

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P710094

Luminaire Tested: RA6LS9FSD2W1EWHDM-600lm-3500K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710094
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A23044405B001)
Test Lab: EVERFINE
Issue Date: 10/6/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: RA6LS9FSD2W1EWHDM-600lm-3500K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 3500K CCT
Ballast/Driver: -

Summary

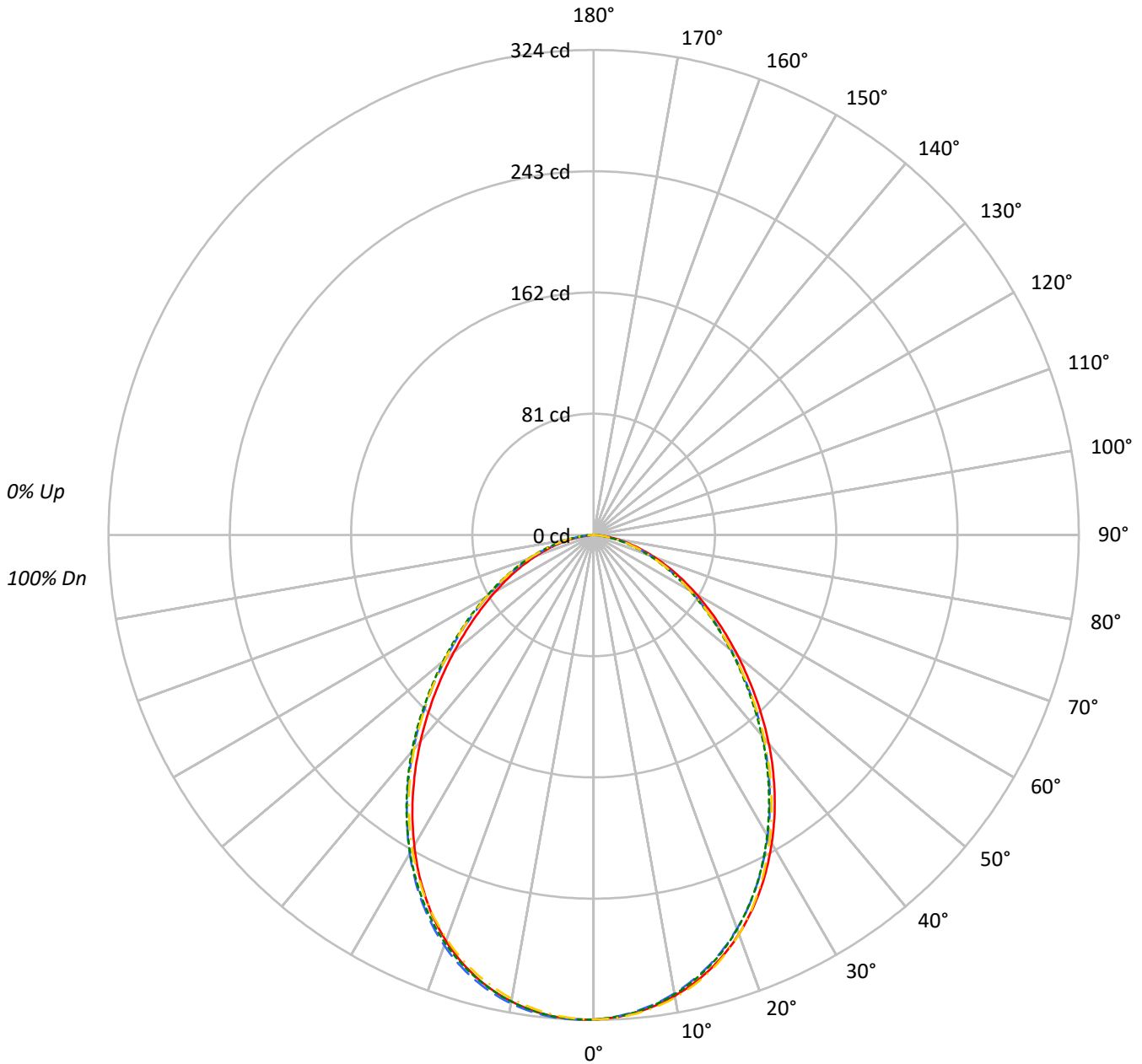
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 670.0 lumens
Efficiency: 71.3%
Efficacy: 106.3 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 6.3
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: 24 FT



TEST NUMBER: P710094
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P710094

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0		
RCR	0	85	85	85	85	83	83	83	83	79	79	79	76	76	76	73	73	73	71	71	71	71	71	71		
	1	79	76	73	70	77	74	72	69	71	69	67	68	67	65	66	64	63	62	62	62	62	62	62		
	2	72	67	63	59	70	66	62	58	63	60	57	61	58	56	59	56	54	53	53	53	53	53	53		
	3	66	60	54	50	65	59	54	50	56	52	49	55	51	48	53	50	47	46	46	46	46	46	46		
	4	61	54	48	43	60	53	47	43	51	46	43	49	45	42	48	44	41	40	40	40	40	40	40		
	5	57	48	42	38	55	48	42	38	46	41	37	45	40	37	43	40	37	35	35	35	35	35	35		
	6	53	44	38	34	51	43	38	34	42	37	33	41	36	33	40	36	33	31	31	31	31	31	31		
	7	49	40	34	30	48	40	34	30	38	33	30	37	33	30	37	33	29	28	28	28	28	28	28		
	8	46	37	31	27	45	36	31	27	35	30	27	35	30	27	34	30	27	25	25	25	25	25	25		
	9	43	34	28	25	42	34	28	25	33	28	25	32	28	24	31	27	24	23	23	23	23	23	23		
	10	40	32	26	23	40	31	26	23	30	26	22	30	25	22	29	25	22	21	21	21	21	21	21		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17751	17751	17751	17751
5°	17631	17615	17753	17753
10°	17401	17345	17618	17618
15°	17055	16935	17327	17355
20°	16551	16352	16836	16930
25°	15884	15594	16102	16313
30°	15059	14673	15173	15521
35°	14101	13632	14074	14583
40°	13024	12495	12874	13518
45°	11854	11296	11614	12350
50°	10729	10149	10396	11181
55°	9672	9089	9300	10112
60°	8705	8113	8311	9144
65°	7796	7173	7459	8276
70°	6892	6203	6540	7421
75°	5931	5126	5507	6460
80°	4799	3852	4262	5335
85°	3334	2390	2264	4088

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 12350 cd/sqm



TEST NUMBER: P710094
 CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.5	4.5	3.2
10°-20°	85.1	12.7	9.1
20°-30°	121.3	18.1	12.9
30°-40°	131.6	19.6	14.0
40°-50°	117.5	17.5	12.5
50°-60°	89.8	13.4	9.6
60°-70°	58.9	8.8	6.3
70°-80°	29.1	4.3	3.1
80°-90°	6.3	0.9	0.7
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°	236.8	35.3	25.2
0°-40°	368.4	55.0	39.2
0°-60°	575.7	85.9	61.3
0°-90°	670.0	100.0	71.3
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	670.0	100.0	71.3

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	324	324	324	324	324	
5°	320	320	323	323	320	30
15°	300	298	305	306	300	85
25°	263	258	266	270	263	121
35°	211	204	210	218	211	131
45°	153	146	150	159	153	118
55°	101	95	97	106	101	91
65°	60	55	58	64	60	60
75°	28	24	26	30	28	30
85°	5	4	4	6	5	7
90°	0	0	0	1	0	



TEST NUMBER: P710094

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8
1°	323.5	323.3	323.3	323.3	323.4	323.8	323.9	324.0	324.0	323.8	323.8
2°	323.0	322.6	322.6	322.8	323.1	323.5	323.8	324.1	324.0	323.8	323.6
3°	322.4	321.8	321.9	322.1	322.4	323.2	323.6	324.0	323.9	323.6	323.3
4°	321.5	320.8	320.8	321.2	321.5	322.6	323.2	323.7	323.6	323.2	322.8
5°	320.4	319.6	319.6	320.1	320.5	321.8	322.6	323.3	323.2	322.6	322.1
6°	319.2	318.2	318.2	318.7	319.4	320.8	321.8	322.6	322.5	321.7	321.1
7°	317.9	316.7	316.7	317.3	318.0	319.7	320.8	321.8	321.6	320.7	320.0
8°	316.3	315.0	314.9	315.5	316.3	318.4	319.6	320.7	320.5	319.5	318.8
9°	314.5	313.1	313.0	313.7	314.5	316.9	318.2	319.4	319.2	318.1	317.3
10°	312.6	311.0	310.9	311.6	312.6	315.1	316.5	318.0	317.8	316.5	315.6
11°	310.6	308.8	308.6	309.4	310.3	313.2	314.8	316.4	316.1	314.8	313.8
12°	308.3	306.3	306.1	306.9	308.0	311.0	312.7	314.4	314.3	312.8	311.7
13°	305.8	303.8	303.4	304.2	305.4	308.7	310.5	312.4	312.2	310.7	309.6
14°	303.3	301.0	300.6	301.4	302.6	306.1	308.0	310.1	309.9	308.3	307.2
15°	300.5	298.0	297.6	298.4	299.6	303.3	305.3	307.7	307.4	305.8	304.6
16°	297.5	294.9	294.4	295.2	296.4	300.3	302.4	304.9	304.7	303.0	301.8
17°	294.3	291.5	290.9	291.8	293.0	297.0	299.3	301.9	301.9	300.1	298.9
18°	291.0	288.0	287.4	288.2	289.4	293.6	296.0	298.8	298.7	297.0	295.8
19°	287.5	284.3	283.5	284.3	285.6	289.9	292.4	295.5	295.5	293.7	292.5
20°	283.7	280.4	279.6	280.3	281.6	286.0	288.6	291.8	292.0	290.2	288.9
21°	279.9	276.3	275.5	276.0	277.3	282.0	284.5	288.0	288.2	286.4	285.2
22°	275.7	272.3	271.2	271.7	273.0	277.8	280.2	284.0	284.3	282.6	281.2
23°	271.6	267.7	266.7	267.2	268.5	273.3	275.9	279.6	280.2	278.3	277.2
24°	267.1	263.4	262.1	262.5	263.8	268.6	271.1	275.2	275.9	274.2	272.9
25°	262.6	258.5	257.3	257.8	258.9	263.8	266.2	270.6	271.4	269.7	268.6
26°	257.9	253.8	252.4	252.8	253.9	258.8	261.2	265.7	266.7	265.1	264.0
27°	253.1	248.9	247.4	247.6	248.7	253.7	256.1	260.7	262.0	260.2	259.3
28°	248.1	243.8	242.2	242.5	243.5	248.5	250.7	255.5	256.9	255.5	254.5
29°	243.1	238.6	237.0	237.2	238.1	243.2	245.3	250.3	251.8	250.4	249.5
30°	237.9	233.2	231.6	231.8	232.6	237.6	239.7	244.8	246.6	245.2	244.4
31°	232.6	228.0	226.2	226.3	227.1	232.0	234.0	239.2	241.2	239.9	239.2
32°	227.2	222.5	220.6	220.7	221.4	226.2	228.2	233.5	235.7	234.5	233.8
33°	221.8	217.0	215.0	215.1	215.7	220.5	222.3	227.7	230.1	229.0	228.4
34°	216.3	211.4	209.4	209.4	210.0	214.6	216.3	221.9	224.4	223.5	222.9
35°	210.7	205.7	203.8	203.7	204.2	208.8	210.3	216.0	218.7	217.9	217.3
36°	204.9	200.1	198.0	197.9	198.4	202.9	204.2	210.1	212.9	212.1	211.7
37°	199.4	194.3	192.3	192.2	192.5	197.0	198.2	204.0	207.1	206.4	206.0
38°	193.6	188.5	186.5	186.3	186.6	191.0	192.1	198.0	201.2	200.6	200.3
39°	187.7	182.8	180.7	180.5	180.7	185.0	186.0	191.9	195.2	194.8	194.5
40°	182.0	176.9	174.9	174.6	174.8	179.0	179.9	185.8	189.2	188.9	188.6
41°	176.1	171.1	169.0	168.7	168.9	173.0	173.8	179.8	183.3	183.0	182.7
42°	170.2	165.2	163.1	162.9	163.0	167.0	167.7	173.6	177.3	177.0	176.8



TEST NUMBER: P710094

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	152.9	148.0	146.1	145.7	145.6	149.4	149.8	155.6	159.3	159.3	159.3
46°	147.3	142.4	140.5	140.1	140.1	143.5	144.0	149.7	153.4	153.5	153.6
47°	141.7	137.0	135.1	134.7	134.6	138.0	138.3	144.0	147.8	147.7	147.9
48°	136.3	131.5	129.9	129.5	129.1	132.6	132.7	138.4	142.0	142.2	142.3
49°	131.0	126.2	124.7	124.3	123.8	127.3	127.3	132.9	136.5	136.5	136.8
50°	125.8	121.1	119.5	119.0	118.7	122.1	121.9	127.6	131.0	131.1	131.5
51°	120.6	115.9	114.5	114.1	113.6	116.8	116.8	122.3	125.7	125.9	126.2
52°	115.6	111.1	109.6	109.1	108.7	111.8	111.7	117.0	120.4	120.7	120.8
53°	110.7	106.2	104.8	104.3	103.9	106.9	106.8	112.0	115.3	115.6	116.1
54°	105.9	101.5	100.2	99.7	99.2	102.1	102.0	107.1	110.3	110.7	111.1
55°	101.2	97.0	95.6	95.1	94.6	97.4	97.3	102.3	105.5	105.8	106.3
56°	96.6	92.5	91.1	90.7	90.2	92.9	92.8	97.6	100.7	101.1	101.6
57°	92.1	88.1	86.8	86.3	85.8	88.5	88.4	93.1	96.1	96.5	97.0
58°	87.7	83.8	82.5	82.1	81.6	84.2	84.1	88.7	91.6	92.0	92.5
59°	83.5	79.7	78.5	77.9	77.4	80.0	79.9	84.4	87.2	87.7	88.2
60°	79.4	75.6	74.5	74.0	73.4	75.9	75.8	80.2	83.0	83.4	83.9
61°	75.3	71.6	70.5	70.0	69.5	71.9	71.9	76.1	78.8	79.2	79.7
62°	71.4	67.7	66.7	66.2	65.9	68.0	68.0	72.1	74.6	75.2	75.7
63°	67.6	64.2	63.0	62.5	62.3	64.2	64.5	68.2	70.6	71.2	71.8
64°	63.8	60.8	59.3	58.8	58.7	60.6	61.0	64.4	66.7	67.4	67.9
65°	60.1	57.1	55.7	55.3	55.2	56.9	57.5	60.7	63.1	63.8	64.1
66°	56.5	53.7	52.3	51.8	51.7	53.5	54.0	57.0	59.5	60.3	60.4
67°	53.0	50.3	48.9	48.4	48.3	50.0	50.6	53.5	55.9	56.7	56.8
68°	49.6	46.9	45.6	45.1	45.0	46.7	47.2	50.0	52.3	53.1	53.3
69°	46.3	43.7	42.4	41.8	41.8	43.4	44.0	46.6	48.8	49.7	49.9
70°	43.0	40.5	39.2	38.7	38.7	40.3	40.8	43.3	45.4	46.3	46.6
71°	39.9	37.4	36.1	35.6	35.6	37.1	37.7	40.1	42.1	42.9	43.3
72°	36.8	34.4	33.2	32.7	32.6	34.1	34.6	36.9	38.8	39.7	40.1
73°	33.8	31.4	30.3	29.8	29.7	31.1	31.7	33.9	35.7	36.6	37.0
74°	30.8	28.6	27.4	26.9	26.9	28.2	28.8	30.9	32.6	33.5	33.9
75°	28.0	25.9	24.7	24.2	24.2	25.4	26.0	28.0	29.6	30.5	31.0
76°	25.2	23.2	22.1	21.6	21.5	22.7	23.3	25.1	26.7	27.6	28.0
77°	22.6	20.6	19.5	19.1	19.0	20.1	20.7	22.5	23.9	24.8	25.2
78°	20.0	18.1	17.1	16.6	16.6	17.6	18.2	19.8	21.2	22.1	22.5
79°	17.6	15.8	14.8	14.3	14.3	15.2	15.8	17.3	18.6	19.5	19.9
80°	15.2	13.6	12.6	12.2	12.1	12.9	13.5	15.0	16.1	16.9	17.4
81°	13.0	11.5	10.6	10.1	10.1	10.8	11.4	12.7	13.8	14.6	15.0
82°	10.9	9.5	8.7	8.2	8.2	8.8	9.4	10.6	11.6	12.3	12.7
83°	9.0	7.7	6.9	6.5	6.4	7.0	7.1	8.6	9.5	10.2	10.6
84°	7.1	6.1	5.4	5.1	4.9	5.3	5.1	6.7	7.6	8.3	8.6
85°	5.3	4.7	4.1	3.8	3.7	3.8	3.6	5.0	5.9	6.5	6.8
86°	3.7	3.3	3.0	2.7	2.6	2.6	2.4	3.6	4.5	5.0	5.2
87°	2.4	2.0	1.9	1.6	1.5	1.5	1.1	2.3	3.3	3.8	3.9



TEST NUMBER: P710094
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.7



TEST NUMBER: P710094

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	323.8	323.8
1°	323.6	323.5
2°	323.2	323.0
3°	322.7	322.4
4°	321.9	321.5
5°	320.9	320.4
6°	319.9	319.2
7°	318.6	317.9
8°	317.1	316.3
9°	315.5	314.5
10°	313.6	312.6
11°	311.7	310.6
12°	309.5	308.3
13°	307.1	305.8
14°	304.6	303.3
15°	301.9	300.5
16°	299.0	297.5
17°	296.0	294.3
18°	292.7	291.0
19°	289.3	287.5
20°	285.6	283.7
21°	281.7	279.9
22°	277.7	275.7
23°	273.6	271.6
24°	269.3	267.1
25°	264.8	262.6
26°	260.1	257.9
27°	255.3	253.1
28°	250.5	248.1
29°	245.4	243.1
30°	240.2	237.9
31°	235.0	232.6
32°	229.7	227.2
33°	224.2	221.8
34°	218.7	216.3
35°	213.1	210.7
36°	207.4	204.9
37°	201.8	199.4
38°	196.1	193.6
39°	190.3	187.7
40°	184.5	182.0
41°	178.6	176.1
42°	172.7	170.2



TEST NUMBER: P710094

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	155.3	152.9
46°	149.6	147.3
47°	144.0	141.7
48°	138.5	136.3
49°	133.0	131.0
50°	127.6	125.8
51°	122.5	120.6
52°	117.4	115.6
53°	112.5	110.7
54°	107.6	105.9
55°	102.9	101.2
56°	98.3	96.6
57°	93.7	92.1
58°	89.3	87.7
59°	85.0	83.5
60°	80.9	79.4
61°	76.8	75.3
62°	72.7	71.4
63°	68.9	67.6
64°	65.3	63.8
65°	61.7	60.1
66°	58.2	56.5
67°	54.7	53.0
68°	51.2	49.6
69°	47.9	46.3
70°	44.6	43.0
71°	41.4	39.9
72°	38.3	36.8
73°	35.3	33.8
74°	32.3	30.8
75°	29.4	28.0
76°	26.6	25.2
77°	23.9	22.6
78°	21.3	20.0
79°	18.8	17.6
80°	16.4	15.2
81°	14.1	13.0
82°	11.9	10.9
83°	9.8	9.0
84°	8.0	7.1
85°	6.2	5.3
86°	4.7	3.7
87°	3.3	2.4



TEST NUMBER: P710094

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3500K

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.3	0.1

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report





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

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

Scaled Data Report



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

Scaled Data Report





43°	164.4	159.4	157.4	157.0	157.1	161.0	161.6	167.6	171.3	171.0	170.9
44°	158.6	153.7	151.7	151.3	151.3	155.2	155.7	161.6	165.3	165.2	165.1



88°	1.1	1.0	1.0	0.6	0.5	0.8	0.4	1.2	2.3	2.6	2.7
89°	0.4	0.3	0.2	0.1	0.0	0.0	0.1	0.5	1.2	1.5	1.6

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

Scaled Data Report





43°	166.8	164.4
44°	161.0	158.6

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

Scaled Data Report



88°	2.0	1.1
89°	1.0	0.4

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

Scaled Data Report



(END OF REPORT)