

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: P855587

Luminaire Tested: **HLS4079FS1EWH-5000K**

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: P855587
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLS4079FS1EWH-5000K
 Description: 4IN 750LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 770.28 (1 lamp)
 Luminaire Lumens: 790.0 lumens
 Efficiency: 102.6%
 Efficacy: 86.8 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

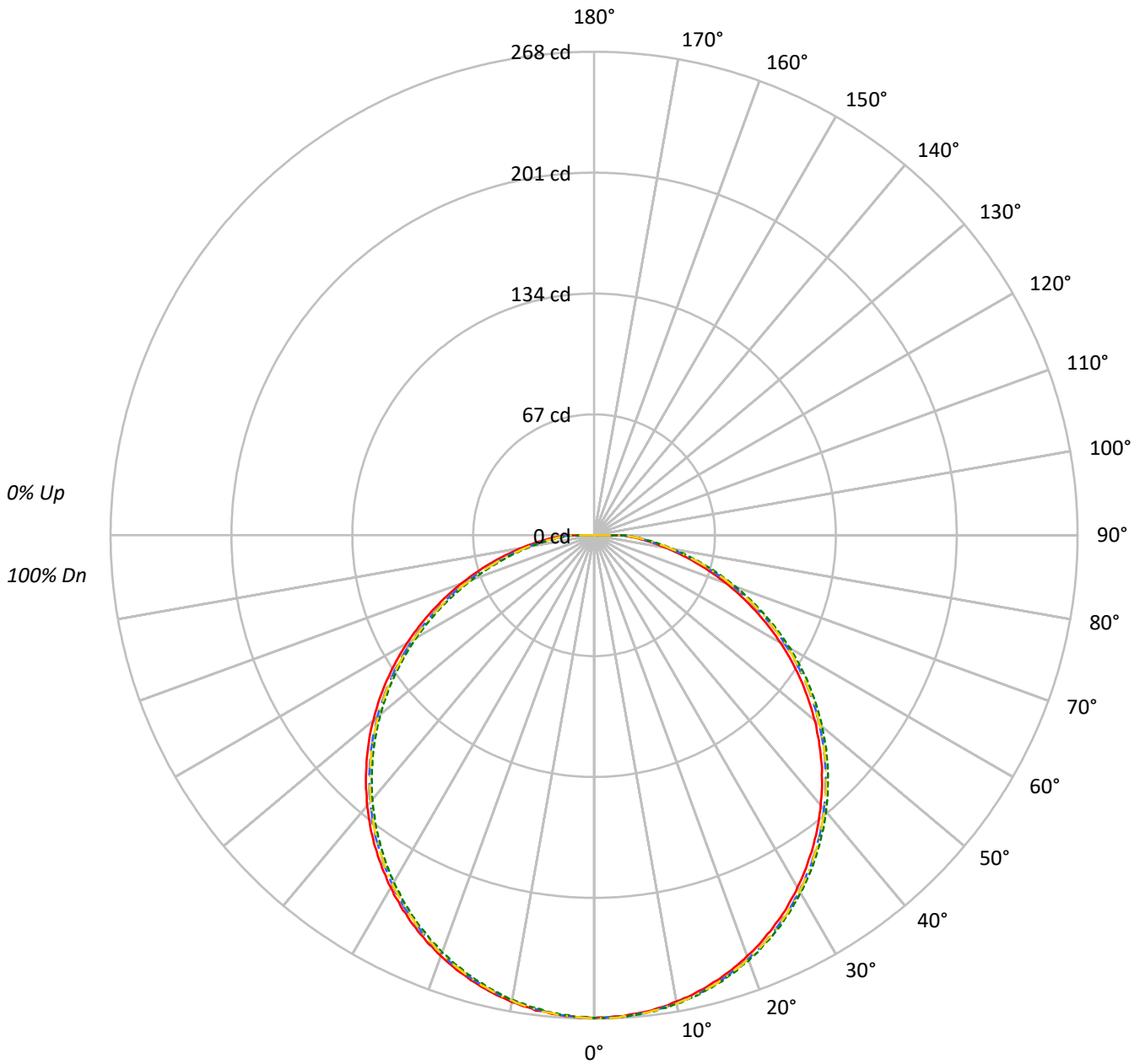
Input Watts (W): 9.1
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



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: P855587
CATALOG NUMBER: HLS4079FS1EWH-5000K

Luminous Intensity Polar Plot



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

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	122	122	122	122	119	119	119	119	114	114	114	109	109	109	105	105	105	103			
1	111	105	101	96	108	103	99	95	99	95	92	95	92	89	91	88	86	84			
2	100	91	84	78	98	89	83	77	86	80	75	82	78	73	79	75	72	69			
3	91	80	71	64	89	78	70	64	75	68	63	72	67	62	70	65	61	58			
4	84	71	62	54	81	69	61	54	67	59	53	64	58	53	62	56	52	50			
5	77	63	54	47	75	62	53	46	60	52	46	58	51	45	56	50	45	43			
6	71	57	47	41	69	56	47	41	54	46	40	52	45	40	51	44	39	37			
7	66	52	42	36	64	51	42	36	49	41	36	48	41	35	46	40	35	33			
8	61	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	31	29			
9	57	43	35	29	56	43	34	29	41	34	29	40	33	28	39	33	28	26			
10	54	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	33677	33677	33677	33677
5°	33629	33705	33654	33553
10°	33545	33711	33571	33405
15°	33406	33654	33419	33211
20°	33241	33589	33254	32973
25°	33021	33451	33035	32604
30°	32755	33249	32755	32261
35°	32463	33062	32478	31848
40°	32118	32873	32151	31395
45°	31716	32606	31751	30897
50°	31248	32285	31267	30269
55°	30718	31946	30784	29533
60°	30053	31613	30128	28643
65°	29332	31119	29511	27605
70°	28664	30725	28848	26456
75°	28300	30779	28543	25479
80°	29497	32323	29714	25583
85°	37976	41731	38121	31045

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.3	3.2	3.3
10°-20°	72.4	9.2	9.4
20°-30°	109.7	13.9	14.2
30°-40°	132.3	16.7	17.2
40°-50°	137.6	17.4	17.9
50°-60°	125.2	15.9	16.3
60°-70°	97.6	12.4	12.7
70°-80°	61.7	7.8	8.0
80°-90°	28.2	3.6	3.7
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°	207.4	26.3	26.9
0°-40°	339.7	43.0	44.1
0°-60°	602.5	76.3	78.2
0°-90°	790.0	100.0	102.6
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°	790.0	100.0	102.6

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	268	268	268	268	268	
5°	266	267	266	266	266	25
15°	256	258	256	255	256	72
25°	238	241	238	235	238	110
35°	211	215	211	207	211	132
45°	178	183	178	174	178	137
55°	140	146	140	135	140	125
65°	98	104	99	93	98	97
75°	58	63	59	52	58	62
85°	26	29	26	22	26	29
90°	0	0	0	0	0	

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	267.6	267.6	267.6	267.6	267.6	267.6	267.6	267.6	267.6	267.6	267.6
0.5°	267.3	267.5	267.7	267.8	267.5	267.9	267.8	267.4	267.4	267.3	267.6
1°	267.3	267.5	267.7	267.8	267.7	267.9	267.8	267.6	267.1	267.5	267.5
1.5°	267.5	267.4	267.3	268.2	267.8	267.8	267.9	267.6	267.5	267.1	267.1
2°	267.1	267.5	267.5	267.9	267.8	267.6	267.7	267.4	267.4	266.9	267.3
2.5°	267.0	267.4	267.7	267.7	267.4	267.8	267.8	267.1	267.0	267.0	267.3
3°	267.0	267.1	267.3	267.6	267.3	267.7	267.6	267.3	266.9	267.0	266.7
3.5°	267.0	267.0	267.0	267.8	267.5	267.6	267.1	266.9	267.0	266.4	266.6
4°	266.6	267.0	267.0	267.6	267.4	267.1	267.1	266.5	266.6	266.7	266.7
4.5°	266.3	266.7	266.9	267.3	266.9	267.4	267.1	266.7	266.4	266.3	266.3
5°	266.2	266.3	266.6	266.9	266.8	267.0	266.7	266.5	266.4	265.8	265.9
5.5°	266.0	266.3	266.4	266.9	266.8	266.5	266.5	266.1	266.0	265.7	265.9
6°	265.8	266.1	266.5	266.7	266.3	266.4	266.4	266.0	265.3	265.8	265.4
6.5°	265.5	265.8	265.9	266.4	266.1	266.4	266.1	265.9	265.4	264.8	264.9
7°	265.2	265.5	265.5	266.0	266.1	265.9	265.7	265.4	265.5	264.7	264.6
7.5°	264.6	265.0	265.5	265.7	265.7	265.8	265.6	264.9	264.6	264.5	264.4
8°	264.3	264.8	264.9	265.6	265.0	265.6	265.2	264.6	264.2	264.0	263.9
8.5°	264.1	264.4	264.4	264.9	265.0	265.0	264.6	264.5	264.0	263.4	263.3
9°	263.6	264.0	264.2	264.5	264.8	264.5	264.2	264.0	263.5	263.3	262.8
9.5°	262.8	263.7	263.8	264.3	264.0	264.2	264.0	263.3	263.0	262.7	262.6
10°	262.5	263.1	263.2	263.9	263.8	264.0	263.7	263.0	262.7	262.0	262.0
10.5°	262.1	262.5	262.8	263.6	263.5	263.5	263.0	262.8	262.1	261.4	261.4
11°	261.5	262.3	262.3	263.1	262.8	262.7	262.5	261.9	261.5	261.2	261.0
11.5°	261.1	261.7	262.2	262.3	262.2	262.2	262.2	261.5	261.0	260.4	260.4
12°	260.5	261.1	261.4	262.0	262.0	261.9	261.5	261.2	260.6	259.9	259.7
12.5°	259.8	260.4	260.7	261.6	261.5	261.4	261.0	260.6	259.9	259.5	258.9
13°	259.1	260.1	260.3	261.0	260.9	260.9	260.4	259.9	259.2	258.9	258.6
13.5°	258.8	259.3	259.9	260.0	260.1	260.3	259.8	259.1	258.5	257.8	258.0
14°	258.1	258.9	259.0	259.5	259.6	259.7	259.1	258.4	258.1	257.5	257.0
14.5°	257.3	257.9	258.5	259.2	259.2	259.0	258.4	258.1	257.2	256.9	256.2
15°	256.4	257.3	257.8	258.4	258.3	258.2	257.9	257.2	256.5	255.8	255.8
15.5°	256.0	256.7	257.0	257.6	257.7	257.7	257.4	256.4	255.9	255.1	254.9
16°	255.1	256.1	256.2	257.0	257.2	257.0	256.3	255.8	254.9	254.6	254.0
16.5°	254.2	255.0	255.7	256.1	256.2	256.0	255.7	255.0	254.1	253.5	253.5
17°	253.5	254.3	254.9	255.5	255.4	255.4	255.1	254.2	253.6	252.9	252.5
17.5°	252.8	253.7	253.9	254.7	254.8	254.8	254.2	253.5	252.8	252.0	251.4
18°	251.7	252.8	253.2	253.5	254.2	253.8	253.2	252.8	251.7	251.0	250.8
18.5°	251.1	252.0	252.6	253.0	253.2	253.2	252.7	251.8	250.9	250.0	249.9
19°	250.1	251.3	251.5	252.4	252.2	252.5	251.8	250.6	250.1	249.6	248.9
19.5°	249.2	250.0	250.7	251.3	251.6	251.5	250.8	250.1	249.1	248.4	247.9
20°	248.2	249.2	250.1	250.4	250.8	250.5	249.9	249.3	248.3	247.3	247.1
20.5°	247.4	248.6	248.9	249.5	249.5	249.4	249.1	248.1	247.4	246.4	246.0
21°	246.5	247.5	247.7	248.7	248.9	248.7	248.1	247.2	246.3	245.5	244.9
21.5°	245.4	246.4	247.2	247.6	248.2	247.8	247.2	246.4	245.1	244.4	244.2
22°	244.5	245.5	246.2	246.5	247.0	246.8	246.3	245.0	244.5	243.5	243.0

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	243.4	244.6	245.1	245.7	245.7	245.8	245.2	244.1	243.4	242.5	241.8
23°	242.2	243.3	244.1	244.7	244.9	244.9	244.1	243.3	242.1	241.4	240.7
23.5°	241.1	242.4	243.0	243.9	244.1	243.9	243.1	242.3	241.2	240.2	240.0
24°	240.4	241.4	241.9	242.5	243.1	242.7	242.2	241.0	240.2	239.2	238.4
24.5°	239.1	240.1	240.9	241.3	241.9	241.6	240.8	240.1	238.8	238.0	237.3
25°	237.8	239.0	239.8	240.5	240.9	240.7	240.0	238.9	237.9	236.8	236.3
25.5°	236.8	238.3	238.7	239.4	239.9	239.6	238.9	237.6	236.9	235.7	235.2
26°	235.7	236.9	237.5	238.1	238.6	238.2	237.6	236.4	235.4	234.6	233.8
26.5°	234.4	235.5	236.2	236.9	237.3	237.2	236.5	235.7	234.1	233.3	232.7
27°	233.4	234.5	235.1	236.0	236.3	236.1	235.6	234.3	233.3	232.2	231.6
27.5°	232.0	233.4	234.1	234.8	235.2	234.8	234.0	232.9	232.0	230.9	230.3
28°	230.6	231.9	232.7	233.4	233.9	233.6	232.8	231.6	230.4	229.6	228.6
28.5°	229.4	230.7	231.6	232.1	232.5	232.4	231.9	230.6	229.4	228.3	227.7
29°	228.2	229.5	230.1	230.9	231.5	231.1	230.4	229.3	228.3	227.3	226.6
29.5°	227.0	227.9	229.2	229.8	230.2	229.8	229.0	228.1	226.6	225.8	224.9
30°	225.4	226.7	227.5	228.6	228.8	228.7	227.9	226.6	225.4	224.2	223.5
30.5°	224.1	225.7	226.2	227.1	227.7	227.4	226.6	225.5	224.3	223.1	222.4
31°	222.8	224.1	225.2	225.6	226.5	226.0	225.2	224.2	222.8	221.7	220.9
31.5°	221.5	222.8	223.8	224.4	225.0	224.5	223.9	222.6	221.2	220.2	219.3
32°	220.0	221.5	222.1	223.3	223.6	223.4	222.7	221.2	220.1	218.9	218.0
32.5°	218.8	220.1	221.0	221.7	222.3	222.0	221.1	220.0	218.7	217.5	216.7
33°	217.1	218.7	219.5	220.2	221.1	220.5	219.6	218.6	217.0	216.0	215.1
33.5°	215.6	217.2	218.3	218.8	219.6	219.1	218.5	217.0	215.8	214.6	213.5
34°	214.3	215.9	216.7	217.4	218.1	217.9	217.1	215.5	214.5	213.2	212.3
34.5°	212.9	214.3	215.2	216.2	216.8	216.3	215.4	214.4	212.7	211.5	210.7
35°	211.3	212.7	213.8	214.7	215.2	214.7	214.1	212.8	211.4	210.0	209.0
35.5°	209.9	211.3	212.4	213.0	213.6	213.4	212.6	211.2	210.1	208.6	207.7
36°	208.2	209.9	210.7	211.4	212.4	212.0	211.0	209.9	208.2	207.1	206.2
36.5°	206.8	208.4	209.3	210.3	210.9	210.5	209.5	208.4	206.7	205.4	204.4
37°	205.2	206.7	207.9	208.6	209.1	208.9	208.2	206.7	205.4	203.9	202.7
37.5°	203.6	205.2	206.3	206.9	207.7	207.3	206.5	205.0	203.7	202.4	201.5
38°	202.1	203.7	204.6	205.3	206.4	206.0	204.9	203.5	202.0	200.6	199.8
38.5°	200.4	202.0	203.0	204.0	204.8	204.2	203.1	202.0	200.6	199.2	197.9
39°	198.7	200.3	201.7	202.4	203.1	202.5	201.8	200.4	198.8	197.7	196.2
39.5°	197.3	198.9	199.9	200.7	201.6	201.0	200.2	198.7	197.2	195.7	194.7
40°	195.5	197.1	198.2	198.9	200.1	199.5	198.4	197.2	195.7	194.1	193.1
40.5°	193.7	195.3	196.7	197.5	198.3	197.9	196.8	195.6	194.0	192.5	191.4
41°	192.2	193.7	195.0	195.9	196.6	196.1	195.3	193.6	192.0	190.8	189.7
41.5°	190.5	192.2	193.2	194.1	195.1	194.5	193.5	192.0	190.4	189.1	188.0
42°	188.8	190.3	191.7	192.3	193.5	193.1	191.9	190.7	188.9	187.5	186.0
42.5°	187.1	188.7	190.0	190.8	191.6	191.1	190.3	188.8	187.2	185.6	184.6
43°	185.2	187.0	188.1	189.3	189.9	189.5	188.6	186.9	185.5	183.8	182.9
43.5°	183.4	185.3	186.5	187.4	188.3	187.9	186.6	185.3	183.7	182.2	180.9
44°	181.8	183.4	184.8	185.4	186.6	186.0	185.1	183.5	181.8	180.4	179.0
44.5°	180.2	181.7	183.1	183.8	184.9	184.1	183.3	181.7	180.1	178.5	177.5

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	178.2	180.1	181.2	182.2	183.2	182.7	181.5	180.0	178.4	176.9	175.4
45.5°	176.3	178.1	179.5	180.5	181.5	180.9	179.7	178.4	176.7	175.1	173.8
46°	174.7	176.2	177.9	178.6	179.6	178.9	178.1	176.5	174.7	173.2	172.0
46.5°	172.7	174.6	175.9	176.6	177.6	177.2	176.1	174.6	172.8	171.3	170.1
47°	170.8	172.7	174.0	175.0	176.1	175.4	174.4	172.7	171.1	169.6	168.1
47.5°	169.1	170.8	172.3	173.2	174.4	173.7	172.6	171.0	169.2	167.7	166.4
48°	167.2	169.0	170.4	171.1	172.3	171.9	170.7	169.1	167.5	165.7	164.4
48.5°	165.2	167.3	168.5	169.2	170.5	170.0	168.6	167.4	165.6	164.0	162.4
49°	163.5	165.2	166.7	167.6	168.7	168.2	166.9	165.3	163.8	162.0	160.5
49.5°	161.8	163.2	164.8	165.8	166.7	166.1	165.2	163.6	161.8	160.0	158.9
50°	159.6	161.6	163.0	163.8	164.9	164.4	163.3	161.7	159.7	158.1	156.8
50.5°	157.6	159.5	161.0	161.8	163.2	162.6	161.3	159.6	157.8	156.3	154.9
51°	155.9	157.5	159.1	160.0	161.2	160.6	159.5	157.7	156.0	154.2	152.9
51.5°	153.8	155.6	157.4	158.1	159.2	158.5	157.5	155.9	154.0	152.4	151.0
52°	151.8	153.8	155.4	156.2	157.4	156.8	155.6	154.0	152.1	150.5	148.9
52.5°	149.9	151.7	153.3	154.1	155.5	154.9	153.7	151.9	150.3	148.4	147.0
53°	147.9	149.8	151.3	152.1	153.5	153.0	151.7	150.0	148.3	146.4	145.0
53.5°	145.9	147.8	149.4	150.4	151.5	150.9	149.8	148.1	146.2	144.6	142.9
54°	144.0	145.7	147.5	148.5	149.6	149.1	147.7	146.2	144.3	142.4	140.9
54.5°	142.1	143.6	145.4	146.4	147.7	147.0	145.7	144.1	142.3	140.4	138.9
55°	140.0	142.0	143.5	144.4	145.6	145.0	143.9	142.2	140.3	138.4	136.8
55.5°	137.9	139.9	141.7	142.4	143.8	143.0	141.9	140.1	138.1	136.5	134.9
56°	135.9	137.8	139.6	140.4	141.9	141.2	139.8	138.1	136.2	134.3	132.8
56.5°	133.8	135.7	137.4	138.3	139.6	138.9	137.9	136.1	134.2	132.2	130.7
57°	131.7	133.7	135.5	136.2	137.6	137.0	135.9	133.9	132.0	130.2	128.6
57.5°	129.8	131.7	133.5	134.3	135.6	135.1	133.8	131.9	130.0	128.1	126.8
58°	127.8	129.6	131.4	132.3	133.7	132.9	131.6	130.0	128.0	126.1	124.5
58.5°	125.5	127.6	129.3	130.3	131.5	130.8	129.7	127.8	126.0	124.1	122.6
59°	123.6	125.5	127.3	128.1	129.4	129.1	127.8	125.9	123.9	122.0	120.4
59.5°	121.5	123.4	125.2	126.0	127.4	126.9	125.5	123.8	121.8	119.8	118.4
60°	119.4	121.3	123.1	124.0	125.6	124.8	123.4	121.6	119.7	117.8	116.2
60.5°	117.2	119.4	121.0	121.9	123.2	122.6	121.4	119.5	117.6	115.7	114.2
61°	115.3	117.2	119.1	119.8	121.2	120.7	119.3	117.7	115.5	113.6	112.0
61.5°	113.1	115.0	116.8	117.7	119.3	118.6	117.3	115.5	113.5	111.5	110.0
62°	111.1	113.0	114.8	115.7	117.1	116.5	115.2	113.3	111.4	109.5	107.9
62.5°	108.9	111.0	112.7	113.7	114.9	114.4	113.1	111.2	109.3	107.2	105.8
63°	106.9	108.8	110.7	111.4	112.9	112.3	111.0	109.2	107.2	105.2	103.6
63.5°	104.6	106.7	108.5	109.3	110.7	110.2	108.8	107.1	105.1	103.2	101.5
64°	102.6	104.7	106.4	107.2	108.7	108.1	106.8	104.9	103.0	101.0	99.4
64.5°	100.6	102.6	104.3	105.1	106.5	106.0	104.7	102.8	101.0	98.8	97.4
65°	98.5	100.4	102.3	103.1	104.5	103.9	102.6	100.7	99.1	97.0	95.2
65.5°	96.3	98.4	100.1	100.9	102.3	101.7	100.5	98.6	96.7	94.9	93.2
66°	94.3	96.3	98.0	98.8	100.2	99.7	98.5	96.6	94.6	92.7	91.1
66.5°	92.2	94.1	95.9	96.8	98.1	97.6	96.3	94.6	92.7	90.7	88.9
67°	90.1	92.0	93.8	94.6	96.1	95.5	94.2	92.4	90.7	88.6	86.9

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	88.0	90.1	91.6	92.5	93.9	93.4	92.2	90.3	88.6	86.6	84.9
68°	86.0	87.9	89.6	90.4	91.7	91.3	90.1	88.3	86.5	84.5	82.8
68.5°	83.8	85.8	87.6	88.3	89.7	89.3	87.9	86.3	84.5	82.4	80.8
69°	81.8	83.8	85.5	86.4	87.7	87.2	85.9	84.3	82.5	80.4	78.8
69.5°	79.9	81.7	83.4	84.2	85.6	85.2	83.8	82.3	80.4	78.3	76.7
70°	77.9	79.6	81.3	82.1	83.5	83.1	81.7	80.3	78.4	76.3	74.5
70.5°	75.8	77.6	79.3	80.1	81.5	81.1	79.6	78.2	76.4	74.3	72.6
71°	73.8	75.7	77.1	78.0	79.4	79.0	77.9	76.1	74.3	72.3	70.6
71.5°	71.8	73.7	75.1	76.0	77.3	76.9	75.9	74.1	72.3	70.3	68.5
72°	69.7	71.6	73.1	73.9	75.3	74.9	73.7	72.1	70.3	68.3	66.5
72.5°	67.9	69.7	71.1	71.9	73.4	72.8	71.8	70.1	68.4	66.2	64.6
73°	65.9	67.7	69.0	69.9	71.1	70.8	69.8	68.1	66.3	64.3	62.6
73.5°	63.9	65.7	67.0	67.9	69.1	68.8	67.8	66.1	64.4	62.4	60.6
74°	61.9	63.7	65.3	65.9	67.3	66.7	65.7	64.2	62.5	60.4	58.8
74.5°	60.1	61.9	63.3	63.9	65.3	64.7	63.8	62.2	60.6	58.5	56.9
75°	58.2	59.9	61.3	61.9	63.3	62.9	61.9	60.3	58.7	56.7	55.0
75.5°	56.3	58.0	59.3	60.0	61.4	61.0	59.9	58.4	56.9	54.8	53.2
76°	54.5	56.1	57.5	58.0	59.4	59.0	58.0	56.6	55.0	53.0	51.3
76.5°	52.7	54.4	55.6	56.1	57.5	57.1	56.1	54.7	53.1	51.2	49.4
77°	50.9	52.5	53.7	54.2	55.5	55.2	54.2	52.8	51.3	49.3	47.6
77.5°	49.1	50.7	51.9	52.5	53.7	53.3	52.5	51.0	49.6	47.6	46.0
78°	47.4	48.9	50.2	50.7	51.8	51.5	50.6	49.3	47.8	45.9	44.2
78.5°	45.6	47.2	48.3	48.8	50.1	49.6	48.9	47.5	46.1	44.2	42.5
79°	44.0	45.3	46.6	47.0	48.2	47.8	47.1	45.7	44.4	42.5	40.8
79.5°	42.4	43.8	44.8	45.2	46.4	46.2	45.3	44.1	42.8	40.8	39.1
80°	40.7	42.1	43.0	43.5	44.6	44.4	43.7	42.4	41.0	39.2	37.6
80.5°	39.0	40.4	41.3	41.9	42.9	42.6	42.0	40.7	39.6	37.7	36.0
81°	37.6	38.7	39.8	40.2	41.2	40.9	40.3	39.1	38.0	36.1	34.4
81.5°	36.1	37.2	38.2	38.5	39.6	39.3	38.6	37.6	36.4	34.5	32.9
82°	34.7	35.8	36.6	37.0	37.9	37.7	37.0	36.0	34.8	33.1	31.5
82.5°	33.3	34.3	35.2	35.6	36.3	36.1	35.6	34.5	33.4	31.6	30.0
83°	31.8	32.9	33.7	34.1	34.7	34.6	33.9	33.1	31.9	30.1	28.5
83.5°	30.3	31.5	32.2	32.5	33.3	33.1	32.4	31.5	30.5	28.9	27.3
84°	29.1	30.0	30.7	31.1	31.8	31.5	31.1	30.1	29.2	27.4	25.9
84.5°	27.7	28.6	29.3	29.6	30.3	30.1	29.6	28.8	27.8	26.1	24.7
85°	26.3	27.3	27.9	28.2	28.9	28.8	28.2	27.4	26.4	24.8	23.3
85.5°	25.0	25.9	26.5	26.9	27.5	27.3	26.9	26.0	25.2	23.6	22.1
86°	23.8	24.7	25.3	25.5	26.1	26.0	25.5	24.8	23.9	22.3	20.9
86.5°	22.6	23.4	23.9	24.2	24.9	24.7	24.2	23.5	22.7	21.2	19.8
87°	21.3	22.1	22.8	23.0	23.6	23.4	23.0	22.2	21.4	20.0	18.7
87.5°	20.1	21.0	21.5	21.7	22.3	22.2	21.8	21.1	20.3	18.9	17.5
88°	19.0	19.8	20.4	20.6	21.2	21.0	20.7	19.9	19.2	17.7	16.6
88.5°	17.8	18.7	19.2	19.4	20.0	19.8	19.5	18.9	18.0	16.8	15.5
89°	16.8	17.5	18.2	18.4	18.9	18.7	18.4	17.7	16.9	15.7	14.6
89.5°	15.7	16.5	17.1	17.2	17.7	17.6	17.3	16.7	15.9	14.8	13.6

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



TEST NUMBER: P855587
CATALOG NUMBER: HLS4079FS1EWH-5000K

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: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	267.6	267.6	267.6	267.6	267.6	267.6
0.5°	267.9	267.5	267.6	267.7	267.6	267.3
1°	267.6	267.3	267.6	267.6	267.1	267.3
1.5°	267.5	267.0	267.7	267.4	267.0	267.5
2°	267.5	267.4	267.4	267.3	267.5	267.1
2.5°	267.6	267.0	267.0	267.4	267.1	267.0
3°	267.3	266.5	267.1	267.0	266.7	267.0
3.5°	266.8	266.4	266.7	266.8	266.8	267.0
4°	266.6	266.4	266.2	266.7	266.5	266.6
4.5°	266.5	265.9	266.2	266.4	266.2	266.3
5°	266.2	265.6	266.1	265.9	265.9	266.2
5.5°	265.6	265.5	265.8	265.9	265.9	266.0
6°	265.6	265.0	265.3	265.7	265.5	265.8
6.5°	265.5	264.4	264.8	265.2	264.9	265.5
7°	264.9	264.0	264.6	264.6	264.5	265.2
7.5°	264.3	263.9	264.3	264.4	264.6	264.6
8°	263.9	263.4	263.7	264.1	264.1	264.3
8.5°	263.6	262.7	263.2	263.6	263.4	264.1
9°	263.4	262.4	262.8	263.1	263.1	263.6
9.5°	262.6	261.9	262.3	262.6	262.7	262.8
10°	261.9	261.4	261.5	261.9	262.0	262.5
10.5°	261.4	261.0	261.2	261.3	261.6	262.1
11°	261.1	260.3	260.9	261.1	261.0	261.5
11.5°	260.5	259.6	260.1	260.4	260.9	261.1
12°	259.6	258.9	259.3	259.6	259.9	260.5
12.5°	259.1	258.3	259.1	259.1	259.2	259.8
13°	258.4	257.8	258.1	258.4	258.8	259.1
13.5°	257.8	257.1	257.3	257.7	258.2	258.8
14°	257.1	256.1	256.7	257.1	257.3	258.1
14.5°	256.2	255.5	256.2	256.3	256.8	257.3
15°	255.7	254.9	255.1	255.4	255.9	256.4
15.5°	255.1	253.8	254.5	254.8	255.2	256.0
16°	253.9	253.3	253.6	254.1	254.5	255.1
16.5°	253.1	252.4	252.9	253.1	253.6	254.2
17°	252.2	251.3	251.9	252.2	252.9	253.5
17.5°	251.6	250.5	251.2	251.5	251.8	252.8
18°	250.6	249.9	250.4	250.6	251.0	251.7
18.5°	249.6	248.9	249.5	249.7	250.4	251.1
19°	248.9	247.7	248.5	248.9	249.4	250.1
19.5°	248.1	246.8	247.4	247.8	248.5	249.2
20°	246.8	246.2	246.4	246.8	247.7	248.2
20.5°	245.7	244.9	245.6	246.0	246.6	247.4
21°	244.7	243.6	244.5	245.1	245.4	246.5
21.5°	243.9	242.9	243.4	243.7	244.6	245.4
22°	242.9	241.9	242.4	242.7	243.7	244.5

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	241.6	240.5	241.3	242.0	242.5	243.4
23°	240.5	239.3	240.2	240.8	241.4	242.2
23.5°	239.4	238.4	238.9	239.4	240.3	241.1
24°	238.4	237.5	237.8	238.5	239.3	240.4
24.5°	237.2	236.2	236.7	237.3	238.1	239.1
25°	236.0	234.8	235.6	236.0	237.0	237.8
25.5°	234.7	233.8	234.2	234.8	235.9	236.8
26°	233.6	232.5	232.9	233.8	234.5	235.7
26.5°	232.4	231.1	232.0	232.4	233.3	234.4
27°	231.3	230.0	230.8	231.2	232.2	233.4
27.5°	229.8	228.8	229.4	230.0	231.1	232.0
28°	228.5	227.5	227.9	228.7	229.7	230.6
28.5°	227.2	225.8	226.9	227.3	228.3	229.4
29°	226.0	224.7	225.4	226.1	227.0	228.2
29.5°	224.7	223.5	223.9	224.8	226.0	227.0
30°	223.3	222.0	222.7	223.4	224.4	225.4
30.5°	221.7	220.5	221.4	221.9	223.0	224.1
31°	220.2	219.5	219.9	220.6	221.7	222.8
31.5°	219.0	217.8	218.6	219.1	220.3	221.5
32°	217.7	216.3	216.9	217.9	218.7	220.0
32.5°	216.3	214.9	215.6	216.3	217.4	218.8
33°	214.7	213.4	213.9	214.8	216.2	217.1
33.5°	213.2	211.9	212.5	213.4	214.6	215.6
34°	211.7	210.4	211.1	212.0	213.0	214.3
34.5°	210.3	208.9	209.8	210.3	211.6	212.9
35°	208.6	207.3	207.9	209.0	210.2	211.3
35.5°	207.1	205.8	206.3	207.2	208.4	209.9
36°	205.4	204.2	204.8	205.6	206.9	208.2
36.5°	204.1	202.8	203.5	204.2	205.4	206.8
37°	202.4	201.3	201.6	202.7	203.8	205.2
37.5°	200.7	199.5	200.1	200.8	202.2	203.6
38°	199.0	197.7	198.6	199.3	200.5	202.1
38.5°	197.7	196.1	196.8	197.8	198.9	200.4
39°	195.8	194.6	195.0	195.9	197.5	198.7
39.5°	194.2	192.9	193.5	194.3	195.7	197.3
40°	192.3	191.1	191.8	192.8	194.0	195.5
40.5°	190.8	189.6	190.2	191.1	192.4	193.7
41°	189.2	187.7	188.5	189.2	190.7	192.2
41.5°	187.4	186.0	186.6	187.5	188.8	190.5
42°	185.6	184.0	184.9	185.9	187.3	188.8
42.5°	183.8	182.5	183.2	183.9	185.6	187.1
43°	182.1	180.7	181.2	182.3	183.6	185.2
43.5°	180.4	178.9	179.4	180.6	181.9	183.4
44°	178.4	176.9	177.7	178.7	180.3	181.8
44.5°	176.7	175.2	176.2	176.8	178.4	180.2

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	175.0	173.6	174.0	175.0	176.5	178.2
45.5°	173.2	171.7	172.2	173.2	174.8	176.3
46°	171.3	169.8	170.5	171.6	173.0	174.7
46.5°	169.4	168.0	168.7	169.6	171.0	172.7
47°	167.5	166.1	166.6	167.7	169.1	170.8
47.5°	165.6	164.0	164.8	165.8	167.5	169.1
48°	163.9	162.2	163.0	164.0	165.6	167.2
48.5°	161.9	160.4	161.1	161.9	163.7	165.2
49°	159.8	158.4	159.0	160.1	161.7	163.5
49.5°	158.0	156.4	157.0	158.2	159.8	161.8
50°	156.0	154.6	155.3	156.1	157.9	159.6
50.5°	154.1	152.6	153.4	154.1	155.9	157.6
51°	152.1	150.6	151.1	152.5	153.8	155.9
51.5°	150.2	148.7	149.2	150.5	152.1	153.8
52°	148.1	146.7	147.3	148.4	150.2	151.8
52.5°	146.3	144.5	145.3	146.3	148.1	149.9
53°	144.2	142.7	143.2	144.6	146.0	147.9
53.5°	142.1	140.7	141.3	142.4	144.1	145.9
54°	140.1	138.7	139.2	140.3	142.2	144.0
54.5°	138.3	136.5	137.0	138.4	140.1	142.1
55°	136.2	134.6	135.0	136.3	138.1	140.0
55.5°	134.1	132.5	133.3	134.1	136.0	137.9
56°	131.9	130.4	131.1	132.2	133.9	135.9
56.5°	129.9	128.4	129.0	130.1	131.9	133.8
57°	127.8	126.4	127.0	128.0	130.0	131.7
57.5°	125.9	124.2	124.9	126.0	127.8	129.8
58°	123.6	122.1	122.8	123.9	125.7	127.8
58.5°	121.6	120.0	120.6	121.7	123.6	125.5
59°	119.6	118.0	118.6	119.7	121.6	123.6
59.5°	117.4	115.8	116.6	117.6	119.5	121.5
60°	115.2	113.8	114.4	115.6	117.4	119.4
60.5°	113.1	111.6	112.2	113.4	115.3	117.2
61°	111.2	109.5	110.2	111.2	113.3	115.3
61.5°	109.0	107.4	108.1	109.1	111.0	113.1
62°	106.8	105.3	105.9	107.1	108.9	111.1
62.5°	104.7	103.2	103.8	105.0	106.8	108.9
63°	102.6	101.0	101.7	102.9	104.9	106.9
63.5°	100.5	98.9	99.6	100.7	102.6	104.6
64°	98.4	97.0	97.4	98.7	100.6	102.6
64.5°	96.2	94.9	95.3	96.5	98.5	100.6
65°	94.2	92.7	93.3	94.4	96.4	98.5
65.5°	92.2	90.6	91.1	92.4	94.2	96.3
66°	90.0	88.5	88.9	90.3	92.2	94.3
66.5°	87.8	86.4	86.9	88.1	90.2	92.2
67°	85.8	84.4	84.8	86.0	88.0	90.1

TEST NUMBER: P855587
 CATALOG NUMBER: HLS4079FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	83.7	82.3	82.8	84.0	85.9	88.0
68°	81.7	80.1	80.6	81.9	83.9	86.0
68.5°	79.6	78.0	78.6	79.9	81.8	83.8
69°	77.8	76.0	76.6	77.9	79.7	81.8
69.5°	75.7	73.9	74.5	75.8	77.8	79.9
70°	73.7	71.9	72.3	73.7	75.8	77.9
70.5°	71.6	69.9	70.4	71.7	73.8	75.8
71°	69.6	67.9	68.4	69.8	71.7	73.8
71.5°	67.5	65.8	66.3	67.8	69.7	71.8
72°	65.6	63.8	64.4	65.7	67.8	69.7
72.5°	63.6	61.9	62.4	63.7	65.8	67.9
73°	61.6	59.9	60.4	61.8	63.8	65.9
73.5°	59.7	57.9	58.5	59.9	61.8	63.9
74°	57.7	56.1	56.6	57.9	60.0	61.9
74.5°	55.8	54.2	54.8	56.0	58.0	60.1
75°	53.9	52.4	52.9	54.2	56.1	58.2
75.5°	52.0	50.6	51.1	52.4	54.4	56.3
76°	50.3	48.8	49.2	50.6	52.6	54.5
76.5°	48.4	46.9	47.4	48.8	50.7	52.7
77°	46.6	45.1	45.6	47.0	48.9	50.9
77.5°	44.8	43.4	44.0	45.2	47.2	49.1
78°	43.2	41.8	42.3	43.5	45.4	47.4
78.5°	41.4	40.1	40.6	41.9	43.8	45.6
79°	39.8	38.4	38.8	40.2	42.1	44.0
79.5°	38.1	36.7	37.2	38.6	40.4	42.4
80°	36.5	35.3	35.8	37.0	38.7	40.7
80.5°	34.9	33.8	34.3	35.6	37.2	39.0
81°	33.5	32.3	32.8	34.1	35.8	37.6
81.5°	31.9	30.8	31.4	32.6	34.3	36.1
82°	30.4	29.4	29.9	31.2	32.8	34.7
82.5°	29.1	28.0	28.5	29.7	31.5	33.3
83°	27.6	26.5	27.1	28.2	30.0	31.8
83.5°	26.2	25.3	25.7	26.9	28.5	30.3
84°	25.0	23.9	24.4	25.6	27.2	29.1
84.5°	23.7	22.7	23.2	24.3	25.9	27.7
85°	22.5	21.5	21.9	23.1	24.7	26.3
85.5°	21.2	20.4	20.8	21.8	23.4	25.0
86°	20.0	19.1	19.6	20.7	22.2	23.8
86.5°	18.9	18.0	18.5	19.5	21.1	22.6
87°	17.7	16.9	17.4	18.5	19.8	21.3
87.5°	16.7	15.9	16.4	17.4	18.8	20.1
88°	15.7	14.9	15.3	16.4	17.7	19.0
88.5°	14.7	14.0	14.4	15.3	16.7	17.8
89°	13.7	13.0	13.4	14.4	15.6	16.8
89.5°	12.8	12.1	12.5	13.4	14.7	15.7

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


NVLAP Lab Code: 200050-0



TEST NUMBER: P855587
CATALOG NUMBER: HLS4079FS1EWH-5000K

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)