.6	29.3
86.5°	32.7	32.7	30.9	29.6	26.6	26.7	27.2	26.8	28.0	27.0	27.7
87°	31.2	31.2	29.3	28.0	25.1	25.2	25.8	25.4	26.5	25.6	26.3
87.5°	29.6	29.6	27.7	26.4	23.7	23.8	24.3	23.9	25.0	24.1	24.8
88°	28.0	28.0	26.3	25.0	22.3	22.4	23.0	22.6	23.6	22.7	23.4
88.5°	26.4	26.5	24.8	23.5	20.9	21.1	21.6	21.2	22.1	21.4	22.0
89°	24.9	25.0	23.4	22.2	19.6	19.8	20.3	20.0	20.7	20.1	20.7
89.5°	23.4	23.5	22.0	20.8	18.4	18.5	19.1	18.7	19.5	18.8	19.4

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



TEST NUMBER: P855573
CATALOG NUMBER: HLCE4079FS1EWH-2700K

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: P855573
 CATALOG NUMBER: HLCE4079FS1EWH-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	346.1	346.1	346.1	346.1	346.1	346.1
0.5°	345.6	346.6	346.3	346.4	346.2	346.3
1°	345.9	346.3	346.0	346.0	346.1	346.0
1.5°	345.4	346.4	346.2	346.3	346.4	346.2
2°	345.6	346.4	346.0	346.2	346.1	346.1
2.5°	345.4	346.4	345.8	346.1	346.3	346.1
3°	345.2	345.9	345.7	345.8	345.9	345.9
3.5°	345.0	346.0	345.6	345.8	346.1	345.8
4°	344.8	345.6	345.5	345.4	345.6	345.6
4.5°	344.4	345.6	345.4	345.5	345.7	345.3
5°	343.9	345.1	345.0	345.0	345.3	345.2
5.5°	344.0	345.1	344.6	344.8	345.1	344.9
6°	343.4	344.6	344.6	344.3	344.9	344.6
6.5°	343.1	344.5	344.1	344.3	344.4	344.1
7°	342.5	343.8	343.7	343.8	344.2	343.9
7.5°	342.2	343.7	343.3	343.3	343.8	343.6
8°	341.6	343.0	343.0	343.0	343.5	342.9
8.5°	341.1	342.8	342.3	342.5	342.8	342.7
9°	340.8	341.9	342.2	341.9	342.6	342.0
9.5°	339.8	341.6	341.2	341.4	342.0	341.7
10°	339.6	341.1	340.8	341.0	341.3	340.9
10.5°	338.7	340.6	340.4	340.2	340.8	340.6
11°	338.1	339.7	339.7	339.9	340.3	339.8
11.5°	337.2	339.4	338.9	338.9	339.8	339.2
12°	336.8	338.4	338.3	338.4	338.8	338.6
12.5°	335.8	337.8	337.5	337.4	338.5	337.6
13°	335.1	336.9	336.8	337.0	337.3	337.1
13.5°	334.2	336.3	336.0	335.8	336.8	336.0
14°	333.3	335.3	335.2	335.2	335.8	335.5
14.5°	332.2	334.7	334.4	334.3	335.3	334.5
15°	331.7	333.6	333.5	333.6	334.3	333.9
15.5°	330.5	332.9	332.7	332.3	333.4	332.6
16°	329.7	332.0	331.6	331.9	332.5	332.0
16.5°	328.4	330.9	330.9	330.6	331.5	331.0
17°	327.7	330.1	329.9	329.8	330.8	329.9
17.5°	326.3	329.0	328.7	328.7	329.5	329.0
18°	325.4	328.2	327.7	327.7	328.7	327.9
18.5°	324.3	326.9	326.9	326.5	327.5	327.0
19°	323.0	325.8	325.6	325.7	326.6	325.6
19.5°	322.0	324.8	324.7	324.3	325.3	324.8
20°	320.6	323.6	323.3	323.3	324.3	323.4
20.5°	319.5	322.3	322.5	322.0	323.3	322.4
21°	318.1	321.2	320.9	321.1	321.8	321.2
21.5°	317.1	319.7	320.0	319.5	320.8	320.0
22°	315.5	318.7	318.4	318.3	319.5	318.7

TEST NUMBER: P855573
 CATALOG NUMBER: HLCE4079FS1EWH-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	314.3	317.2	317.4	317.2	318.4	317.2
23°	313.1	316.1	315.9	315.8	316.7	316.2
23.5°	311.5	314.6	314.9	314.4	315.9	314.5
24°	310.2	313.5	313.1	313.1	314.1	313.5
24.5°	308.7	311.7	311.9	311.6	312.9	311.8
25°	307.4	310.5	310.5	310.3	311.4	310.6
25.5°	305.6	309.0	309.1	308.9	310.1	309.0
26°	304.4	307.7	307.6	307.3	308.5	307.7
26.5°	302.6	306.0	306.1	305.9	307.0	306.0
27°	301.1	304.7	304.7	304.4	305.7	304.5
27.5°	299.5	303.0	303.1	302.9	304.0	303.0
28°	298.0	301.5	301.6	301.1	302.6	301.5
28.5°	296.4	299.6	299.8	299.7	300.9	299.7
29°	294.5	298.4	298.4	298.1	299.4	298.4
29.5°	293.0	296.6	296.6	296.5	297.7	296.3
30°	291.2	294.9	295.2	294.7	296.1	295.0
30.5°	289.6	293.1	293.2	293.2	294.4	293.3
31°	287.6	291.5	291.7	291.2	292.6	291.5
31.5°	286.0	289.8	289.9	289.7	291.1	289.7
32°	284.2	287.9	288.2	287.8	289.0	288.0
32.5°	282.4	286.2	286.3	286.1	287.5	286.2
33°	280.4	284.2	284.7	284.3	285.6	284.3
33.5°	278.6	282.7	282.7	282.6	284.0	282.5
34°	276.8	280.6	281.0	280.5	281.8	280.8
34.5°	274.7	278.8	279.0	278.7	280.3	278.6
35°	272.9	276.9	277.1	276.8	278.2	277.1
35.5°	270.9	275.1	275.3	275.0	276.3	275.0
36°	269.1	273.1	273.3	272.9	274.4	273.1
36.5°	266.9	271.3	271.3	271.0	272.5	271.0
37°	265.1	269.3	269.4	269.1	270.5	269.1
37.5°	262.9	267.1	267.4	267.1	268.4	267.1
38°	260.8	265.2	265.4	265.1	266.5	264.9
38.5°	258.7	263.1	263.3	263.0	264.3	263.1
39°	256.7	261.3	261.4	260.9	262.4	260.8
39.5°	254.6	259.0	259.4	259.0	260.3	258.9
40°	252.3	256.9	257.1	256.7	258.2	256.7
40.5°	250.3	254.7	255.2	254.7	256.1	254.7
41°	248.1	252.7	252.8	252.6	254.0	252.5
41.5°	246.0	250.4	250.8	250.5	251.9	250.3
42°	243.7	248.3	248.6	248.1	249.6	248.2
42.5°	241.4	246.1	246.5	246.0	247.7	245.9
43°	239.2	243.8	244.1	243.9	245.1	244.1
43.5°	236.8	241.5	242.1	241.7	243.1	241.3
44°	234.7	239.3	239.6	239.1	240.7	239.3
44.5°	232.3	237.0	237.4	237.1	238.6	236.9

TEST NUMBER: P855573
 CATALOG NUMBER: HLCE4079FS1EWH-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	230.1	234.7	235.0	234.6	236.0	234.8
45.5°	227.6	232.5	232.8	232.6	234.0	232.2
46°	225.4	230.1	230.5	230.1	231.6	230.0
46.5°	222.9	227.8	228.2	227.8	229.2	227.7
47°	220.6	225.3	225.7	225.3	226.9	225.2
47.5°	218.2	223.2	223.4	223.2	224.6	223.0
48°	215.8	220.5	221.0	220.6	222.2	220.6
48.5°	213.4	218.5	218.8	218.4	219.7	218.0
49°	210.9	215.8	216.2	215.8	217.5	215.7
49.5°	208.5	213.5	213.9	213.6	214.9	213.3
50°	205.9	211.0	211.4	210.9	212.6	211.0
50.5°	203.6	208.6	208.9	208.6	210.1	208.3
51°	201.1	206.1	206.5	206.0	207.6	206.0
51.5°	198.6	203.6	203.9	203.6	205.2	203.4
52°	196.0	201.2	201.5	201.1	202.6	200.8
52.5°	193.5	198.5	199.0	198.6	200.0	198.5
53°	190.9	196.1	196.5	196.1	197.6	195.9
53.5°	188.3	193.5	193.9	193.6	195.2	193.3
54°	185.9	191.0	191.4	191.0	192.5	190.7
54.5°	183.2	188.3	188.8	188.5	189.9	188.3
55°	180.7	185.9	186.2	185.8	187.4	185.6
55.5°	178.0	183.2	183.6	183.4	184.8	183.0
56°	175.5	180.7	181.0	180.6	182.2	180.5
56.5°	172.7	178.0	178.4	178.1	179.5	177.8
57°	170.2	175.5	175.7	175.5	177.0	175.3
57.5°	167.5	172.7	173.1	172.8	174.3	172.5
58°	164.8	170.3	170.4	170.2	171.7	170.0
58.5°	162.2	167.4	168.0	167.5	169.0	167.3
59°	159.5	164.9	165.2	164.8	166.5	164.7
59.5°	156.8	162.1	162.6	162.2	163.7	162.0
60°	154.0	159.6	159.9	159.5	161.1	159.3
60.5°	151.5	156.7	157.2	156.8	158.4	156.6
61°	148.7	154.1	154.5	154.1	155.6	153.9
61.5°	146.1	151.5	151.8	151.5	153.1	151.2
62°	143.2	148.7	149.2	148.8	150.3	148.7
62.5°	140.5	145.9	146.4	146.1	147.6	145.9
63°	137.7	143.2	143.5	143.3	144.7	143.1
63.5°	135.0	140.5	140.8	140.6	142.1	140.3
64°	132.4	137.7	138.1	137.8	139.3	137.8
64.5°	129.7	135.0	135.4	135.1	136.8	134.9
65°	127.0	132.3	132.7	132.5	133.9	132.3
65.5°	124.2	129.6	130.0	129.7	131.3	129.6
66°	121.6	126.9	127.3	127.1	128.6	126.9
66.5°	118.9	124.1	124.6	124.2	125.8	124.1
67°	116.2	121.4	121.9	121.6	123.2	121.5

TEST NUMBER: P855573
 CATALOG NUMBER: HLCE4079FS1EWH-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	113.4	118.8	119.1	118.9	120.4	118.9
68°	110.8	116.0	116.5	116.3	117.8	116.1
68.5°	108.1	113.3	113.8	113.5	115.1	113.6
69°	105.5	110.6	111.1	110.9	112.5	110.8
69.5°	102.8	108.0	108.4	108.2	109.8	108.2
70°	100.2	105.3	105.8	105.6	107.1	105.5
70.5°	97.5	102.6	103.0	102.8	104.5	102.9
71°	95.0	100.1	100.5	100.3	101.8	100.3
71.5°	92.4	97.4	97.8	97.7	99.3	97.8
72°	89.9	94.7	95.2	95.1	96.6	95.2
72.5°	87.3	92.2	92.6	92.5	94.1	92.6
73°	84.8	89.6	90.1	89.9	91.5	90.1
73.5°	82.4	87.0	87.4	87.4	89.0	87.5
74°	79.9	84.5	85.0	84.9	86.4	85.0
74.5°	77.4	82.0	82.4	82.3	84.0	82.5
75°	74.9	79.5	79.9	79.8	81.5	80.0
75.5°	72.5	77.0	77.3	77.4	79.0	77.6
76°	70.2	74.6	75.0	74.9	76.5	75.2
76.5°	67.8	72.1	72.5	72.5	74.2	72.8
77°	65.5	69.8	70.1	70.2	71.8	70.4
77.5°	63.2	67.4	67.7	67.8	69.4	68.2
78°	60.9	65.1	65.5	65.5	67.1	65.9
78.5°	58.7	62.8	63.1	63.2	64.8	63.6
79°	56.5	60.5	60.9	60.9	62.5	61.3
79.5°	54.3	58.2	58.5	58.7	60.3	59.2
80°	52.2	56.1	56.4	56.5	58.1	57.0
80.5°	50.1	54.0	54.3	54.4	55.9	54.9
81°	48.0	51.7	52.2	52.2	53.8	52.9
81.5°	46.0	49.7	50.0	50.2	51.8	50.8
82°	44.1	47.6	47.9	48.1	49.6	48.8
82.5°	42.1	45.6	45.9	46.1	47.6	46.8
83°	40.2	43.6	44.0	44.1	45.6	44.9
83.5°	38.4	41.7	42.0	42.2	43.7	43.0
84°	36.6	39.8	40.2	40.3	41.8	41.2
84.5°	34.8	38.0	38.3	38.5	40.0	39.4
85°	33.2	36.2	36.5	36.7	38.1	37.7
85.5°	31.5	34.6	35.0	35.2	36.4	35.9
86°	29.9	33.0	33.3	33.5	34.8	34.3
86.5°	28.3	31.4	31.7	31.9	33.2	32.7
87°	26.9	29.7	30.1	30.2	31.6	31.2
87.5°	25.4	28.1	28.4	28.6	30.0	29.6
88°	23.9	26.6	26.9	27.1	28.4	28.0
88.5°	22.6	25.1	25.4	25.6	26.9	26.4
89°	21.2	23.7	24.0	24.1	25.4	24.9
89.5°	19.9	22.3	22.6	22.7	24.0	23.4

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


NVLAP Lab Code: 200050-0



TEST NUMBER: P855573
CATALOG NUMBER: HLCE4079FS1EWH-2700K

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)