

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: P710101

Luminaire Tested: RA6LS9FSD2W1EWHDM-900lm-5000K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710101
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-900lm-5000K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 5000K CCT
Ballast/Driver: -

Summary

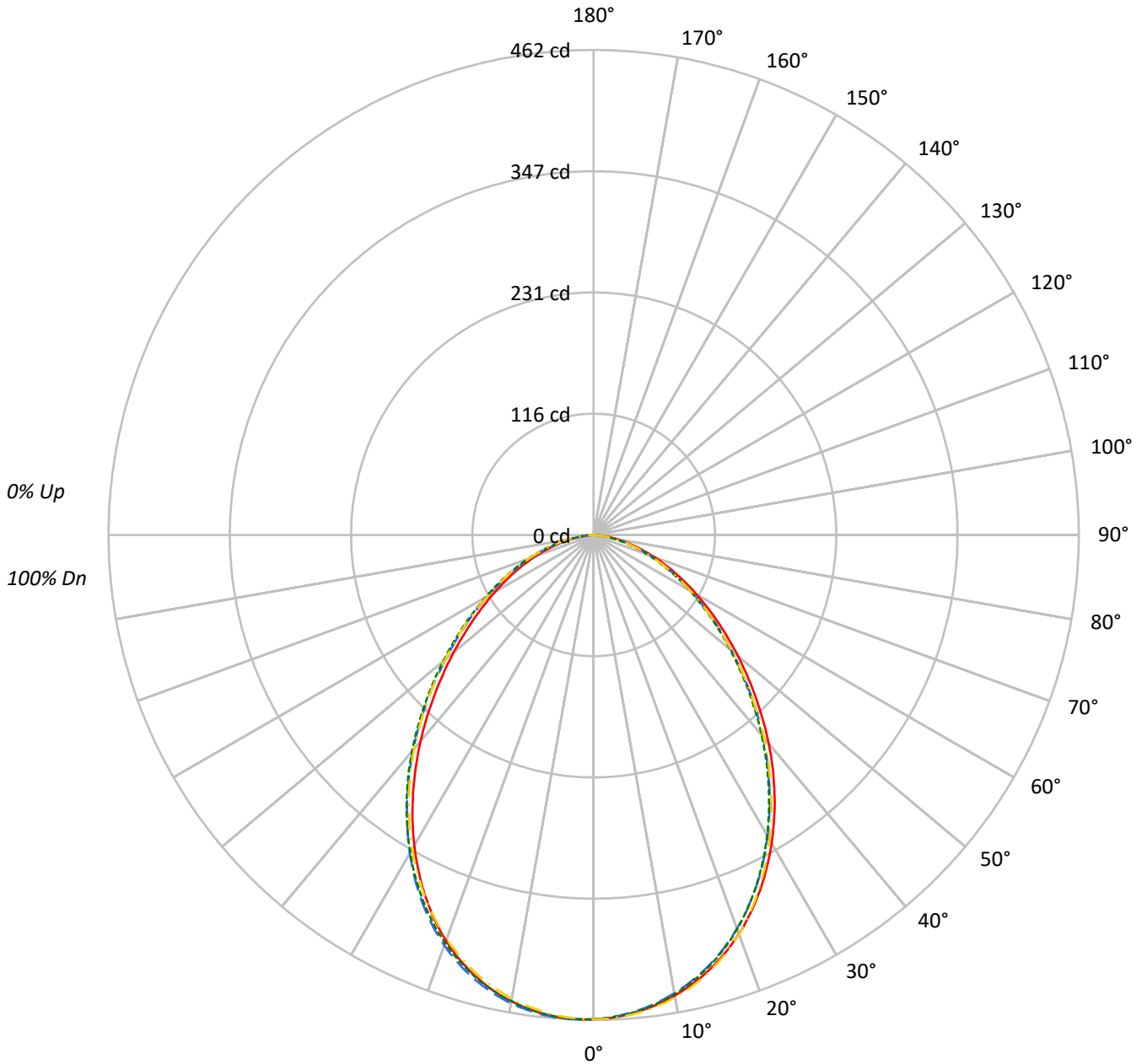
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 955.0 lumens
Efficiency: 101.6%
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 9.5
Input Voltage (V): NR
Input Current (A_{in}): 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



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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	121	121	121	121	118	118	118	118	113	113	113	108	108	108	104	104	104	102																			
1	112	108	104	100	109	105	102	99	101	98	96	97	95	93	94	92	90	88																			
2	103	95	89	84	100	94	88	83	90	85	81	87	83	79	84	81	78	76																			
3	95	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	67	65																			
4	87	76	68	62	85	75	67	61	72	66	61	70	64	60	68	63	59	57																			
5	81	69	60	54	79	68	60	54	66	59	53	64	58	53	62	57	52	50																			
6	75	63	54	48	73	62	54	48	60	53	47	58	52	47	57	51	47	45																			
7	70	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40																			
8	65	52	44	39	64	52	44	39	50	43	38	49	43	38	48	42	38	36																			
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33																			
10	58	45	37	32	56	44	37	32	43	37	32	43	36	32	42	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	25300	25300	25300	25300
5°	25132	25104	25303	25303
10°	24805	24727	25116	25116
15°	24308	24137	24699	24739
20°	23592	23306	23995	24129
25°	22640	22223	22955	23251
30°	21459	20915	21630	22124
35°	20097	19428	20064	20786
40°	18563	17805	18349	19265
45°	16901	16102	16552	17606
50°	15292	14473	14823	15940
55°	13782	12951	13256	14422
60°	12400	11556	11852	13036
65°	11104	10222	10637	11804
70°	9841	8848	9312	10579
75°	8451	7307	7858	9214
80°	6851	5462	6093	7640
85°	4717	3397	3208	5850

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 17606 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	43.4	4.5	4.6
10°-20°	121.3	12.7	12.9
20°-30°	172.9	18.1	18.4
30°-40°	187.5	19.6	20.0
40°-50°	167.5	17.5	17.8
50°-60°	128.0	13.4	13.6
60°-70°	84.0	8.8	8.9
70°-80°	41.5	4.3	4.4
80°-90°	8.9	0.9	0.9
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°	337.6	35.3	35.9
0°-40°	525.1	55.0	55.9
0°-60°	820.6	85.9	87.3
0°-90°	955.0	100.0	101.6
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°	955.0	100.0	101.6

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	462	462	462	462	462	
5°	457	456	460	460	457	43
15°	428	425	435	436	428	120
25°	374	367	380	384	374	172
35°	300	290	300	311	300	187
45°	218	208	214	227	218	168
55°	144	136	139	151	144	129
65°	86	79	82	91	86	85
75°	40	34	37	44	40	43
85°	8	5	5	9	8	9
90°	0	0	0	1	0	



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5
1°	461.1	460.8	460.8	460.8	461.0	461.5	461.7	461.9	461.8	461.5	461.6
2°	460.4	459.8	459.9	460.1	460.5	461.2	461.6	462.0	461.9	461.5	461.3
3°	459.5	458.7	458.8	459.1	459.6	460.6	461.3	461.9	461.7	461.2	460.8
4°	458.3	457.2	457.3	457.8	458.3	459.8	460.7	461.4	461.3	460.7	460.1
5°	456.7	455.5	455.6	456.2	456.9	458.8	459.8	460.8	460.6	459.8	459.1
6°	455.0	453.6	453.6	454.3	455.3	457.3	458.7	459.8	459.7	458.6	457.7
7°	453.1	451.4	451.4	452.2	453.2	455.7	457.2	458.7	458.3	457.2	456.1
8°	450.8	449.0	448.9	449.7	450.8	453.8	455.6	457.1	456.8	455.4	454.4
9°	448.3	446.3	446.1	447.1	448.3	451.7	453.5	455.3	455.0	453.5	452.3
10°	445.6	443.3	443.1	444.2	445.5	449.1	451.2	453.3	453.0	451.2	449.9
11°	442.7	440.1	439.9	440.9	442.4	446.5	448.7	450.9	450.6	448.7	447.3
12°	439.4	436.7	436.4	437.5	439.1	443.3	445.8	448.2	447.9	445.9	444.3
13°	435.9	433.0	432.5	433.7	435.3	440.1	442.6	445.3	445.0	442.8	441.2
14°	432.3	429.1	428.5	429.6	431.3	436.3	439.1	442.0	441.7	439.5	437.9
15°	428.3	424.8	424.2	425.3	427.1	432.3	435.2	438.5	438.2	435.9	434.2
16°	424.1	420.3	419.6	420.8	422.4	428.0	431.1	434.6	434.3	431.9	430.2
17°	419.5	415.5	414.7	415.9	417.7	423.4	426.6	430.4	430.3	427.8	426.1
18°	414.8	410.6	409.6	410.8	412.5	418.5	421.9	425.9	425.8	423.4	421.7
19°	409.8	405.3	404.1	405.3	407.1	413.3	416.8	421.1	421.1	418.7	416.9
20°	404.4	399.7	398.5	399.5	401.4	407.7	411.3	416.0	416.2	413.6	411.8
21°	398.9	393.9	392.7	393.5	395.3	402.0	405.5	410.5	410.8	408.3	406.5
22°	393.0	388.1	386.5	387.3	389.2	395.9	399.4	404.8	405.3	402.8	400.8
23°	387.1	381.6	380.1	380.9	382.7	389.5	393.2	398.6	399.4	396.7	395.2
24°	380.7	375.4	373.5	374.1	376.0	382.9	386.4	392.3	393.3	390.8	389.0
25°	374.3	368.5	366.7	367.4	369.0	376.0	379.5	385.7	386.9	384.4	382.8
26°	367.6	361.8	359.7	360.3	361.8	368.9	372.4	378.7	380.1	377.8	376.3
27°	360.7	354.7	352.6	353.0	354.5	361.6	365.0	371.6	373.4	370.9	369.6
28°	353.7	347.5	345.3	345.7	347.0	354.2	357.4	364.2	366.2	364.1	362.7
29°	346.4	340.1	337.8	338.1	339.4	346.6	349.6	356.7	358.9	356.9	355.6
30°	339.0	332.4	330.1	330.4	331.6	338.7	341.7	348.9	351.5	349.5	348.3
31°	331.5	325.0	322.4	322.6	323.7	330.7	333.5	341.0	343.8	342.0	340.9
32°	323.8	317.1	314.4	314.6	315.6	322.4	325.2	332.8	336.0	334.3	333.2
33°	316.1	309.3	306.5	306.5	307.5	314.3	316.9	324.6	327.9	326.5	325.5
34°	308.4	301.3	298.5	298.5	299.3	305.9	308.2	316.3	319.8	318.5	317.7
35°	300.3	293.2	290.5	290.3	291.1	297.6	299.8	307.9	311.7	310.6	309.7
36°	292.1	285.1	282.2	282.1	282.8	289.2	291.1	299.4	303.4	302.3	301.7
37°	284.2	277.0	274.1	274.0	274.4	280.7	282.6	290.8	295.1	294.2	293.6
38°	275.9	268.7	265.9	265.6	266.0	272.3	273.8	282.3	286.8	286.0	285.4
39°	267.6	260.5	257.5	257.2	257.6	263.6	265.2	273.6	278.3	277.6	277.2
40°	259.4	252.1	249.2	248.8	249.1	255.1	256.4	264.8	269.7	269.2	268.9
41°	251.0	243.8	240.9	240.5	240.7	246.6	247.7	256.3	261.3	260.8	260.5
42°	242.7	235.5	232.5	232.2	232.3	238.1	239.1	247.5	252.7	252.3	252.0



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	218.0	211.0	208.2	207.7	207.6	212.9	213.5	221.8	227.1	227.1	227.0
46°	209.9	203.0	200.3	199.7	199.6	204.6	205.2	213.4	218.6	218.7	218.9
47°	202.0	195.3	192.6	192.0	191.8	196.8	197.1	205.2	210.6	210.6	210.8
48°	194.2	187.5	185.2	184.6	184.0	189.0	189.2	197.2	202.3	202.7	202.8
49°	186.8	179.9	177.8	177.1	176.5	181.5	181.4	189.4	194.5	194.6	195.1
50°	179.3	172.6	170.4	169.7	169.2	174.0	173.8	181.8	186.7	186.9	187.4
51°	171.9	165.3	163.2	162.6	162.0	166.5	166.6	174.3	179.1	179.4	179.8
52°	164.7	158.3	156.2	155.6	155.0	159.4	159.2	166.8	171.7	172.1	172.2
53°	157.8	151.4	149.4	148.7	148.1	152.3	152.2	159.6	164.3	164.8	165.4
54°	150.9	144.6	142.8	142.1	141.3	145.5	145.4	152.6	157.2	157.8	158.4
55°	144.2	138.2	136.2	135.5	134.8	138.9	138.7	145.8	150.3	150.9	151.5
56°	137.7	131.8	129.9	129.2	128.6	132.4	132.3	139.2	143.6	144.2	144.8
57°	131.3	125.6	123.8	123.0	122.3	126.1	126.0	132.8	137.0	137.5	138.2
58°	125.1	119.4	117.7	117.0	116.3	120.0	119.9	126.4	130.6	131.2	131.8
59°	119.0	113.5	111.8	111.1	110.4	114.0	114.0	120.3	124.4	124.9	125.6
60°	113.1	107.8	106.1	105.4	104.6	108.2	108.1	114.3	118.3	118.9	119.6
61°	107.4	102.1	100.5	99.8	99.1	102.5	102.5	108.5	112.3	112.9	113.6
62°	101.8	96.5	95.1	94.3	94.0	97.0	97.0	102.8	106.3	107.2	107.8
63°	96.3	91.6	89.7	89.0	88.8	91.6	92.0	97.3	100.6	101.6	102.3
64°	90.9	86.6	84.6	83.9	83.7	86.4	87.0	91.8	95.0	96.0	96.7
65°	85.6	81.4	79.4	78.8	78.7	81.2	82.0	86.5	89.9	91.0	91.3
66°	80.6	76.5	74.6	73.8	73.7	76.2	77.0	81.3	84.8	86.0	86.1
67°	75.5	71.6	69.7	69.0	68.9	71.3	72.1	76.2	79.6	80.8	81.0
68°	70.7	66.9	65.0	64.3	64.2	66.6	67.3	71.3	74.5	75.7	76.0
69°	66.0	62.3	60.4	59.6	59.6	61.9	62.7	66.4	69.6	70.8	71.2
70°	61.4	57.8	55.9	55.2	55.1	57.4	58.1	61.7	64.7	66.0	66.4
71°	56.8	53.3	51.5	50.8	50.7	52.9	53.7	57.1	60.0	61.2	61.7
72°	52.4	49.0	47.3	46.6	46.5	48.6	49.3	52.6	55.4	56.6	57.1
73°	48.1	44.8	43.2	42.4	42.3	44.4	45.1	48.3	50.9	52.2	52.7
74°	43.9	40.8	39.1	38.4	38.3	40.2	41.0	44.0	46.5	47.7	48.3
75°	39.9	36.9	35.2	34.5	34.4	36.2	37.1	39.8	42.2	43.5	44.1
76°	36.0	33.0	31.5	30.7	30.7	32.4	33.2	35.8	38.1	39.4	40.0
77°	32.2	29.3	27.9	27.2	27.1	28.7	29.5	32.0	34.1	35.4	35.9
78°	28.5	25.9	24.4	23.7	23.7	25.1	25.9	28.3	30.2	31.4	32.1
79°	25.0	22.5	21.1	20.4	20.4	21.6	22.5	24.7	26.5	27.7	28.3
80°	21.7	19.3	18.0	17.3	17.2	18.4	19.3	21.3	23.0	24.2	24.7
81°	18.5	16.3	15.1	14.4	14.3	15.4	16.2	18.1	19.7	20.8	21.3
82°	15.6	13.5	12.4	11.7	11.6	12.6	13.3	15.1	16.5	17.6	18.1
83°	12.8	11.0	9.9	9.3	9.2	9.9	10.1	12.3	13.6	14.6	15.1
84°	10.1	8.6	7.7	7.2	7.1	7.5	7.3	9.6	10.9	11.8	12.2
85°	7.5	6.7	5.9	5.4	5.2	5.4	5.1	7.1	8.5	9.3	9.7
86°	5.2	4.7	4.2	3.8	3.6	3.7	3.4	5.1	6.4	7.1	7.5
87°	3.4	2.9	2.7	2.2	2.1	2.2	1.6	3.3	4.8	5.3	5.6



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.9	1.0



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	461.5	461.5
1°	461.3	461.1
2°	460.6	460.4
3°	460.0	459.5
4°	458.9	458.3
5°	457.5	456.7
6°	456.0	455.0
7°	454.1	453.1
8°	452.0	450.8
9°	449.7	448.3
10°	447.0	445.6
11°	444.3	442.7
12°	441.2	439.4
13°	437.8	435.9
14°	434.1	432.3
15°	430.4	428.3
16°	426.2	424.1
17°	421.8	419.5
18°	417.2	414.8
19°	412.3	409.8
20°	407.0	404.4
21°	401.5	398.9
22°	395.9	393.0
23°	390.0	387.1
24°	383.8	380.7
25°	377.4	374.3
26°	370.8	367.6
27°	363.9	360.7
28°	357.0	353.7
29°	349.8	346.4
30°	342.4	339.0
31°	334.9	331.5
32°	327.4	323.8
33°	319.6	316.1
34°	311.7	308.4
35°	303.8	300.3
36°	295.7	292.1
37°	287.7	284.2
38°	279.5	275.9
39°	271.2	267.6
40°	263.0	259.4
41°	254.5	251.0
42°	246.2	242.7



TEST NUMBER: P710101

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	221.4	218.0
46°	213.2	209.9
47°	205.2	202.0
48°	197.3	194.2
49°	189.6	186.8
50°	181.9	179.3
51°	174.6	171.9
52°	167.4	164.7
53°	160.3	157.8
54°	153.3	150.9
55°	146.6	144.2
56°	140.0	137.7
57°	133.5	131.3
58°	127.3	125.1
59°	121.2	119.0
60°	115.2	113.1
61°	109.4	107.4
62°	103.7	101.8
63°	98.2	96.3
64°	93.1	90.9
65°	88.0	85.6
66°	82.9	80.6
67°	78.0	75.5
68°	73.0	70.7
69°	68.3	66.0
70°	63.6	61.4
71°	59.0	56.8
72°	54.6	52.4
73°	50.3	48.1
74°	46.0	43.9
75°	41.9	39.9
76°	38.0	36.0
77°	34.1	32.2
78°	30.4	28.5
79°	26.8	25.0
80°	23.3	21.7
81°	20.0	18.5
82°	17.0	15.6
83°	14.0	12.8
84°	11.4	10.1
85°	8.9	7.5
86°	6.7	5.2
87°	4.7	3.4



TEST NUMBER: P710101
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CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.5	0.2

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°	234.4	227.2	224.4	223.8	224.0	229.4	230.4	238.9	244.1	243.7	243.7
44°	226.1	219.1	216.3	215.7	215.7	221.2	221.9	230.3	235.6	235.4	235.4



88°	1.6	1.5	1.4	0.9	0.8	1.2	0.6	1.8	3.2	3.8	3.9
89°	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.8	1.7	2.2	2.3

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

Scaled Data Report



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43°	237.7	234.4
44°	229.5	226.1

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88°	2.9	1.6
89°	1.4	0.5

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(END OF REPORT)