

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: P710098

Luminaire Tested: RA6LS9FSD2W1EWHDM-900lm-3000K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710098
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-3000K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 3000K CCT
Ballast/Driver: -

Summary

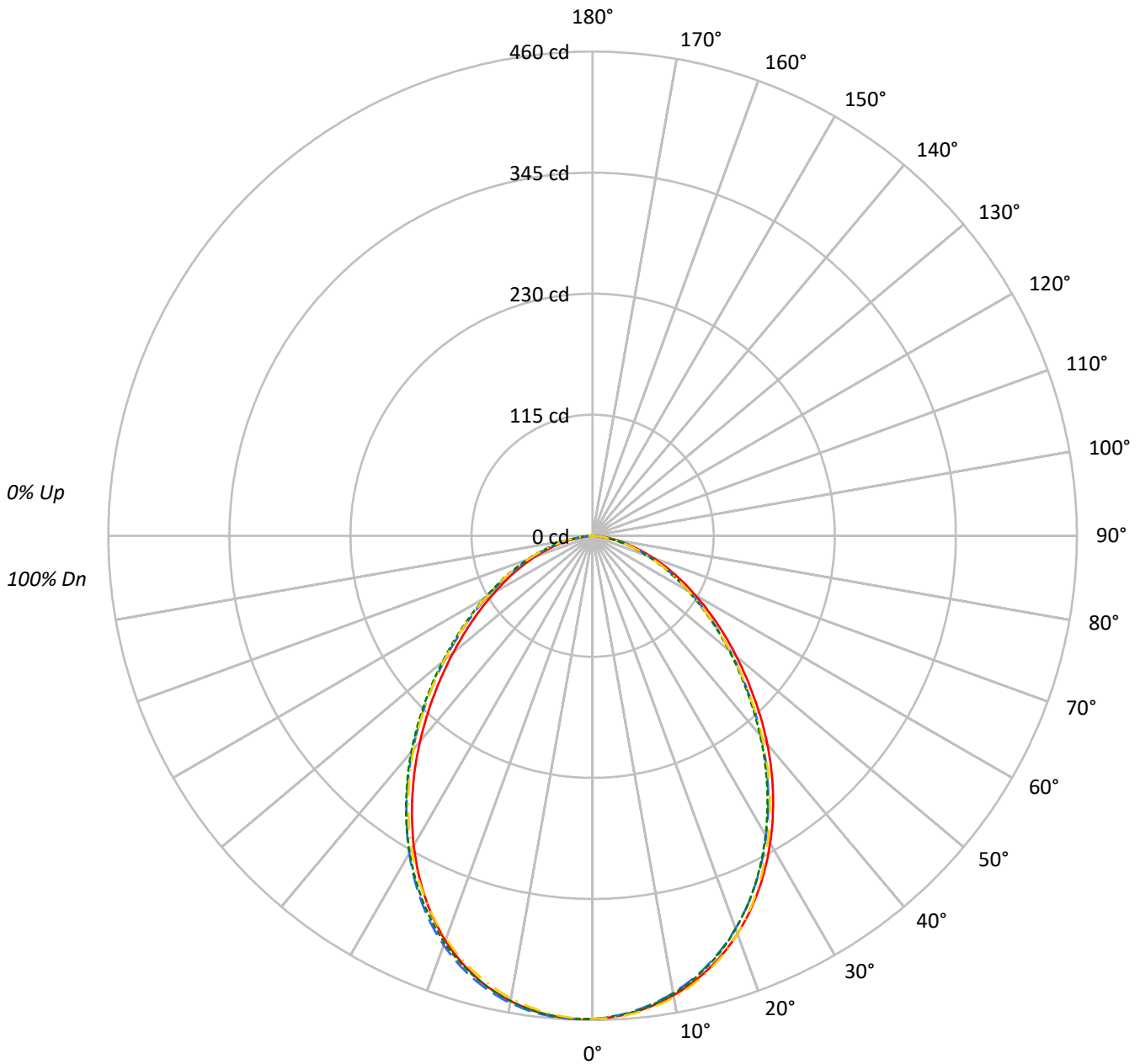
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 950.0 lumens
Efficiency: 101.1%
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 9.5
Input Voltage (V): NR
Input Current (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: P710098
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-3000K

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	120	120	120	120	118	118	118	118	112	112	112	108	108	108	103	103	103	101																			
1	111	107	103	100	109	105	101	98	101	98	95	97	94	92	93	91	90	88																			
2	102	95	89	84	100	93	87	83	90	85	81	86	82	79	83	80	77	75																			
3	94	85	77	71	92	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	87	76	68	62	85	75	67	61	72	66	60	70	64	60	68	63	59	57																			
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50																			
6	75	62	54	48	73	61	53	48	60	52	47	58	52	47	56	51	46	44																			
7	70	57	49	43	68	56	48	43	55	47	42	53	47	42	52	46	42	40																			
8	65	52	44	39	64	52	44	38	50	43	38	49	43	38	48	42	38	36																			
9	61	48	40	35	60	48	40	35	46	40	35	45	39	35	44	39	34	33																			
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	25168	25168	25168	25168
5°	25000	24972	25171	25171
10°	24671	24599	24983	24983
15°	24177	24013	24574	24609
20°	23470	23184	23872	24006
25°	22519	22108	22834	23130
30°	21351	20801	21516	22003
35°	19990	19327	19956	20673
40°	18463	17712	18256	19164
45°	16808	16017	16467	17513
50°	15215	14396	14746	15854
55°	13715	12884	13189	14346
60°	12335	11501	11786	12970
65°	11052	10157	10585	11739
70°	9777	8800	9264	10515
75°	8409	7265	7816	9150
80°	6819	5430	6061	7577
85°	4717	3397	3208	5850

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 17513 cd/sqm



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CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	43.2	4.5	4.6
10°-20°	120.6	12.7	12.8
20°-30°	172.0	18.1	18.3
30°-40°	186.6	19.6	19.9
40°-50°	166.6	17.5	17.7
50°-60°	127.3	13.4	13.6
60°-70°	83.5	8.8	8.9
70°-80°	41.3	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°	335.8	35.3	35.7
0°-40°	522.4	55.0	55.6
0°-60°	816.3	85.9	86.9
0°-90°	950.0	100.0	101.1
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°	950.0	100.0	101.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	459	459	459	459	459	
5°	454	454	457	457	454	43
15°	426	423	433	434	426	120
25°	372	366	378	382	372	171
35°	299	289	298	309	299	186
45°	217	207	212	226	217	167
55°	144	135	138	150	144	129
65°	85	78	82	90	85	85
75°	40	34	37	43	40	42
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°	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1
1°	458.7	458.4	458.4	458.4	458.6	459.1	459.3	459.5	459.4	459.1	459.1
2°	458.0	457.4	457.5	457.7	458.1	458.8	459.2	459.6	459.4	459.0	458.8
3°	457.1	456.3	456.4	456.7	457.2	458.2	458.9	459.5	459.3	458.8	458.4
4°	455.9	454.8	454.9	455.4	455.9	457.4	458.3	459.0	458.8	458.3	457.7
5°	454.3	453.1	453.2	453.8	454.5	456.4	457.4	458.4	458.2	457.4	456.7
6°	452.7	451.2	451.2	451.9	452.9	454.9	456.3	457.4	457.3	456.2	455.3
7°	450.7	449.1	449.0	449.8	450.9	453.3	454.8	456.3	455.9	454.8	453.7
8°	448.5	446.6	446.5	447.3	448.5	451.4	453.2	454.7	454.4	453.0	452.0
9°	445.9	443.9	443.8	444.7	446.0	449.4	451.2	452.9	452.6	451.1	450.0
10°	443.2	441.0	440.8	441.9	443.2	446.8	448.8	450.9	450.6	448.8	447.6
11°	440.3	437.8	437.5	438.6	440.0	444.1	446.3	448.6	448.2	446.3	445.0
12°	437.1	434.4	434.1	435.2	436.8	441.0	443.4	445.8	445.6	443.6	442.0
13°	433.6	430.7	430.2	431.4	433.1	437.7	440.3	442.9	442.6	440.5	438.9
14°	430.0	426.8	426.3	427.4	429.1	434.0	436.8	439.7	439.4	437.2	435.6
15°	426.0	422.6	421.9	423.1	424.8	430.0	433.0	436.2	435.9	433.6	431.9
16°	421.9	418.1	417.4	418.6	420.2	425.7	428.8	432.3	432.1	429.7	428.0
17°	417.3	413.3	412.5	413.7	415.5	421.2	424.4	428.1	428.0	425.6	423.8
18°	412.6	408.4	407.4	408.6	410.4	416.3	419.6	423.7	423.6	421.2	419.5
19°	407.6	403.2	402.0	403.1	405.0	411.1	414.6	418.9	418.9	416.5	414.7
20°	402.3	397.6	396.4	397.4	399.3	405.6	409.2	413.8	414.0	411.5	409.7
21°	396.8	391.8	390.6	391.4	393.2	399.9	403.3	408.4	408.7	406.1	404.4
22°	390.9	386.0	384.5	385.2	387.1	393.8	397.3	402.7	403.1	400.6	398.7
23°	385.1	379.6	378.1	378.9	380.7	387.5	391.2	396.5	397.3	394.7	393.1
24°	378.7	373.4	371.6	372.2	374.0	380.9	384.4	390.2	391.2	388.7	387.0
25°	372.3	366.6	364.8	365.5	367.1	374.0	377.5	383.7	384.9	382.4	380.8
26°	365.7	359.9	357.9	358.4	359.9	367.0	370.4	376.8	378.1	375.8	374.3
27°	358.8	352.9	350.7	351.1	352.6	359.7	363.1	369.6	371.4	369.0	367.7
28°	351.8	345.7	343.5	343.9	345.2	352.3	355.5	362.3	364.3	362.2	360.8
29°	344.6	338.3	336.0	336.3	337.7	344.8	347.8	354.9	357.1	355.0	353.7
30°	337.3	330.7	328.4	328.6	329.9	336.9	339.9	347.1	349.7	347.6	346.5
31°	329.8	323.3	320.7	320.9	322.0	329.0	331.7	339.2	342.0	340.2	339.1
32°	322.2	315.4	312.8	313.0	314.0	320.8	323.5	331.1	334.2	332.5	331.5
33°	314.4	307.6	304.9	304.9	305.9	312.6	315.2	322.9	326.2	324.8	323.8
34°	306.8	299.7	296.9	296.9	297.8	304.3	306.6	314.6	318.2	316.8	316.0
35°	298.7	291.7	289.0	288.8	289.6	296.1	298.2	306.2	310.0	308.9	308.1
36°	290.6	283.7	280.7	280.7	281.4	287.7	289.6	297.8	301.8	300.7	300.1
37°	282.7	275.5	272.6	272.5	272.9	279.3	281.1	289.3	293.6	292.7	292.1
38°	274.5	267.3	264.5	264.2	264.6	270.8	272.4	280.8	285.3	284.5	283.9
39°	266.2	259.1	256.1	255.9	256.2	262.3	263.8	272.2	276.8	276.2	275.8
40°	258.0	250.8	247.9	247.5	247.8	253.8	255.1	263.5	268.3	267.8	267.4
41°	249.7	242.6	239.6	239.2	239.4	245.3	246.4	254.9	259.9	259.5	259.1
42°	241.4	234.3	231.3	231.0	231.1	236.8	237.8	246.2	251.4	251.0	250.6



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	216.8	209.9	207.1	206.6	206.5	211.8	212.4	220.7	225.9	225.9	225.8
46°	208.8	201.9	199.3	198.7	198.6	203.5	204.2	212.3	217.5	217.6	217.7
47°	201.0	194.2	191.6	191.0	190.8	195.7	196.0	204.2	209.5	209.5	209.7
48°	193.2	186.5	184.2	183.6	183.1	188.0	188.2	196.2	201.3	201.6	201.7
49°	185.8	179.0	176.8	176.2	175.5	180.6	180.5	188.4	193.5	193.6	194.0
50°	178.4	171.7	169.5	168.8	168.3	173.1	172.9	180.9	185.7	185.9	186.5
51°	171.0	164.4	162.4	161.8	161.1	165.6	165.7	173.4	178.2	178.5	178.9
52°	163.9	157.5	155.4	154.8	154.2	158.5	158.4	165.9	170.8	171.2	171.3
53°	157.0	150.6	148.6	147.9	147.3	151.5	151.4	158.7	163.5	163.9	164.6
54°	150.1	143.9	142.0	141.3	140.6	144.8	144.7	151.9	156.4	156.9	157.5
55°	143.5	137.5	135.5	134.8	134.1	138.2	138.0	145.0	149.5	150.1	150.7
56°	136.9	131.1	129.2	128.5	127.9	131.7	131.6	138.4	142.8	143.4	144.0
57°	130.6	124.9	123.1	122.4	121.7	125.5	125.4	132.1	136.3	136.8	137.5
58°	124.4	118.8	117.0	116.4	115.7	119.4	119.3	125.8	129.9	130.5	131.1
59°	118.4	113.0	111.3	110.5	109.8	113.4	113.4	119.7	123.7	124.3	125.0
60°	112.5	107.2	105.6	104.9	104.1	107.6	107.5	113.7	117.7	118.3	118.9
61°	106.8	101.5	100.0	99.3	98.6	102.0	102.0	107.9	111.7	112.3	113.1
62°	101.2	96.0	94.6	93.8	93.5	96.5	96.5	102.3	105.8	106.6	107.3
63°	95.8	91.1	89.3	88.6	88.4	91.1	91.5	96.7	100.1	101.0	101.7
64°	90.4	86.2	84.1	83.4	83.3	85.9	86.6	91.4	94.5	95.5	96.2
65°	85.2	81.0	79.0	78.3	78.3	80.7	81.6	86.0	89.5	90.5	90.9
66°	80.2	76.1	74.2	73.4	73.3	75.8	76.6	80.8	84.4	85.5	85.7
67°	75.1	71.3	69.3	68.6	68.5	70.9	71.7	75.8	79.2	80.3	80.5
68°	70.3	66.5	64.6	64.0	63.9	66.2	67.0	70.9	74.1	75.3	75.6
69°	65.6	62.0	60.1	59.3	59.3	61.5	62.4	66.1	69.2	70.4	70.8
70°	61.0	57.5	55.6	54.9	54.8	57.1	57.8	61.4	64.4	65.6	66.0
71°	56.5	53.1	51.3	50.5	50.5	52.6	53.4	56.8	59.7	60.9	61.4
72°	52.1	48.8	47.0	46.3	46.2	48.3	49.1	52.3	55.1	56.3	56.8
73°	47.9	44.6	42.9	42.2	42.1	44.1	44.9	48.0	50.6	51.9	52.4
74°	43.7	40.5	38.9	38.2	38.1	40.0	40.8	43.8	46.2	47.5	48.1
75°	39.7	36.7	35.1	34.3	34.3	36.0	36.9	39.6	42.0	43.2	43.9
76°	35.8	32.9	31.3	30.6	30.5	32.2	33.0	35.6	37.9	39.2	39.7
77°	32.0	29.2	27.7	27.0	27.0	28.5	29.4	31.8	33.9	35.2	35.7
78°	28.4	25.7	24.3	23.6	23.5	24.9	25.8	28.1	30.1	31.3	31.9
79°	24.9	22.4	21.0	20.3	20.2	21.5	22.4	24.6	26.4	27.6	28.2
80°	21.6	19.2	17.9	17.2	17.2	18.3	19.2	21.2	22.9	24.0	24.6
81°	18.4	16.3	15.0	14.3	14.3	15.3	16.1	18.0	19.6	20.6	21.2
82°	15.5	13.5	12.3	11.7	11.6	12.5	13.3	15.0	16.4	17.5	18.0
83°	12.7	10.9	9.8	9.3	9.1	9.9	10.1	12.2	13.5	14.5	15.0
84°	10.1	8.6	7.7	7.2	7.0	7.5	7.2	9.5	10.8	11.7	12.2
85°	7.5	6.6	5.9	5.4	5.2	5.4	5.1	7.1	8.4	9.3	9.7
86°	5.2	4.7	4.2	3.8	3.6	3.6	3.4	5.1	6.4	7.1	7.4
87°	3.3	2.9	2.7	2.2	2.1	2.2	1.6	3.3	4.7	5.3	5.6



TEST NUMBER: P710098
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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	0.8	1.0



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	459.1	459.1
1°	458.9	458.7
2°	458.2	458.0
3°	457.6	457.1
4°	456.5	455.9
5°	455.1	454.3
6°	453.6	452.7
7°	451.7	450.7
8°	449.6	448.5
9°	447.3	445.9
10°	444.7	443.2
11°	442.0	440.3
12°	438.9	437.1
13°	435.5	433.6
14°	431.9	430.0
15°	428.1	426.0
16°	424.0	421.9
17°	419.6	417.3
18°	415.0	412.6
19°	410.1	407.6
20°	404.9	402.3
21°	399.4	396.8
22°	393.8	390.9
23°	388.0	385.1
24°	381.8	378.7
25°	375.4	372.3
26°	368.8	365.7
27°	362.0	358.8
28°	355.2	351.8
29°	348.0	344.6
30°	340.6	337.3
31°	333.2	329.8
32°	325.6	322.2
33°	317.9	314.4
34°	310.1	306.8
35°	302.2	298.7
36°	294.1	290.6
37°	286.2	282.7
38°	278.0	274.5
39°	269.8	266.2
40°	261.6	258.0
41°	253.2	249.7
42°	244.9	241.4



TEST NUMBER: P710098

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-3000K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	220.2	216.8
46°	212.1	208.8
47°	204.2	201.0
48°	196.3	193.2
49°	188.6	185.8
50°	181.0	178.4
51°	173.7	171.0
52°	166.5	163.9
53°	159.5	157.0
54°	152.5	150.1
55°	145.9	143.5
56°	139.3	136.9
57°	132.8	130.6
58°	126.7	124.4
59°	120.5	118.4
60°	114.6	112.5
61°	108.8	106.8
62°	103.1	101.2
63°	97.7	95.8
64°	92.6	90.4
65°	87.5	85.2
66°	82.5	80.2
67°	77.5	75.1
68°	72.7	70.3
69°	67.9	65.6
70°	63.3	61.0
71°	58.7	56.5
72°	54.3	52.1
73°	50.0	47.9
74°	45.8	43.7
75°	41.7	39.7
76°	37.8	35.8
77°	33.9	32.0
78°	30.2	28.4
79°	26.6	24.9
80°	23.2	21.6
81°	19.9	18.4
82°	16.9	15.5
83°	14.0	12.7
84°	11.3	10.1
85°	8.8	7.5
86°	6.7	5.2
87°	4.7	3.3



TEST NUMBER: P710098
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-3000K

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°	233.1	226.0	223.2	222.7	222.8	228.2	229.2	237.6	242.9	242.4	242.4
44°	224.9	218.0	215.1	214.6	214.6	220.1	220.7	229.1	234.3	234.2	234.1



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

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

Scaled Data Report





43°	236.5	233.1
44°	228.3	224.9

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88°	2.9	1.6
89°	1.4	0.5

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(END OF REPORT)