

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: P855586

Luminaire Tested: **HLS4079FS1EWH-4000K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P855586
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLS4079FS1EWH-4000K
 Description: 4IN 750LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 770.28 (1 lamp)
 Luminaire Lumens: 795.0 lumens
 Efficiency: 103.2%
 Efficacy: 87.4 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

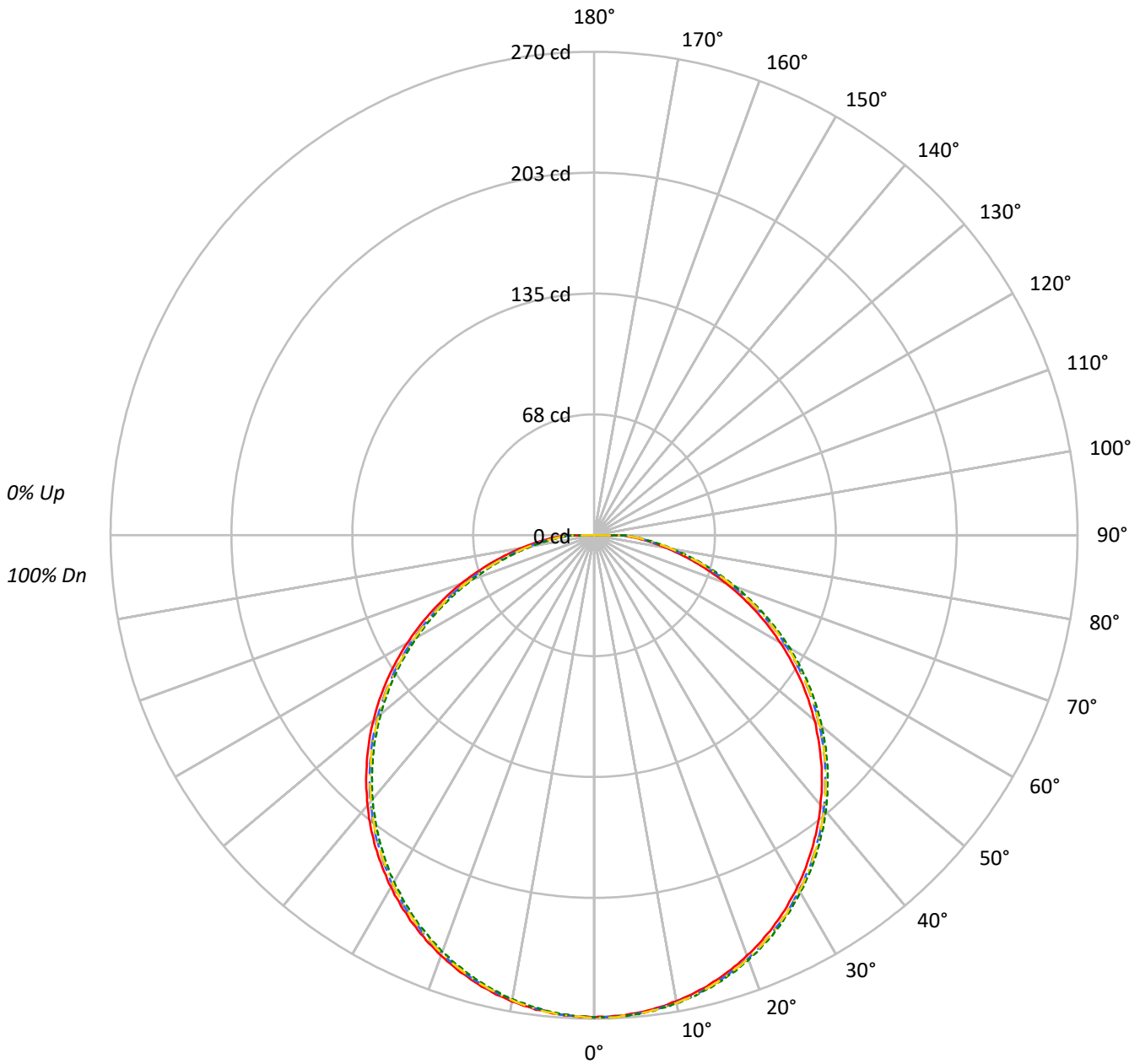
Input Watts (W): 9.1
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



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

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CATALOG NUMBER: HLS4079FS1EWH-4000K

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	123	123	123	123	120	120	120	120	115	115	115	110	110	110	105	105	105	103			
1	111	106	101	97	108	104	99	95	99	96	92	95	92	90	91	89	87	85			
2	101	92	85	78	98	90	83	77	86	81	76	83	78	74	80	76	72	70			
3	92	81	72	65	89	79	71	64	76	69	63	73	67	62	70	65	61	59			
4	84	71	62	55	82	70	61	54	67	60	54	65	58	53	63	57	52	50			
5	77	64	54	47	75	62	53	47	60	52	46	58	51	46	56	50	45	43			
6	71	57	48	41	69	56	47	41	54	46	40	53	45	40	51	45	40	38			
7	66	52	43	36	64	51	42	36	49	41	36	48	41	35	46	40	35	33			
8	61	47	38	32	60	47	38	32	45	37	32	44	37	32	43	36	32	29			
9	57	43	35	29	56	43	35	29	42	34	29	40	34	29	39	33	28	26			
10	54	40	32	26	53	39	32	26	38	31	26	37	31	26	37	30	26	24			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	33891	33891	33891	33891
5°	33844	33920	33869	33768
10°	33762	33929	33788	33609
15°	33628	33875	33641	33419
20°	33441	33803	33455	33174
25°	33229	33660	33243	32813
30°	32958	33467	32958	32464
35°	32678	33277	32693	32063
40°	32315	33087	32348	31592
45°	31912	32819	31947	31075
50°	31443	32501	31463	30445
55°	30915	32166	30981	29730
60°	30254	31815	30330	28845
65°	29540	31327	29689	27754
70°	28811	30945	29032	26604
75°	28494	30974	28689	25625
80°	29714	32541	29932	25728
85°	38265	41875	38409	31190

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.5	3.2	3.3
10°-20°	72.9	9.2	9.5
20°-30°	110.4	13.9	14.3
30°-40°	133.1	16.7	17.3
40°-50°	138.4	17.4	18.0
50°-60°	126.0	15.9	16.4
60°-70°	98.3	12.4	12.8
70°-80°	62.1	7.8	8.1
80°-90°	28.4	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°	208.7	26.3	27.1
0°-40°	341.8	43.0	44.4
0°-60°	606.3	76.3	78.7
0°-90°	795.0	100.0	103.2
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°	795.0	100.0	103.2

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	269	269	269	269	269	
5°	268	268	268	267	268	25
15°	258	260	258	256	258	73
25°	239	242	239	236	239	110
35°	213	217	213	209	213	133
45°	179	184	180	175	179	138
55°	141	147	141	136	141	126
65°	99	105	100	93	99	98
75°	59	64	59	53	59	62
85°	26	29	27	22	26	29
90°	0	0	0	0	0	

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	269.3	269.3	269.3	269.3	269.3	269.3	269.3	269.3	269.3	269.3	269.3
0.5°	268.9	269.2	269.4	269.5	269.2	269.6	269.5	269.0	269.0	268.9	269.3
1°	268.9	269.2	269.4	269.5	269.4	269.6	269.5	269.3	268.8	269.2	269.2
1.5°	269.2	269.0	268.9	269.9	269.5	269.5	269.6	269.3	269.2	268.8	268.8
2°	268.8	269.2	269.2	269.6	269.5	269.3	269.4	269.0	269.0	268.6	268.9
2.5°	268.7	269.0	269.4	269.4	269.0	269.5	269.5	268.8	268.7	268.7	268.9
3°	268.7	268.8	268.9	269.3	268.9	269.4	269.3	268.9	268.6	268.7	268.4
3.5°	268.7	268.7	268.7	269.5	269.2	269.3	268.8	268.6	268.7	268.1	268.3
4°	268.3	268.7	268.7	269.3	269.0	268.8	268.8	268.2	268.3	268.4	268.4
4.5°	268.0	268.4	268.6	268.9	268.6	269.0	268.8	268.4	268.1	268.0	268.0
5°	267.9	268.0	268.3	268.6	268.5	268.7	268.4	268.2	268.1	267.5	267.6
5.5°	267.7	268.0	268.1	268.6	268.5	268.2	268.2	267.8	267.7	267.4	267.6
6°	267.5	267.8	268.2	268.4	268.0	268.1	268.1	267.7	266.9	267.5	267.0
6.5°	267.1	267.5	267.6	268.1	267.8	268.1	267.8	267.6	267.0	266.5	266.6
7°	266.8	267.1	267.1	267.7	267.8	267.6	267.4	267.0	267.1	266.4	266.3
7.5°	266.3	266.7	267.1	267.4	267.4	267.5	267.3	266.6	266.3	266.2	266.1
8°	266.0	266.5	266.6	267.3	266.7	267.3	266.8	266.3	265.9	265.7	265.6
8.5°	265.8	266.1	266.1	266.6	266.7	266.7	266.3	266.2	265.7	265.0	264.9
9°	265.2	265.7	265.9	266.2	266.5	266.2	265.9	265.7	265.1	264.9	264.5
9.5°	264.5	265.4	265.5	266.0	265.7	265.9	265.7	264.9	264.6	264.4	264.3
10°	264.2	264.7	264.8	265.6	265.5	265.7	265.4	264.6	264.4	263.7	263.7
10.5°	263.8	264.2	264.5	265.2	265.1	265.1	264.6	264.5	263.8	263.0	263.0
11°	263.1	264.0	264.0	264.7	264.5	264.4	264.2	263.6	263.1	262.8	262.6
11.5°	262.7	263.3	263.9	264.0	263.9	263.9	263.9	263.1	262.6	262.1	262.1
12°	262.2	262.7	263.0	263.7	263.7	263.6	263.1	262.8	262.3	261.6	261.3
12.5°	261.4	262.1	262.4	263.2	263.1	263.0	262.6	262.3	261.6	261.1	260.5
13°	260.7	261.8	262.0	262.6	262.5	262.5	262.1	261.6	260.8	260.5	260.3
13.5°	260.4	260.9	261.6	261.7	261.8	262.0	261.4	260.7	260.2	259.4	259.7
14°	259.8	260.5	260.6	261.1	261.2	261.3	260.7	260.1	259.8	259.1	258.6
14.5°	258.9	259.5	260.2	260.8	260.8	260.6	260.1	259.8	258.8	258.5	257.9
15°	258.1	258.9	259.4	260.1	260.0	259.9	259.5	258.8	258.2	257.4	257.4
15.5°	257.6	258.3	258.6	259.2	259.3	259.3	259.0	258.1	257.5	256.7	256.5
16°	256.7	257.8	257.9	258.6	258.8	258.6	258.0	257.4	256.5	256.2	255.6
16.5°	255.9	256.6	257.3	257.8	257.9	257.6	257.3	256.6	255.7	255.1	255.1
17°	255.1	256.0	256.5	257.1	257.0	257.0	256.7	255.9	255.2	254.5	254.1
17.5°	254.4	255.3	255.5	256.3	256.4	256.4	255.9	255.1	254.4	253.6	253.0
18°	253.3	254.4	254.8	255.1	255.9	255.4	254.8	254.4	253.3	252.6	252.4
18.5°	252.7	253.6	254.2	254.6	254.8	254.8	254.3	253.4	252.5	251.6	251.5
19°	251.7	252.9	253.1	253.9	253.8	254.1	253.4	252.2	251.7	251.2	250.5
19.5°	250.8	251.6	252.3	252.9	253.2	253.1	252.4	251.7	250.7	249.9	249.5
20°	249.7	250.8	251.7	251.9	252.4	252.0	251.5	250.9	249.8	248.9	248.7
20.5°	249.0	250.1	250.5	251.1	251.1	251.0	250.7	249.6	249.0	247.9	247.5
21°	248.0	249.1	249.3	250.3	250.5	250.3	249.6	248.8	247.8	247.1	246.5
21.5°	247.0	247.9	248.8	249.2	249.7	249.4	248.8	247.9	246.7	245.9	245.7
22°	246.0	247.1	247.7	248.0	248.6	248.4	247.8	246.6	246.0	245.1	244.6

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	245.0	246.1	246.7	247.3	247.3	247.4	246.8	245.6	245.0	244.0	243.3
23°	243.7	244.9	245.6	246.2	246.5	246.5	245.6	244.9	243.6	243.0	242.2
23.5°	242.7	243.9	244.6	245.4	245.6	245.4	244.7	243.8	242.8	241.7	241.5
24°	241.9	243.0	243.4	244.0	244.7	244.2	243.7	242.5	241.7	240.8	239.9
24.5°	240.6	241.6	242.4	242.9	243.4	243.2	242.3	241.6	240.3	239.5	238.8
25°	239.3	240.5	241.3	242.0	242.4	242.2	241.5	240.4	239.4	238.3	237.8
25.5°	238.3	239.8	240.2	241.0	241.4	241.1	240.4	239.1	238.4	237.2	236.7
26°	237.2	238.4	239.0	239.6	240.1	239.7	239.1	237.9	236.8	236.1	235.3
26.5°	235.9	236.9	237.7	238.4	238.8	238.7	238.0	237.2	235.6	234.7	234.2
27°	234.8	236.0	236.6	237.5	237.8	237.6	237.1	235.8	234.7	233.7	233.0
27.5°	233.5	234.8	235.6	236.3	236.7	236.3	235.5	234.4	233.5	232.4	231.8
28°	232.1	233.4	234.2	234.8	235.4	235.0	234.3	233.0	231.9	231.0	230.1
28.5°	230.8	232.2	233.0	233.6	234.0	233.9	233.4	232.1	230.8	229.8	229.1
29°	229.7	230.9	231.6	232.4	232.9	232.5	231.9	230.7	229.8	228.7	228.1
29.5°	228.4	229.3	230.6	231.2	231.7	231.2	230.4	229.6	228.1	227.2	226.3
30°	226.8	228.2	228.9	230.1	230.3	230.2	229.3	228.1	226.8	225.7	224.9
30.5°	225.5	227.1	227.7	228.5	229.1	228.8	228.1	226.9	225.8	224.5	223.9
31°	224.2	225.5	226.6	227.0	228.0	227.4	226.6	225.7	224.2	223.1	222.3
31.5°	222.9	224.2	225.2	225.9	226.4	226.0	225.3	224.0	222.6	221.6	220.7
32°	221.4	222.9	223.5	224.7	225.0	224.8	224.1	222.6	221.5	220.3	219.4
32.5°	220.2	221.5	222.4	223.1	223.8	223.4	222.5	221.4	220.1	218.9	218.0
33°	218.5	220.1	220.9	221.6	222.5	221.8	221.0	219.9	218.4	217.4	216.5
33.5°	217.0	218.6	219.6	220.2	221.0	220.5	219.8	218.4	217.2	215.9	214.9
34°	215.6	217.3	218.0	218.8	219.5	219.3	218.5	216.9	215.8	214.6	213.6
34.5°	214.2	215.6	216.6	217.5	218.2	217.6	216.8	215.7	214.0	212.9	212.0
35°	212.7	214.0	215.2	216.0	216.6	216.0	215.4	214.1	212.8	211.3	210.3
35.5°	211.2	212.7	213.7	214.4	215.0	214.8	213.9	212.6	211.4	209.9	209.0
36°	209.5	211.2	212.0	212.8	213.7	213.3	212.3	211.2	209.5	208.4	207.5
36.5°	208.1	209.7	210.7	211.6	212.2	211.8	210.9	209.7	208.0	206.7	205.7
37°	206.5	208.0	209.2	209.9	210.4	210.2	209.5	208.0	206.7	205.2	204.0
37.5°	204.8	206.5	207.6	208.2	209.0	208.7	207.8	206.3	205.0	203.7	202.7
38°	203.4	205.0	205.9	206.6	207.7	207.3	206.2	204.7	203.3	201.9	201.0
38.5°	201.7	203.3	204.3	205.3	206.1	205.5	204.4	203.3	201.9	200.4	199.1
39°	200.0	201.6	202.9	203.7	204.4	203.8	203.1	201.7	200.1	198.9	197.5
39.5°	198.5	200.2	201.2	202.0	202.8	202.3	201.5	200.0	198.4	196.9	196.0
40°	196.7	198.3	199.5	200.2	201.4	200.7	199.7	198.4	196.9	195.3	194.3
40.5°	194.9	196.5	198.0	198.7	199.6	199.1	198.1	196.8	195.2	193.8	192.6
41°	193.4	194.9	196.2	197.1	197.9	197.4	196.5	194.8	193.2	192.0	190.9
41.5°	191.8	193.4	194.4	195.3	196.3	195.8	194.7	193.2	191.7	190.3	189.2
42°	190.0	191.5	192.9	193.6	194.7	194.3	193.1	191.9	190.1	188.7	187.2
42.5°	188.3	189.9	191.2	192.0	192.8	192.3	191.5	190.0	188.4	186.8	185.7
43°	186.4	188.2	189.3	190.5	191.1	190.7	189.7	188.1	186.7	185.0	184.0
43.5°	184.6	186.5	187.6	188.6	189.5	189.1	187.7	186.5	184.9	183.3	182.0
44°	183.0	184.6	185.9	186.6	187.7	187.2	186.3	184.7	183.0	181.5	180.1
44.5°	181.3	182.9	184.3	185.0	186.1	185.3	184.5	182.9	181.2	179.6	178.7

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	179.3	181.2	182.4	183.3	184.4	183.8	182.7	181.1	179.5	178.0	176.6
45.5°	177.4	179.2	180.7	181.6	182.7	182.0	180.9	179.5	177.8	176.2	174.9
46°	175.8	177.3	179.0	179.7	180.8	180.0	179.2	177.6	175.8	174.3	173.1
46.5°	173.8	175.7	177.0	177.7	178.8	178.3	177.2	175.7	173.9	172.4	171.2
47°	171.9	173.8	175.1	176.1	177.2	176.6	175.5	173.8	172.2	170.6	169.2
47.5°	170.2	171.9	173.4	174.3	175.5	174.8	173.7	172.1	170.3	168.7	167.5
48°	168.2	170.1	171.5	172.2	173.4	173.0	171.8	170.2	168.5	166.7	165.5
48.5°	166.2	168.3	169.6	170.3	171.6	171.1	169.7	168.4	166.6	165.0	163.5
49°	164.5	166.2	167.8	168.6	169.8	169.3	168.0	166.3	164.8	163.0	161.6
49.5°	162.8	164.2	165.9	166.8	167.8	167.2	166.2	164.6	162.8	161.0	159.9
50°	160.6	162.6	164.0	164.8	166.0	165.5	164.3	162.7	160.7	159.1	157.8
50.5°	158.6	160.5	162.0	162.8	164.2	163.7	162.3	160.6	158.8	157.3	155.9
51°	156.9	158.5	160.1	161.0	162.2	161.7	160.5	158.7	157.0	155.2	153.8
51.5°	154.8	156.6	158.4	159.1	160.2	159.6	158.5	156.9	155.0	153.3	151.9
52°	152.8	154.8	156.4	157.2	158.4	157.8	156.6	155.0	153.1	151.4	149.8
52.5°	150.9	152.7	154.3	155.1	156.5	155.9	154.7	152.9	151.2	149.3	147.9
53°	148.9	150.8	152.3	153.1	154.5	154.0	152.7	151.0	149.2	147.3	145.9
53.5°	146.8	148.8	150.4	151.3	152.5	151.8	150.8	149.0	147.1	145.5	143.8
54°	144.9	146.7	148.5	149.4	150.6	150.0	148.7	147.1	145.2	143.3	141.8
54.5°	143.0	144.6	146.4	147.3	148.7	147.9	146.7	145.0	143.2	141.3	139.8
55°	140.9	142.9	144.5	145.3	146.6	145.9	144.8	143.1	141.2	139.3	137.7
55.5°	138.7	140.8	142.5	143.3	144.7	143.9	142.8	141.0	139.0	137.4	135.8
56°	136.7	138.6	140.4	141.3	142.8	142.1	140.6	139.0	137.1	135.2	133.7
56.5°	134.6	136.5	138.2	139.2	140.4	139.8	138.7	137.0	135.1	133.0	131.6
57°	132.5	134.5	136.3	137.1	138.4	137.9	136.7	134.7	132.8	131.0	129.5
57.5°	130.6	132.5	134.3	135.2	136.4	136.0	134.6	132.7	130.8	128.9	127.6
58°	128.6	130.4	132.2	133.2	134.5	133.8	132.4	130.8	128.8	126.9	125.3
58.5°	126.3	128.4	130.1	131.1	132.3	131.7	130.5	128.6	126.8	124.9	123.3
59°	124.4	126.3	128.1	128.9	130.2	129.9	128.6	126.7	124.7	122.8	121.1
59.5°	122.3	124.2	126.0	126.8	128.2	127.7	126.3	124.6	122.6	120.6	119.1
60°	120.2	122.1	123.9	124.8	126.4	125.5	124.2	122.4	120.5	118.6	116.9
60.5°	117.9	120.2	121.7	122.7	124.0	123.3	122.2	120.3	118.4	116.5	114.9
61°	116.0	117.9	119.8	120.6	122.0	121.4	120.1	118.5	116.3	114.4	112.7
61.5°	113.8	115.7	117.5	118.5	120.1	119.3	118.1	116.3	114.3	112.2	110.7
62°	111.8	113.7	115.5	116.5	117.8	117.2	115.9	114.0	112.1	110.2	108.5
62.5°	109.6	111.7	113.4	114.5	115.6	115.1	113.8	111.9	110.0	107.9	106.4
63°	107.6	109.5	111.4	112.1	113.6	113.0	111.7	109.9	107.9	105.9	104.2
63.5°	105.3	107.4	109.2	110.0	111.4	110.9	109.5	107.8	105.8	103.9	102.1
64°	103.3	105.4	107.1	107.9	109.4	108.8	107.5	105.6	103.7	101.7	100.0
64.5°	101.3	103.3	105.0	105.8	107.2	106.6	105.4	103.5	101.7	99.5	98.0
65°	99.2	101.1	103.0	103.8	105.2	104.5	103.3	101.4	99.7	97.6	95.8
65.5°	96.9	99.0	100.7	101.6	103.0	102.3	101.2	99.3	97.4	95.5	93.8
66°	94.9	96.9	98.6	99.5	100.8	100.3	99.2	97.3	95.2	93.2	91.7
66.5°	92.8	94.7	96.5	97.5	98.7	98.2	96.9	95.2	93.2	91.2	89.4
67°	90.7	92.6	94.4	95.2	96.7	96.1	94.8	93.0	91.2	89.1	87.4

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	88.6	90.7	92.2	93.1	94.5	94.0	92.8	90.9	89.1	87.1	85.4
68°	86.6	88.5	90.2	91.0	92.3	91.9	90.7	88.9	87.0	85.0	83.3
68.5°	84.4	86.4	88.2	88.9	90.3	89.9	88.5	86.8	85.0	82.9	81.3
69°	82.4	84.4	86.1	86.9	88.3	87.7	86.5	84.8	83.0	80.9	79.3
69.5°	80.4	82.3	83.9	84.7	86.2	85.7	84.4	82.8	80.9	78.8	77.2
70°	78.3	80.1	81.8	82.6	84.1	83.6	82.3	80.8	78.9	76.8	75.0
70.5°	76.2	78.1	79.8	80.6	82.0	81.6	80.1	78.7	76.9	74.8	73.1
71°	74.2	76.1	77.6	78.5	79.9	79.5	78.3	76.6	74.8	72.8	71.1
71.5°	72.2	74.1	75.6	76.4	77.8	77.4	76.3	74.5	72.8	70.7	69.0
72°	70.1	72.0	73.6	74.3	75.8	75.4	74.1	72.5	70.7	68.7	66.9
72.5°	68.3	70.1	71.6	72.3	73.9	73.3	72.2	70.5	68.8	66.6	65.0
73°	66.3	68.1	69.5	70.3	71.6	71.3	70.2	68.5	66.7	64.7	63.0
73.5°	64.3	66.1	67.5	68.3	69.6	69.3	68.2	66.5	64.8	62.8	61.0
74°	62.3	64.1	65.7	66.3	67.7	67.2	66.1	64.6	62.9	60.8	59.1
74.5°	60.5	62.3	63.7	64.3	65.7	65.2	64.2	62.6	61.0	58.9	57.2
75°	58.6	60.3	61.7	62.3	63.7	63.2	62.3	60.7	59.0	57.0	55.3
75.5°	56.7	58.4	59.7	60.4	61.8	61.3	60.3	58.8	57.2	55.1	53.5
76°	54.8	56.5	57.9	58.4	59.8	59.3	58.4	56.9	55.3	53.3	51.6
76.5°	53.0	54.7	56.0	56.5	57.9	57.4	56.5	55.0	53.4	51.5	49.7
77°	51.2	52.8	54.1	54.6	55.9	55.5	54.6	53.1	51.6	49.6	47.9
77.5°	49.4	51.0	52.3	52.8	54.1	53.6	52.8	51.3	49.9	47.9	46.2
78°	47.7	49.2	50.5	51.0	52.2	51.8	50.9	49.6	48.2	46.1	44.5
78.5°	45.9	47.5	48.6	49.1	50.4	49.9	49.2	47.8	46.4	44.5	42.8
79°	44.2	45.6	46.9	47.3	48.5	48.2	47.4	46.0	44.7	42.8	41.1
79.5°	42.7	44.0	45.1	45.5	46.7	46.5	45.6	44.3	43.1	41.1	39.4
80°	41.0	42.3	43.3	43.8	44.9	44.7	43.9	42.7	41.3	39.5	37.8
80.5°	39.3	40.7	41.6	42.1	43.2	42.9	42.2	41.0	39.8	37.9	36.2
81°	37.8	39.0	40.0	40.4	41.5	41.2	40.5	39.4	38.2	36.3	34.6
81.5°	36.3	37.5	38.4	38.8	39.8	39.6	38.9	37.8	36.6	34.7	33.2
82°	35.0	36.0	36.9	37.3	38.1	37.9	37.3	36.2	35.1	33.3	31.7
82.5°	33.5	34.5	35.4	35.8	36.5	36.3	35.8	34.7	33.6	31.8	30.2
83°	32.0	33.2	33.9	34.3	35.0	34.8	34.1	33.3	32.1	30.3	28.7
83.5°	30.5	31.7	32.4	32.7	33.5	33.3	32.6	31.7	30.7	29.0	27.5
84°	29.2	30.2	30.9	31.3	32.0	31.7	31.3	30.3	29.4	27.6	26.1
84.5°	27.9	28.8	29.5	29.8	30.5	30.3	29.8	28.9	28.0	26.3	24.8
85°	26.5	27.5	28.1	28.4	29.0	28.9	28.4	27.6	26.6	24.9	23.4
85.5°	25.1	26.1	26.7	27.0	27.7	27.5	27.0	26.2	25.3	23.8	22.3
86°	24.0	24.8	25.4	25.7	26.3	26.2	25.7	24.9	24.1	22.5	21.0
86.5°	22.7	23.5	24.1	24.4	25.0	24.8	24.4	23.7	22.8	21.3	20.0
87°	21.4	22.3	22.9	23.1	23.8	23.5	23.1	22.4	21.5	20.2	18.8
87.5°	20.3	21.1	21.6	21.9	22.5	22.4	22.0	21.2	20.4	19.0	17.6
88°	19.1	20.0	20.5	20.7	21.3	21.1	20.8	20.1	19.3	17.8	16.7
88.5°	18.0	18.8	19.3	19.5	20.2	20.0	19.6	19.0	18.2	16.9	15.6
89°	16.9	17.6	18.3	18.5	19.0	18.8	18.5	17.8	17.0	15.8	14.7
89.5°	15.8	16.6	17.2	17.3	17.8	17.7	17.4	16.8	16.1	14.9	13.7

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



TEST NUMBER: P855586
CATALOG NUMBER: HLS4079FS1EWH-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: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	269.3	269.3	269.3	269.3	269.3	269.3
0.5°	269.6	269.2	269.3	269.4	269.3	268.9
1°	269.3	268.9	269.3	269.3	268.8	268.9
1.5°	269.2	268.7	269.4	269.0	268.7	269.2
2°	269.2	269.0	269.0	268.9	269.2	268.8
2.5°	269.3	268.7	268.7	269.0	268.8	268.7
3°	268.9	268.2	268.8	268.7	268.4	268.7
3.5°	268.5	268.1	268.4	268.5	268.5	268.7
4°	268.3	268.1	267.9	268.4	268.2	268.3
4.5°	268.2	267.6	267.9	268.1	267.9	268.0
5°	267.9	267.3	267.8	267.6	267.6	267.9
5.5°	267.3	267.1	267.5	267.6	267.6	267.7
6°	267.3	266.7	266.9	267.4	267.1	267.5
6.5°	267.1	266.1	266.5	266.8	266.6	267.1
7°	266.6	265.7	266.3	266.3	266.2	266.8
7.5°	266.0	265.6	266.0	266.1	266.3	266.3
8°	265.6	265.0	265.4	265.8	265.8	266.0
8.5°	265.2	264.4	264.8	265.2	265.0	265.8
9°	265.0	264.1	264.5	264.7	264.7	265.2
9.5°	264.3	263.6	264.0	264.3	264.4	264.5
10°	263.6	263.0	263.1	263.6	263.7	264.2
10.5°	263.0	262.6	262.8	262.9	263.2	263.8
11°	262.7	262.0	262.5	262.7	262.6	263.1
11.5°	262.2	261.2	261.8	262.1	262.5	262.7
12°	261.2	260.5	260.9	261.2	261.6	262.2
12.5°	260.7	260.0	260.7	260.7	260.8	261.4
13°	260.1	259.4	259.8	260.1	260.4	260.7
13.5°	259.4	258.7	258.9	259.3	259.9	260.4
14°	258.7	257.8	258.3	258.7	258.9	259.8
14.5°	257.9	257.1	257.9	258.0	258.4	258.9
15°	257.3	256.5	256.7	257.0	257.5	258.1
15.5°	256.7	255.4	256.1	256.4	256.8	257.6
16°	255.5	254.9	255.2	255.7	256.1	256.7
16.5°	254.7	253.9	254.5	254.7	255.2	255.9
17°	253.8	252.9	253.5	253.8	254.5	255.1
17.5°	253.2	252.0	252.8	253.1	253.4	254.4
18°	252.2	251.5	251.9	252.2	252.6	253.3
18.5°	251.2	250.5	251.1	251.3	251.9	252.7
19°	250.5	249.3	250.0	250.5	251.0	251.7
19.5°	249.6	248.4	249.0	249.4	250.0	250.8
20°	248.4	247.7	247.9	248.4	249.3	249.7
20.5°	247.3	246.5	247.2	247.5	248.1	249.0
21°	246.2	245.2	246.0	246.7	247.0	248.0
21.5°	245.4	244.4	245.0	245.3	246.1	247.0
22°	244.4	243.4	243.9	244.2	245.3	246.0

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	243.2	242.0	242.9	243.5	244.0	245.0
23°	242.0	240.9	241.7	242.3	243.0	243.7
23.5°	241.0	239.9	240.4	241.0	241.8	242.7
24°	239.9	239.0	239.3	240.0	240.9	241.9
24.5°	238.7	237.7	238.2	238.8	239.6	240.6
25°	237.5	236.3	237.1	237.5	238.5	239.3
25.5°	236.2	235.3	235.7	236.3	237.4	238.3
26°	235.0	234.0	234.4	235.3	236.0	237.2
26.5°	233.9	232.5	233.5	233.9	234.7	235.9
27°	232.7	231.5	232.3	232.6	233.7	234.8
27.5°	231.2	230.3	230.8	231.5	232.5	233.5
28°	230.0	228.9	229.3	230.2	231.1	232.1
28.5°	228.6	227.2	228.3	228.7	229.8	230.8
29°	227.4	226.1	226.8	227.6	228.4	229.7
29.5°	226.1	224.9	225.3	226.2	227.4	228.4
30°	224.7	223.4	224.1	224.8	225.9	226.8
30.5°	223.1	221.8	222.8	223.3	224.4	225.5
31°	221.6	220.9	221.3	222.0	223.1	224.2
31.5°	220.4	219.2	219.9	220.5	221.7	222.9
32°	219.1	217.6	218.3	219.3	220.1	221.4
32.5°	217.6	216.3	217.0	217.6	218.8	220.2
33°	216.0	214.8	215.3	216.1	217.5	218.5
33.5°	214.6	213.2	213.8	214.8	215.9	217.0
34°	213.1	211.7	212.5	213.3	214.4	215.6
34.5°	211.6	210.2	211.1	211.6	213.0	214.2
35°	209.9	208.7	209.2	210.3	211.5	212.7
35.5°	208.4	207.1	207.6	208.5	209.7	211.2
36°	206.7	205.5	206.1	206.9	208.2	209.5
36.5°	205.4	204.1	204.7	205.5	206.7	208.1
37°	203.7	202.5	202.8	204.0	205.1	206.5
37.5°	202.0	200.7	201.4	202.1	203.5	204.8
38°	200.3	198.9	199.9	200.5	201.8	203.4
38.5°	198.9	197.4	198.1	199.0	200.2	201.7
39°	197.0	195.9	196.2	197.1	198.7	200.0
39.5°	195.5	194.1	194.7	195.6	196.9	198.5
40°	193.6	192.3	193.0	194.0	195.2	196.7
40.5°	192.0	190.8	191.4	192.3	193.7	194.9
41°	190.4	188.9	189.6	190.4	191.9	193.4
41.5°	188.6	187.2	187.7	188.7	190.0	191.8
42°	186.8	185.2	186.1	187.1	188.5	190.0
42.5°	185.0	183.6	184.4	185.1	186.8	188.3
43°	183.2	181.8	182.4	183.4	184.8	186.4
43.5°	181.5	180.0	180.6	181.7	183.1	184.6
44°	179.5	178.0	178.9	179.8	181.4	183.0
44.5°	177.8	176.3	177.3	177.9	179.5	181.3

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	176.1	174.6	175.1	176.1	177.6	179.3
45.5°	174.3	172.7	173.3	174.3	175.9	177.4
46°	172.4	170.8	171.6	172.6	174.1	175.8
46.5°	170.4	169.1	169.8	170.6	172.1	173.8
47°	168.5	167.2	167.7	168.7	170.2	171.9
47.5°	166.6	165.0	165.9	166.8	168.5	170.2
48°	164.9	163.2	164.0	165.0	166.6	168.2
48.5°	162.9	161.5	162.1	162.9	164.7	166.2
49°	160.8	159.4	160.0	161.1	162.7	164.5
49.5°	159.0	157.4	158.0	159.2	160.8	162.8
50°	157.0	155.5	156.3	157.1	158.9	160.6
50.5°	155.1	153.5	154.4	155.1	156.9	158.6
51°	153.1	151.5	152.1	153.4	154.8	156.9
51.5°	151.1	149.6	150.2	151.4	153.1	154.8
52°	149.0	147.6	148.3	149.3	151.1	152.8
52.5°	147.2	145.4	146.2	147.2	149.0	150.9
53°	145.1	143.6	144.1	145.5	146.9	148.9
53.5°	143.0	141.6	142.2	143.3	145.0	146.8
54°	141.0	139.6	140.1	141.2	143.1	144.9
54.5°	139.2	137.4	137.9	139.3	141.0	143.0
55°	137.1	135.5	135.9	137.2	139.0	140.9
55.5°	134.9	133.4	134.1	134.9	136.8	138.7
56°	132.7	131.3	131.9	133.0	134.7	136.7
56.5°	130.7	129.2	129.8	130.9	132.7	134.6
57°	128.6	127.2	127.8	128.8	130.8	132.5
57.5°	126.7	125.0	125.7	126.8	128.6	130.6
58°	124.4	122.9	123.5	124.7	126.5	128.6
58.5°	122.4	120.8	121.3	122.5	124.4	126.3
59°	120.4	118.8	119.3	120.5	122.4	124.4
59.5°	118.2	116.6	117.3	118.4	120.3	122.3
60°	115.9	114.6	115.1	116.4	118.2	120.2
60.5°	113.8	112.4	112.9	114.1	116.0	117.9
61°	111.9	110.2	110.9	111.9	114.0	116.0
61.5°	109.7	108.1	108.8	109.8	111.7	113.8
62°	107.5	106.0	106.5	107.8	109.6	111.8
62.5°	105.4	103.9	104.4	105.7	107.5	109.6
63°	103.3	101.7	102.3	103.6	105.6	107.6
63.5°	101.2	99.6	100.2	101.4	103.3	105.3
64°	99.0	97.6	98.0	99.4	101.3	103.3
64.5°	96.8	95.5	95.9	97.1	99.2	101.3
65°	94.8	93.2	93.9	95.0	97.0	99.2
65.5°	92.8	91.1	91.7	93.0	94.8	96.9
66°	90.6	89.0	89.4	90.9	92.8	94.9
66.5°	88.4	86.9	87.4	88.7	90.8	92.8
67°	86.4	84.9	85.3	86.6	88.6	90.7

TEST NUMBER: P855586
 CATALOG NUMBER: HLS4079FS1EWH-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	84.3	82.8	83.3	84.6	86.5	88.6
68°	82.3	80.6	81.1	82.5	84.5	86.6
68.5°	80.1	78.5	79.1	80.4	82.4	84.4
69°	78.2	76.4	77.1	78.3	80.3	82.4
69.5°	76.1	74.3	75.0	76.2	78.2	80.4
70°	74.1	72.3	72.8	74.1	76.2	78.3
70.5°	72.0	70.3	70.9	72.1	74.2	76.2
71°	70.0	68.3	68.8	70.2	72.1	74.2
71.5°	67.9	66.2	66.7	68.2	70.1	72.2
72°	66.0	64.2	64.8	66.1	68.2	70.1
72.5°	64.0	62.3	62.8	64.1	66.2	68.3
73°	62.0	60.3	60.8	62.2	64.2	66.3
73.5°	60.1	58.3	58.9	60.3	62.2	64.3
74°	58.1	56.5	56.9	58.3	60.4	62.3
74.5°	56.2	54.6	55.1	56.4	58.4	60.5
75°	54.3	52.7	53.2	54.6	56.5	58.6
75.5°	52.4	50.9	51.4	52.7	54.7	56.7
76°	50.6	49.1	49.5	50.9	52.9	54.8
76.5°	48.7	47.2	47.7	49.1	51.0	53.0
77°	46.9	45.4	45.9	47.3	49.2	51.2
77.5°	45.1	43.7	44.2	45.5	47.5	49.4
78°	43.5	42.0	42.6	43.8	45.7	47.7
78.5°	41.7	40.3	40.9	42.1	44.0	45.9
79°	40.0	38.6	39.1	40.4	42.3	44.2
79.5°	38.3	37.0	37.5	38.9	40.7	42.7
80°	36.7	35.5	36.0	37.3	39.0	41.0
80.5°	35.2	34.0	34.5	35.8	37.5	39.3
81°	33.7	32.5	33.1	34.3	36.0	37.8
81.5°	32.1	31.0	31.6	32.8	34.5	36.3
82°	30.6	29.6	30.1	31.4	33.1	35.0
82.5°	29.2	28.2	28.7	29.9	31.7	33.5
83°	27.8	26.7	27.2	28.4	30.2	32.0
83.5°	26.4	25.4	25.9	27.0	28.7	30.5
84°	25.1	24.1	24.6	25.8	27.3	29.2
84.5°	23.9	22.8	23.3	24.5	26.1	27.9
85°	22.6	21.6	22.1	23.2	24.8	26.5
85.5°	21.3	20.5	20.9	22.0	23.5	25.1
86°	20.2	19.2	19.7	20.8	22.4	24.0
86.5°	19.0	18.2	18.6	19.6	21.2	22.7
87°	17.8	17.0	17.5	18.6	20.0	21.4
87.5°	16.8	16.1	16.5	17.5	18.9	20.3
88°	15.8	15.0	15.4	16.5	17.8	19.1
88.5°	14.8	14.0	14.5	15.4	16.8	18.0
89°	13.8	13.1	13.5	14.5	15.7	16.9
89.5°	12.9	12.1	12.6	13.5	14.8	15.8

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



TEST NUMBER: P855586
CATALOG NUMBER: HLS4079FS1EWH-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)