

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: P710093

Luminaire Tested: RA6LS9FSD2W1EWHDM-600lm-3000K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710093
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-3000K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 3000K CCT
Ballast/Driver: -

Summary

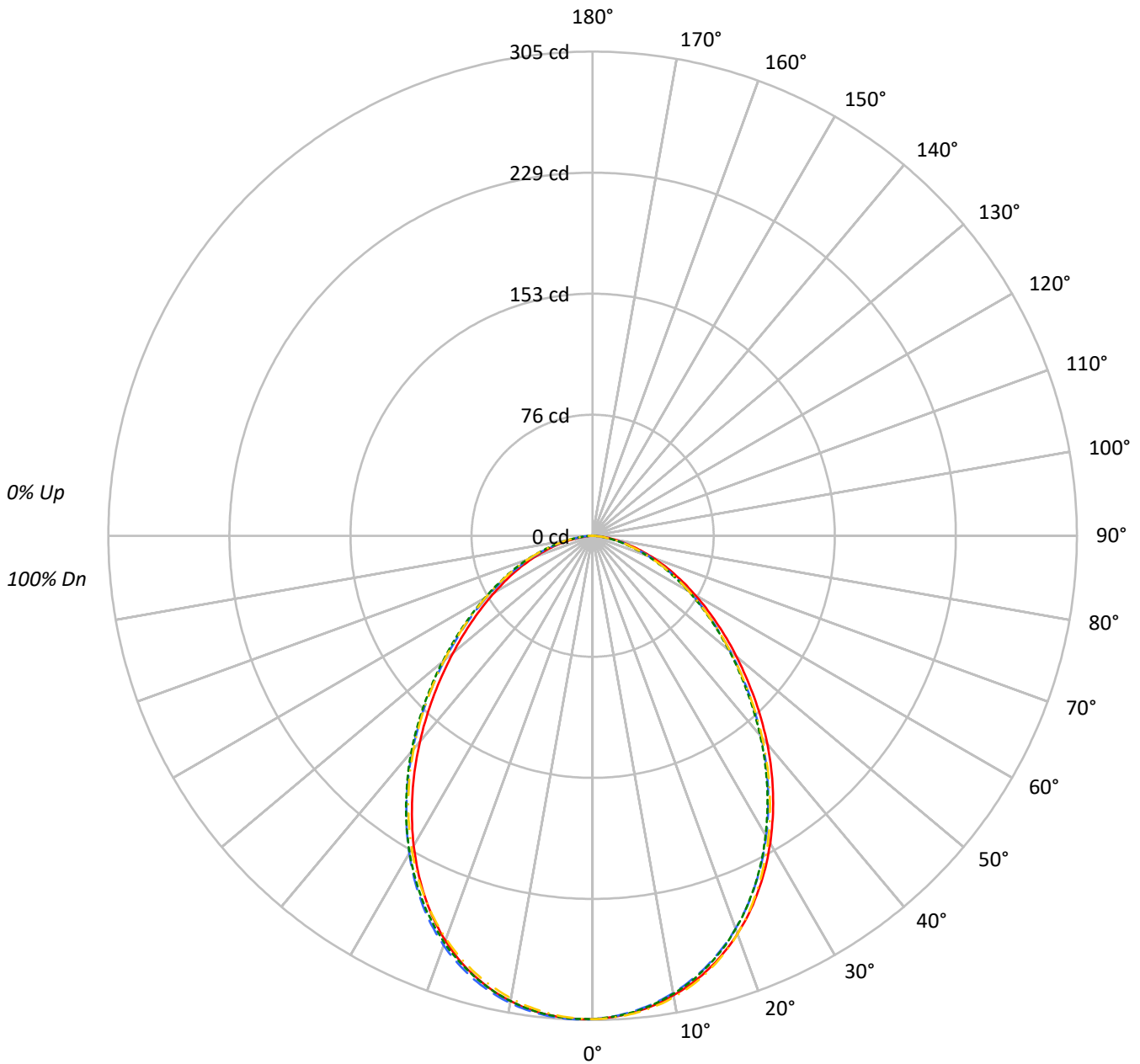
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 630.0 lumens
Efficiency: 67.0%
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.11 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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: P710093
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3000K

Luminous Intensity Polar Plot





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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	80	80	80	80	78	78	78	78	74	74	74	71	71	71	68	68	68	67	67	67	67	67	67		
	1	74	71	69	66	72	70	67	65	67	65	63	64	63	61	62	61	59	58	58	58	58	58	58		
	2	68	63	59	55	66	62	58	55	59	56	54	57	55	52	55	53	51	50	50	50	50	50	50		
	3	62	56	51	47	61	55	50	47	53	49	46	51	48	45	50	47	44	43	43	43	43	43	43		
	4	58	50	45	41	56	49	44	41	48	43	40	46	43	39	45	42	39	38	38	38	38	38	38		
	5	53	45	40	36	52	45	39	36	43	39	35	42	38	35	41	37	34	33	33	33	33	33	33		
	6	50	41	36	32	48	41	35	32	39	35	31	38	34	31	37	34	31	29	29	29	29	29	29		
	7	46	38	32	28	45	37	32	28	36	31	28	35	31	28	34	31	28	26	26	26	26	26	26		
	8	43	35	29	26	42	34	29	25	33	29	25	33	28	25	32	28	25	24	24	24	24	24	24		
	9	40	32	27	23	40	32	27	23	31	26	23	30	26	23	29	26	23	22	22	22	22	22	22		
	10	38	30	25	21	37	29	24	21	29	24	21	28	24	21	27	24	21	20	20	20	20	20	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16693	16693	16693	16693
5°	16580	16564	16690	16690
10°	16360	16310	16566	16566
15°	16033	15925	16294	16322
20°	15565	15372	15827	15921
25°	14934	14662	15146	15340
30°	14160	13793	14268	14591
35°	13257	12816	13237	13713
40°	12244	11751	12101	12710
45°	11148	10621	10924	11614
50°	10089	9543	9774	10516
55°	9089	8544	8745	9510
60°	8179	7620	7817	8596
65°	7329	6745	7018	7783
70°	6491	5834	6139	6972
75°	5571	4829	5189	6079
80°	4514	3599	4009	5020
85°	3082	2264	2139	3837

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 11614 cd/sqm



TEST NUMBER: P710093
 CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	28.6	4.5	3.0
10°-20°	80.0	12.7	8.5
20°-30°	114.1	18.1	12.1
30°-40°	123.7	19.6	13.2
40°-50°	110.5	17.5	11.8
50°-60°	84.4	13.4	9.0
60°-70°	55.4	8.8	5.9
70°-80°	27.4	4.3	2.9
80°-90°	5.9	0.9	0.6
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°	222.7	35.3	23.7
0°-40°	346.4	55.0	36.9
0°-60°	541.3	85.9	57.6
0°-90°	630.0	100.0	67.0
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°	630.0	100.0	67.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	304	304	304	304	304	
5°	301	301	303	303	301	29
15°	282	281	287	288	282	79
25°	247	242	250	254	247	113
35°	198	192	198	205	198	124
45°	144	137	141	150	144	111
55°	95	89	92	100	95	85
65°	56	52	54	60	56	56
75°	26	23	24	29	26	28
85°	5	4	3	6	5	6
90°	0	0	0	1	0	



TEST NUMBER: P710093

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3000K

CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	304.5	304.5	304.5	304.5	304.5	304.5	304.5	304.5	304.5	304.5	304.5
1°	304.2	304.0	304.0	304.0	304.1	304.5	304.6	304.7	304.7	304.4	304.5
2°	303.7	303.3	303.4	303.5	303.8	304.2	304.5	304.8	304.7	304.4	304.3
3°	303.1	302.6	302.6	302.9	303.2	303.9	304.3	304.7	304.6	304.3	304.0
4°	302.3	301.6	301.7	302.0	302.4	303.3	303.9	304.4	304.3	303.9	303.5
5°	301.3	300.5	300.6	301.0	301.4	302.6	303.3	304.0	303.9	303.3	302.8
6°	300.2	299.2	299.2	299.7	300.3	301.7	302.6	303.4	303.2	302.5	301.9
7°	298.9	297.8	297.8	298.3	299.0	300.6	301.6	302.6	302.4	301.6	300.9
8°	297.4	296.2	296.1	296.7	297.4	299.4	300.6	301.6	301.4	300.4	299.8
9°	295.7	294.4	294.3	294.9	295.8	298.0	299.2	300.4	300.2	299.2	298.4
10°	293.9	292.5	292.3	293.0	293.9	296.3	297.6	299.0	298.8	297.6	296.8
11°	292.0	290.4	290.2	290.9	291.8	294.5	296.0	297.5	297.3	296.0	295.1
12°	289.9	288.1	287.9	288.6	289.6	292.5	294.1	295.6	295.5	294.2	293.1
13°	287.6	285.6	285.3	286.1	287.2	290.3	292.0	293.7	293.5	292.1	291.1
14°	285.2	283.1	282.7	283.4	284.5	287.8	289.6	291.6	291.4	289.9	288.9
15°	282.5	280.2	279.8	280.6	281.7	285.2	287.1	289.3	289.1	287.6	286.4
16°	279.8	277.3	276.8	277.6	278.7	282.3	284.4	286.7	286.5	284.9	283.8
17°	276.8	274.1	273.5	274.4	275.5	279.3	281.5	283.9	283.8	282.2	281.1
18°	273.6	270.8	270.2	271.0	272.1	276.1	278.3	281.0	280.9	279.3	278.2
19°	270.3	267.4	266.6	267.3	268.6	272.6	274.9	277.8	277.8	276.2	275.0
20°	266.8	263.7	262.9	263.5	264.8	269.0	271.3	274.4	274.5	272.9	271.7
21°	263.1	259.8	259.0	259.6	260.8	265.2	267.5	270.8	271.0	269.3	268.2
22°	259.3	256.0	255.0	255.5	256.7	261.2	263.5	267.0	267.3	265.7	264.4
23°	255.4	251.8	250.8	251.2	252.4	257.0	259.4	263.0	263.5	261.7	260.7
24°	251.2	247.6	246.4	246.8	248.0	252.6	254.9	258.8	259.4	257.8	256.6
25°	246.9	243.1	241.9	242.4	243.5	248.0	250.4	254.4	255.2	253.6	252.5
26°	242.5	238.7	237.3	237.7	238.7	243.4	245.6	249.8	250.8	249.2	248.2
27°	238.0	234.0	232.6	232.9	233.8	238.5	240.8	245.1	246.3	244.7	243.8
28°	233.3	229.2	227.8	228.1	228.9	233.7	235.7	240.3	241.6	240.2	239.3
29°	228.5	224.4	222.8	223.0	223.9	228.7	230.6	235.3	236.8	235.4	234.6
30°	223.7	219.3	217.8	217.9	218.8	223.4	225.4	230.2	231.9	230.5	229.8
31°	218.7	214.4	212.7	212.8	213.5	218.2	220.0	224.9	226.8	225.6	224.9
32°	213.6	209.2	207.4	207.5	208.2	212.7	214.5	219.5	221.7	220.5	219.8
33°	208.5	204.0	202.2	202.2	202.9	207.3	209.0	214.1	216.3	215.4	214.8
34°	203.4	198.8	196.9	196.9	197.5	201.8	203.3	208.6	211.0	210.1	209.6
35°	198.1	193.4	191.6	191.5	192.0	196.3	197.8	203.1	205.6	204.9	204.3
36°	192.7	188.1	186.1	186.1	186.6	190.8	192.0	197.5	200.2	199.4	199.0
37°	187.5	182.7	180.8	180.7	181.0	185.2	186.4	191.8	194.7	194.1	193.7
38°	182.0	177.3	175.4	175.2	175.5	179.6	180.7	186.2	189.2	188.7	188.3
39°	176.5	171.8	169.9	169.7	169.9	173.9	174.9	180.5	183.6	183.1	182.9
40°	171.1	166.3	164.4	164.2	164.3	168.3	169.1	174.7	177.9	177.6	177.4
41°	165.6	160.9	158.9	158.6	158.8	162.7	163.4	169.1	172.3	172.1	171.8
42°	160.1	155.4	153.4	153.2	153.3	157.0	157.7	163.3	166.7	166.4	166.2



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	143.8	139.2	137.4	137.0	136.9	140.5	140.9	146.3	149.8	149.8	149.8
46°	138.5	133.9	132.1	131.8	131.7	135.0	135.4	140.8	144.2	144.3	144.4
47°	133.3	128.8	127.0	126.7	126.5	129.8	130.0	135.4	138.9	138.9	139.0
48°	128.1	123.7	122.1	121.8	121.4	124.7	124.8	130.1	133.5	133.7	133.8
49°	123.2	118.7	117.3	116.8	116.4	119.7	119.7	124.9	128.3	128.4	128.7
50°	118.3	113.9	112.4	111.9	111.6	114.8	114.6	120.0	123.1	123.3	123.7
51°	113.4	109.0	107.7	107.3	106.9	109.8	109.9	115.0	118.2	118.4	118.6
52°	108.7	104.4	103.1	102.6	102.2	105.1	105.1	110.0	113.2	113.5	113.6
53°	104.1	99.9	98.6	98.1	97.7	100.5	100.4	105.3	108.4	108.7	109.1
54°	99.5	95.4	94.2	93.7	93.2	96.0	95.9	100.7	103.7	104.1	104.5
55°	95.1	91.2	89.9	89.4	88.9	91.6	91.5	96.2	99.2	99.5	99.9
56°	90.8	86.9	85.7	85.2	84.8	87.4	87.3	91.8	94.7	95.1	95.5
57°	86.6	82.8	81.6	81.1	80.7	83.2	83.1	87.6	90.4	90.7	91.2
58°	82.5	78.8	77.6	77.2	76.7	79.2	79.1	83.4	86.2	86.5	87.0
59°	78.5	74.9	73.8	73.3	72.8	75.2	75.2	79.4	82.0	82.4	82.9
60°	74.6	71.1	70.0	69.5	69.0	71.4	71.3	75.4	78.0	78.4	78.9
61°	70.8	67.3	66.3	65.8	65.4	67.6	67.6	71.6	74.1	74.5	75.0
62°	67.1	63.7	62.7	62.2	62.0	64.0	64.0	67.8	70.1	70.7	71.1
63°	63.5	60.4	59.2	58.7	58.6	60.4	60.7	64.2	66.4	67.0	67.5
64°	60.0	57.2	55.8	55.3	55.2	57.0	57.4	60.6	62.7	63.4	63.8
65°	56.5	53.7	52.4	52.0	51.9	53.5	54.1	57.1	59.3	60.0	60.2
66°	53.2	50.5	49.2	48.7	48.6	50.3	50.8	53.6	56.0	56.7	56.8
67°	49.8	47.3	46.0	45.5	45.4	47.0	47.6	50.3	52.5	53.3	53.4
68°	46.6	44.1	42.9	42.4	42.3	43.9	44.4	47.0	49.2	50.0	50.1
69°	43.5	41.1	39.8	39.3	39.3	40.8	41.4	43.8	45.9	46.7	46.9
70°	40.5	38.1	36.9	36.4	36.3	37.9	38.3	40.7	42.7	43.5	43.8
71°	37.5	35.2	34.0	33.5	33.5	34.9	35.4	37.7	39.6	40.4	40.7
72°	34.6	32.3	31.2	30.7	30.7	32.1	32.6	34.7	36.5	37.4	37.7
73°	31.7	29.6	28.5	28.0	27.9	29.3	29.8	31.8	33.6	34.4	34.7
74°	29.0	26.9	25.8	25.3	25.3	26.5	27.1	29.0	30.7	31.5	31.9
75°	26.3	24.3	23.2	22.8	22.7	23.9	24.5	26.3	27.8	28.7	29.1
76°	23.7	21.8	20.8	20.3	20.3	21.3	21.9	23.6	25.1	26.0	26.4
77°	21.2	19.4	18.4	17.9	17.9	18.9	19.5	21.1	22.5	23.3	23.7
78°	18.8	17.1	16.1	15.6	15.6	16.5	17.1	18.7	19.9	20.7	21.2
79°	16.5	14.9	13.9	13.5	13.4	14.3	14.8	16.3	17.5	18.3	18.7
80°	14.3	12.8	11.9	11.4	11.4	12.2	12.7	14.1	15.2	15.9	16.3
81°	12.2	10.8	9.9	9.5	9.5	10.1	10.7	11.9	13.0	13.7	14.1
82°	10.3	8.9	8.2	7.7	7.7	8.3	8.8	10.0	10.9	11.6	12.0
83°	8.4	7.2	6.5	6.1	6.0	6.5	6.7	8.1	8.9	9.6	9.9
84°	6.7	5.7	5.1	4.8	4.7	5.0	4.8	6.3	7.2	7.8	8.1
85°	4.9	4.4	3.9	3.6	3.5	3.6	3.4	4.7	5.6	6.1	6.4
86°	3.4	3.1	2.8	2.5	2.4	2.4	2.2	3.4	4.2	4.7	4.9
87°	2.2	1.9	1.8	1.5	1.4	1.4	1.0	2.2	3.1	3.5	3.7



TEST NUMBER: P710093

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3000K

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



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	304.5	304.5
1°	304.3	304.2
2°	303.9	303.7
3°	303.5	303.1
4°	302.7	302.3
5°	301.8	301.3
6°	300.8	300.2
7°	299.6	298.9
8°	298.2	297.4
9°	296.6	295.7
10°	294.9	293.9
11°	293.1	292.0
12°	291.0	289.9
13°	288.8	287.6
14°	286.4	285.2
15°	283.9	282.5
16°	281.2	279.8
17°	278.3	276.8
18°	275.2	273.6
19°	272.0	270.3
20°	268.5	266.8
21°	264.9	263.1
22°	261.2	259.3
23°	257.3	255.4
24°	253.2	251.2
25°	249.0	246.9
26°	244.6	242.5
27°	240.1	238.0
28°	235.5	233.3
29°	230.8	228.5
30°	225.9	223.7
31°	221.0	218.7
32°	216.0	213.6
33°	210.8	208.5
34°	205.7	203.4
35°	200.4	198.1
36°	195.1	192.7
37°	189.8	187.5
38°	184.4	182.0
39°	178.9	176.5
40°	173.5	171.1
41°	167.9	165.6
42°	162.4	160.1



TEST NUMBER: P710093

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3000K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	146.0	143.8
46°	140.6	138.5
47°	135.4	133.3
48°	130.2	128.1
49°	125.1	123.2
50°	120.0	118.3
51°	115.2	113.4
52°	110.4	108.7
53°	105.7	104.1
54°	101.1	99.5
55°	96.7	95.1
56°	92.4	90.8
57°	88.1	86.6
58°	84.0	82.5
59°	79.9	78.5
60°	76.0	74.6
61°	72.2	70.8
62°	68.4	67.1
63°	64.8	63.5
64°	61.4	60.0
65°	58.0	56.5
66°	54.7	53.2
67°	51.4	49.8
68°	48.2	46.6
69°	45.0	43.5
70°	42.0	40.5
71°	39.0	37.5
72°	36.0	34.6
73°	33.2	31.7
74°	30.4	29.0
75°	27.6	26.3
76°	25.0	23.7
77°	22.5	21.2
78°	20.0	18.8
79°	17.7	16.5
80°	15.4	14.3
81°	13.2	12.2
82°	11.2	10.3
83°	9.3	8.4
84°	7.5	6.7
85°	5.9	4.9
86°	4.4	3.4
87°	3.1	2.2



TEST NUMBER: P710093
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-3000K

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



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43°	154.6	149.9	148.0	147.7	147.7	151.4	152.0	157.6	161.1	160.8	160.7
44°	149.2	144.6	142.7	142.3	142.3	145.9	146.4	152.0	155.4	155.3	155.3



88°	1.0	1.0	1.0	0.6	0.5	0.8	0.4	1.2	2.1	2.5	2.6
89°	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.5	1.1	1.4	1.5

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43°	156.8	154.6
44°	151.4	149.2

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88°	1.9	1.0
89°	1.0	0.3

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(END OF REPORT)