

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: P710092

Luminaire Tested: RA6LS9FSD2W1EWHDM-600lm-2700K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710092
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-2700K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 2700K CCT
Ballast/Driver: -

Summary

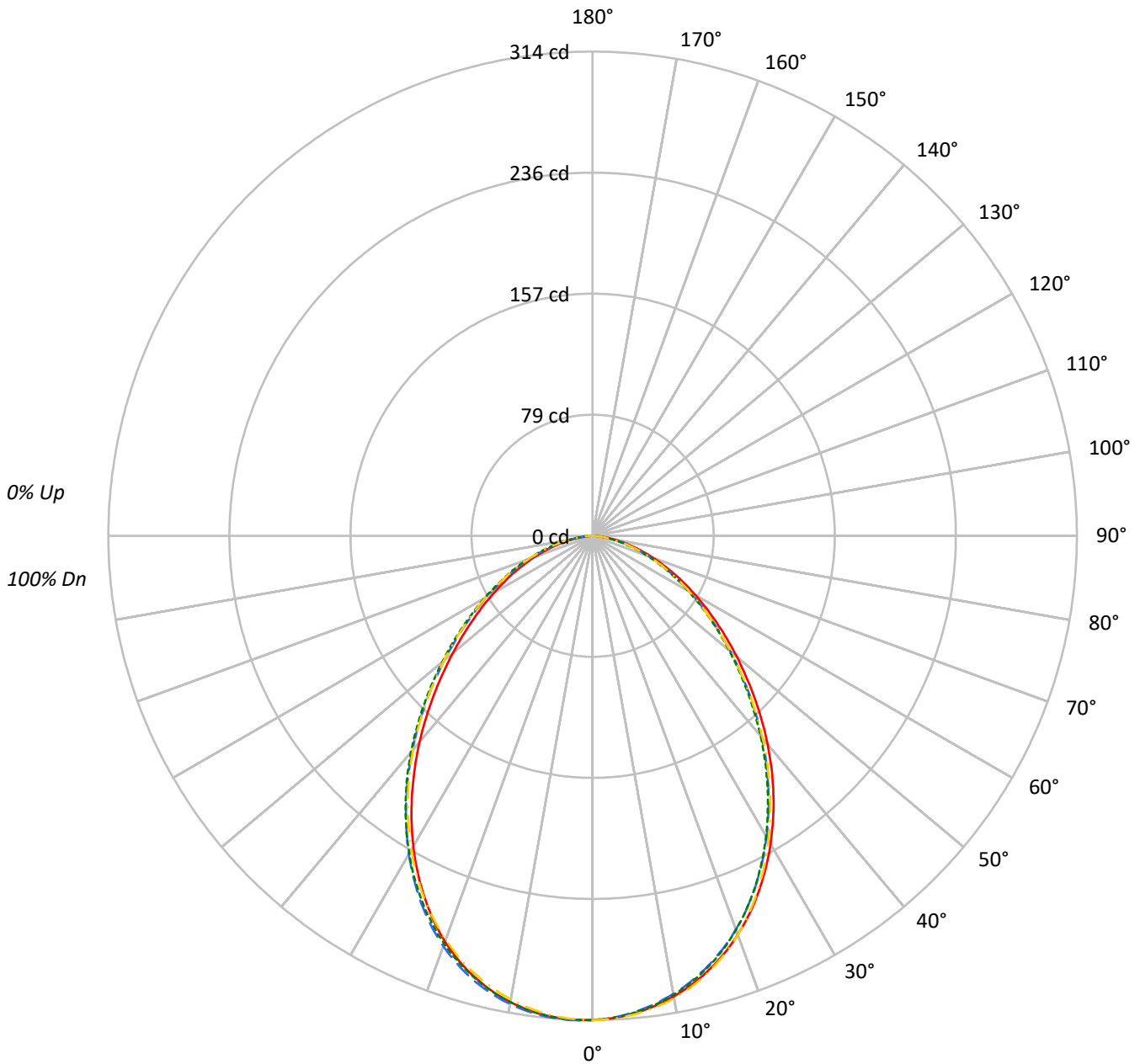
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 650.0 lumens
Efficiency: 69.2%
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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: P710092
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-2700K

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	82	82	82	82	80	80	80	80	77	77	77	74	74	74	71	71	71	69																			
1	76	73	71	68	74	72	69	67	69	67	65	66	65	63	64	62	61	60																			
2	70	65	61	57	68	64	60	57	61	58	55	59	56	54	57	55	53	51																			
3	64	58	53	49	63	57	52	48	55	51	47	53	50	47	51	48	46	44																			
4	59	52	46	42	58	51	46	42	49	45	41	48	44	41	46	43	40	39																			
5	55	47	41	37	54	46	41	37	45	40	36	43	39	36	42	38	36	34																			
6	51	43	37	33	50	42	36	33	41	36	32	40	35	32	39	35	32	30																			
7	48	39	33	29	46	38	33	29	37	32	29	36	32	29	35	32	29	27																			
8	45	36	30	26	43	35	30	26	34	30	26	34	29	26	33	29	26	25																			
9	42	33	28	24	41	33	27	24	32	27	24	31	27	24	30	26	24	22																			
10	39	31	25	22	38	30	25	22	30	25	22	29	25	22	28	24	22	20																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17219	17219	17219	17219
5°	17109	17087	17219	17224
10°	16883	16828	17095	17095
15°	16544	16430	16811	16839
20°	16055	15862	16335	16422
25°	15406	15128	15624	15823
30°	14610	14236	14717	15059
35°	13679	13224	13659	14148
40°	12638	12123	12488	13110
45°	11505	10962	11265	11986
50°	10413	9850	10089	10848
55°	9386	8812	9022	9816
60°	8442	7861	8070	8870
65°	7562	6953	7238	8029
70°	6700	6011	6347	7197
75°	5761	4978	5338	6270
80°	4672	3725	4136	5177
85°	3208	2327	2201	3963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 11986 cd/sqm



TEST NUMBER: P710092
 CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	29.5	4.5	3.1
10°-20°	82.5	12.7	8.8
20°-30°	117.7	18.1	12.5
30°-40°	127.6	19.6	13.6
40°-50°	114.0	17.5	12.1
50°-60°	87.1	13.4	9.3
60°-70°	57.2	8.8	6.1
70°-80°	28.2	4.3	3.0
80°-90°	6.1	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°	229.8	35.3	24.4
0°-40°	357.4	55.0	38.0
0°-60°	558.5	85.9	59.4
0°-90°	650.0	100.0	69.2
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°	650.0	100.0	69.2

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	314	314	314	314	314	
5°	311	310	313	313	311	29
15°	292	290	296	297	292	82
25°	255	250	258	262	255	117
35°	204	198	204	211	204	128
45°	148	141	145	155	148	115
55°	98	92	94	103	98	88
65°	58	54	56	62	58	58
75°	27	24	25	30	27	29
85°	5	4	4	6	5	6
90°	0	0	0	1	0	



TEST NUMBER: P710092

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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1
1°	313.9	313.6	313.6	313.7	313.8	314.1	314.2	314.4	314.3	314.1	314.1
2°	313.3	313.0	313.0	313.2	313.4	313.9	314.2	314.5	314.3	314.1	313.9
3°	312.7	312.2	312.3	312.5	312.8	313.5	314.0	314.4	314.3	313.9	313.7
4°	311.9	311.2	311.2	311.6	311.9	313.0	313.6	314.0	313.9	313.5	313.2
5°	310.9	310.0	310.1	310.5	311.0	312.2	312.9	313.6	313.5	313.0	312.5
6°	309.7	308.7	308.7	309.2	309.9	311.3	312.2	313.0	312.9	312.1	311.5
7°	308.4	307.3	307.2	307.8	308.5	310.1	311.2	312.2	312.0	311.2	310.5
8°	306.9	305.6	305.5	306.1	306.9	308.9	310.1	311.1	310.9	310.0	309.3
9°	305.1	303.7	303.6	304.3	305.2	307.5	308.7	309.9	309.7	308.6	307.9
10°	303.3	301.8	301.6	302.3	303.2	305.7	307.1	308.5	308.3	307.1	306.2
11°	301.3	299.6	299.4	300.1	301.1	303.9	305.4	306.9	306.7	305.4	304.5
12°	299.1	297.2	297.0	297.7	298.8	301.7	303.4	305.0	304.9	303.5	302.4
13°	296.7	294.7	294.3	295.2	296.3	299.5	301.2	303.1	302.8	301.4	300.3
14°	294.2	292.0	291.6	292.4	293.6	296.9	298.8	300.8	300.6	299.1	298.0
15°	291.5	289.1	288.7	289.5	290.7	294.2	296.2	298.5	298.3	296.7	295.5
16°	288.6	286.1	285.6	286.4	287.5	291.3	293.4	295.8	295.6	294.0	292.8
17°	285.5	282.8	282.2	283.1	284.3	288.2	290.4	292.9	292.8	291.2	290.0
18°	282.3	279.4	278.8	279.6	280.8	284.8	287.1	289.9	289.8	288.2	287.0
19°	278.9	275.9	275.1	275.8	277.1	281.3	283.7	286.6	286.6	285.0	283.7
20°	275.2	272.1	271.2	271.9	273.2	277.5	280.0	283.1	283.3	281.5	280.3
21°	271.5	268.1	267.3	267.8	269.1	273.6	276.0	279.4	279.6	277.9	276.7
22°	267.5	264.1	263.1	263.6	264.9	269.5	271.9	275.5	275.8	274.1	272.8
23°	263.5	259.8	258.7	259.2	260.5	265.1	267.6	271.3	271.8	270.0	269.0
24°	259.1	255.5	254.2	254.7	255.9	260.6	263.0	267.0	267.7	266.0	264.8
25°	254.7	250.8	249.6	250.1	251.2	255.9	258.3	262.5	263.3	261.6	260.6
26°	250.2	246.2	244.8	245.2	246.3	251.1	253.4	257.8	258.7	257.1	256.1
27°	245.5	241.4	240.0	240.2	241.3	246.1	248.5	252.9	254.1	252.5	251.6
28°	240.7	236.5	235.0	235.3	236.2	241.1	243.2	247.9	249.2	247.8	246.9
29°	235.8	231.5	229.9	230.1	231.0	235.9	237.9	242.8	244.3	242.9	242.0
30°	230.8	226.3	224.7	224.9	225.7	230.5	232.5	237.5	239.2	237.9	237.1
31°	225.6	221.2	219.4	219.6	220.3	225.1	227.0	232.1	234.0	232.8	232.0
32°	220.4	215.8	214.0	214.1	214.8	219.5	221.3	226.5	228.7	227.5	226.8
33°	215.1	210.5	208.6	208.6	209.3	213.9	215.7	220.9	223.2	222.2	221.6
34°	209.9	205.1	203.1	203.2	203.7	208.2	209.8	215.3	217.7	216.8	216.2
35°	204.4	199.6	197.7	197.6	198.1	202.6	204.1	209.5	212.1	211.4	210.8
36°	198.8	194.1	192.1	192.0	192.5	196.8	198.1	203.8	206.5	205.8	205.4
37°	193.4	188.5	186.5	186.5	186.8	191.1	192.3	197.9	200.9	200.3	199.8
38°	187.8	182.9	181.0	180.7	181.1	185.3	186.4	192.1	195.2	194.7	194.3
39°	182.1	177.3	175.3	175.1	175.3	179.4	180.5	186.2	189.4	188.9	188.7
40°	176.6	171.6	169.6	169.4	169.5	173.6	174.5	180.3	183.6	183.2	183.0
41°	170.8	166.0	164.0	163.7	163.8	167.8	168.6	174.4	177.8	177.5	177.3
42°	165.2	160.3	158.3	158.0	158.1	162.0	162.7	168.5	172.0	171.7	171.5



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	148.4	143.6	141.7	141.4	141.3	144.9	145.3	151.0	154.6	154.6	154.5
46°	142.9	138.1	136.3	135.9	135.9	139.3	139.7	145.2	148.8	148.9	149.0
47°	137.5	132.9	131.1	130.7	130.5	133.9	134.1	139.7	143.3	143.3	143.5
48°	132.2	127.6	126.0	125.6	125.3	128.7	128.7	134.2	137.7	137.9	138.0
49°	127.1	122.5	121.0	120.6	120.1	123.5	123.5	128.9	132.4	132.5	132.8
50°	122.1	117.5	116.0	115.5	115.2	118.4	118.3	123.8	127.1	127.2	127.6
51°	117.0	112.5	111.1	110.7	110.3	113.3	113.4	118.6	121.9	122.1	122.4
52°	112.1	107.7	106.3	105.9	105.5	108.5	108.4	113.5	116.8	117.1	117.2
53°	107.4	103.1	101.7	101.2	100.8	103.7	103.6	108.6	111.9	112.2	112.6
54°	102.7	98.4	97.2	96.7	96.2	99.1	99.0	103.9	107.0	107.4	107.8
55°	98.2	94.1	92.7	92.2	91.7	94.5	94.4	99.2	102.3	102.7	103.1
56°	93.7	89.7	88.4	87.9	87.5	90.1	90.1	94.7	97.7	98.1	98.5
57°	89.4	85.5	84.2	83.7	83.3	85.8	85.8	90.4	93.2	93.6	94.1
58°	85.1	81.3	80.1	79.6	79.2	81.7	81.6	86.0	88.9	89.3	89.7
59°	81.0	77.3	76.1	75.6	75.1	77.6	77.6	81.9	84.6	85.0	85.5
60°	77.0	73.4	72.2	71.7	71.2	73.6	73.6	77.8	80.5	80.9	81.4
61°	73.1	69.5	68.4	67.9	67.4	69.8	69.8	73.9	76.4	76.9	77.4
62°	69.3	65.7	64.7	64.2	63.9	66.0	66.0	70.0	72.4	72.9	73.4
63°	65.5	62.3	61.1	60.6	60.5	62.3	62.6	66.2	68.5	69.1	69.6
64°	61.9	59.0	57.6	57.1	57.0	58.8	59.2	62.5	64.7	65.4	65.8
65°	58.3	55.4	54.1	53.6	53.6	55.2	55.8	58.9	61.2	61.9	62.2
66°	54.9	52.1	50.8	50.2	50.2	51.9	52.4	55.3	57.7	58.5	58.6
67°	51.4	48.8	47.4	46.9	46.9	48.5	49.1	51.9	54.2	55.0	55.1
68°	48.1	45.5	44.2	43.8	43.7	45.3	45.8	48.5	50.7	51.6	51.7
69°	44.9	42.4	41.1	40.6	40.5	42.1	42.7	45.2	47.3	48.2	48.4
70°	41.8	39.3	38.0	37.5	37.5	39.1	39.6	42.0	44.1	44.9	45.2
71°	38.7	36.3	35.1	34.6	34.5	36.0	36.6	38.9	40.8	41.7	42.0
72°	35.7	33.4	32.2	31.7	31.6	33.1	33.6	35.8	37.7	38.5	38.9
73°	32.7	30.5	29.4	28.9	28.8	30.2	30.7	32.9	34.6	35.5	35.8
74°	29.9	27.7	26.6	26.1	26.1	27.4	27.9	29.9	31.6	32.5	32.9
75°	27.2	25.1	24.0	23.5	23.4	24.7	25.2	27.1	28.7	29.6	30.0
76°	24.5	22.5	21.4	20.9	20.9	22.0	22.6	24.4	25.9	26.8	27.2
77°	21.9	20.0	19.0	18.5	18.5	19.5	20.1	21.8	23.2	24.1	24.5
78°	19.4	17.6	16.6	16.1	16.1	17.1	17.7	19.3	20.6	21.4	21.8
79°	17.0	15.3	14.4	13.9	13.9	14.7	15.3	16.8	18.1	18.9	19.3
80°	14.8	13.2	12.3	11.8	11.7	12.5	13.1	14.5	15.7	16.4	16.8
81°	12.6	11.1	10.2	9.8	9.8	10.5	11.0	12.3	13.4	14.1	14.5
82°	10.6	9.2	8.4	8.0	7.9	8.5	9.1	10.3	11.2	12.0	12.3
83°	8.7	7.5	6.7	6.3	6.2	6.8	6.9	8.4	9.2	9.9	10.3
84°	6.9	5.9	5.3	4.9	4.8	5.1	5.0	6.5	7.4	8.0	8.3
85°	5.1	4.5	4.0	3.7	3.6	3.7	3.5	4.9	5.8	6.3	6.6
86°	3.5	3.2	2.9	2.6	2.5	2.5	2.3	3.5	4.4	4.9	5.1
87°	2.3	2.0	1.8	1.5	1.4	1.5	1.1	2.3	3.2	3.6	3.8



TEST NUMBER: P710092
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-2700K

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°	314.1	314.1
1°	314.0	313.9
2°	313.5	313.3
3°	313.1	312.7
4°	312.3	311.9
5°	311.4	310.9
6°	310.4	309.7
7°	309.1	308.4
8°	307.6	306.9
9°	306.1	305.1
10°	304.3	303.3
11°	302.4	301.3
12°	300.3	299.1
13°	298.0	296.7
14°	295.5	294.2
15°	292.9	291.5
16°	290.1	288.6
17°	287.1	285.5
18°	283.9	282.3
19°	280.6	278.9
20°	277.0	275.2
21°	273.3	271.5
22°	269.4	267.5
23°	265.4	263.5
24°	261.2	259.1
25°	256.9	254.7
26°	252.4	250.2
27°	247.7	245.5
28°	243.0	240.7
29°	238.1	235.8
30°	233.1	230.8
31°	228.0	225.6
32°	222.8	220.4
33°	217.5	215.1
34°	212.2	209.9
35°	206.8	204.4
36°	201.3	198.8
37°	195.8	193.4
38°	190.2	187.8
39°	184.6	182.1
40°	179.0	176.6
41°	173.2	170.8
42°	167.6	165.2



TEST NUMBER: P710092

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-2700K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	150.7	148.4
46°	145.1	142.9
47°	139.7	137.5
48°	134.3	132.2
49°	129.0	127.1
50°	123.8	122.1
51°	118.8	117.0
52°	113.9	112.1
53°	109.1	107.4
54°	104.4	102.7
55°	99.8	98.2
56°	95.3	93.7
57°	90.9	89.4
58°	86.7	85.1
59°	82.5	81.0
60°	78.4	77.0
61°	74.5	73.1
62°	70.6	69.3
63°	66.8	65.5
64°	63.4	61.9
65°	59.9	58.3
66°	56.4	54.9
67°	53.1	51.4
68°	49.7	48.1
69°	46.5	44.9
70°	43.3	41.8
71°	40.2	38.7
72°	37.2	35.7
73°	34.2	32.7
74°	31.3	29.9
75°	28.5	27.2
76°	25.8	24.5
77°	23.2	21.9
78°	20.7	19.4
79°	18.2	17.0
80°	15.9	14.8
81°	13.6	12.6
82°	11.5	10.6
83°	9.5	8.7
84°	7.7	6.9
85°	6.1	5.1
86°	4.6	3.5
87°	3.2	2.3



TEST NUMBER: P710092

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-600lm-2700K

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°	159.5	154.6	152.7	152.3	152.4	156.2	156.8	162.6	166.2	165.9	165.8
44°	153.9	149.1	147.2	146.8	146.8	150.6	151.0	156.8	160.3	160.2	160.2



88°	1.1	1.0	1.0	0.6	0.5	0.8	0.4	1.2	2.2	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

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





43°	161.8	159.5
44°	156.2	153.9

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88°	2.0	1.1
89°	1.0	0.4

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(END OF REPORT)