

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: P775862

Luminaire Tested: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775862  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B064-HCD82TRMW)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL510CSD-HCD82TRMW-1000lm-3500K  
Description: 8 INCH ROUND NARROW MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

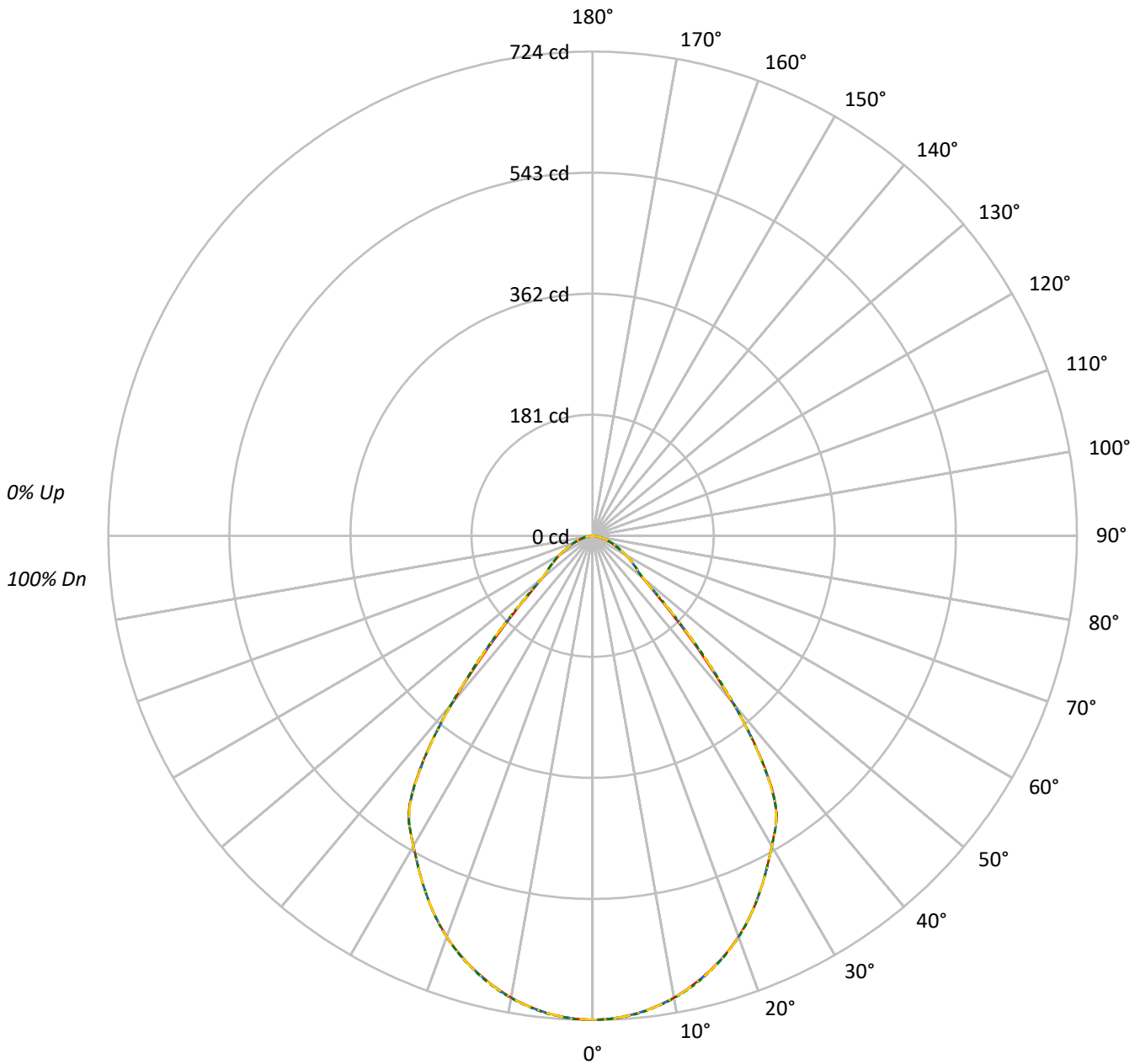
Lumens per Lamp: N/A  
Luminaire Lumens: 1091.1 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.12  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P775862  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**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	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	100	100	100	100		
	1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90	90	90	90	90	90		
	2	105	99	93	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81	81	81	81	81	81		
	3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72	72	72	72	72	72		
	4	91	82	75	70	89	81	74	70	79	73	69	76	72	68	74	70	67	65	65	65	65	65	65		
	5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59	59	59	59	59	59		
	6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54	54	54	54	54	54		
	7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49	49	49	49	49	49		
	8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45	45	45	45	45	45		
	9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42	42	42	42	42	42		
	10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38	38	38	38	38	38		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	22092	22092	22092	22092
5°	22001	22020	22001	22020
10°	21735	21766	21735	21766
15°	21306	21341	21306	21341
20°	20725	20745	20725	20745
25°	19865	19868	19865	19868
30°	18892	18892	18892	18892
35°	17551	17513	17551	17513
40°	12973	13124	12973	13124
45°	7625	7996	7625	7996
50°	4669	4726	4669	4726
55°	3997	4003	3997	4003
60°	3413	3444	3413	3444
65°	2897	2962	2897	2962
70°	2464	2571	2464	2571
75°	2053	2218	2053	2218
80°	1635	1864	1635	1864
85°	1016	1401	1016	1401

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 8061 cd/sqm



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.0	6.2
10°-20°	189.8	17.4
20°-30°	271.1	24.8
30°-40°	283.0	25.9
40°-50°	147.0	13.5
50°-60°	67.4	6.2
60°-70°	40.9	3.7
70°-80°	19.6	1.8
80°-90°	4.4	0.4
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°	528.9	48.5
0°-40°	811.9	74.4
0°-60°	1026.3	94.1
0°-90°	1091.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	724	724	724	724	724	
5°	718	718	718	718	718	68
15°	674	675	674	675	674	190
25°	590	590	590	590	590	271
35°	471	470	471	470	471	283
45°	177	185	177	185	177	144
55°	75	75	75	75	75	67
65°	40	41	40	41	40	40
75°	17	19	17	19	17	19
85°	3	4	3	4	3	4
90°	0	0	0	0	0	



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
0.5°	723.5	723.3	723.5	723.5	723.9	723.5	723.5	723.3	723.5	723.3	723.5
1°	723.4	723.2	723.4	723.4	723.7	723.4	723.4	723.2	723.4	723.2	723.4
1.5°	723.1	722.8	723.1	723.1	723.5	723.1	723.1	722.8	723.1	722.8	723.1
2°	722.6	722.4	722.6	722.6	723.1	722.6	722.6	722.4	722.6	722.4	722.6
2.5°	722.1	721.9	722.1	722.2	722.5	722.2	722.1	721.9	722.1	721.9	722.1
3°	721.5	721.3	721.5	721.6	722.0	721.6	721.5	721.3	721.5	721.3	721.5
3.5°	720.8	720.6	720.8	720.9	721.3	720.9	720.8	720.6	720.8	720.6	720.8
4°	719.8	719.7	719.9	720.0	720.5	720.0	719.9	719.7	719.8	719.7	719.9
4.5°	718.9	718.8	719.0	719.1	719.5	719.1	719.0	718.8	718.9	718.8	719.0
5°	717.9	717.7	717.9	718.1	718.5	718.1	717.9	717.7	717.9	717.7	717.9
5.5°	716.6	716.5	716.7	716.9	717.4	716.9	716.7	716.5	716.6	716.5	716.7
6°	715.4	715.2	715.5	715.7	716.0	715.7	715.5	715.2	715.4	715.2	715.5
6.5°	713.9	713.8	714.1	714.3	714.7	714.3	714.1	713.8	713.9	713.8	714.1
7°	712.5	712.3	712.6	712.8	713.2	712.8	712.6	712.3	712.5	712.3	712.6
7.5°	710.8	710.6	711.0	711.2	711.7	711.2	711.0	710.6	710.8	710.6	711.0
8°	709.1	709.0	709.3	709.5	710.0	709.5	709.3	709.0	709.1	709.0	709.3
8.5°	707.2	707.1	707.5	707.7	708.1	707.7	707.5	707.1	707.2	707.1	707.5
9°	705.3	705.2	705.5	705.8	706.3	705.8	705.5	705.2	705.3	705.2	705.5
9.5°	703.2	703.2	703.5	703.8	704.2	703.8	703.5	703.2	703.2	703.2	703.5
10°	701.1	701.0	701.4	701.7	702.1	701.7	701.4	701.0	701.1	701.0	701.4
10.5°	698.8	698.7	699.1	699.4	699.9	699.4	699.1	698.7	698.8	698.7	699.1
11°	696.4	696.4	696.7	697.1	697.6	697.1	696.7	696.4	696.4	696.4	696.7
11.5°	694.0	693.9	694.3	694.7	695.1	694.7	694.3	693.9	694.0	693.9	694.3
12°	691.4	691.4	691.8	692.2	692.6	692.2	691.8	691.4	691.4	691.4	691.8
12.5°	688.7	688.7	689.2	689.6	689.9	689.6	689.2	688.7	688.7	688.7	689.2
13°	686.0	686.0	686.5	686.8	687.2	686.8	686.5	686.0	686.0	686.0	686.5
13.5°	683.1	683.1	683.6	684.1	684.3	684.1	683.6	683.1	683.1	683.1	683.6
14°	680.3	680.2	680.7	681.1	681.4	681.1	680.7	680.2	680.3	680.2	680.7
14.5°	677.2	677.2	677.7	678.1	678.4	678.1	677.7	677.2	677.2	677.2	677.7
15°	674.1	674.2	674.6	675.0	675.2	675.0	674.6	674.2	674.1	674.2	674.6
15.5°	670.9	671.0	671.4	671.7	672.0	671.7	671.4	671.0	670.9	671.0	671.4
16°	667.7	667.7	668.1	668.4	668.6	668.4	668.1	667.7	667.7	667.7	668.1
16.5°	664.4	664.4	664.8	665.0	665.3	665.0	664.8	664.4	664.4	664.4	664.8
17°	660.9	660.9	661.3	661.6	661.8	661.6	661.3	660.9	660.9	660.9	661.3
17.5°	657.2	657.3	657.8	658.0	658.2	658.0	657.8	657.3	657.2	657.3	657.8
18°	653.6	653.6	654.0	654.2	654.4	654.2	654.0	653.6	653.6	653.6	654.0
18.5°	649.9	649.9	650.3	650.4	650.6	650.4	650.3	649.9	649.9	649.9	650.3
19°	645.9	645.9	646.4	646.6	646.7	646.6	646.4	645.9	645.9	645.9	646.4
19.5°	641.9	642.0	642.3	642.5	642.6	642.5	642.3	642.0	641.9	642.0	642.3
20°	637.9	637.9	638.2	638.3	638.5	638.3	638.2	637.9	637.9	637.9	638.2
20.5°	633.6	633.6	633.9	633.9	634.1	633.9	633.9	633.6	633.6	633.6	633.9
21°	629.3	629.3	629.6	629.6	629.7	629.6	629.6	629.3	629.3	629.3	629.6



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	615.3	615.3	615.5	615.4	615.6	615.4	615.5	615.3	615.3	615.3	615.5
23°	610.4	610.4	610.5	610.5	610.6	610.5	610.5	610.4	610.4	610.4	610.5
23.5°	605.4	605.4	605.5	605.4	605.5	605.4	605.5	605.4	605.4	605.4	605.5
24°	600.3	600.2	600.3	600.2	600.3	600.2	600.3	600.2	600.3	600.2	600.3
24.5°	594.9	594.9	595.2	595.0	595.0	595.0	595.2	594.9	594.9	594.9	595.2
25°	589.7	589.7	589.8	589.8	589.8	589.8	589.8	589.7	589.7	589.7	589.8
25.5°	584.4	584.3	584.5	584.4	584.4	584.4	584.5	584.3	584.4	584.3	584.5
26°	579.0	578.9	579.0	579.1	579.0	579.1	579.0	578.9	579.0	578.9	579.0
26.5°	573.5	573.6	573.6	573.6	573.6	573.6	573.6	573.6	573.5	573.6	573.6
27°	568.1	568.1	568.2	568.2	568.1	568.2	568.2	568.1	568.1	568.1	568.2
27.5°	562.6	562.6	562.8	562.8	562.6	562.8	562.8	562.6	562.6	562.6	562.8
28°	557.2	557.2	557.4	557.3	557.3	557.3	557.4	557.2	557.2	557.2	557.4
28.5°	551.8	551.8	552.0	551.9	551.8	551.9	552.0	551.8	551.8	551.8	552.0
29°	546.3	546.5	546.6	546.5	546.5	546.5	546.6	546.5	546.3	546.5	546.6
29.5°	541.0	541.1	541.4	541.4	541.1	541.4	541.4	541.1	541.0	541.1	541.4
30°	535.9	536.0	536.1	536.1	535.9	536.1	536.1	536.0	535.9	536.0	536.1
30.5°	530.7	530.9	531.0	530.9	530.6	530.9	531.0	530.9	530.7	530.9	531.0
31°	525.6	525.7	525.9	525.8	525.7	525.8	525.9	525.7	525.6	525.7	525.9
31.5°	520.7	520.7	520.8	520.7	520.5	520.7	520.8	520.7	520.7	520.7	520.8
32°	515.7	515.7	515.7	515.5	515.5	515.5	515.7	515.7	515.7	515.7	515.7
32.5°	510.6	510.2	510.1	510.0	510.5	510.0	510.1	510.2	510.6	510.2	510.1
33°	505.0	503.9	503.7	503.4	505.2	503.4	503.7	503.9	505.0	503.9	503.7
33.5°	498.1	496.6	496.7	496.1	498.3	496.1	496.7	496.6	498.1	496.6	496.7
34°	489.9	488.2	488.8	487.6	490.3	487.6	488.8	488.2	489.9	488.2	488.8
34.5°	481.1	478.6	479.7	478.4	480.9	478.4	479.7	478.6	481.1	478.6	479.7
35°	470.9	468.6	469.1	468.3	469.9	468.3	469.1	468.6	470.9	468.6	469.1
35.5°	459.4	458.1	457.5	456.8	457.9	456.8	457.5	458.1	459.4	458.1	457.5
36°	446.7	446.9	445.1	444.2	446.0	444.2	445.1	446.9	446.7	446.9	445.1
36.5°	433.5	434.4	431.9	431.0	432.8	431.0	431.9	434.4	433.5	434.4	431.9
37°	419.8	420.6	418.3	417.1	419.4	417.1	418.3	420.6	419.8	420.6	418.3
37.5°	405.6	405.6	404.0	402.9	405.0	402.9	404.0	405.6	405.6	405.6	404.0
38°	390.8	389.7	389.4	388.5	390.4	388.5	389.4	389.7	390.8	389.7	389.4
38.5°	375.3	373.4	374.3	373.5	375.5	373.5	374.3	373.4	375.3	373.4	374.3
39°	359.1	357.4	358.6	358.5	360.6	358.5	358.6	357.4	359.1	357.4	358.6
39.5°	342.7	341.4	342.9	343.3	345.1	343.3	342.9	341.4	342.7	341.4	342.9
40°	325.5	325.8	327.2	328.4	329.3	328.4	327.2	325.8	325.5	325.8	327.2
40.5°	308.3	309.8	311.4	313.3	313.4	313.3	311.4	309.8	308.3	309.8	311.4
41°	291.6	294.2	296.1	298.4	297.7	298.4	296.1	294.2	291.6	294.2	296.1
41.5°	275.1	278.1	280.9	283.6	282.0	283.6	280.9	278.1	275.1	278.1	280.9
42°	259.3	262.4	265.8	268.7	267.0	268.7	265.8	262.4	259.3	262.4	265.8
42.5°	244.1	247.1	250.7	254.1	252.2	254.1	250.7	247.1	244.1	247.1	250.7
43°	229.3	232.3	236.3	239.7	238.1	239.7	236.3	232.3	229.3	232.3	236.3
43.5°	215.2	217.9	222.2	226.0	224.2	226.0	222.2	217.9	215.2	217.9	222.2



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	176.6	178.5	183.3	186.7	185.2	186.7	183.3	178.5	176.6	178.5	183.3
45.5°	165.3	167.0	171.5	174.8	173.6	174.8	171.5	167.0	165.3	167.0	171.5
46°	154.6	156.5	160.4	163.5	162.5	163.5	160.4	156.5	154.6	156.5	160.4
46.5°	144.9	147.0	149.8	152.9	152.2	152.9	149.8	147.0	144.9	147.0	149.8
47°	135.8	138.2	140.1	143.1	142.4	143.1	140.1	138.2	135.8	138.2	140.1
47.5°	127.7	130.2	131.2	134.1	133.3	134.1	131.2	130.2	127.7	130.2	131.2
48°	120.4	122.6	123.2	126.1	125.0	126.1	123.2	122.6	120.4	122.6	123.2
48.5°	113.9	115.7	116.2	118.7	117.3	118.7	116.2	115.7	113.9	115.7	116.2
49°	108.0	109.3	109.9	111.9	110.7	111.9	109.9	109.3	108.0	109.3	109.9
49.5°	102.9	103.9	104.5	106.0	104.6	106.0	104.5	103.9	102.9	103.9	104.5
50°	98.3	99.1	99.8	100.9	99.5	100.9	99.8	99.1	98.3	99.1	99.8
50.5°	94.4	95.0	95.7	96.5	95.1	96.5	95.7	95.0	94.4	95.0	95.7
51°	91.2	91.8	92.1	92.8	91.6	92.8	92.1	91.8	91.2	91.8	92.1
51.5°	88.5	89.0	89.3	89.6	88.8	89.6	89.3	89.0	88.5	89.0	89.3
52°	86.4	86.7	86.9	87.0	86.5	87.0	86.9	86.7	86.4	86.7	86.9
52.5°	84.5	84.6	84.7	84.7	84.7	84.7	84.7	84.6	84.5	84.6	84.7
53°	82.6	82.7	82.7	82.7	82.8	82.7	82.7	82.7	82.6	82.7	82.7
53.5°	80.8	80.8	80.8	80.7	80.9	80.7	80.8	80.8	80.8	80.8	80.8
54°	79.0	79.0	79.0	78.9	79.1	78.9	79.0	79.0	79.0	79.0	79.0
54.5°	77.1	77.1	77.1	77.0	77.2	77.0	77.1	77.1	77.1	77.1	77.1
55°	75.1	75.1	75.1	75.1	75.2	75.1	75.1	75.1	75.1	75.1	75.1
55.5°	73.2	73.2	73.3	73.2	73.3	73.2	73.3	73.2	73.2	73.2	73.3
56°	71.2	71.2	71.3	71.3	71.3	71.3	71.3	71.2	71.2	71.2	71.3
56.5°	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.2	69.3	69.3
57°	67.3	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.3	67.4	67.4
57.5°	65.3	65.4	65.5	65.5	65.5	65.5	65.5	65.4	65.3	65.4	65.5
58°	63.3	63.5	63.5	63.6	63.6	63.6	63.5	63.5	63.3	63.5	63.5
58.5°	61.4	61.7	61.7	61.8	61.8	61.8	61.7	61.7	61.4	61.7	61.7
59°	59.5	59.8	59.9	59.9	59.9	59.9	59.9	59.8	59.5	59.8	59.9
59.5°	57.7	58.0	58.1	58.1	58.1	58.1	58.1	58.0	57.7	58.0	58.1
60°	55.9	56.3	56.4	56.5	56.4	56.5	56.4	56.3	55.9	56.3	56.4
60.5°	54.1	54.5	54.7	54.7	54.7	54.7	54.7	54.5	54.1	54.5	54.7
61°	52.4	52.9	53.1	53.1	53.1	53.1	53.1	52.9	52.4	52.9	53.1
61.5°	50.8	51.2	51.4	51.5	51.5	51.5	51.4	51.2	50.8	51.2	51.4
62°	49.1	49.5	49.9	49.9	49.9	49.9	49.9	49.5	49.1	49.5	49.9
62.5°	47.6	48.0	48.3	48.3	48.3	48.3	48.3	48.0	47.6	48.0	48.3
63°	45.9	46.4	46.8	46.8	46.8	46.8	46.8	46.4	45.9	46.4	46.8
63.5°	44.5	45.0	45.3	45.4	45.4	45.4	45.3	45.0	44.5	45.0	45.3
64°	43.0	43.4	43.8	43.9	43.9	43.9	43.8	43.4	43.0	43.4	43.8
64.5°	41.6	42.0	42.5	42.5	42.5	42.5	42.5	42.0	41.6	42.0	42.5
65°	40.1	40.5	41.0	41.1	41.0	41.1	41.0	40.5	40.1	40.5	41.0
65.5°	38.8	39.2	39.7	39.8	39.8	39.8	39.7	39.2	38.8	39.2	39.7
66°	37.4	37.8	38.3	38.5	38.5	38.5	38.3	37.8	37.4	37.8	38.3





TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	33.5	34.0	34.5	34.7	34.6	34.7	34.5	34.0	33.5	34.0	34.5
68°	32.2	32.8	33.4	33.5	33.5	33.5	33.4	32.8	32.2	32.8	33.4
68.5°	31.1	31.5	32.1	32.2	32.2	32.2	32.1	31.5	31.1	31.5	32.1
69°	29.9	30.4	31.0	31.1	31.1	31.1	31.0	30.4	29.9	30.4	31.0
69.5°	28.7	29.1	29.9	30.0	30.0	30.0	29.9	29.1	28.7	29.1	29.9
70°	27.6	28.0	28.7	28.8	28.8	28.8	28.7	28.0	27.6	28.0	28.7
70.5°	26.4	26.8	27.6	27.7	27.7	27.7	27.6	26.8	26.4	26.8	27.6
71°	25.4	25.8	26.4	26.6	26.6	26.6	26.4	25.8	25.4	25.8	26.4
71.5°	24.3	24.7	25.4	25.6	25.5	25.6	25.4	24.7	24.3	24.7	25.4
72°	23.2	23.6	24.4	24.6	24.5	24.6	24.4	23.6	23.2	23.6	24.4
72.5°	22.2	22.6	23.3	23.5	23.4	23.5	23.3	22.6	22.2	22.6	23.3
73°	21.1	21.6	22.3	22.5	22.5	22.5	22.3	21.6	21.1	21.6	22.3
73.5°	20.2	20.6	21.4	21.6	21.6	21.6	21.4	20.6	20.2	20.6	21.4
74°	19.3	19.7	20.3	20.6	20.5	20.6	20.3	19.7	19.3	19.7	20.3
74.5°	18.3	18.7	19.4	19.7	19.6	19.7	19.4	18.7	18.3	18.7	19.4
75°	17.4	17.7	18.4	18.8	18.8	18.8	18.4	17.7	17.4	17.7	18.4
75.5°	16.5	16.9	17.5	17.8	17.8	17.8	17.5	16.9	16.5	16.9	17.5
76°	15.7	16.0	16.7	17.0	16.9	17.0	16.7	16.0	15.7	16.0	16.7
76.5°	14.7	15.1	15.8	16.1	16.1	16.1	15.8	15.1	14.7	15.1	15.8
77°	13.9	14.3	14.9	15.2	15.2	15.2	14.9	14.3	13.9	14.3	14.9
77.5°	13.2	13.5	14.1	14.4	14.4	14.4	14.1	13.5	13.2	13.5	14.1
78°	12.3	12.6	13.3	13.7	13.6	13.7	13.3	12.6	12.3	12.6	13.3
78.5°	11.5	11.8	12.5	12.9	12.9	12.9	12.5	11.8	11.5	11.8	12.5
79°	10.8	11.1	11.7	12.1	12.0	12.1	11.7	11.1	10.8	11.1	11.7
79.5°	10.1	10.3	11.0	11.3	11.3	11.3	11.0	10.3	10.1	10.3	11.0
80°	9.3	9.5	10.3	10.6	10.6	10.6	10.3	9.5	9.3	9.5	10.3
80.5°	8.6	8.8	9.5	9.8	9.8	9.8	9.5	8.8	8.6	8.8	9.5
81°	7.9	8.1	8.8	9.1	9.1	9.1	8.8	8.1	7.9	8.1	8.8
81.5°	7.3	7.4	8.1	8.5	8.5	8.5	8.1	7.4	7.3	7.4	8.1
82°	6.5	6.7	7.4	7.8	7.8	7.8	7.4	6.7	6.5	6.7	7.4
82.5°	5.9	6.0	6.7	7.2	7.2	7.2	6.7	6.0	5.9	6.0	6.7
83°	5.3	5.4	6.1	6.5	6.4	6.5	6.1	5.4	5.3	5.4	6.1
83.5°	4.7	4.8	5.5	5.8	5.8	5.8	5.5	4.8	4.7	4.8	5.5
84°	4.0	4.1	4.9	5.2	5.2	5.2	4.9	4.1	4.0	4.1	4.9
84.5°	3.4	3.5	4.2	4.7	4.7	4.7	4.2	3.5	3.4	3.5	4.2
85°	2.9	3.0	3.7	4.0	4.0	4.0	3.7	3.0	2.9	3.0	3.7
85.5°	2.4	2.5	3.2	3.4	3.4	3.4	3.2	2.5	2.4	2.5	3.2
86°	1.9	2.1	2.7	2.9	2.9	2.9	2.7	2.1	1.9	2.1	2.7
86.5°	1.5	1.7	2.2	2.4	2.4	2.4	2.2	1.7	1.5	1.7	2.2
87°	1.1	1.2	1.7	1.9	1.9	1.9	1.7	1.2	1.1	1.2	1.7
87.5°	0.8	0.9	1.2	1.5	1.3	1.5	1.2	0.9	0.8	0.9	1.2
88°	0.5	0.6	0.9	1.0	0.8	1.0	0.9	0.6	0.5	0.6	0.9
88.5°	0.3	0.4	0.6	0.7	0.5	0.7	0.6	0.4	0.3	0.4	0.6



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-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	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	723.6	723.6	723.6	723.6	723.6	723.6
0.5°	723.5	723.9	723.5	723.5	723.3	723.5
1°	723.4	723.7	723.4	723.4	723.2	723.4
1.5°	723.1	723.5	723.1	723.1	722.8	723.1
2°	722.6	723.1	722.6	722.6	722.4	722.6
2.5°	722.2	722.5	722.2	722.1	721.9	722.1
3°	721.6	722.0	721.6	721.5	721.3	721.5
3.5°	720.9	721.3	720.9	720.8	720.6	720.8
4°	720.0	720.5	720.0	719.9	719.7	719.8
4.5°	719.1	719.5	719.1	719.0	718.8	718.9
5°	718.1	718.5	718.1	717.9	717.7	717.9
5.5°	716.9	717.4	716.9	716.7	716.5	716.6
6°	715.7	716.0	715.7	715.5	715.2	715.4
6.5°	714.3	714.7	714.3	714.1	713.8	713.9
7°	712.8	713.2	712.8	712.6	712.3	712.5
7.5°	711.2	711.7	711.2	711.0	710.6	710.8
8°	709.5	710.0	709.5	709.3	709.0	709.1
8.5°	707.7	708.1	707.7	707.5	707.1	707.2
9°	705.8	706.3	705.8	705.5	705.2	705.3
9.5°	703.8	704.2	703.8	703.5	703.2	703.2
10°	701.7	702.1	701.7	701.4	701.0	701.1
10.5°	699.4	699.9	699.4	699.1	698.7	698.8
11°	697.1	697.6	697.1	696.7	696.4	696.4
11.5°	694.7	695.1	694.7	694.3	693.9	694.0
12°	692.2	692.6	692.2	691.8	691.4	691.4
12.5°	689.6	689.9	689.6	689.2	688.7	688.7
13°	686.8	687.2	686.8	686.5	686.0	686.0
13.5°	684.1	684.3	684.1	683.6	683.1	683.1
14°	681.1	681.4	681.1	680.7	680.2	680.3
14.5°	678.1	678.4	678.1	677.7	677.2	677.2
15°	675.0	675.2	675.0	674.6	674.2	674.1
15.5°	671.7	672.0	671.7	671.4	671.0	670.9
16°	668.4	668.6	668.4	668.1	667.7	667.7
16.5°	665.0	665.3	665.0	664.8	664.4	664.4
17°	661.6	661.8	661.6	661.3	660.9	660.9
17.5°	658.0	658.2	658.0	657.8	657.3	657.2
18°	654.2	654.4	654.2	654.0	653.6	653.6
18.5°	650.4	650.6	650.4	650.3	649.9	649.9
19°	646.6	646.7	646.6	646.4	645.9	645.9
19.5°	642.5	642.6	642.5	642.3	642.0	641.9
20°	638.3	638.5	638.3	638.2	637.9	637.9
20.5°	633.9	634.1	633.9	633.9	633.6	633.6
21°	629.6	629.7	629.6	629.6	629.3	629.3

TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	615.4	615.6	615.4	615.5	615.3	615.3
23°	610.5	610.6	610.5	610.5	610.4	610.4
23.5°	605.4	605.5	605.4	605.5	605.4	605.4
24°	600.2	600.3	600.2	600.3	600.2	600.3
24.5°	595.0	595.0	595.0	595.2	594.9	594.9
25°	589.8	589.8	589.8	589.8	589.7	589.7
25.5°	584.4	584.4	584.4	584.5	584.3	584.4
26°	579.1	579.0	579.1	579.0	578.9	579.0
26.5°	573.6	573.6	573.6	573.6	573.6	573.5
27°	568.2	568.1	568.2	568.2	568.1	568.1
27.5°	562.8	562.6	562.8	562.8	562.6	562.6
28°	557.3	557.3	557.3	557.4	557.2	557.2
28.5°	551.9	551.8	551.9	552.0	551.8	551.8
29°	546.5	546.5	546.5	546.6	546.5	546.3
29.5°	541.4	541.1	541.4	541.4	541.1	541.0
30°	536.1	535.9	536.1	536.1	536.0	535.9
30.5°	530.9	530.6	530.9	531.0	530.9	530.7
31°	525.8	525.7	525.8	525.9	525.7	525.6
31.5°	520.7	520.5	520.7	520.8	520.7	520.7
32°	515.5	515.5	515.5	515.7	515.7	515.7
32.5°	510.0	510.5	510.0	510.1	510.2	510.6
33°	503.4	505.2	503.4	503.7	503.9	505.0
33.5°	496.1	498.3	496.1	496.7	496.6	498.1
34°	487.6	490.3	487.6	488.8	488.2	489.9
34.5°	478.4	480.9	478.4	479.7	478.6	481.1
35°	468.3	469.9	468.3	469.1	468.6	470.9
35.5°	456.8	457.9	456.8	457.5	458.1	459.4
36°	444.2	446.0	444.2	445.1	446.9	446.7
36.5°	431.0	432.8	431.0	431.9	434.4	433.5
37°	417.1	419.4	417.1	418.3	420.6	419.8
37.5°	402.9	405.0	402.9	404.0	405.6	405.6
38°	388.5	390.4	388.5	389.4	389.7	390.8
38.5°	373.5	375.5	373.5	374.3	373.4	375.3
39°	358.5	360.6	358.5	358.6	357.4	359.1
39.5°	343.3	345.1	343.3	342.9	341.4	342.7
40°	328.4	329.3	328.4	327.2	325.8	325.5
40.5°	313.3	313.4	313.3	311.4	309.8	308.3
41°	298.4	297.7	298.4	296.1	294.2	291.6
41.5°	283.6	282.0	283.6	280.9	278.1	275.1
42°	268.7	267.0	268.7	265.8	262.4	259.3
42.5°	254.1	252.2	254.1	250.7	247.1	244.1
43°	239.7	238.1	239.7	236.3	232.3	229.3
43.5°	226.0	224.2	226.0	222.2	217.9	215.2



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	186.7	185.2	186.7	183.3	178.5	176.6
45.5°	174.8	173.6	174.8	171.5	167.0	165.3
46°	163.5	162.5	163.5	160.4	156.5	154.6
46.5°	152.9	152.2	152.9	149.8	147.0	144.9
47°	143.1	142.4	143.1	140.1	138.2	135.8
47.5°	134.1	133.3	134.1	131.2	130.2	127.7
48°	126.1	125.0	126.1	123.2	122.6	120.4
48.5°	118.7	117.3	118.7	116.2	115.7	113.9
49°	111.9	110.7	111.9	109.9	109.3	108.0
49.5°	106.0	104.6	106.0	104.5	103.9	102.9
50°	100.9	99.5	100.9	99.8	99.1	98.3
50.5°	96.5	95.1	96.5	95.7	95.0	94.4
51°	92.8	91.6	92.8	92.1	91.8	91.2
51.5°	89.6	88.8	89.6	89.3	89.0	88.5
52°	87.0	86.5	87.0	86.9	86.7	86.4
52.5°	84.7	84.7	84.7	84.7	84.6	84.5
53°	82.7	82.8	82.7	82.7	82.7	82.6
53.5°	80.7	80.9	80.7	80.8	80.8	80.8
54°	78.9	79.1	78.9	79.0	79.0	79.0
54.5°	77.0	77.2	77.0	77.1	77.1	77.1
55°	75.1	75.2	75.1	75.1	75.1	75.1
55.5°	73.2	73.3	73.2	73.3	73.2	73.2
56°	71.3	71.3	71.3	71.3	71.2	71.2
56.5°	69.3	69.3	69.3	69.3	69.3	69.2
57°	67.4	67.4	67.4	67.4	67.4	67.3
57.5°	65.5	65.5	65.5	65.5	65.4	65.3
58°	63.6	63.6	63.6	63.5	63.5	63.3
58.5°	61.8	61.8	61.8	61.7	61.7	61.4
59°	59.9	59.9	59.9	59.9	59.8	59.5
59.5°	58.1	58.1	58.1	58.1	58.0	57.7
60°	56.5	56.4	56.5	56.4	56.3	55.9
60.5°	54.7	54.7	54.7	54.7	54.5	54.1
61°	53.1	53.1	53.1	53.1	52.9	52.4
61.5°	51.5	51.5	51.5	51.4	51.2	50.8
62°	49.9	49.9	49.9	49.9	49.5	49.1
62.5°	48.3	48.3	48.3	48.3	48.0	47.6
63°	46.8	46.8	46.8	46.8	46.4	45.9
63.5°	45.4	45.4	45.4	45.3	45.0	44.5
64°	43.9	43.9	43.9	43.8	43.4	43.0
64.5°	42.5	42.5	42.5	42.5	42.0	41.6
65°	41.1	41.0	41.1	41.0	40.5	40.1
65.5°	39.8	39.8	39.8	39.7	39.2	38.8
66°	38.5	38.5	38.5	38.3	37.8	37.4



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	34.7	34.6	34.7	34.5	34.0	33.5
68°	33.5	33.5	33.5	33.4	32.8	32.2
68.5°	32.2	32.2	32.2	32.1	31.5	31.1
69°	31.1	31.1	31.1	31.0	30.4	29.9
69.5°	30.0	30.0	30.0	29.9	29.1	28.7
70°	28.8	28.8	28.8	28.7	28.0	27.6
70.5°	27.7	27.7	27.7	27.6	26.8	26.4
71°	26.6	26.6	26.6	26.4	25.8	25.4
71.5°	25.6	25.5	25.6	25.4	24.7	24.3
72°	24.6	24.5	24.6	24.4	23.6	23.2
72.5°	23.5	23.4	23.5	23.3	22.6	22.2
73°	22.5	22.5	22.5	22.3	21.6	21.1
73.5°	21.6	21.6	21.6	21.4	20.6	20.2
74°	20.6	20.5	20.6	20.3	19.7	19.3
74.5°	19.7	19.6	19.7	19.4	18.7	18.3
75°	18.8	18.8	18.8	18.4	17.7	17.4
75.5°	17.8	17.8	17.8	17.5	16.9	16.5
76°	17.0	16.9	17.0	16.7	16.0	15.7
76.5°	16.1	16.1	16.1	15.8	15.1	14.7
77°	15.2	15.2	15.2	14.9	14.3	13.9
77.5°	14.4	14.4	14.4	14.1	13.5	13.2
78°	13.7	13.6	13.7	13.3	12.6	12.3
78.5°	12.9	12.9	12.9	12.5	11.8	11.5
79°	12.1	12.0	12.1	11.7	11.1	10.8
79.5°	11.3	11.3	11.3	11.0	10.3	10.1
80°	10.6	10.6	10.6	10.3	9.5	9.3
80.5°	9.8	9.8	9.8	9.5	8.8	8.6
81°	9.1	9.1	9.1	8.8	8.1	7.9
81.5°	8.5	8.5	8.5	8.1	7.4	7.3
82°	7.8	7.8	7.8	7.4	6.7	6.5
82.5°	7.2	7.2	7.2	6.7	6.0	5.9
83°	6.5	6.4	6.5	6.1	5.4	5.3
83.5°	5.8	5.8	5.8	5.5	4.8	4.7
84°	5.2	5.2	5.2	4.9	4.1	4.0
84.5°	4.7	4.7	4.7	4.2	3.5	3.4
85°	4.0	4.0	4.0	3.7	3.0	2.9
85.5°	3.4	3.4	3.4	3.2	2.5	2.4
86°	2.9	2.9	2.9	2.7	2.1	1.9
86.5°	2.4	2.4	2.4	2.2	1.7	1.5
87°	1.9	1.9	1.9	1.7	1.2	1.1
87.5°	1.5	1.3	1.5	1.2	0.9	0.8
88°	1.0	0.8	1.0	0.9	0.6	0.5
88.5°	0.7	0.5	0.7	0.6	0.4	0.3



TEST NUMBER: P775862

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.0	0.1	0.1	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°	624.7	624.8	625.0	625.0	625.1	625.0	625.0	624.8	624.7	624.8	625.0
22°	620.1	620.1	620.2	620.2	620.4	620.2	620.2	620.1	620.1	620.1	620.2



44°	201.7	204.0	208.7	212.3	210.7	212.3	208.7	204.0	201.7	204.0	208.7
44.5°	189.0	190.8	195.7	199.3	197.7	199.3	195.7	190.8	189.0	190.8	195.7



66.5°	36.0	36.5	37.0	37.1	37.2	37.1	37.0	36.5	36.0	36.5	37.0
67°	34.7	35.1	35.8	36.0	36.0	36.0	35.8	35.1	34.7	35.1	35.8



89°	0.1	0.2	0.3	0.5	0.3	0.5	0.3	0.2	0.1	0.2	0.3
89.5°	0.0	0.1	0.2	0.3	0.1	0.3	0.2	0.1	0.0	0.1	0.2



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°	625.0	625.1	625.0	625.0	624.8	624.7
22°	620.2	620.4	620.2	620.2	620.1	620.1



44°	212.3	210.7	212.3	208.7	204.0	201.7
44.5°	199.3	197.7	199.3	195.7	190.8	189.0

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

Scaled Data Report



66.5°	37.1	37.2	37.1	37.0	36.5	36.0
67°	36.0	36.0	36.0	35.8	35.1	34.7

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

Scaled Data Report



89°	0.5	0.3	0.5	0.3	0.2	0.1
89.5°	0.3	0.1	0.3	0.2	0.1	0.0

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

Scaled Data Report



(END OF REPORT)