

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 COMMERCIAL

Report Number: P775817

Luminaire Tested: HCDJBL510CSD-HCD81TRC-1000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775817
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B042-HCD81TRC)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD81TRC-1000lm-3500K
Description: 8 INCH ROUND SHALLOW-WIDE SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

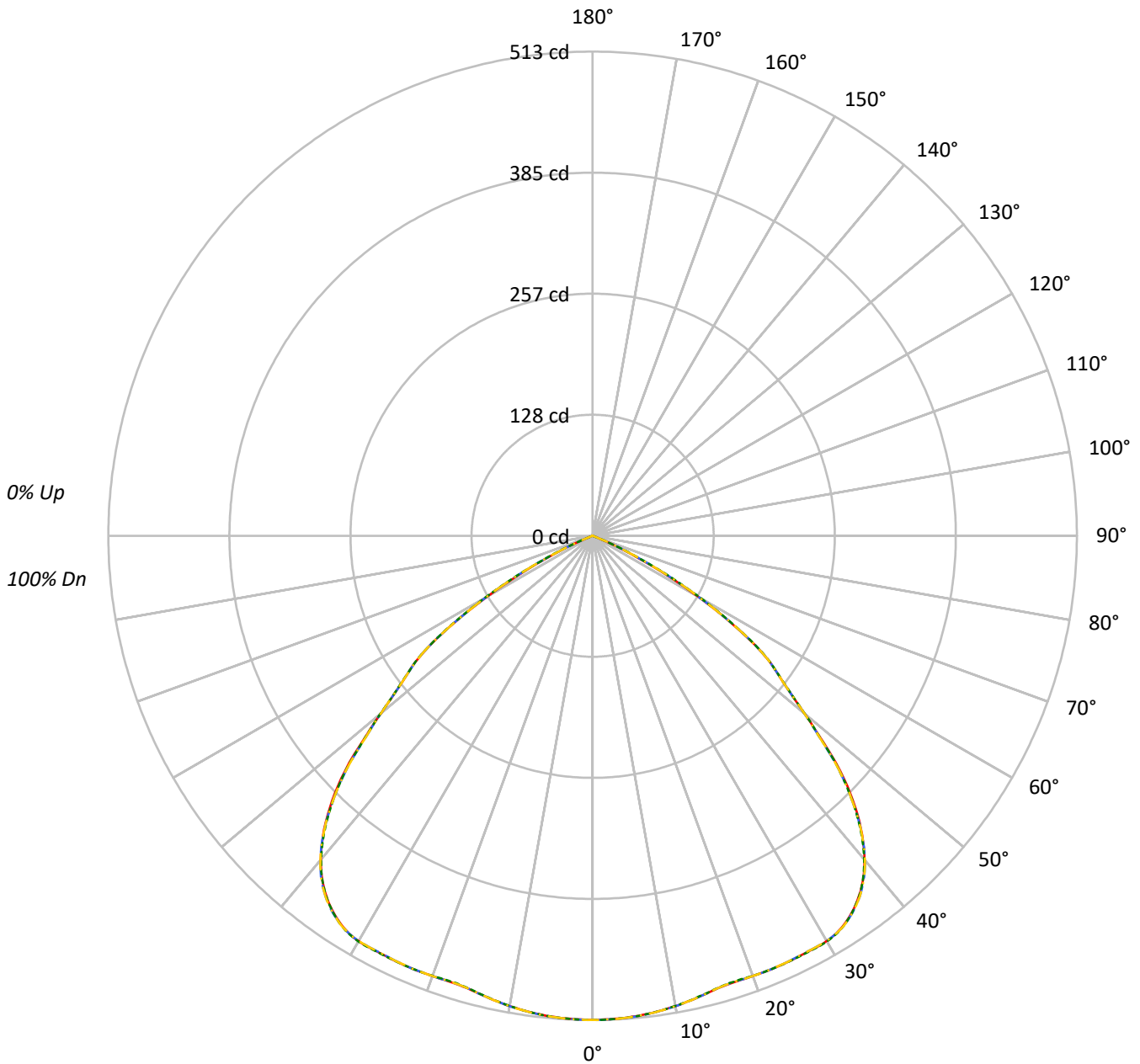
Lumens per Lamp: N/A
Luminaire Lumens: 1255.7 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.44 / 1.44
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 10
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: P775817
CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68			68
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60			60
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52			52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37			37
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33			33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30			30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15662	15662	15662	15662
5°	15667	15670	15667	15670
10°	15687	15684	15687	15684
15°	15747	15731	15747	15731
20°	16131	16121	16131	16121
25°	16729	16732	16729	16732
30°	17482	17500	17482	17500
35°	17976	17987	17976	17987
40°	17855	17835	17855	17835
45°	16679	16593	16679	16593
50°	13902	13926	13902	13926
55°	11939	11966	11939	11966
60°	7858	8072	7858	8072
65°	2788	3193	2788	3193
70°	80	161	80	161
75°	35	47	35	47
80°	18	35	18	35
85°	0	35	0	35

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16679 cd/sqm



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	3.9
10°-20°	141.4	11.3
20°-30°	229.8	18.3
30°-40°	300.6	23.9
40°-50°	292.0	23.3
50°-60°	194.0	15.4
60°-70°	48.9	3.9
70°-80°	0.4	0.0
80°-90°	0.1	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	419.8	33.4
0°-40°	720.4	57.4
0°-60°	1206.4	96.1
0°-90°	1255.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1255.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	513	513	513	513	513	
5°	511	511	511	511	511	49
15°	498	498	498	498	498	141
25°	497	497	497	497	497	230
35°	482	483	482	483	482	300
45°	386	384	386	384	386	293
55°	224	225	224	225	224	194
65°	39	44	39	44	39	46
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0
0.5°	512.9	512.9	513.1	513.2	512.9	513.2	513.1	512.9	512.9	512.9	513.1
1°	512.8	512.9	513.0	513.1	512.9	513.1	513.0	512.9	512.8	512.9	513.0
1.5°	512.7	512.8	512.9	513.0	512.8	513.0	512.9	512.8	512.7	512.8	512.9
2°	512.6	512.6	512.8	512.9	512.7	512.9	512.8	512.6	512.6	512.6	512.8
2.5°	512.4	512.5	512.6	512.7	512.5	512.7	512.6	512.5	512.4	512.5	512.6
3°	512.3	512.3	512.5	512.6	512.3	512.6	512.5	512.3	512.3	512.3	512.5
3.5°	512.1	512.1	512.3	512.3	512.1	512.3	512.3	512.1	512.1	512.1	512.3
4°	511.8	511.9	512.0	512.1	511.8	512.1	512.0	511.9	511.8	511.9	512.0
4.5°	511.5	511.6	511.7	511.8	511.6	511.8	511.7	511.6	511.5	511.6	511.7
5°	511.2	511.3	511.4	511.5	511.3	511.5	511.4	511.3	511.2	511.3	511.4
5.5°	510.9	511.0	511.1	511.2	511.0	511.2	511.1	511.0	510.9	511.0	511.1
6°	510.4	510.6	510.7	510.8	510.6	510.8	510.7	510.6	510.4	510.6	510.7
6.5°	510.0	510.1	510.2	510.3	510.0	510.3	510.2	510.1	510.0	510.1	510.2
7°	509.6	509.6	509.7	509.8	509.5	509.8	509.7	509.6	509.6	509.6	509.7
7.5°	509.1	509.1	509.2	509.2	509.0	509.2	509.2	509.1	509.1	509.1	509.2
8°	508.5	508.6	508.6	508.7	508.5	508.7	508.6	508.6	508.5	508.6	508.6
8.5°	507.9	508.0	508.1	508.1	507.9	508.1	508.1	508.0	507.9	508.0	508.1
9°	507.3	507.3	507.4	507.4	507.2	507.4	507.4	507.3	507.3	507.3	507.4
9.5°	506.6	506.7	506.7	506.8	506.6	506.8	506.7	506.7	506.6	506.7	506.7
10°	506.0	506.0	506.1	506.1	505.9	506.1	506.1	506.0	506.0	506.0	506.1
10.5°	505.3	505.3	505.4	505.4	505.2	505.4	505.4	505.3	505.3	505.3	505.4
11°	504.5	504.5	504.6	504.6	504.3	504.6	504.6	504.5	504.5	504.5	504.6
11.5°	503.7	503.7	503.8	503.8	503.6	503.8	503.8	503.7	503.7	503.7	503.8
12°	503.0	503.0	503.0	503.0	502.8	503.0	503.0	503.0	503.0	503.0	503.0
12.5°	502.2	502.2	502.2	502.2	502.0	502.2	502.2	502.2	502.2	502.2	502.2
13°	501.4	501.3	501.4	501.3	501.1	501.3	501.4	501.3	501.4	501.3	501.4
13.5°	500.6	500.5	500.5	500.5	500.2	500.5	500.5	500.5	500.6	500.5	500.5
14°	499.8	499.8	499.7	499.7	499.4	499.7	499.7	499.8	499.8	499.8	499.7
14.5°	498.9	498.9	498.8	498.8	498.5	498.8	498.8	498.9	498.9	498.9	498.8
15°	498.2	498.1	498.0	498.0	497.7	498.0	498.0	498.1	498.2	498.1	498.0
15.5°	497.5	497.4	497.3	497.2	497.0	497.2	497.3	497.4	497.5	497.4	497.3
16°	497.0	496.9	496.8	496.6	496.4	496.6	496.8	496.9	497.0	496.9	496.8
16.5°	496.6	496.5	496.4	496.0	495.9	496.0	496.4	496.5	496.6	496.5	496.4
17°	496.3	496.3	496.2	495.8	495.6	495.8	496.2	496.3	496.3	496.3	496.2
17.5°	496.2	496.2	495.9	495.7	495.6	495.7	495.9	496.2	496.2	496.2	495.9
18°	496.2	496.2	495.9	495.8	495.6	495.8	495.9	496.2	496.2	496.2	495.9
18.5°	496.2	496.2	496.0	495.8	495.6	495.8	496.0	496.2	496.2	496.2	496.0
19°	496.3	496.3	496.2	496.0	495.8	496.0	496.2	496.3	496.3	496.3	496.2
19.5°	496.4	496.4	496.3	496.2	495.9	496.2	496.3	496.4	496.4	496.4	496.3
20°	496.5	496.5	496.4	496.3	496.2	496.3	496.4	496.5	496.5	496.5	496.4
20.5°	496.6	496.5	496.5	496.5	496.3	496.5	496.5	496.5	496.6	496.5	496.5
21°	496.6	496.6	496.6	496.6	496.5	496.6	496.6	496.6	496.6	496.6	496.6



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	496.8	496.7	496.7	496.8	496.8	496.8	496.7	496.7	496.8	496.7	496.7
23°	496.8	496.7	496.7	496.9	496.8	496.9	496.7	496.7	496.8	496.7	496.7
23.5°	496.8	496.7	496.6	496.8	496.8	496.8	496.6	496.7	496.8	496.7	496.6
24°	496.7	496.6	496.5	496.8	496.8	496.8	496.5	496.6	496.7	496.6	496.5
24.5°	496.7	496.5	496.5	496.8	496.8	496.8	496.5	496.5	496.7	496.5	496.5
25°	496.6	496.4	496.4	496.7	496.7	496.7	496.4	496.4	496.6	496.4	496.4
25.5°	496.5	496.3	496.3	496.7	496.7	496.7	496.3	496.3	496.5	496.3	496.3
26°	496.3	496.2	496.0	496.6	496.6	496.6	496.0	496.2	496.3	496.2	496.0
26.5°	496.2	496.0	495.9	496.5	496.5	496.5	495.9	496.0	496.2	496.0	495.9
27°	496.2	495.9	495.8	496.4	496.5	496.4	495.8	495.9	496.2	495.9	495.8
27.5°	496.2	496.0	495.8	496.4	496.5	496.4	495.8	496.0	496.2	496.0	495.8
28°	496.3	496.0	495.9	496.5	496.6	496.5	495.9	496.0	496.3	496.0	495.9
28.5°	496.4	496.2	495.9	496.6	496.7	496.6	495.9	496.2	496.4	496.2	495.9
29°	496.4	496.2	495.9	496.7	496.7	496.7	495.9	496.2	496.4	496.2	495.9
29.5°	496.3	496.0	495.9	496.6	496.6	496.6	495.9	496.0	496.3	496.0	495.9
30°	495.9	495.8	495.7	496.4	496.4	496.4	495.7	495.8	495.9	495.8	495.7
30.5°	495.5	495.4	495.4	496.0	495.9	496.0	495.4	495.4	495.5	495.4	495.4
31°	494.9	494.8	494.8	495.4	495.3	495.4	494.8	494.8	494.9	494.8	494.8
31.5°	494.1	494.1	494.2	494.7	494.5	494.7	494.2	494.1	494.1	494.1	494.2
32°	492.9	493.0	493.1	493.7	493.5	493.7	493.1	493.0	492.9	493.0	493.1
32.5°	491.7	491.8	492.0	492.4	492.2	492.4	492.0	491.8	491.7	491.8	492.0
33°	490.2	490.3	490.7	491.0	490.7	491.0	490.7	490.3	490.2	490.3	490.7
33.5°	488.6	488.7	489.1	489.3	489.0	489.3	489.1	488.7	488.6	488.7	489.1
34°	486.6	486.9	487.3	487.4	487.0	487.4	487.3	486.9	486.6	486.9	487.3
34.5°	484.5	484.9	485.4	485.4	485.0	485.4	485.4	484.9	484.5	484.9	485.4
35°	482.3	482.6	483.2	483.1	482.6	483.1	483.2	482.6	482.3	482.6	483.2
35.5°	479.9	480.3	480.8	480.7	480.2	480.7	480.8	480.3	479.9	480.3	480.8
36°	477.3	477.7	478.3	478.1	477.5	478.1	478.3	477.7	477.3	477.7	478.3
36.5°	474.5	475.0	475.6	475.3	474.7	475.3	475.6	475.0	474.5	475.0	475.6
37°	471.5	472.0	472.6	472.3	471.6	472.3	472.6	472.0	471.5	472.0	472.6
37.5°	468.3	468.9	469.3	469.0	468.3	469.0	469.3	468.9	468.3	468.9	469.3
38°	464.8	465.4	465.9	465.5	464.8	465.5	465.9	465.4	464.8	465.4	465.9
38.5°	460.9	461.7	462.2	461.7	460.8	461.7	462.2	461.7	460.9	461.7	462.2
39°	456.9	457.7	458.0	457.5	456.7	457.5	458.0	457.7	456.9	457.7	458.0
39.5°	452.6	453.4	453.6	452.9	452.1	452.9	453.6	453.4	452.6	453.4	453.6
40°	448.0	448.6	448.8	448.2	447.5	448.2	448.8	448.6	448.0	448.6	448.8
40.5°	443.1	443.6	443.7	443.1	442.3	443.1	443.7	443.6	443.1	443.6	443.7
41°	437.9	438.3	438.2	437.6	437.0	437.6	438.2	438.3	437.9	438.3	438.2
41.5°	432.4	432.7	432.5	431.9	431.4	431.9	432.5	432.7	432.4	432.7	432.5
42°	426.7	426.8	426.4	425.9	425.6	425.9	426.4	426.8	426.7	426.8	426.4
42.5°	420.8	420.7	420.1	419.7	419.4	419.7	420.1	420.7	420.8	420.7	420.1
43°	414.5	414.2	413.5	413.2	413.0	413.2	413.5	414.2	414.5	414.2	413.5
43.5°	407.9	407.5	406.4	406.3	406.2	406.3	406.4	407.5	407.9	407.5	406.4



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	386.3	385.4	384.0	384.0	384.3	384.0	384.0	385.4	386.3	385.4	384.0
45.5°	378.5	377.4	375.8	376.0	376.3	376.0	375.8	377.4	378.5	377.4	375.8
46°	370.2	369.1	367.5	367.7	368.2	367.7	367.5	369.1	370.2	369.1	367.5
46.5°	361.5	360.5	358.9	359.1	359.6	359.1	358.9	360.5	361.5	360.5	358.9
47°	352.4	351.4	349.9	350.1	350.5	350.1	349.9	351.4	352.4	351.4	349.9
47.5°	342.2	341.3	339.7	340.0	340.4	340.0	339.7	341.3	342.2	341.3	339.7
48°	331.3	330.5	329.2	329.8	330.2	329.8	329.2	330.5	331.3	330.5	329.2
48.5°	321.2	320.8	319.6	320.0	320.5	320.0	319.6	320.8	321.2	320.8	319.6
49°	311.6	311.4	310.8	311.1	311.4	311.1	310.8	311.4	311.6	311.4	310.8
49.5°	302.2	302.1	301.8	302.0	302.2	302.0	301.8	302.1	302.2	302.1	301.8
50°	292.7	292.6	292.6	292.9	293.2	292.9	292.6	292.6	292.7	292.6	292.6
50.5°	283.8	283.9	283.8	284.0	284.2	284.0	283.8	283.9	283.8	283.9	283.8
51°	275.7	275.7	275.6	275.8	275.6	275.8	275.6	275.7	275.7	275.7	275.6
51.5°	268.0	267.9	267.8	268.0	268.1	268.0	267.8	267.9	268.0	267.9	267.8
52°	260.7	260.7	260.7	261.0	261.3	261.0	260.7	260.7	260.7	260.7	260.7
52.5°	253.9	254.0	253.9	254.3	254.7	254.3	253.9	254.0	253.9	254.0	253.9
53°	247.9	247.8	247.8	248.3	248.5	248.3	247.8	247.8	247.9	247.8	247.8
53.5°	242.2	242.2	242.2	242.6	242.8	242.6	242.2	242.2	242.2	242.2	242.2
54°	236.7	236.6	236.6	237.0	237.0	237.0	236.6	236.6	236.7	236.6	236.6
54.5°	230.8	230.8	230.8	231.1	231.2	231.1	230.8	230.8	230.8	230.8	230.8
55°	224.3	224.3	224.3	224.8	224.8	224.8	224.3	224.3	224.3	224.3	224.3
55.5°	216.7	216.7	216.8	217.6	217.4	217.6	216.8	216.7	216.7	216.7	216.8
56°	208.1	208.3	208.7	209.3	209.2	209.3	208.7	208.3	208.1	208.3	208.7
56.5°	199.2	199.3	199.7	200.4	200.4	200.4	199.7	199.3	199.2	199.3	199.7
57°	189.8	189.9	190.4	191.0	190.8	191.0	190.4	189.9	189.8	189.9	190.4
57.5°	180.0	180.2	180.6	181.4	181.4	181.4	180.6	180.2	180.0	180.2	180.6
58°	170.1	170.1	170.7	171.7	171.9	171.7	170.7	170.1	170.1	170.1	170.7
58.5°	159.8	160.1	160.6	161.7	162.1	161.7	160.6	160.1	159.8	160.1	160.6
59°	149.4	149.8	150.4	151.6	152.1	151.6	150.4	149.8	149.4	149.8	150.4
59.5°	138.9	139.4	140.2	141.6	142.2	141.6	140.2	139.4	138.9	139.4	140.2
60°	128.7	129.3	130.2	131.6	132.2	131.6	130.2	129.3	128.7	129.3	130.2
60.5°	118.4	119.1	120.4	121.8	122.5	121.8	120.4	119.1	118.4	119.1	120.4
61°	108.4	109.3	110.8	112.1	112.6	112.1	110.8	109.3	108.4	109.3	110.8
61.5°	98.8	99.7	101.4	102.7	103.1	102.7	101.4	99.7	98.8	99.7	101.4
62°	89.3	90.3	92.1	93.2	93.8	93.2	92.1	90.3	89.3	90.3	92.1
62.5°	80.0	81.1	83.1	84.1	85.0	84.1	83.1	81.1	80.0	81.1	83.1
63°	70.8	72.1	74.3	75.3	76.1	75.3	74.3	72.1	70.8	72.1	74.3
63.5°	62.2	63.3	65.7	66.8	67.7	66.8	65.7	63.3	62.2	63.3	65.7
64°	54.0	55.2	57.4	58.6	59.3	58.6	57.4	55.2	54.0	55.2	57.4
64.5°	46.1	47.4	49.5	50.7	51.2	50.7	49.5	47.4	46.1	47.4	49.5
65°	38.6	40.1	42.4	43.6	44.2	43.6	42.4	40.1	38.6	40.1	42.4
65.5°	32.0	33.6	35.4	36.8	37.6	36.8	35.4	33.6	32.0	33.6	35.4
66°	25.6	27.7	29.0	30.4	31.2	30.4	29.0	27.7	25.6	27.7	29.0



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	10.3	13.3	14.4	14.9	15.1	14.9	14.4	13.3	10.3	13.3	14.4
68°	6.2	9.5	10.6	11.2	11.7	11.2	10.6	9.5	6.2	9.5	10.6
68.5°	2.7	6.3	6.9	7.6	8.6	7.6	6.9	6.3	2.7	6.3	6.9
69°	1.7	3.8	4.7	5.0	6.2	5.0	4.7	3.8	1.7	3.8	4.7
69.5°	1.1	2.3	3.1	2.9	3.9	2.9	3.1	2.3	1.1	2.3	3.1
70°	0.9	1.3	1.7	1.6	1.8	1.6	1.7	1.3	0.9	1.3	1.7
70.5°	0.6	0.8	1.0	1.0	0.8	1.0	1.0	0.8	0.6	0.8	1.0
71°	0.5	0.6	0.8	0.8	0.7	0.8	0.8	0.6	0.5	0.6	0.8
71.5°	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6
72°	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
72.5°	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.4	0.5	0.5
73°	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5
73.5°	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
74°	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.4	0.4
74.5°	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
75°	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
75.5°	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
76°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
76.5°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
77°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
77.5°	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
78°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
78.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
79°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
79.5°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
80°	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
80.5°	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
81°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
81.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
83°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
83.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
84.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775817
CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	513.0	513.0	513.0	513.0	513.0	513.0
0.5°	513.2	512.9	513.2	513.1	512.9	512.9
1°	513.1	512.9	513.1	513.0	512.9	512.8
1.5°	513.0	512.8	513.0	512.9	512.8	512.7
2°	512.9	512.7	512.9	512.8	512.6	512.6
2.5°	512.7	512.5	512.7	512.6	512.5	512.4
3°	512.6	512.3	512.6	512.5	512.3	512.3
3.5°	512.3	512.1	512.3	512.3	512.1	512.1
4°	512.1	511.8	512.1	512.0	511.9	511.8
4.5°	511.8	511.6	511.8	511.7	511.6	511.5
5°	511.5	511.3	511.5	511.4	511.3	511.2
5.5°	511.2	511.0	511.2	511.1	511.0	510.9
6°	510.8	510.6	510.8	510.7	510.6	510.4
6.5°	510.3	510.0	510.3	510.2	510.1	510.0
7°	509.8	509.5	509.8	509.7	509.6	509.6
7.5°	509.2	509.0	509.2	509.2	509.1	509.1
8°	508.7	508.5	508.7	508.6	508.6	508.5
8.5°	508.1	507.9	508.1	508.1	508.0	507.9
9°	507.4	507.2	507.4	507.4	507.3	507.3
9.5°	506.8	506.6	506.8	506.7	506.7	506.6
10°	506.1	505.9	506.1	506.1	506.0	506.0
10.5°	505.4	505.2	505.4	505.4	505.3	505.3
11°	504.6	504.3	504.6	504.6	504.5	504.5
11.5°	503.8	503.6	503.8	503.8	503.7	503.7
12°	503.0	502.8	503.0	503.0	503.0	503.0
12.5°	502.2	502.0	502.2	502.2	502.2	502.2
13°	501.3	501.1	501.3	501.4	501.3	501.4
13.5°	500.5	500.2	500.5	500.5	500.5	500.6
14°	499.7	499.4	499.7	499.7	499.8	499.8
14.5°	498.8	498.5	498.8	498.8	498.9	498.9
15°	498.0	497.7	498.0	498.0	498.1	498.2
15.5°	497.2	497.0	497.2	497.3	497.4	497.5
16°	496.6	496.4	496.6	496.8	496.9	497.0
16.5°	496.0	495.9	496.0	496.4	496.5	496.6
17°	495.8	495.6	495.8	496.2	496.3	496.3
17.5°	495.7	495.6	495.7	495.9	496.2	496.2
18°	495.8	495.6	495.8	495.9	496.2	496.2
18.5°	495.8	495.6	495.8	496.0	496.2	496.2
19°	496.0	495.8	496.0	496.2	496.3	496.3
19.5°	496.2	495.9	496.2	496.3	496.4	496.4
20°	496.3	496.2	496.3	496.4	496.5	496.5
20.5°	496.5	496.3	496.5	496.5	496.5	496.6
21°	496.6	496.5	496.6	496.6	496.6	496.6



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	496.8	496.8	496.8	496.7	496.7	496.8
23°	496.9	496.8	496.9	496.7	496.7	496.8
23.5°	496.8	496.8	496.8	496.6	496.7	496.8
24°	496.8	496.8	496.8	496.5	496.6	496.7
24.5°	496.8	496.8	496.8	496.5	496.5	496.7
25°	496.7	496.7	496.7	496.4	496.4	496.6
25.5°	496.7	496.7	496.7	496.3	496.3	496.5
26°	496.6	496.6	496.6	496.0	496.2	496.3
26.5°	496.5	496.5	496.5	495.9	496.0	496.2
27°	496.4	496.5	496.4	495.8	495.9	496.2
27.5°	496.4	496.5	496.4	495.8	496.0	496.2
28°	496.5	496.6	496.5	495.9	496.0	496.3
28.5°	496.6	496.7	496.6	495.9	496.2	496.4
29°	496.7	496.7	496.7	495.9	496.2	496.4
29.5°	496.6	496.6	496.6	495.9	496.0	496.3
30°	496.4	496.4	496.4	495.7	495.8	495.9
30.5°	496.0	495.9	496.0	495.4	495.4	495.5
31°	495.4	495.3	495.4	494.8	494.8	494.9
31.5°	494.7	494.5	494.7	494.2	494.1	494.1
32°	493.7	493.5	493.7	493.1	493.0	492.9
32.5°	492.4	492.2	492.4	492.0	491.8	491.7
33°	491.0	490.7	491.0	490.7	490.3	490.2
33.5°	489.3	489.0	489.3	489.1	488.7	488.6
34°	487.4	487.0	487.4	487.3	486.9	486.6
34.5°	485.4	485.0	485.4	485.4	484.9	484.5
35°	483.1	482.6	483.1	483.2	482.6	482.3
35.5°	480.7	480.2	480.7	480.8	480.3	479.9
36°	478.1	477.5	478.1	478.3	477.7	477.3
36.5°	475.3	474.7	475.3	475.6	475.0	474.5
37°	472.3	471.6	472.3	472.6	472.0	471.5
37.5°	469.0	468.3	469.0	469.3	468.9	468.3
38°	465.5	464.8	465.5	465.9	465.4	464.8
38.5°	461.7	460.8	461.7	462.2	461.7	460.9
39°	457.5	456.7	457.5	458.0	457.7	456.9
39.5°	452.9	452.1	452.9	453.6	453.4	452.6
40°	448.2	447.5	448.2	448.8	448.6	448.0
40.5°	443.1	442.3	443.1	443.7	443.6	443.1
41°	437.6	437.0	437.6	438.2	438.3	437.9
41.5°	431.9	431.4	431.9	432.5	432.7	432.4
42°	425.9	425.6	425.9	426.4	426.8	426.7
42.5°	419.7	419.4	419.7	420.1	420.7	420.8
43°	413.2	413.0	413.2	413.5	414.2	414.5
43.5°	406.3	406.2	406.3	406.4	407.5	407.9



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	384.0	384.3	384.0	384.0	385.4	386.3
45.5°	376.0	376.3	376.0	375.8	377.4	378.5
46°	367.7	368.2	367.7	367.5	369.1	370.2
46.5°	359.1	359.6	359.1	358.9	360.5	361.5
47°	350.1	350.5	350.1	349.9	351.4	352.4
47.5°	340.0	340.4	340.0	339.7	341.3	342.2
48°	329.8	330.2	329.8	329.2	330.5	331.3
48.5°	320.0	320.5	320.0	319.6	320.8	321.2
49°	311.1	311.4	311.1	310.8	311.4	311.6
49.5°	302.0	302.2	302.0	301.8	302.1	302.2
50°	292.9	293.2	292.9	292.6	292.6	292.7
50.5°	284.0	284.2	284.0	283.8	283.9	283.8
51°	275.8	275.6	275.8	275.6	275.7	275.7
51.5°	268.0	268.1	268.0	267.8	267.9	268.0
52°	261.0	261.3	261.0	260.7	260.7	260.7
52.5°	254.3	254.7	254.3	253.9	254.0	253.9
53°	248.3	248.5	248.3	247.8	247.8	247.9
53.5°	242.6	242.8	242.6	242.2	242.2	242.2
54°	237.0	237.0	237.0	236.6	236.6	236.7
54.5°	231.1	231.2	231.1	230.8	230.8	230.8
55°	224.8	224.8	224.8	224.3	224.3	224.3
55.5°	217.6	217.4	217.6	216.8	216.7	216.7
56°	209.3	209.2	209.3	208.7	208.3	208.1
56.5°	200.4	200.4	200.4	199.7	199.3	199.2
57°	191.0	190.8	191.0	190.4	189.9	189.8
57.5°	181.4	181.4	181.4	180.6	180.2	180.0
58°	171.7	171.9	171.7	170.7	170.1	170.1
58.5°	161.7	162.1	161.7	160.6	160.1	159.8
59°	151.6	152.1	151.6	150.4	149.8	149.4
59.5°	141.6	142.2	141.6	140.2	139.4	138.9
60°	131.6	132.2	131.6	130.2	129.3	128.7
60.5°	121.8	122.5	121.8	120.4	119.1	118.4
61°	112.1	112.6	112.1	110.8	109.3	108.4
61.5°	102.7	103.1	102.7	101.4	99.7	98.8
62°	93.2	93.8	93.2	92.1	90.3	89.3
62.5°	84.1	85.0	84.1	83.1	81.1	80.0
63°	75.3	76.1	75.3	74.3	72.1	70.8
63.5°	66.8	67.7	66.8	65.7	63.3	62.2
64°	58.6	59.3	58.6	57.4	55.2	54.0
64.5°	50.7	51.2	50.7	49.5	47.4	46.1
65°	43.6	44.2	43.6	42.4	40.1	38.6
65.5°	36.8	37.6	36.8	35.4	33.6	32.0
66°	30.4	31.2	30.4	29.0	27.7	25.6



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	14.9	15.1	14.9	14.4	13.3	10.3
68°	11.2	11.7	11.2	10.6	9.5	6.2
68.5°	7.6	8.6	7.6	6.9	6.3	2.7
69°	5.0	6.2	5.0	4.7	3.8	1.7
69.5°	2.9	3.9	2.9	3.1	2.3	1.1
70°	1.6	1.8	1.6	1.7	1.3	0.9
70.5°	1.0	0.8	1.0	1.0	0.8	0.6
71°	0.8	0.7	0.8	0.8	0.6	0.5
71.5°	0.6	0.6	0.6	0.6	0.5	0.5
72°	0.6	0.6	0.6	0.5	0.5	0.5
72.5°	0.5	0.6	0.5	0.5	0.5	0.4
73°	0.5	0.5	0.5	0.5	0.4	0.4
73.5°	0.5	0.5	0.5	0.4	0.4	0.4
74°	0.4	0.5	0.4	0.4	0.4	0.3
74.5°	0.4	0.4	0.4	0.4	0.3	0.3
75°	0.4	0.4	0.4	0.3	0.3	0.3
75.5°	0.4	0.4	0.4	0.3	0.3	0.3
76°	0.3	0.3	0.3	0.3	0.3	0.3
76.5°	0.3	0.3	0.3	0.3	0.2	0.2
77°	0.3	0.3	0.3	0.3	0.2	0.2
77.5°	0.3	0.3	0.3	0.2	0.2	0.2
78°	0.2	0.2	0.2	0.2	0.2	0.2
78.5°	0.2	0.2	0.2	0.2	0.2	0.2
79°	0.2	0.2	0.2	0.2	0.2	0.2
79.5°	0.2	0.2	0.2	0.2	0.1	0.1
80°	0.2	0.2	0.2	0.1	0.1	0.1
80.5°	0.2	0.2	0.2	0.1	0.1	0.1
81°	0.1	0.1	0.1	0.1	0.1	0.1
81.5°	0.1	0.1	0.1	0.1	0.1	0.1
82°	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1
83°	0.1	0.1	0.1	0.1	0.1	0.1
83.5°	0.1	0.1	0.1	0.1	0.1	0.1
84°	0.1	0.1	0.1	0.1	0.0	0.0
84.5°	0.1	0.1	0.1	0.0	0.0	0.0
85°	0.1	0.1	0.1	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775817

CATALOG NUMBER: HCDJBL510CSD-HCD81TRC-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

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





21.5°	496.7	496.7	496.6	496.7	496.6	496.7	496.6	496.7	496.7	496.7	496.6
22°	496.8	496.7	496.7	496.7	496.7	496.7	496.7	496.7	496.8	496.7	496.7



44°	400.9	400.4	399.2	399.1	399.2	399.1	399.2	400.4	400.9	400.4	399.2
44.5°	393.8	393.2	391.7	391.7	391.8	391.7	391.7	393.2	393.8	393.2	391.7



66.5°	20.5	22.2	23.6	24.7	25.0	24.7	23.6	22.2	20.5	22.2	23.6
67°	15.3	17.3	18.4	19.5	19.7	19.5	18.4	17.3	15.3	17.3	18.4



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report





21.5°	496.7	496.6	496.7	496.6	496.7	496.7
22°	496.7	496.7	496.7	496.7	496.7	496.8



44°	399.1	399.2	399.1	399.2	400.4	400.9
44.5°	391.7	391.8	391.7	391.7	393.2	393.8



66.5°	24.7	25.0	24.7	23.6	22.2	20.5
67°	19.5	19.7	19.5	18.4	17.3	15.3

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

Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report



(END OF REPORT)