

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: P855576

Luminaire Tested: **HLCE4079FS1EWH-4000K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P855576  
 Test Lab:  
 Issue Date: 7/16/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: HLCE4079FS1EWH-4000K  
 Description: 4IN 1000LM, 90CRI, DIMMING TO 10%, DAMP LOCATION  
 Light Source: SELECTABLE CCT 90CRI / 4000K CCT  
 Ballast/Driver: -

**Summary**

Lumens per Lamp: 1049.6 (1 lamp)  
 Luminaire Lumens: 1095.0 lumens  
 Efficiency: 104.3%  
 Efficacy: 84.9 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

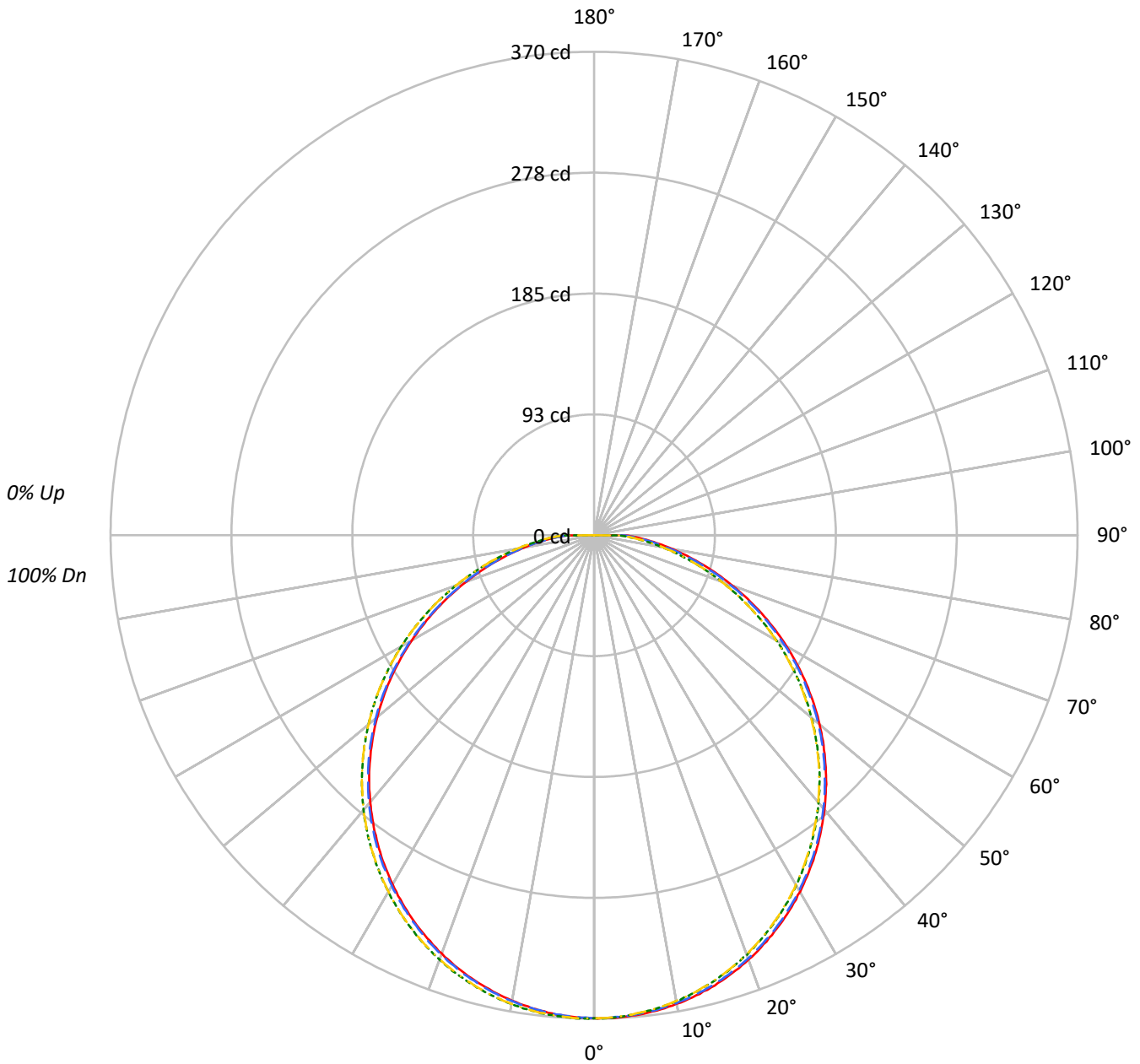
Input Watts (W): 12.9  
 Input Voltage (V): NR  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: NR  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 25 FT



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	0	
RCR																						
0	124	124	124	124	121	121	121	121	116	116	116	111	111	111	106	106	106	104				
1	113	107	102	98	110	105	100	96	100	97	93	96	93	90	92	90	88	85				
2	102	93	85	79	99	91	84	78	87	81	76	84	79	75	80	76	73	71				
3	93	81	72	65	90	80	71	65	77	69	64	74	68	63	71	66	61	59				
4	85	72	62	55	82	71	62	55	68	60	54	65	59	53	63	57	53	50				
5	78	64	55	47	76	63	54	47	61	53	47	59	52	46	57	51	46	43				
6	72	58	48	41	70	57	48	41	55	47	41	53	46	40	51	45	40	38				
7	67	52	43	36	65	51	43	36	50	42	36	48	41	36	47	40	35	33				
8	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	37	32	30				
9	58	44	35	29	57	43	35	29	42	34	29	41	34	29	40	33	29	27				
10	54	40	32	26	53	40	32	26	39	31	26	38	31	26	37	31	26	24				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	46527	46527	46527	46527
5°	46578	46452	46401	46565
10°	46529	46248	46235	46554
15°	46487	46044	45953	46435
20°	46272	45789	45629	46298
25°	46074	45407	45268	46060
30°	45804	44947	44816	45775
35°	45476	44462	44323	45445
40°	45047	43881	43798	45080
45°	44655	43267	43124	44637
50°	44131	42525	42408	44131
55°	43509	41623	41579	43575
60°	42814	40574	40549	42915
65°	42107	39397	39427	42107
70°	41469	38194	38378	41396
75°	41525	37490	37927	41282
80°	44064	38484	39426	43412
85°	58192	48373	50683	55881

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	35.0	3.2	3.3
10°-20°	100.1	9.1	9.5
20°-30°	151.6	13.8	14.4
30°-40°	182.9	16.7	17.4
40°-50°	190.3	17.4	18.1
50°-60°	173.3	15.8	16.5
60°-70°	135.4	12.4	12.9
70°-80°	86.2	7.9	8.2
80°-90°	40.3	3.7	3.8
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°	286.6	26.2	27.3
0°-40°	469.5	42.9	44.7
0°-60°	833.1	76.1	79.4
0°-90°	1095.0	100.0	104.3
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°	1095.0	100.0	104.3

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	370	370	370	370	370	
5°	369	368	367	369	369	35
15°	357	353	353	356	357	101
25°	332	327	326	332	332	153
35°	296	289	288	296	296	185
45°	251	243	242	251	251	193
55°	198	190	190	199	198	177
65°	141	132	132	141	141	140
75°	85	77	78	85	85	91
85°	40	34	35	39	40	44
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°	369.7	369.7	369.7	369.7	369.7	369.7	369.7	369.7	369.7	369.7	369.7
0.5°	369.9	369.7	369.5	369.2	369.9	369.9	369.7	369.5	369.6	369.7	369.5
1°	369.6	369.7	369.4	369.5	370.0	369.2	369.6	369.6	369.6	369.4	369.0
1.5°	369.8	369.7	369.5	369.2	369.7	369.5	369.5	369.3	369.4	369.2	369.4
2°	369.7	369.5	369.4	369.2	369.6	369.3	369.2	369.4	369.2	369.0	368.8
2.5°	369.7	369.5	368.9	368.9	369.4	368.9	369.2	368.7	368.9	368.9	369.0
3°	369.5	369.5	369.2	368.6	369.2	368.5	368.7	368.8	368.7	368.5	368.4
3.5°	369.4	369.3	368.9	368.7	368.9	368.5	368.6	368.2	368.5	368.3	368.5
4°	369.2	369.2	368.7	368.3	368.5	368.0	368.1	368.0	368.0	367.9	367.9
4.5°	368.8	368.8	368.4	368.1	368.1	367.9	368.1	367.7	368.0	367.7	367.8
5°	368.7	368.5	368.1	367.7	367.7	367.2	367.3	367.2	367.3	367.0	367.3
5.5°	368.4	368.5	367.9	367.6	367.3	366.9	367.1	366.8	367.2	366.8	366.8
6°	368.1	367.9	367.4	366.9	366.9	366.5	366.8	366.2	366.3	366.2	366.7
6.5°	367.6	367.7	367.1	366.6	366.2	365.9	366.2	365.8	366.3	365.8	365.9
7°	367.3	367.2	366.7	366.4	366.1	365.6	365.5	365.2	365.3	365.4	365.7
7.5°	367.0	366.8	366.3	365.5	365.3	364.9	365.3	364.8	365.1	364.6	365.0
8°	366.3	366.4	365.8	365.2	364.7	364.5	364.5	363.9	364.2	364.1	364.8
8.5°	366.1	365.9	365.2	364.7	364.1	363.8	364.1	363.6	363.8	363.5	363.8
9°	365.3	365.5	364.8	364.2	363.6	363.2	363.3	362.7	363.1	363.0	363.5
9.5°	365.0	365.0	364.2	363.2	362.8	362.3	362.6	362.1	362.2	361.9	362.7
10°	364.1	364.2	363.5	363.0	361.9	362.1	362.0	361.4	361.8	361.6	362.0
10.5°	363.8	363.8	362.8	362.1	361.7	360.9	361.2	360.6	360.8	360.6	361.4
11°	363.0	363.0	362.2	361.5	360.4	360.4	360.5	360.0	360.2	360.0	360.5
11.5°	362.3	362.4	361.6	360.6	359.9	359.5	359.5	358.8	359.2	359.0	359.9
12°	361.7	361.5	360.5	360.1	358.9	358.6	358.9	358.2	358.5	358.5	358.8
12.5°	360.7	361.0	360.2	359.1	358.2	357.9	358.0	357.1	357.6	357.2	358.2
13°	360.2	360.2	359.0	358.1	357.0	357.0	357.0	356.4	356.5	356.5	357.3
13.5°	359.0	359.3	358.5	357.5	356.3	355.9	355.9	355.1	355.8	355.4	356.4
14°	358.5	358.5	357.3	356.4	355.3	354.8	355.4	354.5	354.7	354.6	355.3
14.5°	357.4	357.5	356.6	355.7	354.4	354.3	354.1	353.4	353.8	353.3	354.5
15°	356.8	356.9	355.5	354.6	353.4	352.9	353.1	352.2	352.7	352.6	353.2
15.5°	355.4	355.6	354.5	353.7	352.4	351.9	351.9	351.2	351.7	351.3	352.5
16°	354.7	354.8	353.7	352.6	351.0	350.5	351.0	350.1	350.7	350.4	351.2
16.5°	353.7	353.8	352.5	351.6	350.2	350.0	349.9	349.1	349.5	349.3	350.3
17°	352.5	352.9	351.7	350.5	349.1	348.4	348.7	347.8	348.3	348.0	348.9
17.5°	351.5	351.6	350.4	349.3	347.8	347.4	347.6	346.7	347.2	346.8	348.0
18°	350.3	350.7	349.5	348.4	346.5	346.1	346.2	345.4	346.0	345.7	346.6
18.5°	349.4	349.4	348.2	346.8	345.4	345.0	345.1	344.1	344.6	344.3	345.5
19°	347.9	348.5	347.1	346.0	344.1	343.5	343.8	343.0	343.4	343.1	344.3
19.5°	347.0	346.9	345.8	344.6	342.6	342.6	342.4	341.6	342.3	341.8	342.8
20°	345.5	346.1	344.7	343.6	341.9	340.8	341.2	340.4	340.7	340.5	341.7
20.5°	344.5	344.6	343.5	341.8	340.1	339.5	339.9	338.7	339.6	339.0	340.3
21°	343.2	343.6	342.0	340.9	339.0	338.5	338.4	337.6	338.0	337.7	338.8
21.5°	341.9	341.8	340.7	339.4	337.4	336.8	337.1	336.0	336.8	336.4	337.4
22°	340.5	341.0	339.3	338.0	336.1	335.4	335.6	334.6	335.0	334.7	336.2

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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°	338.9	339.3	338.0	336.6	334.5	334.0	334.2	332.9	333.9	333.5	334.8
23°	337.8	338.1	336.3	335.1	333.2	332.5	332.5	331.7	332.3	331.7	333.0
23.5°	336.0	336.4	335.3	333.9	331.4	330.9	331.2	330.0	330.7	330.4	331.7
24°	334.9	335.3	333.5	332.2	329.9	329.5	329.5	328.4	329.3	328.7	330.1
24.5°	333.1	333.7	332.2	330.9	328.4	327.7	328.1	326.9	327.6	327.3	328.4
25°	331.8	332.2	330.6	329.2	327.0	326.3	326.3	325.3	326.0	325.4	327.0
25.5°	330.1	330.6	329.1	327.6	324.9	324.5	324.8	323.5	324.3	324.0	325.3
26°	328.7	329.1	327.6	326.0	323.7	323.1	323.1	322.0	322.7	322.3	323.8
26.5°	326.9	327.5	326.0	324.5	321.7	321.1	321.5	320.2	321.0	320.6	321.9
27°	325.3	326.0	324.2	322.7	320.2	319.6	319.5	318.7	319.3	318.7	320.6
27.5°	323.7	324.1	322.5	320.9	318.3	317.8	318.0	316.6	317.6	317.3	318.5
28°	322.1	322.6	320.9	319.4	316.8	316.1	316.1	315.0	315.7	315.3	317.0
28.5°	320.2	320.9	319.1	317.4	314.7	314.2	314.5	313.0	314.2	313.4	315.2
29°	318.8	319.1	317.4	316.1	312.9	312.6	312.5	311.3	312.1	311.6	313.3
29.5°	316.5	317.3	315.7	314.0	311.3	310.4	310.9	309.4	310.3	309.9	311.6
30°	315.2	315.5	314.0	312.5	309.3	308.9	308.7	307.6	308.4	308.0	309.7
30.5°	313.3	313.9	311.9	310.3	307.6	306.8	307.0	305.6	306.6	306.1	307.8
31°	311.4	311.7	310.2	308.7	305.5	305.0	305.0	303.7	304.6	304.1	305.7
31.5°	309.5	310.2	308.3	306.6	303.7	303.1	303.2	301.7	302.6	302.1	304.1
32°	307.7	308.2	306.5	304.9	301.6	301.1	301.2	299.8	300.8	300.4	301.9
32.5°	305.7	306.3	304.4	303.0	299.9	299.0	299.1	297.8	298.7	298.1	300.2
33°	303.7	304.2	302.6	300.9	297.6	297.1	297.1	295.7	296.9	296.2	298.0
33.5°	301.8	302.4	300.5	298.9	295.6	295.0	295.2	293.7	294.9	294.1	296.0
34°	300.0	300.5	298.6	297.0	293.7	293.0	293.1	291.7	292.6	292.3	294.0
34.5°	297.6	298.4	296.5	294.9	291.4	290.9	291.0	289.5	290.8	289.9	292.1
35°	296.0	296.5	294.5	292.8	289.4	288.7	289.0	287.3	288.5	288.1	290.0
35.5°	293.8	294.2	292.6	290.8	287.2	286.8	286.8	285.2	286.5	285.9	287.7
36°	291.7	292.5	290.3	288.7	285.2	284.5	284.7	283.1	284.1	283.6	285.7
36.5°	289.5	290.1	288.4	286.6	282.7	282.5	282.3	280.8	282.3	281.5	283.5
37°	287.5	288.2	286.1	284.5	280.9	280.2	280.4	278.8	280.0	279.4	281.3
37.5°	285.3	286.0	284.0	282.3	278.6	278.0	278.0	276.4	277.7	277.2	279.1
38°	283.0	284.0	281.7	280.3	276.3	275.8	276.0	274.2	275.6	274.8	277.1
38.5°	281.0	281.6	279.8	277.7	274.0	273.7	273.4	271.8	273.3	272.7	274.8
39°	278.6	279.4	277.5	275.8	271.8	271.3	271.4	269.8	271.1	270.5	272.4
39.5°	276.5	277.2	275.2	273.3	269.6	269.3	269.0	267.3	268.7	268.1	270.3
40°	274.2	275.2	272.9	271.4	267.1	266.6	266.8	265.1	266.6	265.9	267.9
40.5°	272.1	272.5	270.8	268.7	264.9	264.5	264.4	262.6	264.1	263.5	265.5
41°	269.7	270.6	268.4	266.7	262.4	262.1	262.1	260.3	261.8	261.1	263.2
41.5°	267.3	268.0	266.0	264.2	260.3	259.8	259.8	257.9	259.7	258.9	260.9
42°	265.1	265.9	263.8	262.0	257.7	257.2	257.2	255.7	257.1	256.3	258.6
42.5°	262.6	263.3	261.3	259.5	255.5	254.9	254.9	253.1	254.7	254.1	256.1
43°	260.7	261.3	259.0	257.2	253.0	252.5	252.5	250.7	252.3	251.6	253.8
43.5°	257.8	258.7	256.5	254.8	250.7	250.1	250.1	248.3	249.9	249.2	251.3
44°	255.7	256.4	254.2	252.3	248.0	247.5	247.5	245.7	247.5	246.4	249.0
44.5°	253.1	253.9	251.6	249.9	245.7	245.1	245.2	243.4	244.9	244.3	246.4

TEST NUMBER: P855576  
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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	250.9	251.5	249.3	247.5	243.1	242.8	242.6	240.8	242.3	241.7	243.9
45.5°	248.1	249.0	246.9	245.1	240.6	240.1	240.1	238.5	239.9	239.2	241.5
46°	245.7	246.7	244.3	242.4	237.9	237.6	237.4	235.6	237.5	236.6	238.8
46.5°	243.3	243.9	241.9	240.1	235.6	234.9	235.1	233.4	234.8	234.1	236.3
47°	240.6	241.6	239.1	237.5	232.9	232.5	232.3	230.6	232.3	231.6	233.8
47.5°	238.3	239.0	236.8	234.9	230.2	229.9	229.9	228.2	229.8	228.7	231.3
48°	235.7	236.6	234.2	232.4	227.8	227.4	227.1	225.4	227.1	226.4	228.6
48.5°	232.9	233.8	231.7	229.7	225.1	224.7	224.8	223.0	224.5	223.7	226.1
49°	230.5	231.3	228.9	227.2	222.4	222.0	221.9	220.1	222.0	221.2	223.5
49.5°	227.9	228.7	226.5	224.6	219.9	219.3	219.4	217.7	219.3	218.4	220.7
50°	225.4	226.2	223.8	221.9	217.2	216.8	216.6	214.8	216.6	215.8	218.2
50.5°	222.5	223.4	221.2	219.3	214.6	214.0	214.1	212.3	214.0	213.1	215.5
51°	220.1	220.9	218.5	216.7	211.7	211.4	211.3	209.5	211.3	210.6	212.9
51.5°	217.3	218.1	215.8	213.9	209.3	208.5	208.6	207.0	208.6	207.8	210.0
52°	214.5	215.6	213.1	211.4	206.5	206.0	205.9	204.0	205.9	205.1	207.6
52.5°	212.1	212.8	210.4	208.5	203.7	203.2	203.3	201.5	203.2	202.4	204.7
53°	209.3	210.1	207.7	206.0	200.9	200.5	200.5	198.6	200.5	199.5	202.0
53.5°	206.5	207.5	205.0	203.0	198.2	197.7	197.7	195.9	197.6	197.0	199.2
54°	203.7	204.7	202.2	200.5	195.4	195.0	194.8	193.0	195.1	194.1	196.4
54.5°	201.2	201.9	199.4	197.5	192.6	192.2	192.2	190.5	192.1	191.4	193.8
55°	198.3	199.1	196.7	195.1	189.7	189.5	189.3	187.5	189.5	188.5	190.9
55.5°	195.5	196.6	193.9	192.0	187.0	186.5	186.5	184.7	186.5	185.8	188.3
56°	192.8	193.6	191.2	189.4	184.2	183.6	183.7	181.9	183.9	183.0	185.3
56.5°	189.9	190.9	188.3	186.5	181.3	180.9	180.8	179.1	180.9	180.1	182.4
57°	187.3	188.0	185.5	183.7	178.5	178.1	178.1	176.2	178.2	177.2	179.7
57.5°	184.3	185.3	182.7	180.7	175.7	175.2	175.2	173.5	175.3	174.5	176.9
58°	181.6	182.3	179.9	177.9	172.8	172.3	172.4	170.6	172.4	171.6	174.1
58.5°	178.7	179.7	177.0	175.2	169.9	169.5	169.5	167.7	169.7	168.8	171.2
59°	175.9	176.8	174.2	172.3	167.0	166.5	166.7	164.9	166.7	165.9	168.3
59.5°	173.0	173.9	171.4	169.5	164.2	163.8	163.7	162.0	163.9	163.1	165.4
60°	170.1	171.0	168.3	166.6	161.2	160.7	160.9	159.1	161.1	160.1	162.5
60.5°	167.3	168.1	165.5	163.7	158.4	158.1	158.1	156.2	158.3	157.3	159.7
61°	164.4	165.3	162.7	160.7	155.5	155.1	155.1	153.5	155.3	154.4	156.9
61.5°	161.5	162.3	159.9	158.0	152.6	152.3	152.3	150.5	152.5	151.6	154.0
62°	158.8	159.6	156.8	155.1	149.7	149.3	149.4	147.8	149.6	148.6	151.0
62.5°	155.8	156.6	154.1	152.2	146.8	146.5	146.5	144.8	146.6	145.8	148.2
63°	152.9	153.8	151.1	149.3	143.8	143.5	143.5	141.9	143.9	142.9	145.2
63.5°	149.9	150.8	148.2	146.3	140.9	140.6	140.7	138.9	140.9	140.1	142.4
64°	147.3	147.9	145.2	143.4	138.0	137.6	137.8	136.2	138.2	137.2	139.4
64.5°	144.2	145.0	142.4	140.5	135.2	134.9	135.0	133.2	135.2	134.2	136.7
65°	141.4	142.2	139.6	137.6	132.3	131.9	132.0	130.4	132.4	131.5	133.8
65.5°	138.5	139.1	136.7	134.6	129.4	129.1	129.3	127.5	129.5	128.6	130.8
66°	135.6	136.3	133.8	131.9	126.4	126.1	126.3	124.8	126.6	125.7	128.0
66.5°	132.6	133.5	130.8	129.0	123.6	123.3	123.5	121.7	123.8	123.0	125.1
67°	129.8	130.7	128.0	126.0	120.7	120.4	120.5	119.0	121.1	120.0	122.3



TEST NUMBER: P855576  
 CATALOG NUMBER: HLCE4079FS1EWH-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	127.0	127.6	125.1	123.2	117.8	117.6	117.8	116.1	118.1	117.2	119.3
68°	124.1	124.8	122.2	120.3	115.1	114.6	114.9	113.6	115.3	114.3	116.7
68.5°	121.4	121.9	119.5	117.4	112.2	111.9	112.2	110.6	112.5	111.6	113.8
69°	118.4	119.1	116.6	114.6	109.4	109.1	109.2	107.8	109.7	108.8	110.9
69.5°	115.6	116.2	113.7	111.9	106.5	106.3	106.6	104.9	106.9	106.1	108.1
70°	112.7	113.4	110.9	109.0	103.8	103.5	103.7	102.3	104.3	103.3	105.3
70.5°	109.9	110.6	107.9	106.2	101.0	100.7	101.1	99.6	101.5	100.5	102.7
71°	107.2	107.7	105.3	103.4	98.3	98.1	98.3	96.9	98.8	97.9	99.8
71.5°	104.5	105.1	102.3	100.6	95.5	95.3	95.6	94.1	96.0	95.1	97.1
72°	101.7	102.2	99.8	97.9	92.9	92.6	92.8	91.6	93.5	92.5	94.3
72.5°	98.9	99.5	96.9	95.2	90.3	89.9	90.3	89.0	90.8	89.9	91.8
73°	96.2	96.7	94.3	92.4	87.6	87.4	87.7	86.4	88.2	87.3	89.1
73.5°	93.5	94.0	91.4	89.6	85.0	84.7	85.0	83.7	85.7	84.7	86.4
74°	90.8	91.3	88.9	86.9	82.3	82.1	82.5	81.1	83.1	82.1	83.7
74.5°	88.1	88.7	86.2	84.4	79.7	79.5	79.9	78.6	80.5	79.6	81.1
75°	85.4	86.0	83.6	81.7	77.1	76.9	77.3	76.0	78.0	77.0	78.7
75.5°	82.9	83.3	81.0	79.1	74.5	74.3	74.9	73.6	75.4	74.4	76.1
76°	80.3	80.8	78.5	76.6	72.0	71.9	72.3	71.1	73.0	72.0	73.6
76.5°	77.7	78.1	75.8	74.0	69.5	69.3	69.8	68.8	70.5	69.5	71.1
77°	75.2	75.7	73.4	71.5	67.1	66.9	67.4	66.3	68.2	67.2	68.7
77.5°	72.8	73.1	70.7	69.1	64.7	64.6	65.0	64.0	65.8	64.7	66.2
78°	70.4	70.7	68.4	66.6	62.3	62.2	62.7	61.6	63.4	62.3	63.8
78.5°	67.9	68.2	66.0	64.2	60.0	59.9	60.4	59.4	61.2	60.1	61.5
79°	65.4	65.9	63.5	61.9	57.6	57.5	58.1	57.1	58.8	57.9	59.1
79.5°	63.2	63.5	61.2	59.5	55.4	55.3	55.9	55.0	56.7	55.6	56.9
80°	60.8	61.1	58.9	57.2	53.1	53.1	53.7	52.8	54.4	53.5	54.6
80.5°	58.6	58.8	56.7	55.0	51.0	50.9	51.5	50.6	52.4	51.3	52.5
81°	56.5	56.6	54.3	52.7	48.9	48.9	49.4	48.6	50.3	49.3	50.4
81.5°	54.2	54.4	52.3	50.6	46.8	46.7	47.4	46.5	48.2	47.3	48.2
82°	52.1	52.2	50.0	48.4	44.8	44.8	45.3	44.6	46.2	45.1	46.2
82.5°	50.0	50.2	48.0	46.4	42.8	42.8	43.3	42.6	44.3	43.2	44.2
83°	48.0	48.0	46.0	44.3	40.7	40.9	41.4	40.6	42.3	41.3	42.2
83.5°	46.0	46.1	44.0	42.3	38.8	38.9	39.6	38.9	40.4	39.4	40.3
84°	44.1	44.1	41.9	40.4	37.0	37.1	37.6	37.0	38.6	37.5	38.4
84.5°	42.1	42.1	40.0	38.6	35.3	35.3	35.8	35.3	36.8	35.7	36.6
85°	40.3	40.3	38.2	36.8	33.5	33.6	34.1	33.5	35.1	34.0	34.8
85.5°	38.4	38.4	36.5	35.1	31.7	31.8	32.4	31.9	33.3	32.2	32.9
86°	36.7	36.7	34.8	33.4	30.1	30.2	30.8	30.3	31.7	30.6	31.3
86.5°	35.0	35.0	33.0	31.7	28.4	28.6	29.1	28.7	29.9	28.9	29.6
87°	33.4	33.4	31.3	29.9	26.8	26.9	27.6	27.2	28.3	27.4	28.1
87.5°	31.7	31.7	29.6	28.2	25.3	25.5	26.0	25.6	26.7	25.8	26.5
88°	29.9	29.9	28.1	26.7	23.8	24.0	24.6	24.2	25.2	24.3	25.0
88.5°	28.2	28.3	26.5	25.1	22.4	22.6	23.1	22.7	23.6	22.9	23.5
89°	26.6	26.7	25.0	23.7	21.0	21.2	21.7	21.4	22.1	21.5	22.1
89.5°	25.0	25.1	23.5	22.2	19.7	19.8	20.4	20.0	20.9	20.1	20.7

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



TEST NUMBER: P855576  
CATALOG NUMBER: HLCE4079FS1EWH-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: P855576  
 CATALOG NUMBER: HLCE4079FS1EWH-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	369.7	369.7	369.7	369.7	369.7	369.7
0.5°	369.2	370.2	369.9	370.0	369.8	369.9
1°	369.5	369.9	369.6	369.6	369.7	369.6
1.5°	368.9	370.0	369.8	369.9	370.0	369.8
2°	369.2	370.0	369.6	369.8	369.7	369.7
2.5°	368.9	370.0	369.4	369.7	369.9	369.7
3°	368.7	369.5	369.3	369.4	369.5	369.5
3.5°	368.5	369.6	369.2	369.4	369.7	369.4
4°	368.3	369.2	369.0	368.9	369.2	369.2
4.5°	367.9	369.2	368.9	369.0	369.3	368.8
5°	367.3	368.6	368.5	368.5	368.8	368.7
5.5°	367.4	368.6	368.1	368.3	368.6	368.4
6°	366.8	368.1	368.1	367.8	368.4	368.1
6.5°	366.5	368.0	367.6	367.8	367.9	367.6
7°	365.8	367.2	367.1	367.2	367.7	367.3
7.5°	365.5	367.1	366.7	366.7	367.2	367.0
8°	364.9	366.4	366.4	366.4	366.9	366.3
8.5°	364.3	366.2	365.6	365.8	366.2	366.1
9°	364.0	365.2	365.5	365.2	365.9	365.3
9.5°	363.0	364.9	364.5	364.7	365.3	365.0
10°	362.7	364.3	364.0	364.2	364.6	364.1
10.5°	361.8	363.8	363.6	363.4	364.0	363.8
11°	361.2	362.8	362.8	363.1	363.5	363.0
11.5°	360.3	362.5	362.0	362.0	363.0	362.3
12°	359.9	361.5	361.4	361.5	361.9	361.7
12.5°	358.8	360.9	360.6	360.5	361.6	360.7
13°	358.0	360.0	359.9	360.1	360.4	360.2
13.5°	357.1	359.3	359.0	358.8	359.9	359.0
14°	356.1	358.2	358.1	358.1	358.8	358.5
14.5°	354.9	357.6	357.3	357.2	358.2	357.4
15°	354.4	356.4	356.3	356.4	357.2	356.8
15.5°	353.1	355.7	355.5	355.0	356.2	355.4
16°	352.3	354.7	354.3	354.6	355.3	354.7
16.5°	350.9	353.5	353.5	353.2	354.2	353.7
17°	350.1	352.7	352.5	352.4	353.4	352.5
17.5°	348.6	351.5	351.2	351.2	352.0	351.5
18°	347.7	350.7	350.1	350.1	351.2	350.3
18.5°	346.5	349.3	349.3	348.8	349.9	349.4
19°	345.1	348.1	347.9	348.0	348.9	347.9
19.5°	344.0	347.0	346.9	346.5	347.6	347.0
20°	342.5	345.7	345.4	345.4	346.5	345.5
20.5°	341.4	344.3	344.6	344.0	345.4	344.5
21°	339.9	343.2	342.8	343.1	343.8	343.2
21.5°	338.8	341.6	341.9	341.4	342.7	341.9
22°	337.1	340.5	340.2	340.1	341.4	340.5

TEST NUMBER: P855576  
 CATALOG NUMBER: HLCE4079FS1EWH-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	335.8	338.9	339.1	338.9	340.2	338.9
23°	334.5	337.7	337.5	337.4	338.4	337.8
23.5°	332.8	336.1	336.4	335.9	337.5	336.0
24°	331.4	334.9	334.5	334.5	335.6	334.9
24.5°	329.8	333.0	333.2	332.9	334.3	333.1
25°	328.4	331.7	331.7	331.5	332.7	331.8
25.5°	326.5	330.1	330.2	330.0	331.3	330.1
26°	325.2	328.7	328.6	328.3	329.6	328.7
26.5°	323.3	326.9	327.0	326.8	328.0	326.9
27°	321.7	325.5	325.5	325.2	326.6	325.3
27.5°	320.0	323.7	323.8	323.6	324.8	323.7
28°	318.4	322.1	322.2	321.7	323.3	322.1
28.5°	316.6	320.1	320.3	320.2	321.5	320.2
29°	314.6	318.8	318.8	318.5	319.9	318.8
29.5°	313.0	316.9	316.9	316.8	318.0	316.5
30°	311.1	315.0	315.4	314.8	316.3	315.2
30.5°	309.4	313.1	313.2	313.2	314.5	313.3
31°	307.2	311.4	311.6	311.1	312.6	311.4
31.5°	305.5	309.6	309.7	309.5	311.0	309.5
32°	303.6	307.6	307.9	307.5	308.7	307.7
32.5°	301.7	305.7	305.8	305.6	307.1	305.7
33°	299.5	303.6	304.1	303.7	305.1	303.7
33.5°	297.6	302.0	302.0	301.9	303.4	301.8
34°	295.7	299.8	300.2	299.6	301.0	300.0
34.5°	293.4	297.8	298.0	297.7	299.4	297.6
35°	291.5	295.8	296.0	295.7	297.2	296.0
35.5°	289.4	293.9	294.1	293.8	295.2	293.8
36°	287.5	291.7	291.9	291.5	293.1	291.7
36.5°	285.1	289.8	289.8	289.5	291.1	289.5
37°	283.2	287.7	287.8	287.5	289.0	287.5
37.5°	280.8	285.3	285.6	285.3	286.7	285.3
38°	278.6	283.3	283.5	283.2	284.7	283.0
38.5°	276.3	281.0	281.3	280.9	282.3	281.0
39°	274.2	279.1	279.2	278.7	280.3	278.6
39.5°	271.9	276.7	277.1	276.7	278.0	276.5
40°	269.5	274.4	274.6	274.2	275.8	274.2
40.5°	267.3	272.1	272.6	272.1	273.6	272.1
41°	265.0	269.9	270.0	269.8	271.3	269.7
41.5°	262.8	267.5	267.9	267.6	269.1	267.3
42°	260.3	265.2	265.5	265.0	266.6	265.1
42.5°	257.9	262.9	263.3	262.8	264.6	262.6
43°	255.6	260.4	260.7	260.5	261.8	260.7
43.5°	253.0	258.0	258.6	258.2	259.7	257.8
44°	250.8	255.7	256.0	255.5	257.2	255.7
44.5°	248.2	253.2	253.7	253.3	254.9	253.1

TEST NUMBER: P855576  
 CATALOG NUMBER: HLCE4079FS1EWH-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	245.9	250.8	251.1	250.7	252.2	250.9
45.5°	243.2	248.4	248.7	248.5	250.0	248.1
46°	240.8	245.9	246.3	245.9	247.5	245.7
46.5°	238.2	243.4	243.8	243.4	244.9	243.3
47°	235.7	240.7	241.1	240.7	242.4	240.6
47.5°	233.1	238.5	238.7	238.5	240.0	238.3
48°	230.6	235.6	236.1	235.7	237.4	235.7
48.5°	228.0	233.4	233.8	233.3	234.7	232.9
49°	225.3	230.6	231.0	230.6	232.4	230.5
49.5°	222.8	228.1	228.5	228.2	229.6	227.9
50°	220.0	225.4	225.9	225.3	227.1	225.4
50.5°	217.5	222.9	223.2	222.9	224.5	222.5
51°	214.8	220.2	220.6	220.1	221.8	220.1
51.5°	212.2	217.5	217.8	217.5	219.2	217.3
52°	209.4	214.9	215.3	214.8	216.4	214.5
52.5°	206.7	212.1	212.6	212.2	213.7	212.1
53°	203.9	209.5	209.9	209.5	211.1	209.3
53.5°	201.2	206.7	207.1	206.8	208.5	206.5
54°	198.6	204.0	204.5	204.0	205.6	203.7
54.5°	195.7	201.2	201.7	201.4	202.9	201.2
55°	193.0	198.6	198.9	198.5	200.2	198.3
55.5°	190.1	195.7	196.1	195.9	197.4	195.5
56°	187.5	193.0	193.3	192.9	194.6	192.8
56.5°	184.5	190.1	190.6	190.2	191.7	189.9
57°	181.8	187.5	187.7	187.5	189.1	187.3
57.5°	178.9	184.5	184.9	184.6	186.2	184.3
58°	176.0	181.9	182.0	181.8	183.4	181.6
58.5°	173.2	178.8	179.4	178.9	180.5	178.7
59°	170.4	176.1	176.5	176.0	177.8	175.9
59.5°	167.5	173.1	173.7	173.2	174.8	173.0
60°	164.5	170.5	170.8	170.4	172.1	170.1
60.5°	161.8	167.4	167.9	167.5	169.2	167.3
61°	158.8	164.6	165.0	164.6	166.2	164.4
61.5°	156.0	161.8	162.1	161.8	163.5	161.5
62°	153.0	158.8	159.3	158.9	160.5	158.8
62.5°	150.1	155.8	156.3	156.0	157.6	155.8
63°	147.1	153.0	153.4	153.1	154.6	152.9
63.5°	144.3	150.1	150.5	150.3	151.9	149.9
64°	141.5	147.1	147.6	147.3	148.9	147.3
64.5°	138.6	144.3	144.7	144.4	146.2	144.2
65°	135.7	141.4	141.8	141.6	143.1	141.4
65.5°	132.7	138.5	138.9	138.6	140.3	138.5
66°	129.9	135.6	136.0	135.8	137.4	135.6
66.5°	127.0	132.6	133.1	132.7	134.4	132.6
67°	124.2	129.7	130.3	129.9	131.6	129.8

TEST NUMBER: P855576  
 CATALOG NUMBER: HLCE4079FS1EWH-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	121.2	126.9	127.3	127.0	128.6	127.0
68°	118.4	123.9	124.5	124.3	125.9	124.1
68.5°	115.5	121.1	121.6	121.3	123.0	121.4
69°	112.7	118.2	118.7	118.5	120.2	118.4
69.5°	109.8	115.4	115.8	115.6	117.3	115.6
70°	107.0	112.5	113.0	112.8	114.4	112.7
70.5°	104.2	109.6	110.0	109.8	111.6	109.9
71°	101.5	106.9	107.4	107.2	108.8	107.2
71.5°	98.7	104.1	104.5	104.4	106.1	104.5
72°	96.0	101.2	101.7	101.6	103.2	101.7
72.5°	93.3	98.5	98.9	98.8	100.5	98.9
73°	90.6	95.7	96.2	96.0	97.7	96.2
73.5°	88.0	92.9	93.4	93.4	95.1	93.5
74°	85.3	90.3	90.8	90.7	92.3	90.8
74.5°	82.7	87.6	88.0	87.9	89.7	88.1
75°	80.0	84.9	85.3	85.2	87.0	85.4
75.5°	77.4	82.2	82.6	82.7	84.4	82.9
76°	75.0	79.7	80.1	80.0	81.7	80.3
76.5°	72.4	77.0	77.4	77.4	79.2	77.7
77°	69.9	74.5	74.9	75.0	76.7	75.2
77.5°	67.5	72.0	72.3	72.4	74.1	72.8
78°	65.0	69.5	69.9	69.9	71.6	70.4
78.5°	62.7	67.1	67.4	67.5	69.2	67.9
79°	60.3	64.6	65.0	65.0	66.7	65.4
79.5°	58.0	62.1	62.5	62.7	64.4	63.2
80°	55.7	59.9	60.2	60.3	62.0	60.8
80.5°	53.5	57.6	58.0	58.1	59.7	58.6
81°	51.3	55.2	55.7	55.7	57.4	56.5
81.5°	49.2	53.0	53.4	53.6	55.3	54.2
82°	47.2	50.9	51.2	51.4	52.9	52.1
82.5°	45.0	48.8	49.1	49.3	50.9	50.0
83°	43.0	46.6	47.1	47.2	48.8	48.0
83.5°	41.1	44.6	44.9	45.1	46.7	46.0
84°	39.1	42.6	43.0	43.1	44.7	44.1
84.5°	37.2	40.6	41.0	41.2	42.8	42.1
85°	35.5	38.7	39.0	39.2	40.7	40.3
85.5°	33.7	37.0	37.4	37.6	38.9	38.4
86°	32.0	35.3	35.6	35.8	37.2	36.7
86.5°	30.3	33.6	33.9	34.1	35.5	35.0
87°	28.8	31.8	32.2	32.3	33.8	33.4
87.5°	27.2	30.1	30.4	30.6	32.1	31.7
88°	25.6	28.4	28.8	29.0	30.4	29.9
88.5°	24.2	26.8	27.2	27.4	28.8	28.2
89°	22.7	25.3	25.7	25.8	27.2	26.6
89.5°	21.3	23.8	24.2	24.3	25.7	25.0

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



TEST NUMBER: P855576  
CATALOG NUMBER: HLCE4079FS1EWH-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)