

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: P710100

Luminaire Tested: RA6LS9FSD2W1EWHDM-900lm-4000K

Issue Date: 10/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P710100
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-4000K
Description: 6IN DM SELECTABLE LUMENS
Light Source: SELECTABLE LUMEN/CCT LEDs 90CRI / 4000K CCT
Ballast/Driver: -

Summary

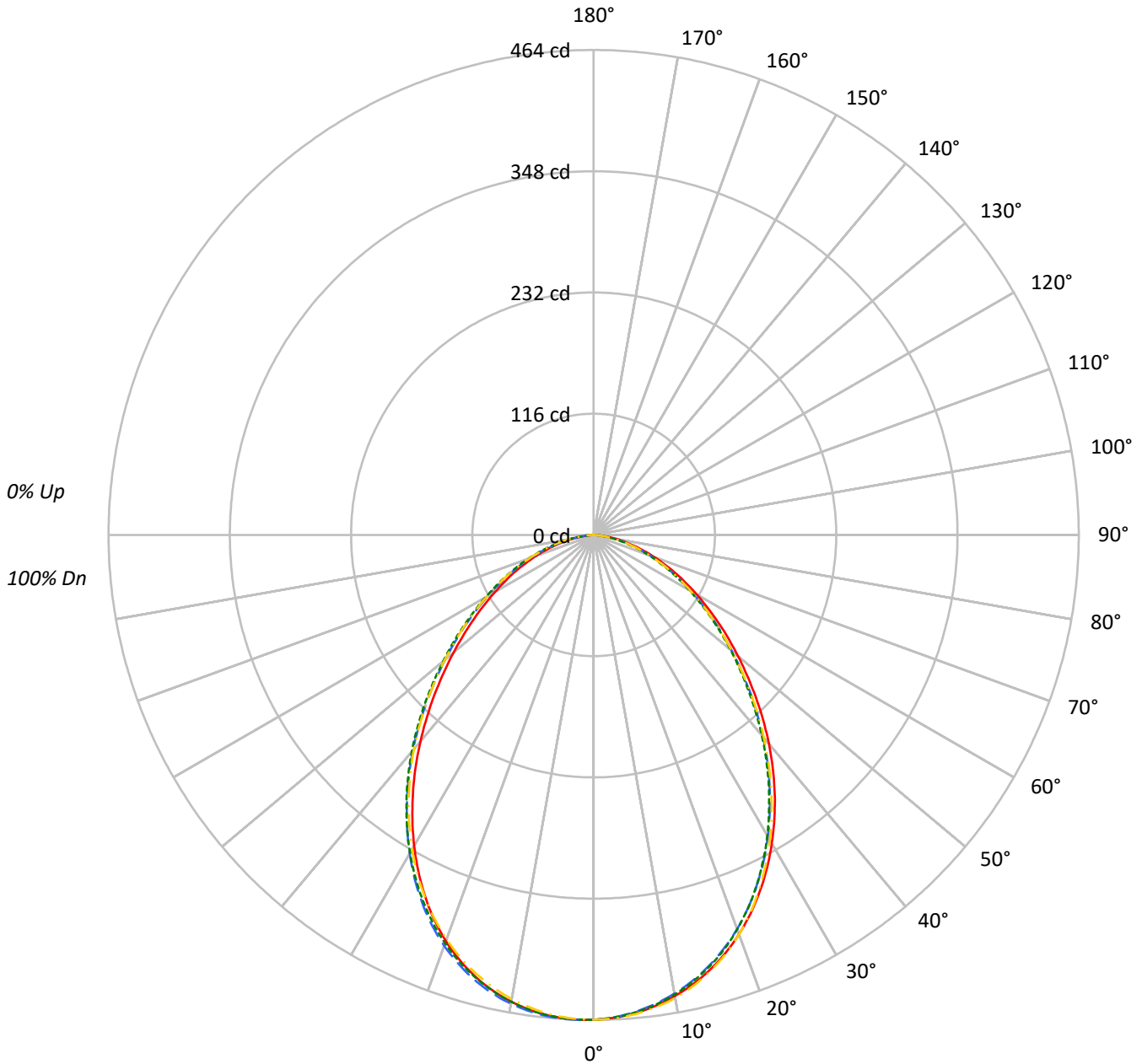
Lumens per Lamp: 939.74 (1 lamp)
Luminaire Lumens: 960.0 lumens
Efficiency: 102.2%
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
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: P710100
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-4000K

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	0					
RCR																										
0	122	122	122	122	119	119	119	119	114	114	114	109	109	109	104	104	104	102								
1	113	108	104	101	110	106	102	99	102	99	96	98	95	93	94	92	91	88								
2	103	96	90	84	101	94	88	83	91	86	82	87	83	80	84	81	78	76								
3	95	85	78	72	93	84	77	71	81	75	70	78	73	69	76	71	68	66								
4	88	77	68	62	86	75	68	62	73	66	61	71	65	60	68	63	59	57								
5	81	69	61	54	79	68	60	54	66	59	54	64	58	53	62	57	53	51								
6	76	63	54	48	74	62	54	48	60	53	48	58	52	47	57	51	47	45								
7	70	57	49	43	69	57	49	43	55	48	43	54	47	42	52	47	42	40								
8	66	53	45	39	64	52	44	39	51	44	39	50	43	38	48	43	38	36								
9	62	49	41	35	60	48	41	35	47	40	35	46	40	35	45	39	35	33								
10	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	25431	25431	25431	25431
5°	25264	25237	25435	25435
10°	24933	24855	25250	25244
15°	24433	24268	24830	24870
20°	23715	23429	24123	24257
25°	22755	22338	23076	23372
30°	21573	21022	21738	22238
35°	20197	19528	20171	20893
40°	18664	17898	18442	19365
45°	16986	16188	16645	17700
50°	15377	14550	14899	16025
55°	13859	13017	13333	14499
60°	12466	11622	11907	13102
65°	11169	10273	10689	11869
70°	9889	8896	9361	10627
75°	8494	7350	7900	9256
80°	6882	5493	6125	7671
85°	4717	3397	3271	5913

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 240°
 Vertical Angle: 45°
 Luminance: 17700 cd/sqm



TEST NUMBER: P710100

CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	43.6	4.5	4.6
10°-20°	121.9	12.7	13.0
20°-30°	173.8	18.1	18.5
30°-40°	188.5	19.6	20.1
40°-50°	168.3	17.5	17.9
50°-60°	128.7	13.4	13.7
60°-70°	84.4	8.8	9.0
70°-80°	41.7	4.3	4.4
80°-90°	9.0	0.9	1.0
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°	339.3	35.3	36.1
0°-40°	527.9	55.0	56.2
0°-60°	824.9	85.9	87.8
0°-90°	960.0	100.0	102.2
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°	960.0	100.0	102.2

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	464	464	464	464	464	
5°	459	459	462	462	459	43
15°	430	428	438	438	430	121
25°	376	369	382	386	376	173
35°	302	292	301	312	302	188
45°	219	209	215	228	219	169
55°	145	136	140	152	145	130
65°	86	79	82	92	86	86
75°	40	35	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°	463.9	463.9	463.9	463.9	463.9	463.9	463.9	463.9	463.9	463.9	463.9
1°	463.5	463.2	463.2	463.3	463.4	463.9	464.1	464.3	464.2	463.9	464.0
2°	462.8	462.2	462.3	462.5	462.9	463.6	464.0	464.4	464.3	463.9	463.7
3°	461.9	461.1	461.2	461.5	462.0	463.0	463.7	464.3	464.1	463.6	463.2
4°	460.7	459.6	459.7	460.2	460.7	462.2	463.1	463.8	463.7	463.1	462.5
5°	459.1	457.9	458.0	458.6	459.3	461.2	462.2	463.2	463.0	462.2	461.5
6°	457.4	456.0	456.0	456.7	457.6	459.7	461.1	462.3	462.1	461.0	460.1
7°	455.5	453.8	453.7	454.6	455.6	458.0	459.6	461.1	460.7	459.6	458.5
8°	453.2	451.3	451.2	452.1	453.2	456.2	458.0	459.5	459.2	457.8	456.8
9°	450.6	448.6	448.4	449.4	450.7	454.1	455.9	457.7	457.4	455.9	454.7
10°	447.9	445.7	445.4	446.5	447.9	451.5	453.6	455.7	455.4	453.5	452.3
11°	445.0	442.4	442.2	443.3	444.7	448.8	451.0	453.3	453.0	451.0	449.7
12°	441.7	438.9	438.6	439.8	441.4	445.7	448.1	450.5	450.3	448.3	446.7
13°	438.2	435.3	434.7	435.9	437.6	442.4	444.9	447.6	447.3	445.1	443.5
14°	434.6	431.3	430.7	431.9	433.6	438.5	441.4	444.3	444.0	441.8	440.2
15°	430.5	427.0	426.4	427.6	429.3	434.5	437.5	440.8	440.5	438.2	436.4
16°	426.3	422.5	421.8	423.0	424.6	430.2	433.3	436.9	436.6	434.2	432.5
17°	421.7	417.7	416.8	418.1	419.9	425.6	428.9	432.6	432.5	430.0	428.3
18°	416.9	412.7	411.7	412.9	414.7	420.7	424.1	428.1	428.0	425.6	423.9
19°	411.9	407.4	406.3	407.4	409.3	415.4	419.0	423.3	423.3	420.9	419.0
20°	406.5	401.8	400.6	401.6	403.5	409.8	413.5	418.1	418.4	415.8	414.0
21°	401.0	396.0	394.7	395.5	397.4	404.1	407.6	412.7	413.0	410.4	408.7
22°	395.0	390.1	388.5	389.3	391.2	398.0	401.5	406.9	407.4	404.9	402.9
23°	389.1	383.6	382.1	382.9	384.7	391.6	395.3	400.7	401.5	398.8	397.2
24°	382.7	377.3	375.5	376.1	378.0	384.9	388.5	394.3	395.3	392.8	391.0
25°	376.2	370.4	368.7	369.3	371.0	378.0	381.5	387.7	388.9	386.4	384.8
26°	369.6	363.7	361.6	362.2	363.7	370.8	374.3	380.7	382.1	379.8	378.2
27°	362.6	356.6	354.4	354.8	356.3	363.5	366.9	373.5	375.3	372.9	371.6
28°	355.5	349.3	347.1	347.5	348.9	356.1	359.2	366.1	368.1	366.0	364.6
29°	348.3	341.9	339.5	339.9	341.2	348.4	351.4	358.6	360.8	358.7	357.4
30°	340.8	334.2	331.8	332.1	333.3	340.4	343.4	350.8	353.3	351.3	350.1
31°	333.2	326.7	324.1	324.3	325.4	332.5	335.2	342.7	345.6	343.8	342.7
32°	325.5	318.8	316.1	316.2	317.3	324.1	326.9	334.6	337.8	336.0	335.0
33°	317.7	310.9	308.1	308.1	309.1	315.9	318.5	326.3	329.6	328.2	327.2
34°	310.0	302.9	300.0	300.0	300.9	307.5	309.9	317.9	321.5	320.2	319.4
35°	301.8	294.8	292.0	291.8	292.6	299.2	301.4	309.5	313.3	312.2	311.3
36°	293.7	286.6	283.6	283.6	284.3	290.7	292.6	301.0	305.0	303.9	303.3
37°	285.6	278.4	275.5	275.4	275.8	282.2	284.0	292.3	296.7	295.8	295.1
38°	277.4	270.1	267.3	266.9	267.4	273.7	275.3	283.8	288.3	287.5	286.9
39°	269.0	261.9	258.8	258.6	258.9	265.0	266.5	275.0	279.7	279.1	278.7
40°	260.8	253.4	250.5	250.1	250.4	256.4	257.7	266.2	271.1	270.6	270.3
41°	252.3	245.1	242.2	241.7	241.9	247.9	249.0	257.6	262.6	262.2	261.8
42°	243.9	236.7	233.7	233.4	233.5	239.3	240.3	248.8	254.0	253.6	253.3



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	219.1	212.1	209.3	208.8	208.7	214.0	214.7	223.0	228.3	228.3	228.2
46°	211.0	204.0	201.4	200.8	200.7	205.7	206.3	214.5	219.8	219.9	220.0
47°	203.1	196.3	193.6	193.0	192.8	197.8	198.1	206.3	211.7	211.7	211.9
48°	195.2	188.5	186.1	185.5	185.0	190.0	190.2	198.3	203.4	203.7	203.9
49°	187.8	180.9	178.7	178.0	177.4	182.5	182.4	190.4	195.5	195.6	196.1
50°	180.3	173.5	171.3	170.6	170.1	174.9	174.7	182.8	187.7	187.9	188.4
51°	172.8	166.1	164.1	163.5	162.8	167.4	167.4	175.2	180.1	180.4	180.8
52°	165.6	159.1	157.0	156.4	155.8	160.2	160.1	167.6	172.6	173.0	173.1
53°	158.6	152.2	150.2	149.5	148.8	153.1	153.0	160.4	165.2	165.7	166.3
54°	151.7	145.4	143.5	142.8	142.1	146.3	146.2	153.4	158.1	158.6	159.2
55°	145.0	138.9	137.0	136.2	135.5	139.6	139.5	146.6	151.1	151.7	152.3
56°	138.4	132.5	130.6	129.9	129.2	133.1	133.0	139.9	144.3	144.9	145.5
57°	132.0	126.2	124.4	123.6	123.0	126.8	126.7	133.4	137.7	138.3	139.0
58°	125.7	120.0	118.3	117.6	116.9	120.6	120.5	127.1	131.3	131.9	132.5
59°	119.6	114.1	112.4	111.7	111.0	114.6	114.5	120.9	125.0	125.6	126.3
60°	113.7	108.3	106.7	106.0	105.2	108.8	108.6	114.9	118.9	119.5	120.2
61°	107.9	102.6	101.0	100.3	99.6	103.1	103.0	109.1	112.9	113.5	114.2
62°	102.3	97.0	95.6	94.8	94.4	97.5	97.5	103.3	106.9	107.7	108.4
63°	96.8	92.1	90.2	89.5	89.3	92.1	92.5	97.8	101.1	102.1	102.8
64°	91.4	87.1	85.0	84.3	84.2	86.8	87.5	92.3	95.5	96.5	97.3
65°	86.1	81.9	79.9	79.2	79.1	81.6	82.4	86.9	90.4	91.5	91.8
66°	81.0	76.9	75.0	74.2	74.1	76.6	77.4	81.7	85.3	86.4	86.6
67°	75.9	72.0	70.0	69.3	69.2	71.7	72.5	76.6	80.1	81.2	81.4
68°	71.0	67.2	65.3	64.6	64.5	66.9	67.7	71.7	74.9	76.1	76.4
69°	66.3	62.6	60.7	59.9	59.9	62.2	63.0	66.8	69.9	71.2	71.5
70°	61.7	58.1	56.2	55.5	55.4	57.7	58.4	62.1	65.1	66.3	66.7
71°	57.1	53.6	51.8	51.0	51.0	53.2	54.0	57.4	60.3	61.5	62.0
72°	52.7	49.3	47.5	46.8	46.7	48.8	49.6	52.9	55.7	56.9	57.4
73°	48.4	45.0	43.4	42.7	42.6	44.6	45.4	48.5	51.1	52.4	52.9
74°	44.2	41.0	39.3	38.6	38.5	40.4	41.3	44.2	46.7	48.0	48.6
75°	40.1	37.1	35.4	34.7	34.6	36.4	37.3	40.1	42.4	43.7	44.4
76°	36.2	33.2	31.6	30.9	30.9	32.5	33.4	36.0	38.3	39.6	40.2
77°	32.3	29.5	28.0	27.3	27.3	28.8	29.7	32.2	34.3	35.5	36.1
78°	28.7	26.0	24.5	23.8	23.8	25.2	26.1	28.4	30.4	31.6	32.3
79°	25.2	22.6	21.2	20.5	20.5	21.7	22.6	24.8	26.7	27.9	28.5
80°	21.8	19.4	18.1	17.4	17.3	18.5	19.4	21.4	23.1	24.3	24.9
81°	18.6	16.4	15.1	14.5	14.4	15.4	16.3	18.2	19.8	20.9	21.5
82°	15.6	13.6	12.4	11.8	11.7	12.6	13.4	15.2	16.6	17.7	18.2
83°	12.9	11.0	9.9	9.4	9.2	10.0	10.2	12.4	13.6	14.6	15.1
84°	10.2	8.7	7.8	7.3	7.1	7.6	7.3	9.6	10.9	11.9	12.3
85°	7.5	6.7	5.9	5.4	5.3	5.5	5.2	7.2	8.5	9.4	9.8
86°	5.2	4.8	4.3	3.8	3.7	3.7	3.4	5.2	6.4	7.2	7.5
87°	3.4	2.9	2.7	2.2	2.1	2.2	1.6	3.3	4.8	5.4	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°	463.9	463.9
1°	463.7	463.5
2°	463.1	462.8
3°	462.4	461.9
4°	461.3	460.7
5°	459.9	459.1
6°	458.4	457.4
7°	456.5	455.5
8°	454.3	453.2
9°	452.0	450.6
10°	449.4	447.9
11°	446.6	445.0
12°	443.5	441.7
13°	440.1	438.2
14°	436.4	434.6
15°	432.6	430.5
16°	428.4	426.3
17°	424.1	421.7
18°	419.3	416.9
19°	414.5	411.9
20°	409.2	406.5
21°	403.6	401.0
22°	397.9	395.0
23°	392.0	389.1
24°	385.8	382.7
25°	379.4	376.2
26°	372.7	369.6
27°	365.8	362.6
28°	358.9	355.5
29°	351.7	348.3
30°	344.2	340.8
31°	336.7	333.2
32°	329.1	325.5
33°	321.3	317.7
34°	313.4	310.0
35°	305.4	301.8
36°	297.2	293.7
37°	289.2	285.6
38°	280.9	277.4
39°	272.6	269.0
40°	264.3	260.8
41°	255.9	252.3
42°	247.5	243.9



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CANDELA DISTRIBUTION (continued):

	330°	360°
45°	222.5	219.1
46°	214.3	211.0
47°	206.3	203.1
48°	198.4	195.2
49°	190.6	187.8
50°	182.9	180.3
51°	175.5	172.8
52°	168.3	165.6
53°	161.1	158.6
54°	154.1	151.7
55°	147.4	145.0
56°	140.8	138.4
57°	134.2	132.0
58°	128.0	125.7
59°	121.8	119.6
60°	115.8	113.7
61°	110.0	107.9
62°	104.2	102.3
63°	98.7	96.8
64°	93.6	91.4
65°	88.5	86.1
66°	83.3	81.0
67°	78.4	75.9
68°	73.4	71.0
69°	68.6	66.3
70°	63.9	61.7
71°	59.4	57.1
72°	54.9	52.7
73°	50.5	48.4
74°	46.3	44.2
75°	42.1	40.1
76°	38.2	36.2
77°	34.3	32.3
78°	30.5	28.7
79°	26.9	25.2
80°	23.5	21.8
81°	20.1	18.6
82°	17.0	15.6
83°	14.1	12.9
84°	11.4	10.2
85°	8.9	7.5
86°	6.7	5.2
87°	4.8	3.4



TEST NUMBER: P710100
CATALOG NUMBER: RA6LS9FSD2W1EWHDM-900lm-4000K

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°	235.6	228.4	225.6	225.0	225.1	230.6	231.6	240.1	245.4	245.0	244.9
44°	227.3	220.3	217.4	216.8	216.8	222.4	223.0	231.5	236.8	236.6	236.6



88°	1.6	1.5	1.5	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

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43°	239.0	235.6
44°	230.8	227.3

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88°	2.9	1.6
89°	1.5	0.5

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(END OF REPORT)