

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: P710095

Luminaire Tested: RA6LS9FSD2W1EWHDM-600lm-4000K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710095
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-4000K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 4000K CCT
Ballast/Driver: -

Summary

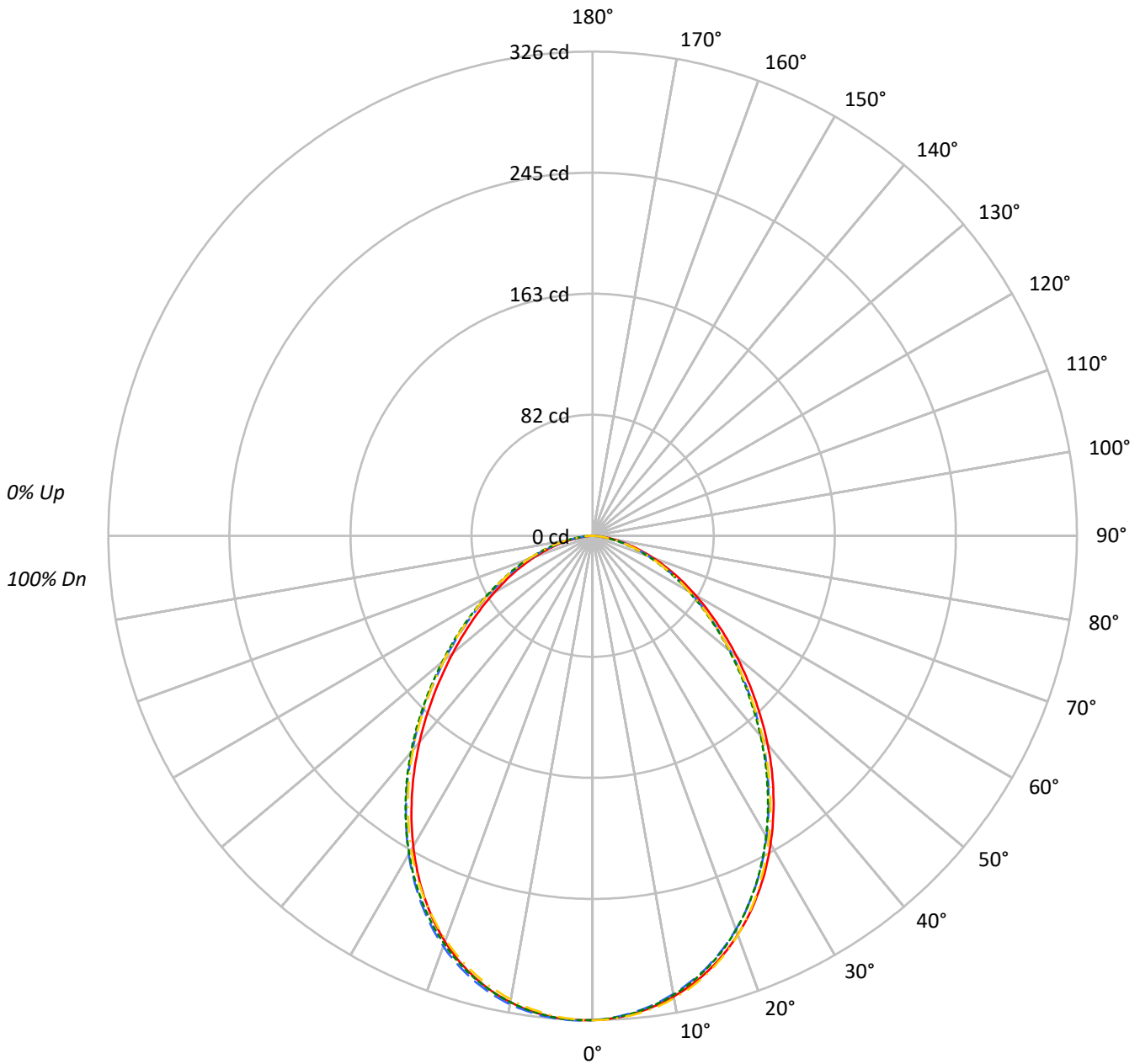
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 675.0 lumens
Efficiency: 71.8%
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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: P710095
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-4000K

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	86	86	86	86	84	84	84	84	80	80	80	76	76	76	73	73	73	72				72															
1	79	76	73	71	77	74	72	70	71	69	68	69	67	66	66	65	64	62				62															
2	73	67	63	59	71	66	62	59	64	60	57	61	59	56	59	57	55	53				53															
3	67	60	55	51	65	59	54	50	57	53	49	55	51	48	53	50	48	46				46															
4	62	54	48	44	60	53	48	43	51	47	43	50	46	42	48	45	42	40				40															
5	57	49	43	38	56	48	42	38	46	41	38	45	41	37	44	40	37	36				36															
6	53	44	38	34	52	44	38	34	42	37	34	41	37	33	40	36	33	32				32															
7	49	40	34	30	48	40	34	30	39	34	30	38	33	30	37	33	30	28				28															
8	46	37	31	27	45	37	31	27	36	31	27	35	30	27	34	30	27	26				26															
9	43	34	29	25	42	34	28	25	33	28	25	32	28	25	32	27	24	23				23															
10	41	32	26	23	40	31	26	23	31	26	23	30	26	23	29	25	22	21				21															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17882	17882	17882	17882
5°	17764	17747	17885	17885
10°	17529	17474	17752	17752
15°	17179	17060	17458	17486
20°	16673	16475	16959	17052
25°	15999	15709	16223	16434
30°	15167	14781	15287	15635
35°	14201	13733	14181	14690
40°	13117	12588	12967	13618
45°	11947	11381	11699	12443
50°	10806	10226	10473	11266
55°	9739	9156	9376	10188
60°	8771	8168	8377	9210
65°	7848	7225	7524	8341
70°	6956	6251	6588	7469
75°	5973	5168	5549	6503
80°	4830	3852	4293	5398
85°	3334	2390	2264	4151

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 12443 cd/sqm



TEST NUMBER: P710095

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.7	4.5	3.3
10°-20°	85.7	12.7	9.1
20°-30°	122.2	18.1	13.0
30°-40°	132.6	19.6	14.1
40°-50°	118.4	17.5	12.6
50°-60°	90.5	13.4	9.6
60°-70°	59.4	8.8	6.3
70°-80°	29.3	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°	238.6	35.3	25.4
0°-40°	371.2	55.0	39.5
0°-60°	580.0	85.9	61.7
0°-90°	675.0	100.0	71.8
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°	675.0	100.0	71.8

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	326	326	326	326	326	
5°	323	322	325	325	323	31
15°	303	301	308	308	303	85
25°	264	260	268	272	264	122
35°	212	205	212	220	212	132
45°	154	147	151	160	154	119
55°	102	96	98	107	102	91
65°	60	56	58	64	60	60
75°	28	24	26	31	28	30
85°	5	4	4	7	5	7
90°	0	0	0	1	0	



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CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	326.2	326.2	326.2	326.2	326.2	326.2	326.2	326.2	326.2	326.2	326.2
1°	325.9	325.7	325.7	325.7	325.8	326.2	326.3	326.5	326.4	326.2	326.2
2°	325.4	325.0	325.0	325.2	325.5	326.0	326.2	326.6	326.4	326.2	326.0
3°	324.8	324.2	324.3	324.5	324.8	325.6	326.0	326.5	326.3	326.0	325.7
4°	323.9	323.2	323.2	323.6	323.9	325.0	325.6	326.1	326.0	325.6	325.2
5°	322.8	322.0	322.0	322.5	322.9	324.2	325.0	325.7	325.6	325.0	324.5
6°	321.6	320.6	320.6	321.1	321.8	323.2	324.2	325.0	324.9	324.1	323.5
7°	320.2	319.1	319.0	319.6	320.4	322.1	323.2	324.2	324.0	323.1	322.4
8°	318.7	317.3	317.3	317.8	318.7	320.8	322.0	323.1	322.9	321.9	321.2
9°	316.9	315.4	315.3	316.0	316.9	319.3	320.6	321.8	321.6	320.5	319.7
10°	314.9	313.4	313.2	313.9	314.9	317.4	318.9	320.4	320.2	318.9	318.0
11°	312.9	311.1	310.9	311.7	312.7	315.6	317.1	318.7	318.5	317.1	316.2
12°	310.6	308.6	308.4	309.2	310.3	313.4	315.1	316.8	316.6	315.2	314.1
13°	308.1	306.0	305.7	306.5	307.7	311.0	312.8	314.7	314.5	313.0	311.9
14°	305.5	303.3	302.9	303.7	304.9	308.3	310.3	312.4	312.2	310.6	309.5
15°	302.7	300.3	299.8	300.6	301.9	305.5	307.6	309.9	309.7	308.1	306.9
16°	299.7	297.1	296.6	297.4	298.6	302.5	304.7	307.2	307.0	305.3	304.1
17°	296.5	293.7	293.1	294.0	295.2	299.3	301.6	304.2	304.1	302.4	301.1
18°	293.2	290.2	289.5	290.3	291.6	295.8	298.2	301.0	301.0	299.3	298.0
19°	289.6	286.5	285.7	286.4	287.8	292.1	294.6	297.7	297.7	295.9	294.6
20°	285.8	282.5	281.6	282.4	283.7	288.2	290.7	294.0	294.2	292.3	291.1
21°	281.9	278.4	277.5	278.1	279.4	284.1	286.6	290.2	290.4	288.6	287.4
22°	277.8	274.3	273.2	273.7	275.1	279.8	282.3	286.1	286.4	284.7	283.3
23°	273.6	269.7	268.7	269.2	270.5	275.3	277.9	281.7	282.3	280.4	279.3
24°	269.1	265.3	264.0	264.4	265.8	270.6	273.1	277.3	278.0	276.2	275.0
25°	264.5	260.5	259.2	259.7	260.8	265.8	268.2	272.6	273.5	271.7	270.6
26°	259.8	255.7	254.3	254.7	255.7	260.7	263.2	267.7	268.7	267.0	265.9
27°	255.0	250.7	249.2	249.5	250.6	255.6	258.0	262.6	263.9	262.2	261.3
28°	250.0	245.6	244.0	244.3	245.3	250.4	252.6	257.4	258.8	257.4	256.4
29°	244.9	240.4	238.7	239.0	239.9	245.0	247.1	252.1	253.7	252.2	251.3
30°	239.6	235.0	233.3	233.5	234.4	239.4	241.5	246.6	248.4	247.0	246.2
31°	234.3	229.7	227.9	228.0	228.8	233.8	235.7	241.0	243.0	241.7	240.9
32°	228.9	224.1	222.2	222.4	223.1	227.9	229.9	235.2	237.5	236.3	235.5
33°	223.4	218.6	216.6	216.7	217.4	222.1	224.0	229.4	231.8	230.7	230.1
34°	218.0	213.0	210.9	211.0	211.6	216.2	217.9	223.5	226.1	225.1	224.6
35°	212.2	207.3	205.3	205.2	205.8	210.4	211.9	217.6	220.3	219.5	218.9
36°	206.5	201.5	199.4	199.4	199.9	204.4	205.8	211.6	214.5	213.7	213.3
37°	200.8	195.8	193.7	193.6	193.9	198.4	199.7	205.5	208.6	208.0	207.5
38°	195.0	189.9	187.9	187.7	188.0	192.4	193.6	199.5	202.7	202.1	201.7
39°	189.1	184.1	182.0	181.8	182.0	186.3	187.4	193.4	196.7	196.2	195.9
40°	183.3	178.2	176.2	175.9	176.1	180.3	181.2	187.2	190.6	190.3	190.0
41°	177.4	172.3	170.3	170.0	170.1	174.3	175.1	181.1	184.7	184.4	184.1
42°	171.5	166.5	164.3	164.1	164.2	168.3	169.0	174.9	178.6	178.3	178.1



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	154.1	149.1	147.2	146.8	146.7	150.5	150.9	156.8	160.5	160.5	160.5
46°	148.4	143.5	141.6	141.2	141.1	144.6	145.1	150.8	154.5	154.6	154.7
47°	142.8	138.0	136.1	135.7	135.6	139.1	139.3	145.1	148.9	148.9	149.0
48°	137.3	132.5	130.9	130.5	130.1	133.6	133.7	139.4	143.0	143.2	143.3
49°	132.0	127.2	125.6	125.2	124.7	128.3	128.2	133.9	137.5	137.6	137.9
50°	126.7	122.0	120.4	119.9	119.6	123.0	122.8	128.5	131.9	132.1	132.5
51°	121.5	116.8	115.4	114.9	114.5	117.7	117.7	123.2	126.6	126.8	127.1
52°	116.4	111.9	110.4	110.0	109.5	112.6	112.6	117.9	121.3	121.6	121.7
53°	111.5	107.0	105.6	105.1	104.7	107.7	107.6	112.8	116.2	116.5	116.9
54°	106.6	102.2	100.9	100.4	99.9	102.9	102.8	107.9	111.1	111.5	111.9
55°	101.9	97.7	96.3	95.8	95.3	98.2	98.1	103.1	106.3	106.6	107.1
56°	97.3	93.2	91.8	91.3	90.9	93.6	93.5	98.4	101.5	101.9	102.3
57°	92.8	88.7	87.5	86.9	86.5	89.1	89.1	93.8	96.8	97.2	97.7
58°	88.4	84.4	83.2	82.7	82.2	84.8	84.7	89.4	92.3	92.7	93.2
59°	84.1	80.3	79.1	78.5	78.0	80.6	80.5	85.0	87.9	88.3	88.8
60°	80.0	76.2	75.0	74.5	73.9	76.5	76.4	80.8	83.6	84.0	84.5
61°	75.9	72.1	71.0	70.6	70.0	72.5	72.5	76.7	79.4	79.8	80.3
62°	71.9	68.2	67.2	66.6	66.4	68.5	68.5	72.7	75.1	75.8	76.2
63°	68.1	64.7	63.4	62.9	62.8	64.7	65.0	68.7	71.1	71.8	72.3
64°	64.3	61.2	59.8	59.3	59.2	61.1	61.5	64.9	67.2	67.9	68.4
65°	60.5	57.6	56.1	55.7	55.6	57.4	58.0	61.1	63.6	64.3	64.6
66°	57.0	54.1	52.7	52.2	52.1	53.9	54.4	57.4	60.0	60.8	60.9
67°	53.4	50.6	49.2	48.7	48.7	50.4	51.0	53.9	56.3	57.1	57.2
68°	50.0	47.3	45.9	45.5	45.4	47.1	47.6	50.4	52.7	53.5	53.7
69°	46.6	44.0	42.7	42.1	42.1	43.7	44.3	46.9	49.2	50.0	50.3
70°	43.4	40.8	39.5	39.0	38.9	40.6	41.1	43.6	45.8	46.6	46.9
71°	40.2	37.7	36.4	35.9	35.9	37.4	38.0	40.4	42.4	43.3	43.6
72°	37.0	34.6	33.4	32.9	32.8	34.3	34.9	37.2	39.1	40.0	40.4
73°	34.0	31.7	30.5	30.0	29.9	31.4	31.9	34.1	36.0	36.9	37.2
74°	31.1	28.8	27.6	27.1	27.1	28.4	29.0	31.1	32.9	33.7	34.1
75°	28.2	26.1	24.9	24.4	24.3	25.6	26.2	28.2	29.8	30.7	31.2
76°	25.4	23.4	22.2	21.7	21.7	22.9	23.5	25.3	26.9	27.8	28.2
77°	22.7	20.7	19.7	19.2	19.2	20.3	20.9	22.6	24.1	25.0	25.4
78°	20.2	18.3	17.3	16.8	16.7	17.7	18.3	20.0	21.4	22.2	22.7
79°	17.7	15.9	14.9	14.4	14.4	15.3	15.9	17.5	18.7	19.6	20.0
80°	15.3	13.7	12.7	12.2	12.2	13.0	13.6	15.1	16.3	17.1	17.5
81°	13.1	11.6	10.6	10.2	10.1	10.9	11.5	12.8	13.9	14.7	15.1
82°	11.0	9.6	8.7	8.3	8.2	8.9	9.4	10.7	11.6	12.4	12.8
83°	9.0	7.7	7.0	6.6	6.5	7.0	7.2	8.7	9.6	10.3	10.6
84°	7.2	6.1	5.5	5.1	5.0	5.3	5.2	6.8	7.7	8.3	8.7
85°	5.3	4.7	4.2	3.8	3.7	3.9	3.6	5.0	6.0	6.6	6.9
86°	3.7	3.3	3.0	2.7	2.6	2.6	2.4	3.6	4.5	5.0	5.3
87°	2.4	2.0	1.9	1.6	1.5	1.5	1.1	2.3	3.4	3.8	4.0



TEST NUMBER: P710095
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-4000K

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	0.2	0.6	0.7



TEST NUMBER: P710095

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-4000K

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	326.2	326.2
1°	326.1	325.9
2°	325.6	325.4
3°	325.1	324.8
4°	324.3	323.9
5°	323.3	322.8
6°	322.3	321.6
7°	321.0	320.2
8°	319.5	318.7
9°	317.8	316.9
10°	316.0	314.9
11°	314.0	312.9
12°	311.8	310.6
13°	309.4	308.1
14°	306.9	305.5
15°	304.2	302.7
16°	301.2	299.7
17°	298.2	296.5
18°	294.8	293.2
19°	291.4	289.6
20°	287.7	285.8
21°	283.8	281.9
22°	279.8	277.8
23°	275.6	273.6
24°	271.3	269.1
25°	266.7	264.5
26°	262.1	259.8
27°	257.2	255.0
28°	252.4	250.0
29°	247.3	244.9
30°	242.0	239.6
31°	236.7	234.3
32°	231.4	228.9
33°	225.9	223.4
34°	220.3	218.0
35°	214.7	212.2
36°	209.0	206.5
37°	203.3	200.8
38°	197.5	195.0
39°	191.7	189.1
40°	185.9	183.3
41°	179.9	177.4
42°	174.0	171.5



TEST NUMBER: P710095
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CANDELA DISTRIBUTION (continued):

	330°	360°
45°	156.5	154.1
46°	150.7	148.4
47°	145.1	142.8
48°	139.5	137.3
49°	134.0	132.0
50°	128.6	126.7
51°	123.4	121.5
52°	118.3	116.4
53°	113.3	111.5
54°	108.4	106.6
55°	103.6	101.9
56°	99.0	97.3
57°	94.4	92.8
58°	90.0	88.4
59°	85.6	84.1
60°	81.5	80.0
61°	77.3	75.9
62°	73.3	71.9
63°	69.4	68.1
64°	65.8	64.3
65°	62.2	60.5
66°	58.6	57.0
67°	55.1	53.4
68°	51.6	50.0
69°	48.3	46.6
70°	45.0	43.4
71°	41.7	40.2
72°	38.6	37.0
73°	35.5	34.0
74°	32.5	31.1
75°	29.6	28.2
76°	26.8	25.4
77°	24.1	22.7
78°	21.5	20.2
79°	18.9	17.7
80°	16.5	15.3
81°	14.2	13.1
82°	12.0	11.0
83°	9.9	9.0
84°	8.0	7.2
85°	6.3	5.3
86°	4.7	3.7
87°	3.3	2.4



TEST NUMBER: P710095
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-4000K

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°	165.7	160.6	158.6	158.2	158.3	162.2	162.8	168.9	172.6	172.3	172.2
44°	159.8	154.9	152.9	152.5	152.5	156.4	156.8	162.8	166.5	166.4	166.4



88°	1.1	1.0	1.0	0.7	0.6	0.8	0.4	1.3	2.3	2.7	2.8
89°	0.4	0.3	0.2	0.1	0.0	0.0	0.1	0.5	1.2	1.5	1.7

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43°	168.0	165.7
44°	162.2	159.8

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88°	2.0	1.1
89°	1.0	0.4

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(END OF REPORT)