

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: P855575

Luminaire Tested: **HLCE4079FS1EWH-3500K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P855575
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLCE4079FS1EWH-3500K
 Description: 4IN 1000LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 3500K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 1049.6 (1 lamp)
 Luminaire Lumens: 1085.0 lumens
 Efficiency: 103.4%
 Efficacy: 84.1 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

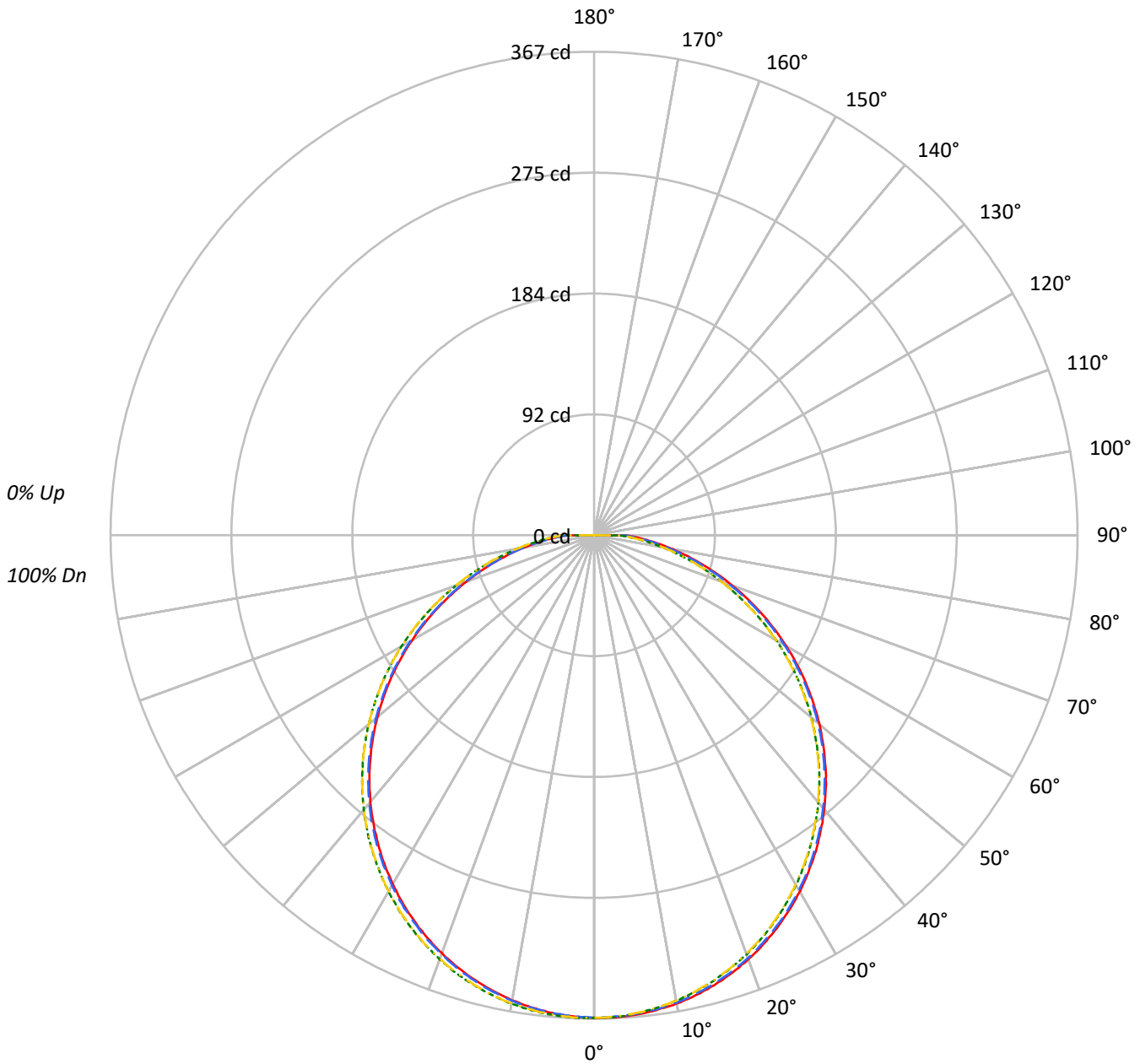
Input Watts (W): 12.9
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



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				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	123	123	123	123	120	120	120	120	115	115	115	110	110	110	105	105	105	105	105	105	103
1	111	106	101	97	109	104	99	95	99	96	92	95	92	90	91	89	87	87	87	87	85
2	101	92	85	78	98	90	83	77	86	81	76	83	78	74	80	76	72	72	72	72	70
3	92	81	72	65	89	79	71	64	76	69	63	73	67	62	70	65	61	61	61	61	59
4	84	71	62	55	82	70	61	54	67	60	54	65	58	53	63	57	52	52	52	52	50
5	77	64	54	47	75	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	71	57	48	41	69	56	47	41	54	46	40	53	45	40	51	45	40	40	40	40	37
7	66	52	43	36	64	51	42	36	49	41	36	48	41	35	46	40	35	35	35	35	33
8	62	47	38	32	60	47	38	32	45	37	32	44	37	32	43	36	31	31	31	31	29
9	57	43	35	29	56	43	35	29	42	34	29	40	34	29	39	33	28	28	28	28	26
10	54	40	32	26	53	39	32	26	38	31	26	37	31	26	37	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	46099	46099	46099	46099
5°	46161	46022	45984	46149
10°	46107	45826	45813	46133
15°	46057	45627	45536	46018
20°	45856	45374	45214	45883
25°	45657	44991	44852	45643
30°	45383	44526	44409	45369
35°	45061	44047	43924	45030
40°	44636	43486	43404	44669
45°	44245	42875	42733	44228
50°	43739	42133	42016	43739
55°	43115	41250	41206	43180
60°	42437	40196	40171	42512
65°	41720	39040	39070	41720
70°	41101	37863	38010	41028
75°	41185	37149	37538	40893
80°	43702	38194	39063	42977
85°	57614	47940	50250	55448

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	34.6	3.2	3.3
10°-20°	99.2	9.1	9.4
20°-30°	150.2	13.8	14.3
30°-40°	181.2	16.7	17.3
40°-50°	188.5	17.4	18.0
50°-60°	171.7	15.8	16.4
60°-70°	134.2	12.4	12.8
70°-80°	85.5	7.9	8.1
80°-90°	39.9	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°	284.0	26.2	27.1
0°-40°	465.2	42.9	44.3
0°-60°	825.5	76.1	78.6
0°-90°	1085.0	100.0	103.4
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°	1085.0	100.0	103.4

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	366	366	366	366	366	
5°	365	364	364	365	365	35
15°	354	350	350	353	354	100
25°	329	324	323	329	329	151
35°	293	287	286	293	293	183
45°	249	241	240	248	249	192
55°	196	188	188	197	196	176
65°	140	131	131	140	140	139
75°	85	76	77	84	85	90
85°	40	33	35	38	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°	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3
0.5°	366.5	366.3	366.1	365.8	366.5	366.5	366.3	366.1	366.2	366.3	366.1
1°	366.2	366.3	366.0	366.1	366.6	365.8	366.2	366.2	366.2	366.0	365.7
1.5°	366.4	366.3	366.1	365.8	366.3	366.1	366.1	365.9	366.0	365.8	366.0
2°	366.3	366.1	366.0	365.8	366.2	365.9	365.8	366.0	365.8	365.7	365.5
2.5°	366.3	366.1	365.6	365.6	366.0	365.6	365.8	365.4	365.6	365.6	365.7
3°	366.1	366.1	365.8	365.3	365.8	365.1	365.4	365.5	365.4	365.1	365.0
3.5°	366.0	365.9	365.6	365.4	365.6	365.1	365.3	364.8	365.1	364.9	365.1
4°	365.8	365.8	365.4	364.9	365.1	364.6	364.7	364.6	364.6	364.5	364.5
4.5°	365.5	365.5	365.0	364.7	364.7	364.5	364.7	364.3	364.6	364.3	364.4
5°	365.4	365.1	364.7	364.3	364.3	363.9	364.0	363.9	364.0	363.7	364.0
5.5°	365.0	365.1	364.5	364.2	364.0	363.6	363.8	363.5	363.9	363.5	363.5
6°	364.7	364.5	364.1	363.6	363.6	363.1	363.5	362.8	362.9	362.8	363.3
6.5°	364.2	364.3	363.8	363.2	362.8	362.6	362.8	362.5	362.9	362.5	362.6
7°	364.0	363.9	363.3	363.0	362.7	362.3	362.2	361.9	362.0	362.1	362.4
7.5°	363.7	363.5	362.9	362.2	362.0	361.5	362.0	361.4	361.8	361.2	361.7
8°	362.9	363.0	362.5	361.9	361.3	361.1	361.1	360.6	360.9	360.8	361.4
8.5°	362.7	362.6	361.9	361.3	360.8	360.5	360.8	360.3	360.5	360.2	360.5
9°	362.0	362.2	361.4	360.9	360.3	359.9	360.0	359.4	359.7	359.6	360.2
9.5°	361.7	361.7	360.9	359.9	359.5	359.0	359.3	358.8	358.9	358.6	359.4
10°	360.8	360.9	360.2	359.6	358.6	358.8	358.7	358.1	358.5	358.3	358.7
10.5°	360.5	360.5	359.5	358.8	358.4	357.6	357.9	357.3	357.5	357.3	358.1
11°	359.6	359.6	358.9	358.2	357.1	357.1	357.2	356.7	356.9	356.7	357.2
11.5°	359.0	359.1	358.3	357.3	356.6	356.2	356.2	355.5	355.9	355.7	356.6
12°	358.4	358.2	357.2	356.8	355.6	355.3	355.6	355.0	355.2	355.2	355.5
12.5°	357.4	357.7	356.9	355.8	355.0	354.7	354.8	353.8	354.3	353.9	355.0
13°	356.9	356.9	355.7	354.9	353.7	353.7	353.7	353.2	353.3	353.3	354.0
13.5°	355.7	356.0	355.2	354.2	353.1	352.6	352.6	351.9	352.5	352.1	353.2
14°	355.2	355.2	354.0	353.2	352.0	351.6	352.1	351.3	351.5	351.4	352.0
14.5°	354.1	354.2	353.4	352.4	351.2	351.1	350.8	350.2	350.5	350.1	351.3
15°	353.5	353.6	352.2	351.4	350.2	349.7	349.9	348.9	349.5	349.4	350.0
15.5°	352.1	352.3	351.3	350.4	349.1	348.7	348.7	348.0	348.5	348.1	349.3
16°	351.5	351.6	350.4	349.4	347.8	347.3	347.8	346.9	347.5	347.2	348.0
16.5°	350.4	350.5	349.3	348.4	347.0	346.8	346.7	345.9	346.3	346.1	347.1
17°	349.3	349.7	348.5	347.3	345.9	345.2	345.5	344.6	345.1	344.8	345.8
17.5°	348.3	348.4	347.2	346.1	344.6	344.3	344.4	343.5	344.1	343.6	344.8
18°	347.1	347.5	346.3	345.2	343.3	342.9	343.0	342.3	342.8	342.6	343.4
18.5°	346.2	346.2	345.0	343.6	342.3	341.8	341.9	341.0	341.4	341.2	342.4
19°	344.7	345.3	344.0	342.8	341.0	340.4	340.7	339.8	340.2	339.9	341.2
19.5°	343.9	343.7	342.7	341.4	339.5	339.5	339.3	338.4	339.2	338.7	339.7
20°	342.4	342.9	341.5	340.5	338.8	337.7	338.1	337.3	337.6	337.4	338.6
20.5°	341.3	341.4	340.4	338.7	337.0	336.4	336.8	335.6	336.5	335.9	337.2
21°	340.0	340.5	338.9	337.8	335.9	335.4	335.3	334.5	335.0	334.6	335.7
21.5°	338.8	338.7	337.6	336.3	334.3	333.7	334.0	332.9	333.7	333.4	334.3
22°	337.4	337.9	336.2	335.0	333.0	332.3	332.5	331.6	332.0	331.7	333.1

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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°	335.8	336.2	335.0	333.6	331.5	330.9	331.1	329.9	330.8	330.5	331.8
23°	334.7	335.1	333.3	332.1	330.2	329.4	329.4	328.7	329.2	328.7	330.0
23.5°	332.9	333.4	332.2	330.8	328.4	327.9	328.2	327.0	327.6	327.4	328.7
24°	331.9	332.2	330.5	329.1	326.9	326.5	326.5	325.4	326.3	325.7	327.1
24.5°	330.1	330.6	329.1	327.9	325.4	324.7	325.1	323.9	324.6	324.4	325.4
25°	328.8	329.1	327.5	326.2	324.0	323.3	323.3	322.3	323.0	322.4	324.0
25.5°	327.1	327.5	326.0	324.6	321.9	321.5	321.8	320.5	321.4	321.1	322.3
26°	325.7	326.0	324.6	323.0	320.8	320.1	320.1	319.1	319.8	319.4	320.9
26.5°	323.9	324.5	323.0	321.5	318.7	318.2	318.5	317.3	318.1	317.7	318.9
27°	322.3	323.0	321.3	319.8	317.3	316.7	316.6	315.8	316.4	315.8	317.7
27.5°	320.8	321.2	319.6	318.0	315.3	314.9	315.1	313.8	314.7	314.4	315.6
28°	319.2	319.7	318.0	316.5	313.9	313.2	313.2	312.2	312.8	312.4	314.1
28.5°	317.3	318.0	316.2	314.5	311.9	311.3	311.6	310.2	311.3	310.6	312.3
29°	315.9	316.2	314.5	313.2	310.0	309.7	309.6	308.5	309.2	308.8	310.5
29.5°	313.7	314.4	312.8	311.1	308.5	307.6	308.0	306.6	307.5	307.1	308.8
30°	312.3	312.6	311.1	309.6	306.4	306.1	305.9	304.8	305.6	305.2	306.9
30.5°	310.5	311.0	309.1	307.5	304.8	304.0	304.2	302.8	303.8	303.3	305.0
31°	308.6	308.9	307.4	305.9	302.7	302.2	302.2	300.9	301.8	301.4	302.9
31.5°	306.7	307.4	305.5	303.8	300.9	300.3	300.4	298.9	299.9	299.3	301.4
32°	304.9	305.4	303.7	302.1	298.8	298.4	298.5	297.0	298.1	297.7	299.1
32.5°	302.9	303.5	301.6	300.2	297.1	296.3	296.4	295.1	296.0	295.4	297.4
33°	300.9	301.5	299.9	298.2	294.9	294.4	294.4	293.0	294.2	293.5	295.3
33.5°	299.0	299.7	297.8	296.2	292.9	292.4	292.5	291.0	292.2	291.4	293.3
34°	297.2	297.8	295.8	294.3	291.0	290.3	290.4	289.1	289.9	289.6	291.3
34.5°	294.9	295.6	293.8	292.2	288.8	288.2	288.3	286.8	288.1	287.3	289.4
35°	293.3	293.8	291.8	290.1	286.7	286.1	286.3	284.7	285.9	285.5	287.4
35.5°	291.1	291.5	289.9	288.1	284.6	284.2	284.2	282.6	283.9	283.2	285.0
36°	289.1	289.8	287.7	286.1	282.6	281.9	282.1	280.5	281.5	281.0	283.1
36.5°	286.8	287.5	285.8	284.0	280.2	280.0	279.7	278.3	279.7	278.9	280.9
37°	284.8	285.6	283.5	281.9	278.4	277.6	277.8	276.2	277.4	276.9	278.7
37.5°	282.7	283.3	281.4	279.7	276.0	275.5	275.5	273.9	275.2	274.7	276.6
38°	280.4	281.4	279.1	277.7	273.8	273.3	273.5	271.7	273.1	272.3	274.6
38.5°	278.5	279.0	277.2	275.2	271.5	271.2	270.9	269.4	270.8	270.2	272.3
39°	276.0	276.9	275.0	273.3	269.4	268.8	268.9	267.3	268.6	268.0	269.9
39.5°	274.0	274.7	272.6	270.8	267.1	266.8	266.5	264.9	266.3	265.7	267.9
40°	271.7	272.6	270.4	268.9	264.7	264.2	264.4	262.7	264.2	263.4	265.4
40.5°	269.6	270.0	268.3	266.3	262.5	262.0	261.9	260.2	261.7	261.1	263.1
41°	267.2	268.1	266.0	264.3	260.0	259.7	259.7	257.9	259.4	258.8	260.8
41.5°	264.9	265.5	263.5	261.8	257.9	257.4	257.4	255.6	257.3	256.5	258.6
42°	262.7	263.4	261.4	259.6	255.4	254.8	254.8	253.4	254.7	254.0	256.2
42.5°	260.2	260.9	258.9	257.2	253.1	252.6	252.6	250.8	252.4	251.8	253.8
43°	258.3	258.9	256.6	254.8	250.7	250.2	250.2	248.4	250.0	249.3	251.5
43.5°	255.5	256.3	254.2	252.5	248.4	247.8	247.8	246.0	247.6	246.9	249.0
44°	253.4	254.1	251.9	250.0	245.7	245.2	245.2	243.5	245.2	244.1	246.7
44.5°	250.8	251.6	249.3	247.6	243.5	242.9	243.0	241.2	242.7	242.0	244.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	248.6	249.2	247.0	245.2	240.9	240.5	240.4	238.6	240.1	239.5	241.7
45.5°	245.8	246.7	244.7	242.9	238.4	237.9	237.9	236.3	237.7	237.0	239.3
46°	243.5	244.5	242.0	240.2	235.8	235.5	235.2	233.4	235.3	234.4	236.6
46.5°	241.1	241.7	239.7	237.9	233.4	232.8	232.9	231.3	232.7	232.0	234.2
47°	238.4	239.4	236.9	235.3	230.8	230.4	230.2	228.5	230.2	229.5	231.6
47.5°	236.1	236.8	234.6	232.8	228.1	227.8	227.8	226.1	227.7	226.7	229.2
48°	233.5	234.4	232.1	230.3	225.7	225.3	225.1	223.4	225.1	224.3	226.5
48.5°	230.8	231.6	229.6	227.6	223.1	222.6	222.7	220.9	222.4	221.7	224.0
49°	228.4	229.2	226.8	225.2	220.4	220.0	219.9	218.1	220.0	219.1	221.5
49.5°	225.8	226.7	224.4	222.5	217.9	217.3	217.4	215.7	217.3	216.4	218.7
50°	223.4	224.1	221.8	219.9	215.2	214.8	214.6	212.9	214.6	213.8	216.2
50.5°	220.5	221.4	219.1	217.3	212.7	212.0	212.1	210.3	212.0	211.2	213.5
51°	218.1	218.9	216.5	214.7	209.8	209.5	209.4	207.6	209.4	208.6	211.0
51.5°	215.3	216.1	213.8	211.9	207.4	206.6	206.7	205.1	206.7	205.9	208.1
52°	212.6	213.6	211.2	209.5	204.6	204.1	204.0	202.2	204.0	203.2	205.7
52.5°	210.1	210.9	208.4	206.6	201.9	201.3	201.4	199.6	201.3	200.6	202.8
53°	207.4	208.2	205.8	204.1	199.1	198.7	198.7	196.8	198.7	197.7	200.2
53.5°	204.6	205.6	203.1	201.1	196.4	195.9	195.9	194.1	195.8	195.2	197.4
54°	201.9	202.8	200.4	198.7	193.6	193.2	193.1	191.3	193.3	192.3	194.7
54.5°	199.3	200.1	197.6	195.7	190.8	190.4	190.4	188.7	190.3	189.7	192.0
55°	196.5	197.3	194.9	193.3	188.0	187.8	187.6	185.8	187.8	186.8	189.1
55.5°	193.7	194.8	192.1	190.2	185.3	184.8	184.8	183.0	184.8	184.1	186.6
56°	191.1	191.8	189.5	187.7	182.5	181.9	182.0	180.2	182.3	181.3	183.6
56.5°	188.2	189.1	186.6	184.8	179.6	179.3	179.2	177.5	179.3	178.4	180.8
57°	185.5	186.3	183.8	182.0	176.9	176.4	176.4	174.6	176.5	175.6	178.0
57.5°	182.6	183.6	181.0	179.1	174.1	173.6	173.6	171.9	173.7	172.9	175.3
58°	179.9	180.7	178.2	176.3	171.2	170.7	170.8	169.0	170.8	170.1	172.5
58.5°	177.1	178.0	175.4	173.6	168.4	168.0	168.0	166.2	168.2	167.2	169.6
59°	174.3	175.2	172.6	170.7	165.5	165.0	165.2	163.4	165.2	164.3	166.8
59.5°	171.4	172.3	169.9	168.0	162.7	162.3	162.2	160.5	162.4	161.6	163.9
60°	168.6	169.4	166.8	165.1	159.7	159.3	159.5	157.7	159.6	158.6	161.1
60.5°	165.7	166.6	164.0	162.2	156.9	156.6	156.6	154.8	156.8	155.9	158.2
61°	162.9	163.8	161.2	159.3	154.1	153.6	153.6	152.1	153.9	153.0	155.4
61.5°	160.0	160.9	158.4	156.5	151.2	150.9	150.9	149.1	151.1	150.3	152.6
62°	157.4	158.1	155.3	153.6	148.3	147.9	148.0	146.4	148.2	147.3	149.6
62.5°	154.4	155.1	152.7	150.8	145.5	145.2	145.2	143.5	145.3	144.4	146.9
63°	151.5	152.4	149.7	147.9	142.5	142.2	142.2	140.6	142.6	141.6	143.9
63.5°	148.6	149.4	146.9	145.0	139.7	139.3	139.4	137.6	139.7	138.8	141.1
64°	145.9	146.5	143.9	142.1	136.7	136.4	136.6	135.0	136.9	136.0	138.2
64.5°	142.8	143.7	141.1	139.2	133.9	133.6	133.7	132.0	133.9	133.0	135.4
65°	140.1	140.9	138.3	136.4	131.1	130.7	130.8	129.2	131.2	130.3	132.6
65.5°	137.2	137.9	135.4	133.4	128.2	127.9	128.1	126.3	128.3	127.5	129.6
66°	134.4	135.1	132.6	130.7	125.2	124.9	125.1	123.7	125.5	124.5	126.8
66.5°	131.4	132.2	129.6	127.8	122.5	122.2	122.4	120.6	122.7	121.9	124.0
67°	128.6	129.5	126.8	124.8	119.6	119.3	119.4	117.9	120.0	118.9	121.2

TEST NUMBER: P855575
 CATALOG NUMBER: HLCE4079FS1EWH-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	125.9	126.4	124.0	122.1	116.8	116.6	116.8	115.1	117.0	116.1	118.3
68°	122.9	123.7	121.1	119.2	114.0	113.6	113.8	112.5	114.2	113.3	115.6
68.5°	120.3	120.8	118.4	116.3	111.2	110.8	111.2	109.6	111.5	110.6	112.7
69°	117.3	118.0	115.5	113.6	108.4	108.1	108.2	106.8	108.7	107.8	109.9
69.5°	114.5	115.2	112.6	110.8	105.5	105.3	105.6	104.0	106.0	105.1	107.1
70°	111.7	112.3	109.9	108.0	102.9	102.6	102.8	101.4	103.3	102.4	104.4
70.5°	108.9	109.6	106.9	105.2	100.0	99.8	100.1	98.7	100.6	99.6	101.7
71°	106.2	106.7	104.4	102.5	97.4	97.2	97.4	96.0	97.9	97.0	98.9
71.5°	103.5	104.2	101.4	99.7	94.6	94.4	94.7	93.2	95.2	94.2	96.2
72°	100.8	101.3	98.9	97.0	92.1	91.8	92.0	90.8	92.6	91.7	93.5
72.5°	98.0	98.5	96.0	94.3	89.4	89.1	89.4	88.2	90.0	89.1	90.9
73°	95.4	95.8	93.5	91.6	86.8	86.6	86.9	85.6	87.4	86.5	88.3
73.5°	92.6	93.1	90.6	88.8	84.2	83.9	84.2	83.0	84.9	83.9	85.6
74°	90.0	90.5	88.1	86.1	81.6	81.4	81.7	80.3	82.3	81.4	83.0
74.5°	87.3	87.8	85.4	83.6	78.9	78.7	79.2	77.9	79.8	78.8	80.3
75°	84.7	85.2	82.9	81.0	76.4	76.2	76.6	75.3	77.2	76.3	78.0
75.5°	82.1	82.5	80.2	78.4	73.9	73.6	74.2	72.9	74.7	73.8	75.4
76°	79.6	80.1	77.8	75.9	71.3	71.2	71.6	70.5	72.4	71.3	72.9
76.5°	77.0	77.4	75.1	73.3	68.9	68.7	69.2	68.1	69.8	68.9	70.5
77°	74.5	75.0	72.7	70.9	66.4	66.3	66.8	65.7	67.6	66.5	68.0
77.5°	72.2	72.5	70.0	68.5	64.1	64.0	64.4	63.4	65.2	64.1	65.6
78°	69.7	70.0	67.8	66.0	61.8	61.7	62.1	61.0	62.8	61.8	63.3
78.5°	67.3	67.6	65.4	63.6	59.4	59.3	59.9	58.8	60.6	59.6	60.9
79°	64.8	65.3	62.9	61.4	57.1	57.0	57.5	56.6	58.3	57.3	58.6
79.5°	62.6	62.9	60.6	58.9	54.9	54.8	55.4	54.5	56.2	55.1	56.4
80°	60.3	60.5	58.4	56.7	52.7	52.7	53.2	52.3	53.9	53.0	54.1
80.5°	58.1	58.3	56.2	54.5	50.5	50.4	51.1	50.1	51.9	50.9	52.0
81°	55.9	56.1	53.8	52.2	48.4	48.4	49.0	48.1	49.8	48.8	49.9
81.5°	53.7	53.9	51.8	50.1	46.4	46.3	46.9	46.1	47.8	46.8	47.8
82°	51.6	51.7	49.6	48.0	44.4	44.4	44.9	44.2	45.8	44.7	45.8
82.5°	49.6	49.7	47.6	46.0	42.4	42.4	42.9	42.2	43.9	42.8	43.8
83°	47.6	47.6	45.6	43.9	40.4	40.5	41.0	40.3	42.0	40.9	41.9
83.5°	45.6	45.7	43.6	42.0	38.5	38.6	39.2	38.6	40.1	39.0	39.9
84°	43.7	43.7	41.5	40.1	36.7	36.8	37.3	36.7	38.3	37.2	38.0
84.5°	41.7	41.7	39.6	38.3	35.0	35.0	35.5	35.0	36.5	35.4	36.2
85°	39.9	39.9	37.8	36.5	33.2	33.3	33.8	33.2	34.8	33.7	34.4
85.5°	38.0	38.0	36.1	34.8	31.4	31.5	32.1	31.6	33.0	31.9	32.6
86°	36.3	36.3	34.4	33.1	29.8	29.9	30.5	30.0	31.4	30.3	31.0
86.5°	34.7	34.7	32.7	31.4	28.2	28.3	28.8	28.4	29.7	28.6	29.4
87°	33.1	33.1	31.0	29.7	26.6	26.7	27.3	26.9	28.1	27.1	27.9
87.5°	31.4	31.4	29.4	28.0	25.1	25.2	25.7	25.3	26.5	25.5	26.3
88°	29.7	29.7	27.9	26.5	23.6	23.7	24.4	23.9	25.0	24.1	24.8
88.5°	28.0	28.1	26.3	24.9	22.1	22.4	22.9	22.5	23.4	22.7	23.3
89°	26.4	26.5	24.8	23.5	20.8	21.0	21.5	21.2	21.9	21.3	21.9
89.5°	24.8	24.9	23.3	22.0	19.5	19.6	20.2	19.8	20.7	19.9	20.6

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



TEST NUMBER: P855575
CATALOG NUMBER: HLCE4079FS1EWH-3500K

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: P855575
 CATALOG NUMBER: HLCE4079FS1EWH-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	366.3	366.3	366.3	366.3	366.3	366.3
0.5°	365.8	366.8	366.5	366.6	366.4	366.5
1°	366.1	366.5	366.2	366.2	366.3	366.2
1.5°	365.6	366.6	366.4	366.5	366.6	366.4
2°	365.8	366.6	366.2	366.4	366.3	366.3
2.5°	365.6	366.6	366.0	366.3	366.5	366.3
3°	365.4	366.1	365.9	366.0	366.1	366.1
3.5°	365.1	366.2	365.8	366.0	366.3	366.0
4°	364.9	365.8	365.7	365.6	365.8	365.8
4.5°	364.5	365.8	365.6	365.7	365.9	365.5
5°	364.0	365.3	365.1	365.1	365.5	365.4
5.5°	364.1	365.3	364.7	364.9	365.3	365.0
6°	363.5	364.7	364.7	364.4	365.0	364.7
6.5°	363.1	364.6	364.2	364.4	364.5	364.2
7°	362.5	363.9	363.8	363.9	364.3	364.0
7.5°	362.2	363.8	363.3	363.3	363.9	363.7
8°	361.5	363.0	363.0	363.0	363.6	362.9
8.5°	361.0	362.8	362.3	362.5	362.8	362.7
9°	360.7	361.9	362.2	361.9	362.6	362.0
9.5°	359.6	361.5	361.1	361.3	362.0	361.7
10°	359.4	361.0	360.7	360.9	361.2	360.8
10.5°	358.5	360.5	360.3	360.1	360.7	360.5
11°	357.9	359.5	359.5	359.7	360.2	359.6
11.5°	357.0	359.2	358.7	358.7	359.6	359.0
12°	356.6	358.2	358.1	358.2	358.6	358.4
12.5°	355.5	357.6	357.3	357.2	358.3	357.4
13°	354.8	356.7	356.6	356.8	357.1	356.9
13.5°	353.8	356.0	355.7	355.5	356.6	355.7
14°	352.9	355.0	354.9	354.9	355.5	355.2
14.5°	351.7	354.3	354.0	353.9	355.0	354.1
15°	351.2	353.2	353.1	353.2	353.9	353.5
15.5°	349.9	352.4	352.2	351.8	353.0	352.1
16°	349.0	351.5	351.1	351.4	352.0	351.5
16.5°	347.7	350.3	350.3	350.0	351.0	350.4
17°	346.9	349.5	349.3	349.1	350.2	349.3
17.5°	345.4	348.3	348.0	348.0	348.8	348.3
18°	344.5	347.5	346.9	346.9	348.0	347.1
18.5°	343.3	346.1	346.1	345.7	346.7	346.2
19°	341.9	344.9	344.7	344.8	345.8	344.7
19.5°	340.9	343.9	343.7	343.3	344.4	343.9
20°	339.4	342.6	342.3	342.3	343.3	342.4
20.5°	338.2	341.2	341.4	340.9	342.3	341.3
21°	336.8	340.0	339.7	339.9	340.7	340.0
21.5°	335.7	338.4	338.8	338.2	339.6	338.8
22°	334.0	337.4	337.1	337.0	338.2	337.4

TEST NUMBER: P855575
 CATALOG NUMBER: HLCE4079FS1EWH-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	332.7	335.8	336.0	335.8	337.1	335.8
23°	331.5	334.6	334.4	334.3	335.3	334.7
23.5°	329.8	333.0	333.4	332.8	334.4	332.9
24°	328.4	331.9	331.5	331.5	332.5	331.9
24.5°	326.8	330.0	330.2	329.9	331.2	330.1
25°	325.4	328.7	328.7	328.5	329.7	328.8
25.5°	323.5	327.1	327.2	327.0	328.3	327.1
26°	322.2	325.7	325.6	325.3	326.6	325.7
26.5°	320.3	323.9	324.0	323.8	325.0	323.9
27°	318.7	322.6	322.6	322.2	323.6	322.3
27.5°	317.0	320.8	320.9	320.6	321.8	320.8
28°	315.5	319.2	319.3	318.7	320.3	319.2
28.5°	313.8	317.1	317.4	317.3	318.5	317.3
29°	311.7	315.9	315.9	315.6	316.9	315.9
29.5°	310.2	314.0	314.0	313.9	315.1	313.7
30°	308.2	312.2	312.5	312.0	313.4	312.3
30.5°	306.6	310.3	310.4	310.4	311.6	310.5
31°	304.4	308.6	308.8	308.2	309.7	308.6
31.5°	302.7	306.8	306.9	306.7	308.1	306.7
32°	300.8	304.8	305.1	304.6	305.9	304.9
32.5°	298.9	302.9	303.1	302.8	304.3	302.9
33°	296.8	300.8	301.4	300.9	302.3	300.9
33.5°	294.9	299.2	299.2	299.1	300.6	299.0
34°	293.0	297.0	297.4	296.9	298.3	297.2
34.5°	290.8	295.1	295.3	295.0	296.7	294.9
35°	288.9	293.1	293.3	293.0	294.5	293.3
35.5°	286.7	291.2	291.4	291.1	292.5	291.1
36°	284.8	289.1	289.3	288.9	290.4	289.1
36.5°	282.5	287.2	287.2	286.8	288.4	286.8
37°	280.6	285.0	285.1	284.8	286.3	284.8
37.5°	278.3	282.7	283.0	282.7	284.1	282.7
38°	276.0	280.7	280.9	280.6	282.1	280.4
38.5°	273.8	278.5	278.7	278.4	279.7	278.5
39°	271.7	276.6	276.7	276.1	277.7	276.0
39.5°	269.5	274.1	274.6	274.1	275.5	274.0
40°	267.0	271.9	272.1	271.7	273.3	271.7
40.5°	264.9	269.6	270.1	269.6	271.1	269.6
41°	262.6	267.5	267.6	267.3	268.8	267.2
41.5°	260.4	265.0	265.4	265.1	266.6	264.9
42°	257.9	262.8	263.1	262.6	264.2	262.7
42.5°	255.6	260.5	260.9	260.4	262.2	260.2
43°	253.3	258.0	258.3	258.1	259.4	258.3
43.5°	250.7	255.7	256.2	255.8	257.3	255.5
44°	248.5	253.4	253.7	253.1	254.8	253.4
44.5°	245.9	250.9	251.3	251.0	252.6	250.8

TEST NUMBER: P855575
 CATALOG NUMBER: HLCE4079FS1EWH-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	243.6	248.5	248.8	248.4	249.9	248.6
45.5°	241.0	246.2	246.5	246.3	247.7	245.8
46°	238.6	243.6	244.0	243.6	245.2	243.5
46.5°	236.0	241.2	241.6	241.2	242.7	241.1
47°	233.5	238.5	238.9	238.5	240.2	238.4
47.5°	231.0	236.3	236.5	236.3	237.8	236.1
48°	228.5	233.4	234.0	233.5	235.2	233.5
48.5°	225.9	231.3	231.6	231.2	232.6	230.8
49°	223.3	228.5	228.9	228.5	230.3	228.4
49.5°	220.7	226.0	226.4	226.1	227.5	225.8
50°	218.0	223.4	223.8	223.3	225.1	223.4
50.5°	215.5	220.8	221.1	220.8	222.4	220.5
51°	212.9	218.2	218.6	218.1	219.8	218.1
51.5°	210.2	215.5	215.8	215.5	217.2	215.3
52°	207.5	213.0	213.3	212.9	214.5	212.6
52.5°	204.8	210.1	210.7	210.2	211.7	210.1
53°	202.1	207.6	208.0	207.6	209.2	207.4
53.5°	199.3	204.8	205.3	204.9	206.6	204.6
54°	196.8	202.2	202.6	202.2	203.8	201.9
54.5°	193.9	199.3	199.8	199.5	201.0	199.3
55°	191.3	196.8	197.1	196.7	198.4	196.5
55.5°	188.4	193.9	194.3	194.1	195.6	193.7
56°	185.8	191.3	191.6	191.2	192.9	191.1
56.5°	182.8	188.4	188.8	188.5	190.0	188.2
57°	180.1	185.8	186.0	185.8	187.3	185.5
57.5°	177.3	182.8	183.2	182.9	184.5	182.6
58°	174.4	180.2	180.3	180.1	181.7	179.9
58.5°	171.7	177.2	177.8	177.3	178.9	177.1
59°	168.8	174.5	174.8	174.4	176.2	174.3
59.5°	165.9	171.6	172.1	171.7	173.3	171.4
60°	163.0	168.9	169.2	168.8	170.5	168.6
60.5°	160.3	165.8	166.4	165.9	167.6	165.7
61°	157.4	163.1	163.5	163.1	164.7	162.9
61.5°	154.6	160.3	160.6	160.3	162.0	160.0
62°	151.6	157.4	157.9	157.5	159.1	157.4
62.5°	148.8	154.4	154.9	154.6	156.2	154.4
63°	145.8	151.6	152.0	151.7	153.2	151.5
63.5°	142.9	148.8	149.1	148.9	150.5	148.6
64°	140.2	145.8	146.2	145.9	147.5	145.9
64.5°	137.3	142.9	143.4	143.1	144.9	142.8
65°	134.5	140.1	140.5	140.3	141.8	140.1
65.5°	131.5	137.2	137.6	137.3	139.0	137.2
66°	128.7	134.4	134.8	134.6	136.2	134.4
66.5°	125.9	131.4	131.9	131.5	133.2	131.4
67°	123.0	128.5	129.1	128.7	130.4	128.6

TEST NUMBER: P855575
 CATALOG NUMBER: HLCE4079FS1EWH-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	120.1	125.8	126.1	125.9	127.5	125.9
68°	117.3	122.8	123.3	123.1	124.7	122.9
68.5°	114.4	120.0	120.5	120.2	121.9	120.3
69°	111.7	117.1	117.6	117.4	119.1	117.3
69.5°	108.8	114.3	114.8	114.5	116.2	114.5
70°	106.1	111.5	112.0	111.8	113.4	111.7
70.5°	103.2	108.6	109.0	108.8	110.6	108.9
71°	100.6	106.0	106.4	106.2	107.8	106.2
71.5°	97.8	103.1	103.5	103.4	105.1	103.5
72°	95.2	100.2	100.8	100.7	102.3	100.8
72.5°	92.4	97.6	98.0	97.9	99.6	98.0
73°	89.8	94.8	95.4	95.2	96.9	95.4
73.5°	87.2	92.1	92.5	92.5	94.2	92.6
74°	84.6	89.4	90.0	89.9	91.4	90.0
74.5°	81.9	86.8	87.2	87.1	88.9	87.3
75°	79.3	84.1	84.6	84.5	86.3	84.7
75.5°	76.7	81.5	81.8	81.9	83.6	82.1
76°	74.3	78.9	79.4	79.3	81.0	79.6
76.5°	71.7	76.3	76.7	76.7	78.5	77.0
77°	69.3	73.9	74.2	74.3	76.0	74.5
77.5°	66.9	71.3	71.6	71.7	73.4	72.2
78°	64.4	68.9	69.3	69.3	71.0	69.7
78.5°	62.1	66.4	66.8	66.9	68.6	67.3
79°	59.8	64.0	64.4	64.4	66.1	64.8
79.5°	57.4	61.6	61.9	62.1	63.8	62.6
80°	55.2	59.3	59.7	59.8	61.5	60.3
80.5°	53.0	57.1	57.4	57.5	59.1	58.1
81°	50.9	54.7	55.2	55.2	56.9	55.9
81.5°	48.7	52.6	52.9	53.1	54.8	53.7
82°	46.7	50.4	50.8	51.0	52.5	51.6
82.5°	44.6	48.3	48.6	48.8	50.4	49.6
83°	42.6	46.2	46.6	46.7	48.3	47.6
83.5°	40.7	44.2	44.5	44.7	46.3	45.6
84°	38.8	42.2	42.6	42.7	44.3	43.7
84.5°	36.9	40.3	40.6	40.8	42.4	41.7
85°	35.2	38.4	38.7	38.9	40.4	39.9
85.5°	33.4	36.7	37.1	37.3	38.6	38.0
86°	31.7	35.0	35.3	35.5	36.9	36.3
86.5°	30.0	33.3	33.6	33.8	35.2	34.7
87°	28.5	31.5	31.9	32.0	33.5	33.1
87.5°	26.9	29.8	30.1	30.3	31.8	31.4
88°	25.3	28.2	28.5	28.7	30.1	29.7
88.5°	23.9	26.6	26.9	27.1	28.5	28.0
89°	22.5	25.1	25.4	25.5	26.9	26.4
89.5°	21.1	23.6	23.9	24.1	25.4	24.8

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


NVLAP Lab Code: 200050-0



TEST NUMBER: P855575
CATALOG NUMBER: HLCE4079FS1EWH-3500K

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)