

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: P855584

Luminaire Tested: **HLS4079FS1EWH-3000K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P855584
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLS4079FS1EWH-3000K
 Description: 4IN 750LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 770.28 (1 lamp)
 Luminaire Lumens: 785.0 lumens
 Efficiency: 101.9%
 Efficacy: 85.3 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

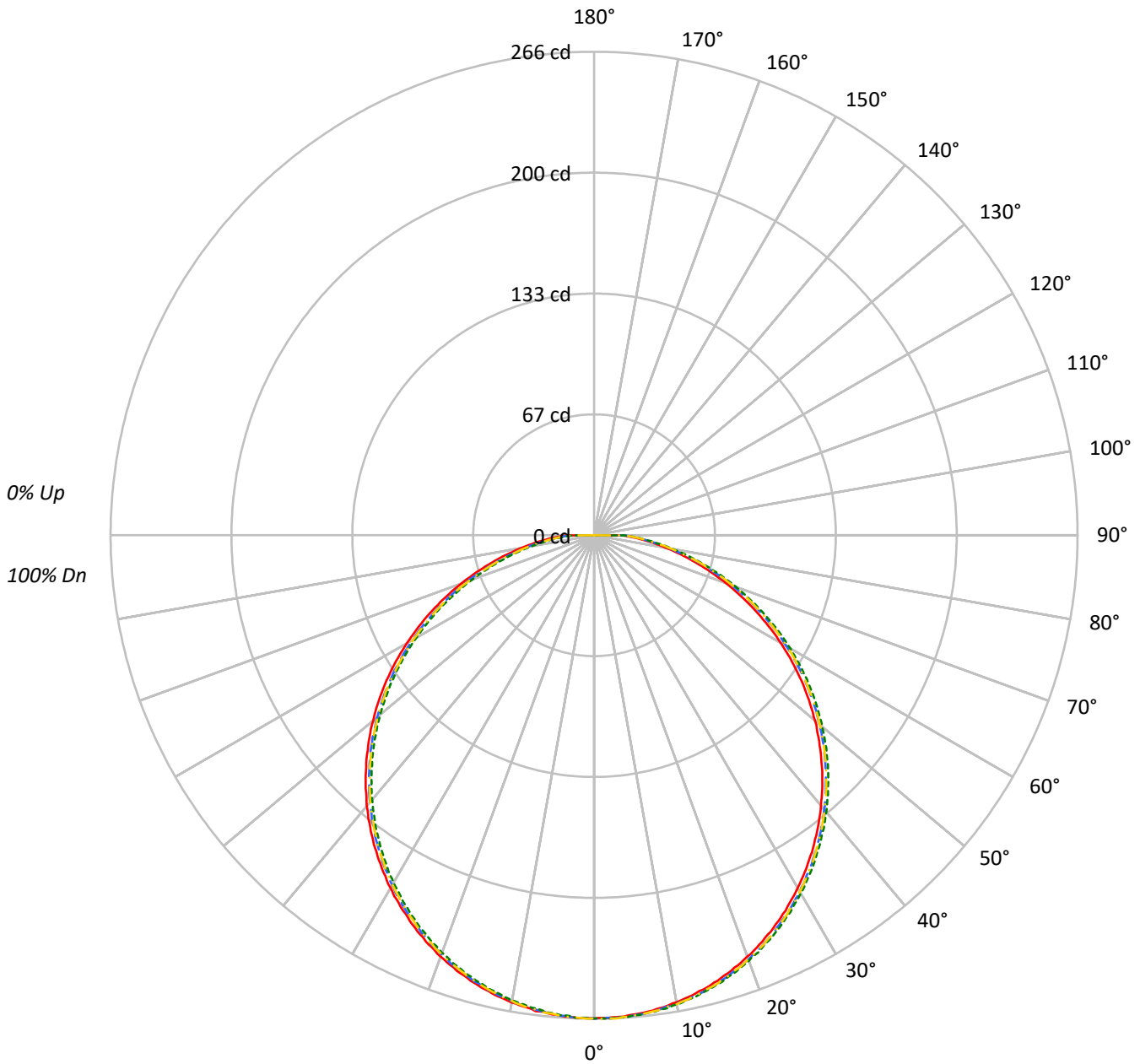
Input Watts (W): 9.2
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



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	121	121	121	121	119	119	119	119	113	113	113	108	108	108	104	104	104	104	104	104	102
1	110	105	100	96	107	102	98	94	98	94	91	94	91	88	90	88	86	86	86	86	84
2	100	91	84	77	97	89	82	76	85	80	75	82	77	73	79	75	71	71	71	71	69
3	91	80	71	64	88	78	70	63	75	68	62	72	66	61	69	64	60	60	60	60	58
4	83	70	61	54	81	69	60	54	66	59	53	64	57	52	62	56	51	51	51	51	49
5	76	63	53	46	74	62	53	46	59	52	46	57	51	45	56	49	45	45	45	45	42
6	70	57	47	40	68	56	47	40	54	46	40	52	45	40	50	44	39	39	39	39	37
7	65	51	42	36	63	50	42	36	49	41	35	47	40	35	46	40	35	35	35	35	33
8	61	47	38	32	59	46	38	32	45	37	32	43	36	31	42	36	31	31	31	31	29
9	57	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	28	28	28	26
10	53	40	31	26	52	39	31	26	38	31	26	37	30	26	36	30	25	25	25	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	33463	33463	33463	33463
5°	33414	33490	33440	33339
10°	33341	33494	33366	33187
15°	33198	33445	33211	33002
20°	33026	33374	33040	32758
25°	32813	33243	32826	32396
30°	32551	33046	32551	32057
35°	32263	32847	32279	31649
40°	31904	32660	31953	31198
45°	31502	32392	31538	30701
50°	31052	32090	31071	30073
55°	30520	31749	30586	29357
60°	29877	31412	29952	28467
65°	29153	30910	29302	27426
70°	28480	30541	28664	26272
75°	28154	30585	28348	25285
80°	29352	32106	29569	25366
85°	37832	41442	37976	30901

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.1	3.2	3.3
10°-20°	72.0	9.2	9.3
20°-30°	109.0	13.9	14.1
30°-40°	131.4	16.7	17.1
40°-50°	136.7	17.4	17.7
50°-60°	124.4	15.8	16.2
60°-70°	97.0	12.4	12.6
70°-80°	61.3	7.8	8.0
80°-90°	28.0	3.6	3.6
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	206.1	26.3	26.8
0°-40°	337.5	43.0	43.8
0°-60°	598.6	76.3	77.7
0°-90°	785.0	100.0	101.9
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°	785.0	100.0	101.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	266	266	266	266	266	
5°	264	265	265	264	264	25
15°	255	257	255	253	255	72
25°	236	239	236	233	236	109
35°	210	214	210	206	210	131
45°	177	182	177	172	177	137
55°	139	145	139	134	139	124
65°	98	104	98	92	98	97
75°	58	63	58	52	58	61
85°	26	29	26	21	26	29
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°	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9	265.9
0.5°	265.6	265.8	266.0	266.1	265.8	266.2	266.1	265.7	265.7	265.6	265.9
1°	265.6	265.8	266.0	266.1	266.0	266.2	266.1	265.9	265.5	265.8	265.8
1.5°	265.8	265.7	265.6	266.5	266.1	266.1	266.2	265.9	265.8	265.5	265.5
2°	265.5	265.8	265.8	266.2	266.1	265.9	266.0	265.7	265.7	265.2	265.6
2.5°	265.4	265.7	266.0	266.0	265.7	266.1	266.1	265.5	265.4	265.4	265.6
3°	265.4	265.5	265.6	265.9	265.6	266.0	265.9	265.6	265.2	265.4	265.0
3.5°	265.4	265.4	265.4	266.1	265.8	265.9	265.5	265.2	265.4	264.7	264.9
4°	264.9	265.4	265.4	265.9	265.7	265.5	265.5	264.8	264.9	265.0	265.0
4.5°	264.6	265.0	265.2	265.6	265.2	265.7	265.5	265.0	264.7	264.6	264.6
5°	264.5	264.6	264.9	265.2	265.1	265.4	265.0	264.8	264.7	264.1	264.2
5.5°	264.3	264.6	264.7	265.2	265.1	264.8	264.8	264.4	264.3	264.0	264.2
6°	264.1	264.4	264.8	265.0	264.6	264.7	264.7	264.3	263.6	264.1	263.7
6.5°	263.8	264.1	264.2	264.7	264.4	264.7	264.4	264.2	263.7	263.2	263.3
7°	263.5	263.8	263.8	264.3	264.4	264.2	264.0	263.7	263.8	263.1	263.0
7.5°	263.0	263.4	263.8	264.0	264.0	264.1	263.9	263.3	263.0	262.8	262.7
8°	262.6	263.2	263.3	263.9	263.4	263.9	263.5	263.0	262.5	262.3	262.2
8.5°	262.4	262.7	262.7	263.3	263.4	263.4	263.0	262.8	262.3	261.7	261.6
9°	261.9	262.3	262.5	262.8	263.2	262.8	262.5	262.3	261.8	261.6	261.2
9.5°	261.2	262.0	262.1	262.6	262.3	262.5	262.3	261.6	261.3	261.1	261.0
10°	260.9	261.4	261.5	262.2	262.1	262.3	262.0	261.3	261.1	260.3	260.3
10.5°	260.5	260.9	261.2	261.9	261.8	261.8	261.3	261.2	260.5	259.7	259.7
11°	259.8	260.7	260.7	261.4	261.2	261.1	260.9	260.2	259.8	259.5	259.3
11.5°	259.4	260.0	260.6	260.7	260.6	260.6	260.6	259.8	259.3	258.8	258.8
12°	258.9	259.4	259.7	260.3	260.3	260.2	259.8	259.5	259.0	258.3	258.1
12.5°	258.2	258.8	259.1	259.9	259.8	259.7	259.3	259.0	258.3	257.8	257.2
13°	257.4	258.5	258.7	259.3	259.2	259.2	258.8	258.3	257.5	257.2	257.0
13.5°	257.1	257.6	258.3	258.4	258.5	258.7	258.2	257.4	256.9	256.2	256.4
14°	256.5	257.2	257.3	257.8	257.9	258.1	257.4	256.8	256.5	255.9	255.3
14.5°	255.7	256.3	256.9	257.5	257.5	257.3	256.8	256.5	255.6	255.2	254.6
15°	254.8	255.7	256.2	256.8	256.7	256.6	256.3	255.6	254.9	254.2	254.2
15.5°	254.4	255.0	255.3	256.0	256.1	256.1	255.8	254.8	254.3	253.5	253.3
16°	253.5	254.5	254.6	255.3	255.6	255.3	254.7	254.2	253.3	252.9	252.4
16.5°	252.6	253.4	254.1	254.5	254.6	254.4	254.1	253.4	252.5	251.9	251.9
17°	251.9	252.7	253.3	253.9	253.8	253.8	253.5	252.6	252.0	251.3	250.9
17.5°	251.2	252.1	252.3	253.0	253.2	253.2	252.6	251.9	251.2	250.4	249.8
18°	250.1	251.2	251.6	251.9	252.6	252.2	251.6	251.2	250.1	249.4	249.2
18.5°	249.5	250.4	251.0	251.4	251.6	251.6	251.1	250.2	249.3	248.5	248.4
19°	248.6	249.7	249.9	250.8	250.7	250.9	250.2	249.0	248.6	248.0	247.3
19.5°	247.6	248.5	249.1	249.7	250.0	249.9	249.2	248.6	247.5	246.8	246.4
20°	246.6	247.6	248.6	248.8	249.2	248.9	248.4	247.7	246.7	245.8	245.5
20.5°	245.9	247.0	247.3	247.9	247.9	247.8	247.5	246.5	245.9	244.8	244.4
21°	244.9	246.0	246.2	247.1	247.3	247.1	246.5	245.6	244.7	244.0	243.4
21.5°	243.9	244.8	245.6	246.1	246.6	246.3	245.6	244.8	243.6	242.8	242.6
22°	242.9	244.0	244.6	244.9	245.4	245.2	244.7	243.5	242.9	242.0	241.5

TEST NUMBER: P855584
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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°	241.9	243.0	243.6	244.2	244.2	244.3	243.7	242.5	241.9	241.0	240.2
23°	240.6	241.8	242.5	243.1	243.4	243.4	242.5	241.8	240.5	239.9	239.2
23.5°	239.6	240.9	241.5	242.3	242.5	242.3	241.6	240.7	239.7	238.7	238.5
24°	238.9	239.9	240.3	241.0	241.6	241.2	240.6	239.5	238.7	237.7	236.9
24.5°	237.6	238.6	239.4	239.8	240.3	240.1	239.3	238.6	237.3	236.5	235.8
25°	236.3	237.5	238.2	239.0	239.4	239.2	238.5	237.4	236.4	235.3	234.8
25.5°	235.3	236.8	237.2	237.9	238.3	238.0	237.4	236.1	235.4	234.2	233.8
26°	234.2	235.4	235.9	236.6	237.1	236.7	236.1	234.9	233.9	233.1	232.3
26.5°	232.9	234.0	234.7	235.4	235.8	235.7	235.0	234.2	232.6	231.8	231.3
27°	231.9	233.0	233.7	234.5	234.8	234.6	234.1	232.8	231.8	230.7	230.1
27.5°	230.5	231.9	232.6	233.3	233.8	233.3	232.5	231.5	230.5	229.5	228.9
28°	229.2	230.4	231.3	231.9	232.4	232.1	231.4	230.1	229.0	228.1	227.2
28.5°	227.9	229.3	230.1	230.6	231.0	230.9	230.4	229.2	227.9	226.9	226.3
29°	226.8	228.0	228.7	229.5	230.0	229.6	229.0	227.8	226.9	225.8	225.2
29.5°	225.5	226.5	227.7	228.3	228.8	228.3	227.5	226.7	225.2	224.4	223.4
30°	224.0	225.3	226.0	227.2	227.4	227.3	226.5	225.2	224.0	222.8	222.1
30.5°	222.7	224.3	224.8	225.6	226.3	225.9	225.2	224.1	222.9	221.7	221.0
31°	221.4	222.7	223.8	224.2	225.1	224.6	223.8	222.8	221.4	220.3	219.5
31.5°	220.1	221.4	222.4	223.0	223.5	223.1	222.5	221.1	219.8	218.9	217.9
32°	218.6	220.1	220.7	221.9	222.2	222.0	221.2	219.8	218.7	217.5	216.7
32.5°	217.4	218.7	219.6	220.3	220.9	220.6	219.7	218.6	217.3	216.1	215.3
33°	215.7	217.3	218.1	218.9	219.7	219.1	218.2	217.2	215.6	214.7	213.7
33.5°	214.3	215.8	216.9	217.4	218.2	217.7	217.1	215.6	214.5	213.2	212.2
34°	212.9	214.6	215.3	216.0	216.8	216.6	215.7	214.2	213.1	211.9	210.9
34.5°	211.6	212.9	213.8	214.8	215.4	214.9	214.1	213.0	211.3	210.2	209.4
35°	210.0	211.3	212.5	213.3	213.8	213.3	212.7	211.4	210.1	208.6	207.7
35.5°	208.5	210.0	211.0	211.7	212.3	212.1	211.2	209.9	208.7	207.3	206.3
36°	206.9	208.5	209.4	210.1	211.0	210.6	209.7	208.5	206.9	205.8	204.9
36.5°	205.5	207.1	208.0	208.9	209.6	209.2	208.2	207.1	205.4	204.1	203.1
37°	203.9	205.4	206.5	207.3	207.8	207.6	206.9	205.4	204.1	202.6	201.4
37.5°	202.3	203.9	205.0	205.6	206.3	206.0	205.2	203.7	202.4	201.1	200.2
38°	200.8	202.4	203.3	204.0	205.1	204.7	203.6	202.2	200.7	199.4	198.5
38.5°	199.1	200.7	201.8	202.7	203.5	202.9	201.9	200.7	199.4	197.9	196.6
39°	197.5	199.0	200.4	201.1	201.9	201.2	200.5	199.1	197.6	196.4	195.0
39.5°	196.0	197.7	198.6	199.5	200.3	199.8	198.9	197.5	195.9	194.5	193.5
40°	194.2	195.8	197.0	197.7	198.8	198.2	197.2	195.9	194.5	192.9	191.8
40.5°	192.5	194.0	195.5	196.2	197.1	196.6	195.6	194.3	192.8	191.3	190.2
41°	191.0	192.5	193.7	194.7	195.4	194.9	194.0	192.4	190.8	189.6	188.5
41.5°	189.3	191.0	192.0	192.9	193.8	193.3	192.3	190.8	189.2	187.9	186.8
42°	187.6	189.1	190.5	191.1	192.3	191.8	190.7	189.4	187.7	186.3	184.9
42.5°	185.9	187.5	188.8	189.6	190.4	189.9	189.1	187.6	186.0	184.4	183.4
43°	184.0	185.8	186.9	188.1	188.7	188.3	187.4	185.7	184.3	182.7	181.7
43.5°	182.3	184.1	185.3	186.2	187.2	186.7	185.4	184.1	182.6	181.0	179.8
44°	180.7	182.3	183.6	184.2	185.4	184.9	183.9	182.4	180.7	179.2	177.9
44.5°	179.0	180.6	181.9	182.7	183.7	183.0	182.1	180.6	178.9	177.4	176.4

TEST NUMBER: P855584
 CATALOG NUMBER: HLS4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	177.0	178.9	180.1	181.0	182.0	181.5	180.4	178.8	177.2	175.8	174.3
45.5°	175.2	176.9	178.4	179.3	180.4	179.8	178.6	177.2	175.6	174.0	172.7
46°	173.6	175.1	176.7	177.5	178.5	177.8	176.9	175.4	173.6	172.1	170.9
46.5°	171.6	173.5	174.7	175.5	176.5	176.1	175.0	173.5	171.7	170.3	169.0
47°	169.7	171.6	172.9	173.9	175.0	174.3	173.3	171.6	170.1	168.5	167.0
47.5°	168.1	169.7	171.2	172.1	173.3	172.6	171.5	170.0	168.2	166.6	165.4
48°	166.1	168.0	169.3	170.1	171.2	170.8	169.6	168.1	166.4	164.6	163.4
48.5°	164.1	166.2	167.4	168.2	169.4	168.9	167.6	166.3	164.5	163.0	161.4
49°	162.4	164.1	165.7	166.5	167.7	167.1	165.9	164.2	162.8	161.0	159.5
49.5°	160.8	162.1	163.8	164.7	165.7	165.1	164.1	162.5	160.8	159.0	157.9
50°	158.6	160.6	161.9	162.8	163.9	163.4	162.2	160.7	158.7	157.1	155.8
50.5°	156.6	158.5	159.9	160.8	162.1	161.6	160.3	158.6	156.8	155.4	153.9
51°	154.9	156.5	158.1	159.0	160.1	159.6	158.5	156.7	155.0	153.3	151.9
51.5°	152.9	154.6	156.4	157.1	158.2	157.5	156.5	154.9	153.1	151.4	150.0
52°	150.9	152.9	154.4	155.2	156.4	155.8	154.6	153.1	151.2	149.5	148.0
52.5°	149.0	150.8	152.3	153.2	154.5	153.9	152.7	151.0	149.3	147.4	146.1
53°	147.0	148.9	150.3	151.2	152.5	152.0	150.8	149.1	147.3	145.4	144.1
53.5°	144.9	146.9	148.5	149.4	150.6	149.9	148.9	147.1	145.2	143.7	142.0
54°	143.1	144.8	146.6	147.5	148.7	148.2	146.8	145.2	143.4	141.5	140.0
54.5°	141.2	142.7	144.5	145.4	146.8	146.1	144.8	143.2	141.4	139.5	138.0
55°	139.1	141.1	142.6	143.5	144.7	144.1	142.9	141.3	139.4	137.5	136.0
55.5°	137.0	139.0	140.8	141.5	142.8	142.1	141.0	139.2	137.2	135.6	134.1
56°	135.0	136.9	138.7	139.5	141.0	140.3	138.9	137.2	135.3	133.5	132.0
56.5°	132.9	134.8	136.5	137.4	138.7	138.0	137.0	135.2	133.4	131.4	129.9
57°	130.9	132.8	134.6	135.3	136.7	136.2	135.0	133.0	131.2	129.4	127.8
57.5°	129.0	130.9	132.6	133.5	134.7	134.3	132.9	131.1	129.2	127.3	126.0
58°	127.0	128.8	130.5	131.5	132.8	132.1	130.7	129.2	127.2	125.3	123.8
58.5°	124.7	126.8	128.5	129.5	130.6	130.0	128.9	127.0	125.2	123.3	121.8
59°	122.8	124.7	126.5	127.3	128.6	128.2	127.0	125.1	123.1	121.3	119.6
59.5°	120.7	122.6	124.4	125.2	126.6	126.1	124.7	123.0	121.1	119.1	117.6
60°	118.7	120.5	122.3	123.2	124.8	124.0	122.6	120.8	119.0	117.1	115.4
60.5°	116.5	118.7	120.2	121.2	122.4	121.8	120.6	118.8	116.9	115.0	113.4
61°	114.6	116.5	118.3	119.1	120.4	119.9	118.5	117.0	114.8	112.9	111.2
61.5°	112.4	114.3	116.0	117.0	118.5	117.8	116.6	114.8	112.8	110.8	109.3
62°	110.4	112.3	114.1	115.0	116.4	115.7	114.5	112.6	110.7	108.9	107.2
62.5°	108.2	110.3	112.0	113.0	114.2	113.6	112.4	110.5	108.6	106.6	105.1
63°	106.2	108.1	110.0	110.7	112.2	111.6	110.3	108.5	106.6	104.6	102.9
63.5°	104.0	106.0	107.8	108.6	110.0	109.5	108.1	106.5	104.5	102.6	100.8
64°	102.0	104.1	105.7	106.6	108.0	107.4	106.1	104.3	102.4	100.4	98.7
64.5°	100.0	102.0	103.6	104.5	105.8	105.3	104.1	102.2	100.4	98.2	96.8
65°	97.9	99.8	101.7	102.5	103.8	103.2	102.0	100.1	98.4	96.3	94.6
65.5°	95.7	97.8	99.5	100.3	101.7	101.0	99.9	98.0	96.1	94.3	92.6
66°	93.7	95.7	97.4	98.2	99.6	99.1	97.9	96.0	94.0	92.1	90.5
66.5°	91.6	93.5	95.3	96.2	97.5	97.0	95.7	94.0	92.1	90.1	88.3
67°	89.6	91.4	93.2	94.0	95.5	94.9	93.6	91.9	90.1	88.0	86.3

TEST NUMBER: P855584
 CATALOG NUMBER: HLS4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	87.5	89.6	91.0	92.0	93.3	92.8	91.6	89.8	88.0	86.0	84.3
68°	85.5	87.4	89.0	89.9	91.1	90.7	89.6	87.8	85.9	83.9	82.3
68.5°	83.3	85.3	87.1	87.8	89.1	88.7	87.4	85.7	83.9	81.8	80.3
69°	81.3	83.3	85.0	85.8	87.2	86.6	85.4	83.7	82.0	79.9	78.3
69.5°	79.3	81.2	82.9	83.6	85.1	84.7	83.3	81.7	79.9	77.8	76.2
70°	77.4	79.1	80.8	81.5	83.0	82.6	81.2	79.8	77.9	75.8	74.0
70.5°	75.3	77.2	78.8	79.6	81.0	80.6	79.1	77.7	75.9	73.8	72.2
71°	73.3	75.2	76.6	77.5	78.9	78.5	77.4	75.6	73.8	71.8	70.2
71.5°	71.3	73.2	74.7	75.5	76.8	76.4	75.4	73.6	71.8	69.9	68.1
72°	69.2	71.1	72.7	73.4	74.9	74.4	73.2	71.6	69.9	67.9	66.1
72.5°	67.5	69.2	70.7	71.4	73.0	72.4	71.3	69.6	68.0	65.8	64.2
73°	65.5	67.3	68.6	69.4	70.7	70.4	69.3	67.7	65.9	63.9	62.2
73.5°	63.5	65.3	66.6	67.5	68.7	68.4	67.4	65.7	64.0	62.0	60.3
74°	61.5	63.3	64.9	65.5	66.8	66.3	65.3	63.8	62.1	60.1	58.4
74.5°	59.7	61.5	62.9	63.5	64.9	64.3	63.4	61.8	60.3	58.2	56.5
75°	57.9	59.5	60.9	61.5	62.9	62.5	61.5	60.0	58.3	56.3	54.6
75.5°	56.0	57.7	58.9	59.6	61.0	60.6	59.5	58.1	56.5	54.4	52.9
76°	54.1	55.8	57.1	57.7	59.0	58.6	57.7	56.2	54.6	52.7	51.0
76.5°	52.3	54.0	55.3	55.8	57.1	56.7	55.8	54.3	52.8	50.9	49.1
77°	50.6	52.1	53.4	53.9	55.2	54.8	53.9	52.4	51.0	49.0	47.3
77.5°	48.8	50.4	51.6	52.1	53.4	53.0	52.1	50.7	49.3	47.3	45.7
78°	47.1	48.6	49.8	50.4	51.5	51.2	50.3	49.0	47.5	45.6	43.9
78.5°	45.4	46.9	48.0	48.5	49.7	49.3	48.6	47.2	45.8	43.9	42.2
79°	43.7	45.0	46.3	46.7	47.9	47.5	46.8	45.5	44.1	42.2	40.6
79.5°	42.1	43.5	44.5	44.9	46.1	45.9	45.0	43.8	42.5	40.6	38.9
80°	40.5	41.8	42.7	43.3	44.3	44.1	43.4	42.1	40.8	39.0	37.3
80.5°	38.8	40.1	41.1	41.6	42.6	42.3	41.7	40.5	39.3	37.4	35.8
81°	37.3	38.5	39.5	39.9	41.0	40.7	40.0	38.9	37.7	35.9	34.2
81.5°	35.9	37.0	38.0	38.3	39.3	39.1	38.4	37.3	36.2	34.3	32.7
82°	34.5	35.6	36.4	36.8	37.6	37.4	36.8	35.8	34.6	32.8	31.3
82.5°	33.1	34.1	34.9	35.3	36.1	35.9	35.3	34.3	33.2	31.4	29.8
83°	31.6	32.7	33.5	33.9	34.5	34.4	33.7	32.8	31.7	29.9	28.4
83.5°	30.1	31.3	32.0	32.3	33.1	32.8	32.2	31.3	30.3	28.7	27.1
84°	28.9	29.8	30.5	30.9	31.6	31.3	30.9	29.9	29.0	27.2	25.8
84.5°	27.5	28.5	29.1	29.4	30.1	29.9	29.4	28.6	27.6	26.0	24.5
85°	26.2	27.1	27.7	28.0	28.7	28.6	28.0	27.2	26.3	24.6	23.1
85.5°	24.8	25.8	26.4	26.7	27.3	27.1	26.7	25.9	25.0	23.5	22.0
86°	23.7	24.5	25.1	25.3	26.0	25.9	25.3	24.6	23.8	22.2	20.7
86.5°	22.4	23.3	23.8	24.1	24.7	24.5	24.1	23.4	22.5	21.1	19.7
87°	21.2	22.0	22.6	22.8	23.5	23.3	22.8	22.1	21.3	19.9	18.6
87.5°	20.0	20.9	21.4	21.6	22.2	22.1	21.7	21.0	20.1	18.8	17.4
88°	18.9	19.7	20.2	20.4	21.1	20.9	20.5	19.8	19.1	17.6	16.5
88.5°	17.7	18.6	19.1	19.3	19.9	19.7	19.4	18.8	17.9	16.7	15.4
89°	16.7	17.4	18.0	18.2	18.8	18.6	18.2	17.6	16.8	15.6	14.5
89.5°	15.6	16.4	17.0	17.1	17.6	17.5	17.2	16.6	15.8	14.7	13.6

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



TEST NUMBER: P855584
CATALOG NUMBER: HLS4079FS1EWH-3000K

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: P855584
 CATALOG NUMBER: HLS4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	265.9	265.9	265.9	265.9	265.9	265.9
0.5°	266.2	265.8	265.9	266.0	265.9	265.6
1°	265.9	265.6	265.9	265.9	265.5	265.6
1.5°	265.8	265.4	266.0	265.7	265.4	265.8
2°	265.8	265.7	265.7	265.6	265.8	265.5
2.5°	265.9	265.4	265.4	265.7	265.5	265.4
3°	265.6	264.8	265.5	265.4	265.0	265.4
3.5°	265.1	264.7	265.0	265.1	265.1	265.4
4°	264.9	264.7	264.5	265.0	264.8	264.9
4.5°	264.8	264.2	264.5	264.7	264.5	264.6
5°	264.5	263.9	264.4	264.2	264.2	264.5
5.5°	263.9	263.8	264.1	264.2	264.2	264.3
6°	263.9	263.4	263.6	264.0	263.8	264.1
6.5°	263.8	262.7	263.2	263.5	263.3	263.8
7°	263.3	262.3	263.0	263.0	262.8	263.5
7.5°	262.6	262.2	262.6	262.7	263.0	263.0
8°	262.2	261.7	262.0	262.4	262.4	262.6
8.5°	261.9	261.1	261.5	261.9	261.7	262.4
9°	261.7	260.8	261.2	261.4	261.4	261.9
9.5°	261.0	260.2	260.7	261.0	261.1	261.2
10°	260.2	259.7	259.8	260.2	260.3	260.9
10.5°	259.7	259.3	259.5	259.6	259.9	260.5
11°	259.4	258.7	259.2	259.4	259.3	259.8
11.5°	258.9	257.9	258.5	258.8	259.2	259.4
12°	257.9	257.2	257.6	257.9	258.3	258.9
12.5°	257.4	256.7	257.4	257.4	257.5	258.2
13°	256.8	256.2	256.5	256.8	257.1	257.4
13.5°	256.2	255.4	255.7	256.1	256.6	257.1
14°	255.4	254.5	255.0	255.4	255.7	256.5
14.5°	254.6	253.9	254.6	254.7	255.1	255.7
15°	254.1	253.3	253.5	253.8	254.3	254.8
15.5°	253.5	252.2	252.8	253.2	253.6	254.4
16°	252.3	251.7	252.0	252.5	252.8	253.5
16.5°	251.5	250.8	251.3	251.5	252.0	252.6
17°	250.7	249.7	250.3	250.7	251.3	251.9
17.5°	250.0	248.9	249.6	249.9	250.2	251.2
18°	249.0	248.4	248.8	249.0	249.4	250.1
18.5°	248.0	247.3	247.9	248.1	248.8	249.5
19°	247.3	246.2	246.9	247.3	247.8	248.6
19.5°	246.5	245.2	245.9	246.3	246.9	247.6
20°	245.2	244.6	244.8	245.2	246.2	246.6
20.5°	244.2	243.4	244.1	244.4	245.0	245.9
21°	243.1	242.1	242.9	243.6	243.9	244.9
21.5°	242.3	241.4	241.9	242.2	243.0	243.9
22°	241.4	240.3	240.9	241.2	242.2	242.9

TEST NUMBER: P855584
 CATALOG NUMBER: HLS4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	240.1	239.0	239.8	240.4	241.0	241.9
23°	239.0	237.8	238.7	239.3	239.9	240.6
23.5°	237.9	236.9	237.4	237.9	238.8	239.6
24°	236.9	235.9	236.3	237.0	237.8	238.9
24.5°	235.7	234.7	235.2	235.8	236.6	237.6
25°	234.5	233.3	234.1	234.5	235.5	236.3
25.5°	233.2	232.3	232.7	233.3	234.4	235.3
26°	232.1	231.0	231.5	232.3	233.0	234.2
26.5°	230.9	229.6	230.5	230.9	231.8	232.9
27°	229.8	228.5	229.4	229.7	230.7	231.9
27.5°	228.3	227.4	227.9	228.5	229.6	230.5
28°	227.1	226.0	226.5	227.3	228.2	229.2
28.5°	225.7	224.4	225.4	225.8	226.9	227.9
29°	224.6	223.2	224.0	224.7	225.5	226.8
29.5°	223.2	222.1	222.5	223.3	224.6	225.5
30°	221.9	220.6	221.2	222.0	223.0	224.0
30.5°	220.3	219.1	220.0	220.5	221.6	222.7
31°	218.9	218.1	218.5	219.2	220.3	221.4
31.5°	217.6	216.5	217.2	217.7	219.0	220.1
32°	216.3	214.9	215.5	216.6	217.3	218.6
32.5°	214.9	213.5	214.3	214.9	216.0	217.4
33°	213.3	212.1	212.6	213.4	214.8	215.7
33.5°	211.9	210.5	211.1	212.1	213.2	214.3
34°	210.4	209.0	209.8	210.6	211.7	212.9
34.5°	208.9	207.6	208.4	208.9	210.3	211.6
35°	207.3	206.0	206.5	207.7	208.8	210.0
35.5°	205.8	204.5	205.0	205.9	207.1	208.5
36°	204.1	202.9	203.5	204.3	205.6	206.9
36.5°	202.8	201.5	202.2	202.9	204.1	205.5
37°	201.1	200.0	200.3	201.4	202.5	203.9
37.5°	199.5	198.2	198.8	199.6	200.9	202.3
38°	197.8	196.4	197.4	198.0	199.2	200.8
38.5°	196.4	194.9	195.6	196.5	197.7	199.1
39°	194.6	193.4	193.7	194.7	196.2	197.5
39.5°	193.0	191.6	192.3	193.1	194.5	196.0
40°	191.1	189.9	190.6	191.5	192.8	194.2
40.5°	189.6	188.4	189.0	189.9	191.2	192.5
41°	188.0	186.5	187.3	188.0	189.4	191.0
41.5°	186.2	184.9	185.4	186.3	187.6	189.3
42°	184.4	182.9	183.7	184.8	186.1	187.6
42.5°	182.7	181.3	182.0	182.8	184.4	185.9
43°	180.9	179.5	180.1	181.1	182.5	184.0
43.5°	179.2	177.8	178.3	179.4	180.8	182.3
44°	177.2	175.8	176.6	177.6	179.1	180.7
44.5°	175.6	174.1	175.1	175.7	177.2	179.0

TEST NUMBER: P855584
 CATALOG NUMBER: HLS4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	173.9	172.5	172.9	173.9	175.4	177.0
45.5°	172.1	170.6	171.1	172.1	173.7	175.2
46°	170.3	168.7	169.4	170.5	171.9	173.6
46.5°	168.3	166.9	167.7	168.5	170.0	171.6
47°	166.4	165.1	165.6	166.6	168.1	169.7
47.5°	164.5	163.0	163.8	164.7	166.4	168.1
48°	162.9	161.2	161.9	163.0	164.5	166.1
48.5°	160.9	159.4	160.0	160.9	162.7	164.1
49°	158.8	157.4	158.0	159.1	160.7	162.4
49.5°	157.0	155.5	156.0	157.2	158.8	160.8
50°	155.0	153.6	154.3	155.1	156.9	158.6
50.5°	153.2	151.6	152.4	153.2	154.9	156.6
51°	151.2	149.6	150.1	151.5	152.9	154.9
51.5°	149.2	147.7	148.3	149.5	151.2	152.9
52°	147.1	145.8	146.4	147.4	149.2	150.9
52.5°	145.3	143.6	144.4	145.3	147.1	149.0
53°	143.3	141.8	142.3	143.7	145.0	147.0
53.5°	141.2	139.8	140.4	141.5	143.2	144.9
54°	139.2	137.8	138.4	139.4	141.3	143.1
54.5°	137.4	135.6	136.2	137.5	139.2	141.2
55°	135.3	133.8	134.2	135.4	137.2	139.1
55.5°	133.2	131.7	132.4	133.2	135.1	137.0
56°	131.1	129.6	130.2	131.4	133.0	135.0
56.5°	129.1	127.6	128.1	129.3	131.1	132.9
57°	127.0	125.6	126.2	127.2	129.2	130.9
57.5°	125.1	123.4	124.1	125.2	127.0	129.0
58°	122.8	121.4	122.0	123.1	124.9	127.0
58.5°	120.8	119.3	119.8	120.9	122.8	124.7
59°	118.9	117.3	117.8	119.0	120.8	122.8
59.5°	116.7	115.1	115.8	116.9	118.8	120.7
60°	114.5	113.1	113.6	114.9	116.7	118.7
60.5°	112.4	110.9	111.5	112.7	114.6	116.5
61°	110.5	108.9	109.5	110.5	112.6	114.6
61.5°	108.3	106.8	107.4	108.4	110.3	112.4
62°	106.1	104.7	105.2	106.5	108.2	110.4
62.5°	104.1	102.6	103.1	104.4	106.1	108.2
63°	102.0	100.4	101.0	102.3	104.3	106.2
63.5°	99.9	98.3	98.9	100.1	102.0	104.0
64°	97.8	96.3	96.8	98.1	100.0	102.0
64.5°	95.6	94.3	94.7	95.9	97.9	100.0
65°	93.6	92.1	92.7	93.8	95.8	97.9
65.5°	91.6	90.0	90.5	91.9	93.6	95.7
66°	89.5	87.9	88.3	89.8	91.6	93.7
66.5°	87.3	85.8	86.3	87.6	89.7	91.6
67°	85.3	83.8	84.2	85.5	87.5	89.6

TEST NUMBER: P855584
 CATALOG NUMBER: HLS4079FS1EWH-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	83.2	81.7	82.3	83.5	85.4	87.5
68°	81.2	79.6	80.1	81.4	83.4	85.5
68.5°	79.1	77.5	78.1	79.3	81.3	83.3
69°	77.3	75.5	76.1	77.4	79.2	81.3
69.5°	75.2	73.4	74.0	75.3	77.3	79.3
70°	73.2	71.4	71.8	73.2	75.3	77.4
70.5°	71.1	69.4	70.0	71.2	73.3	75.3
71°	69.1	67.5	68.0	69.3	71.2	73.3
71.5°	67.0	65.4	65.9	67.4	69.2	71.3
72°	65.2	63.4	64.0	65.3	67.4	69.2
72.5°	63.2	61.5	62.0	63.3	65.4	67.5
73°	61.2	59.5	60.1	61.4	63.4	65.5
73.5°	59.3	57.6	58.2	59.5	61.4	63.5
74°	57.3	55.8	56.2	57.6	59.6	61.5
74.5°	55.5	53.9	54.4	55.7	57.7	59.7
75°	53.6	52.0	52.5	53.9	55.8	57.9
75.5°	51.7	50.3	50.8	52.0	54.0	56.0
76°	49.9	48.5	48.9	50.3	52.2	54.1
76.5°	48.1	46.6	47.1	48.5	50.4	52.3
77°	46.3	44.8	45.4	46.7	48.6	50.6
77.5°	44.5	43.2	43.7	44.9	46.9	48.8
78°	43.0	41.5	42.0	43.3	45.1	47.1
78.5°	41.2	39.8	40.4	41.6	43.5	45.4
79°	39.5	38.2	38.6	39.9	41.8	43.7
79.5°	37.8	36.5	37.0	38.4	40.1	42.1
80°	36.3	35.0	35.6	36.8	38.5	40.5
80.5°	34.7	33.6	34.1	35.3	37.0	38.8
81°	33.3	32.1	32.6	33.9	35.6	37.3
81.5°	31.7	30.7	31.2	32.4	34.1	35.9
82°	30.2	29.2	29.7	31.0	32.6	34.5
82.5°	28.9	27.8	28.4	29.5	31.3	33.1
83°	27.4	26.4	26.9	28.0	29.8	31.6
83.5°	26.1	25.1	25.5	26.7	28.4	30.1
84°	24.8	23.8	24.3	25.4	27.0	28.9
84.5°	23.6	22.5	23.0	24.2	25.8	27.5
85°	22.3	21.4	21.8	22.9	24.5	26.2
85.5°	21.1	20.2	20.6	21.7	23.3	24.8
86°	19.9	19.0	19.5	20.5	22.1	23.7
86.5°	18.8	17.9	18.4	19.4	21.0	22.4
87°	17.6	16.8	17.3	18.4	19.7	21.2
87.5°	16.6	15.8	16.3	17.3	18.7	20.0
88°	15.6	14.8	15.2	16.3	17.6	18.9
88.5°	14.6	13.9	14.3	15.2	16.6	17.7
89°	13.7	12.9	13.3	14.3	15.5	16.7
89.5°	12.7	12.0	12.4	13.3	14.6	15.6

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



TEST NUMBER: P855584
CATALOG NUMBER: HLS4079FS1EWH-3000K

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)