

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



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: P775860

Luminaire Tested: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775860  
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-2700K  
Description: 8 INCH ROUND NARROW MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

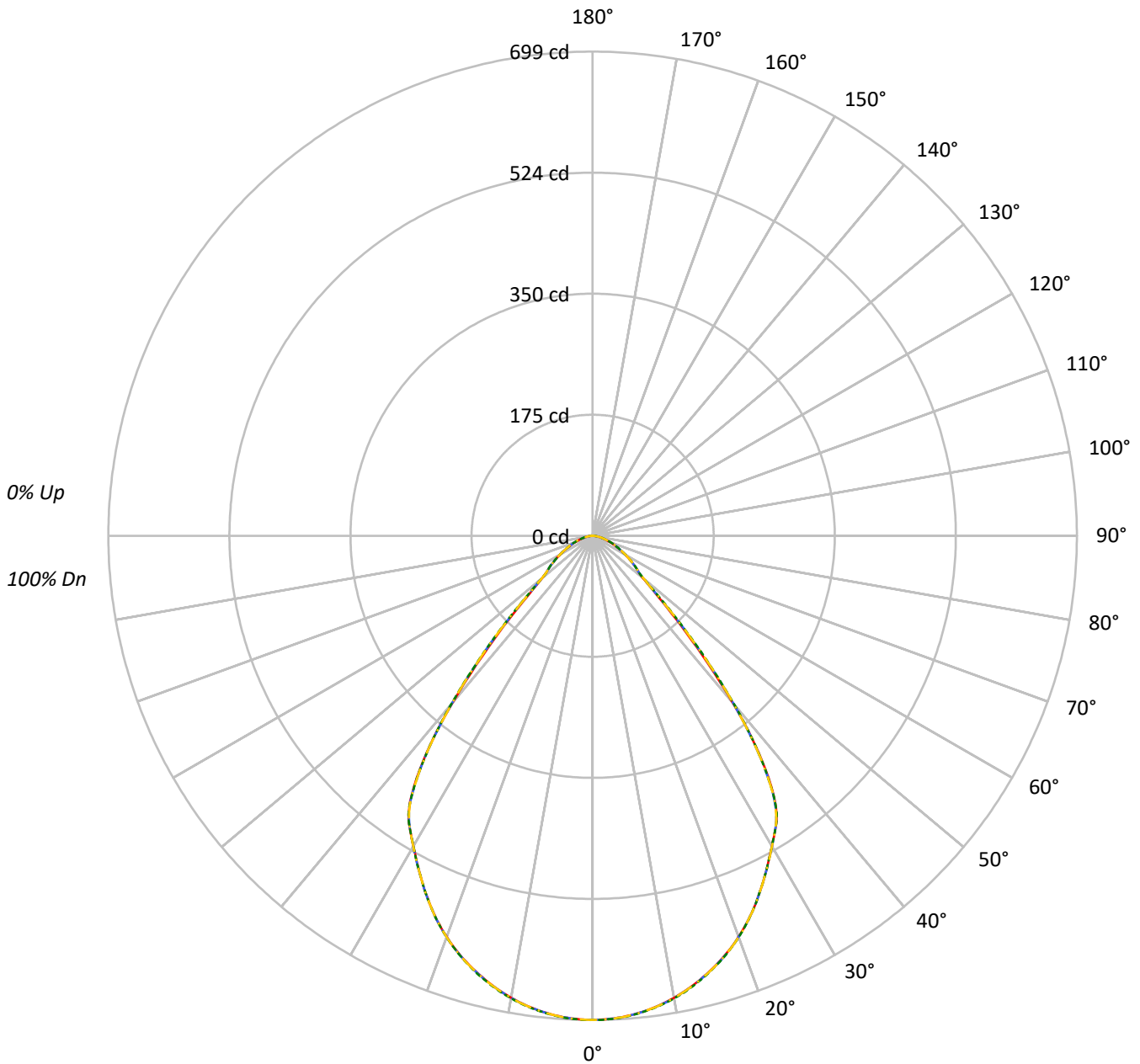
Lumens per Lamp: N/A  
Luminaire Lumens: 1054.0 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.12  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

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: P775860  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

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

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

	0°	90°	180°	270°
0°	21338	21338	21338	21338
5°	21251	21269	21251	21269
10°	20994	21025	20994	21025
15°	20583	20614	20583	20614
20°	20017	20036	20017	20036
25°	19188	19191	19188	19191
30°	18247	18247	18247	18247
35°	16951	16917	16951	16917
40°	12530	12678	12530	12678
45°	7366	7724	7366	7724
50°	4507	4564	4507	4564
55°	3864	3870	3864	3870
60°	3297	3328	3297	3328
65°	2796	2861	2796	2861
70°	2374	2482	2374	2482
75°	1982	2135	1982	2135
80°	1582	1793	1582	1793
85°	981	1366	981	1366

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 7785 cd/sqm



TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	6.2
10°-20°	183.4	17.4
20°-30°	261.8	24.8
30°-40°	273.4	25.9
40°-50°	142.0	13.5
50°-60°	65.1	6.2
60°-70°	39.5	3.7
70°-80°	18.9	1.8
80°-90°	4.2	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°	510.9	48.5
0°-40°	784.3	74.4
0°-60°	991.4	94.1
0°-90°	1054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1054.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	699	699	699	699	699	
5°	693	694	693	694	693	66
15°	651	652	651	652	651	183
25°	570	570	570	570	570	262
35°	455	454	455	454	455	274
45°	171	179	171	179	171	139
55°	73	73	73	73	73	65
65°	39	40	39	40	39	39
75°	17	18	17	18	17	18
85°	3	4	3	4	3	4
90°	0	0	0	0	0	



TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	698.9	698.9	698.9	698.9	698.9	698.9	698.9	698.9	698.9	698.9	698.9
0.5°	698.8	698.6	698.8	698.8	699.2	698.8	698.8	698.6	698.8	698.6	698.8
1°	698.7	698.5	698.7	698.7	699.0	698.7	698.7	698.5	698.7	698.5	698.7
1.5°	698.4	698.2	698.4	698.4	698.8	698.4	698.4	698.2	698.4	698.2	698.4
2°	698.0	697.8	698.0	698.0	698.4	698.0	698.0	697.8	698.0	697.8	698.0
2.5°	697.5	697.3	697.5	697.6	697.9	697.6	697.5	697.3	697.5	697.3	697.5
3°	696.9	696.7	696.9	697.0	697.4	697.0	696.9	696.7	696.9	696.7	696.9
3.5°	696.2	696.0	696.2	696.3	696.7	696.3	696.2	696.0	696.2	696.0	696.2
4°	695.3	695.2	695.4	695.5	695.9	695.5	695.4	695.2	695.3	695.2	695.4
4.5°	694.4	694.3	694.5	694.6	695.0	694.6	694.5	694.3	694.4	694.3	694.5
5°	693.4	693.2	693.4	693.6	694.0	693.6	693.4	693.2	693.4	693.2	693.4
5.5°	692.2	692.1	692.3	692.5	692.9	692.5	692.3	692.1	692.2	692.1	692.3
6°	691.0	690.8	691.1	691.3	691.6	691.3	691.1	690.8	691.0	690.8	691.1
6.5°	689.6	689.5	689.8	690.0	690.3	690.0	689.8	689.5	689.6	689.5	689.8
7°	688.2	688.0	688.3	688.5	688.9	688.5	688.3	688.0	688.2	688.0	688.3
7.5°	686.6	686.4	686.8	687.0	687.4	687.0	686.8	686.4	686.6	686.4	686.8
8°	684.9	684.8	685.1	685.3	685.8	685.3	685.1	684.8	684.9	684.8	685.1
8.5°	683.1	683.0	683.4	683.6	684.0	683.6	683.4	683.0	683.1	683.0	683.4
9°	681.3	681.2	681.5	681.8	682.2	681.8	681.5	681.2	681.3	681.2	681.5
9.5°	679.2	679.2	679.5	679.8	680.2	679.8	679.5	679.2	679.2	679.2	679.5
10°	677.2	677.1	677.5	677.8	678.2	677.8	677.5	677.1	677.2	677.1	677.5
10.5°	675.0	674.9	675.3	675.6	676.1	675.6	675.3	674.9	675.0	674.9	675.3
11°	672.7	672.7	673.0	673.4	673.8	673.4	673.0	672.7	672.7	672.7	673.0
11.5°	670.4	670.3	670.7	671.0	671.4	671.0	670.7	670.3	670.4	670.3	670.7
12°	667.9	667.9	668.2	668.6	669.0	668.6	668.2	667.9	667.9	667.9	668.2
12.5°	665.3	665.3	665.7	666.1	666.4	666.1	665.7	665.3	665.3	665.3	665.7
13°	662.7	662.7	663.1	663.4	663.8	663.4	663.1	662.7	662.7	662.7	663.1
13.5°	659.9	659.9	660.3	660.8	661.0	660.8	660.3	659.9	659.9	659.9	660.3
14°	657.2	657.1	657.5	657.9	658.2	657.9	657.5	657.1	657.2	657.1	657.5
14.5°	654.2	654.2	654.6	655.0	655.3	655.0	654.6	654.2	654.2	654.2	654.6
15°	651.2	651.3	651.7	652.0	652.2	652.0	651.7	651.3	651.2	651.3	651.7
15.5°	648.1	648.2	648.6	648.9	649.1	648.9	648.6	648.2	648.1	648.2	648.6
16°	645.0	645.0	645.4	645.7	645.9	645.7	645.4	645.0	645.0	645.0	645.4
16.5°	641.8	641.8	642.2	642.4	642.7	642.4	642.2	641.8	641.8	641.8	642.2
17°	638.4	638.4	638.8	639.1	639.3	639.1	638.8	638.4	638.4	638.4	638.8
17.5°	634.9	635.0	635.4	635.6	635.8	635.6	635.4	635.0	634.9	635.0	635.4
18°	631.4	631.4	631.8	632.0	632.2	632.0	631.8	631.4	631.4	631.4	631.8
18.5°	627.8	627.8	628.2	628.3	628.5	628.3	628.2	627.8	627.8	627.8	628.2
19°	624.0	624.0	624.4	624.6	624.7	624.6	624.4	624.0	624.0	624.0	624.4
19.5°	620.0	620.1	620.4	620.7	620.8	620.7	620.4	620.1	620.0	620.1	620.4
20°	616.1	616.1	616.4	616.5	616.7	616.5	616.4	616.1	616.1	616.1	616.4
20.5°	612.0	612.0	612.3	612.3	612.5	612.3	612.3	612.0	612.0	612.0	612.3
21°	607.8	607.8	608.1	608.1	608.2	608.1	608.1	607.8	607.8	607.8	608.1



TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	594.3	594.3	594.5	594.4	594.6	594.4	594.5	594.3	594.3	594.3	594.5
23°	589.6	589.6	589.7	589.7	589.8	589.7	589.7	589.6	589.6	589.6	589.7
23.5°	584.8	584.8	584.9	584.8	584.9	584.8	584.9	584.8	584.8	584.8	584.9
24°	579.9	579.8	579.9	579.8	579.9	579.8	579.9	579.8	579.9	579.8	579.9
24.5°	574.7	574.7	574.9	574.8	574.8	574.8	574.9	574.7	574.7	574.7	574.9
25°	569.6	569.6	569.7	569.7	569.7	569.7	569.7	569.6	569.6	569.6	569.7
25.5°	564.5	564.4	564.6	564.5	564.5	564.5	564.6	564.4	564.5	564.4	564.6
26°	559.3	559.2	559.3	559.4	559.3	559.4	559.3	559.2	559.3	559.2	559.3
26.5°	554.0	554.1	554.1	554.1	554.1	554.1	554.1	554.1	554.0	554.1	554.1
27°	548.8	548.8	548.9	548.9	548.8	548.9	548.9	548.8	548.8	548.8	548.9
27.5°	543.5	543.5	543.7	543.7	543.5	543.7	543.7	543.5	543.5	543.5	543.7
28°	538.3	538.3	538.5	538.4	538.4	538.4	538.5	538.3	538.3	538.3	538.5
28.5°	533.0	533.0	533.2	533.1	533.0	533.1	533.2	533.0	533.0	533.0	533.2
29°	527.7	527.9	528.0	527.9	527.9	527.9	528.0	527.9	527.7	527.9	528.0
29.5°	522.6	522.7	522.9	522.9	522.7	522.9	522.9	522.7	522.6	522.7	522.9
30°	517.6	517.7	517.8	517.8	517.6	517.8	517.8	517.7	517.6	517.7	517.8
30.5°	512.6	512.8	512.9	512.8	512.5	512.8	512.9	512.8	512.6	512.8	512.9
31°	507.7	507.8	508.0	507.9	507.8	507.9	508.0	507.8	507.7	507.8	508.0
31.5°	503.0	503.0	503.1	503.0	502.8	503.0	503.1	503.0	503.0	503.0	503.1
32°	498.1	498.1	498.1	498.0	498.0	498.0	498.1	498.1	498.1	498.1	498.1
32.5°	493.2	492.8	492.7	492.6	493.1	492.6	492.7	492.8	493.2	492.8	492.7
33°	487.8	486.8	486.6	486.3	488.0	486.3	486.6	486.8	487.8	486.8	486.6
33.5°	481.2	479.7	479.8	479.2	481.4	479.2	479.8	479.7	481.2	479.7	479.8
34°	473.3	471.6	472.2	471.0	473.6	471.0	472.2	471.6	473.3	471.6	472.2
34.5°	464.8	462.4	463.4	462.2	464.6	462.2	463.4	462.4	464.8	462.4	463.4
35°	454.8	452.6	453.1	452.3	453.9	452.3	453.1	452.6	454.8	452.6	453.1
35.5°	443.7	442.5	441.9	441.2	442.3	441.2	441.9	442.5	443.7	442.5	441.9
36°	431.5	431.7	429.9	429.1	430.8	429.1	429.9	431.7	431.5	431.7	429.9
36.5°	418.7	419.6	417.2	416.3	418.1	416.3	417.2	419.6	418.7	419.6	417.2
37°	405.5	406.3	404.1	402.9	405.1	402.9	404.1	406.3	405.5	406.3	404.1
37.5°	391.8	391.8	390.3	389.2	391.2	389.2	390.3	391.8	391.8	391.8	390.3
38°	377.5	376.5	376.2	375.3	377.2	375.3	376.2	376.5	377.5	376.5	376.2
38.5°	362.5	360.7	361.5	360.8	362.7	360.8	361.5	360.7	362.5	360.7	361.5
39°	346.9	345.2	346.4	346.3	348.3	346.3	346.4	345.2	346.9	345.2	346.4
39.5°	331.0	329.8	331.2	331.6	333.4	331.6	331.2	329.8	331.0	329.8	331.2
40°	314.4	314.7	316.1	317.2	318.1	317.2	316.1	314.7	314.4	314.7	316.1
40.5°	297.8	299.3	300.8	302.7	302.8	302.7	300.8	299.3	297.8	299.3	300.8
41°	281.6	284.1	286.0	288.2	287.5	288.2	286.0	284.1	281.6	284.1	286.0
41.5°	265.7	268.6	271.3	273.9	272.4	273.9	271.3	268.6	265.7	268.6	271.3
42°	250.5	253.5	256.7	259.5	257.9	259.5	256.7	253.5	250.5	253.5	256.7
42.5°	235.8	238.7	242.2	245.5	243.6	245.5	242.2	238.7	235.8	238.7	242.2
43°	221.5	224.4	228.3	231.6	230.0	231.6	228.3	224.4	221.5	224.4	228.3
43.5°	207.9	210.5	214.7	218.3	216.6	218.3	214.7	210.5	207.9	210.5	214.7



TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	170.6	172.4	177.0	180.3	178.9	180.3	177.0	172.4	170.6	172.4	177.0
45.5°	159.7	161.3	165.7	168.8	167.7	168.8	165.7	161.3	159.7	161.3	165.7
46°	149.4	151.2	155.0	157.9	157.0	157.9	155.0	151.2	149.4	151.2	155.0
46.5°	140.0	142.0	144.7	147.7	147.0	147.7	144.7	142.0	140.0	142.0	144.7
47°	131.2	133.5	135.4	138.3	137.6	138.3	135.4	133.5	131.2	133.5	135.4
47.5°	123.3	125.8	126.8	129.6	128.8	129.6	126.8	125.8	123.3	125.8	126.8
48°	116.3	118.4	119.0	121.8	120.7	121.8	119.0	118.4	116.3	118.4	119.0
48.5°	110.0	111.7	112.2	114.6	113.3	114.6	112.2	111.7	110.0	111.7	112.2
49°	104.3	105.6	106.1	108.1	106.9	108.1	106.1	105.6	104.3	105.6	106.1
49.5°	99.4	100.3	100.9	102.4	101.0	102.4	100.9	100.3	99.4	100.3	100.9
50°	94.9	95.7	96.4	97.4	96.1	97.4	96.4	95.7	94.9	95.7	96.4
50.5°	91.2	91.8	92.4	93.2	91.9	93.2	92.4	91.8	91.2	91.8	92.4
51°	88.1	88.7	89.0	89.6	88.5	89.6	89.0	88.7	88.1	88.7	89.0
51.5°	85.5	86.0	86.3	86.5	85.8	86.5	86.3	86.0	85.5	86.0	86.3
52°	83.5	83.7	83.9	84.0	83.6	84.0	83.9	83.7	83.5	83.7	83.9
52.5°	81.6	81.7	81.8	81.8	81.8	81.8	81.8	81.7	81.6	81.7	81.8
53°	79.8	79.9	79.9	79.9	80.0	79.9	79.9	79.9	79.8	79.9	79.9
53.5°	78.1	78.1	78.1	78.0	78.2	78.0	78.1	78.1	78.1	78.1	78.1
54°	76.3	76.3	76.3	76.2	76.4	76.2	76.3	76.3	76.3	76.3	76.3
54.5°	74.5	74.5	74.5	74.4	74.6	74.4	74.5	74.5	74.5	74.5	74.5
55°	72.6	72.6	72.6	72.6	72.7	72.6	72.6	72.6	72.6	72.6	72.6
55.5°	70.7	70.7	70.8	70.7	70.8	70.7	70.8	70.7	70.7	70.7	70.8
56°	68.8	68.8	68.9	68.9	68.9	68.9	68.9	68.8	68.8	68.8	68.9
56.5°	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	66.9	67.0	67.0
57°	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.0	65.1	65.1
57.5°	63.1	63.2	63.3	63.3	63.3	63.3	63.3	63.2	63.1	63.2	63.3
58°	61.2	61.4	61.4	61.5	61.5	61.5	61.4	61.4	61.2	61.4	61.4
58.5°	59.3	59.6	59.6	59.7	59.7	59.7	59.6	59.6	59.3	59.6	59.6
59°	57.5	57.8	57.9	57.9	57.9	57.9	57.9	57.8	57.5	57.8	57.9
59.5°	55.8	56.1	56.2	56.2	56.2	56.2	56.2	56.1	55.8	56.1	56.2
60°	54.0	54.4	54.5	54.6	54.5	54.6	54.5	54.4	54.0	54.4	54.5
60.5°	52.3	52.7	52.9	52.9	52.9	52.9	52.9	52.7	52.3	52.7	52.9
61°	50.7	51.1	51.3	51.3	51.3	51.3	51.3	51.1	50.7	51.1	51.3
61.5°	49.1	49.5	49.7	49.8	49.8	49.8	49.7	49.5	49.1	49.5	49.7
62°	47.5	47.9	48.2	48.2	48.2	48.2	48.2	47.9	47.5	47.9	48.2
62.5°	46.0	46.4	46.7	46.7	46.7	46.7	46.7	46.4	46.0	46.4	46.7
63°	44.4	44.9	45.3	45.3	45.3	45.3	45.3	44.9	44.4	44.9	45.3
63.5°	43.0	43.5	43.8	43.9	43.9	43.9	43.8	43.5	43.0	43.5	43.8
64°	41.6	42.0	42.4	42.5	42.5	42.5	42.4	42.0	41.6	42.0	42.4
64.5°	40.1	40.5	41.0	41.0	41.0	41.0	41.0	40.5	40.1	40.5	41.0
65°	38.7	39.1	39.6	39.7	39.6	39.7	39.6	39.1	38.7	39.1	39.6
65.5°	37.4	37.8	38.3	38.4	38.4	38.4	38.3	37.8	37.4	37.8	38.3
66°	36.1	36.5	37.0	37.1	37.1	37.1	37.0	36.5	36.1	36.5	37.0





TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	32.3	32.8	33.3	33.5	33.4	33.5	33.3	32.8	32.3	32.8	33.3
68°	31.1	31.6	32.2	32.3	32.3	32.3	32.2	31.6	31.1	31.6	32.2
68.5°	30.0	30.4	31.0	31.1	31.1	31.1	31.0	30.4	30.0	30.4	31.0
69°	28.8	29.3	29.9	30.0	30.0	30.0	29.9	29.3	28.8	29.3	29.9
69.5°	27.7	28.1	28.8	28.9	28.9	28.9	28.8	28.1	27.7	28.1	28.8
70°	26.6	27.0	27.7	27.8	27.8	27.8	27.7	27.0	26.6	27.0	27.7
70.5°	25.5	25.9	26.6	26.7	26.7	26.7	26.6	25.9	25.5	25.9	26.6
71°	24.5	24.9	25.5	25.7	25.7	25.7	25.5	24.9	24.5	24.9	25.5
71.5°	23.4	23.8	24.5	24.7	24.6	24.7	24.5	23.8	23.4	23.8	24.5
72°	22.4	22.8	23.5	23.7	23.6	23.7	23.5	22.8	22.4	22.8	23.5
72.5°	21.4	21.8	22.5	22.7	22.6	22.7	22.5	21.8	21.4	21.8	22.5
73°	20.4	20.8	21.5	21.7	21.7	21.7	21.5	20.8	20.4	20.8	21.5
73.5°	19.5	19.9	20.6	20.8	20.8	20.8	20.6	19.9	19.5	19.9	20.6
74°	18.6	19.0	19.6	19.9	19.8	19.9	19.6	19.0	18.6	19.0	19.6
74.5°	17.7	18.0	18.7	19.0	18.9	19.0	18.7	18.0	17.7	18.0	18.7
75°	16.8	17.1	17.8	18.1	18.1	18.1	17.8	17.1	16.8	17.1	17.8
75.5°	15.9	16.3	16.9	17.2	17.2	17.2	16.9	16.3	15.9	16.3	16.9
76°	15.1	15.4	16.1	16.4	16.3	16.4	16.1	15.4	15.1	15.4	16.1
76.5°	14.2	14.6	15.2	15.5	15.5	15.5	15.2	14.6	14.2	14.6	15.2
77°	13.4	13.8	14.4	14.7	14.7	14.7	14.4	13.8	13.4	13.8	14.4
77.5°	12.7	13.0	13.6	13.9	13.9	13.9	13.6	13.0	12.7	13.0	13.6
78°	11.9	12.2	12.8	13.2	13.1	13.2	12.8	12.2	11.9	12.2	12.8
78.5°	11.1	11.4	12.1	12.4	12.4	12.4	12.1	11.4	11.1	11.4	12.1
79°	10.4	10.7	11.3	11.7	11.6	11.7	11.3	10.7	10.4	10.7	11.3
79.5°	9.7	9.9	10.6	10.9	10.9	10.9	10.6	9.9	9.7	9.9	10.6
80°	9.0	9.2	9.9	10.2	10.2	10.2	9.9	9.2	9.0	9.2	9.9
80.5°	8.3	8.5	9.2	9.5	9.5	9.5	9.2	8.5	8.3	8.5	9.2
81°	7.6	7.8	8.5	8.8	8.8	8.8	8.5	7.8	7.6	7.8	8.5
81.5°	7.0	7.1	7.8	8.2	8.2	8.2	7.8	7.1	7.0	7.1	7.8
82°	6.3	6.5	7.1	7.5	7.5	7.5	7.1	6.5	6.3	6.5	7.1
82.5°	5.7	5.8	6.5	6.9	6.9	6.9	6.5	5.8	5.7	5.8	6.5
83°	5.1	5.2	5.9	6.3	6.2	6.3	5.9	5.2	5.1	5.2	5.9
83.5°	4.5	4.6	5.3	5.6	5.6	5.6	5.3	4.6	4.5	4.6	5.3
84°	3.9	4.0	4.7	5.0	5.0	5.0	4.7	4.0	3.9	4.0	4.7
84.5°	3.3	3.4	4.1	4.5	4.5	4.5	4.1	3.4	3.3	3.4	4.1
85°	2.8	2.9	3.6	3.9	3.9	3.9	3.6	2.9	2.8	2.9	3.6
85.5°	2.3	2.4	3.1	3.3	3.3	3.3	3.1	2.4	2.3	2.4	3.1
86°	1.8	2.0	2.6	2.8	2.8	2.8	2.6	2.0	1.8	2.0	2.6
86.5°	1.4	1.6	2.1	2.3	2.3	2.3	2.1	1.6	1.4	1.6	2.1
87°	1.1	1.2	1.6	1.8	1.8	1.8	1.6	1.2	1.1	1.2	1.6
87.5°	0.8	0.9	1.2	1.4	1.3	1.4	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: P775860  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**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: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	698.9	698.9	698.9	698.9	698.9	698.9
0.5°	698.8	699.2	698.8	698.8	698.6	698.8
1°	698.7	699.0	698.7	698.7	698.5	698.7
1.5°	698.4	698.8	698.4	698.4	698.2	698.4
2°	698.0	698.4	698.0	698.0	697.8	698.0
2.5°	697.6	697.9	697.6	697.5	697.3	697.5
3°	697.0	697.4	697.0	696.9	696.7	696.9
3.5°	696.3	696.7	696.3	696.2	696.0	696.2
4°	695.5	695.9	695.5	695.4	695.2	695.3
4.5°	694.6	695.0	694.6	694.5	694.3	694.4
5°	693.6	694.0	693.6	693.4	693.2	693.4
5.5°	692.5	692.9	692.5	692.3	692.1	692.2
6°	691.3	691.6	691.3	691.1	690.8	691.0
6.5°	690.0	690.3	690.0	689.8	689.5	689.6
7°	688.5	688.9	688.5	688.3	688.0	688.2
7.5°	687.0	687.4	687.0	686.8	686.4	686.6
8°	685.3	685.8	685.3	685.1	684.8	684.9
8.5°	683.6	684.0	683.6	683.4	683.0	683.1
9°	681.8	682.2	681.8	681.5	681.2	681.3
9.5°	679.8	680.2	679.8	679.5	679.2	679.2
10°	677.8	678.2	677.8	677.5	677.1	677.2
10.5°	675.6	676.1	675.6	675.3	674.9	675.0
11°	673.4	673.8	673.4	673.0	672.7	672.7
11.5°	671.0	671.4	671.0	670.7	670.3	670.4
12°	668.6	669.0	668.6	668.2	667.9	667.9
12.5°	666.1	666.4	666.1	665.7	665.3	665.3
13°	663.4	663.8	663.4	663.1	662.7	662.7
13.5°	660.8	661.0	660.8	660.3	659.9	659.9
14°	657.9	658.2	657.9	657.5	657.1	657.2
14.5°	655.0	655.3	655.0	654.6	654.2	654.2
15°	652.0	652.2	652.0	651.7	651.3	651.2
15.5°	648.9	649.1	648.9	648.6	648.2	648.1
16°	645.7	645.9	645.7	645.4	645.0	645.0
16.5°	642.4	642.7	642.4	642.2	641.8	641.8
17°	639.1	639.3	639.1	638.8	638.4	638.4
17.5°	635.6	635.8	635.6	635.4	635.0	634.9
18°	632.0	632.2	632.0	631.8	631.4	631.4
18.5°	628.3	628.5	628.3	628.2	627.8	627.8
19°	624.6	624.7	624.6	624.4	624.0	624.0
19.5°	620.7	620.8	620.7	620.4	620.1	620.0
20°	616.5	616.7	616.5	616.4	616.1	616.1
20.5°	612.3	612.5	612.3	612.3	612.0	612.0
21°	608.1	608.2	608.1	608.1	607.8	607.8

TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	594.4	594.6	594.4	594.5	594.3	594.3
23°	589.7	589.8	589.7	589.7	589.6	589.6
23.5°	584.8	584.9	584.8	584.9	584.8	584.8
24°	579.8	579.9	579.8	579.9	579.8	579.9
24.5°	574.8	574.8	574.8	574.9	574.7	574.7
25°	569.7	569.7	569.7	569.7	569.6	569.6
25.5°	564.5	564.5	564.5	564.6	564.4	564.5
26°	559.4	559.3	559.4	559.3	559.2	559.3
26.5°	554.1	554.1	554.1	554.1	554.1	554.0
27°	548.9	548.8	548.9	548.9	548.8	548.8
27.5°	543.7	543.5	543.7	543.7	543.5	543.5
28°	538.4	538.4	538.4	538.5	538.3	538.3
28.5°	533.1	533.0	533.1	533.2	533.0	533.0
29°	527.9	527.9	527.9	528.0	527.9	527.7
29.5°	522.9	522.7	522.9	522.9	522.7	522.6
30°	517.8	517.6	517.8	517.8	517.7	517.6
30.5°	512.8	512.5	512.8	512.9	512.8	512.6
31°	507.9	507.8	507.9	508.0	507.8	507.7
31.5°	503.0	502.8	503.0	503.1	503.0	503.0
32°	498.0	498.0	498.0	498.1	498.1	498.1
32.5°	492.6	493.1	492.6	492.7	492.8	493.2
33°	486.3	488.0	486.3	486.6	486.8	487.8
33.5°	479.2	481.4	479.2	479.8	479.7	481.2
34°	471.0	473.6	471.0	472.2	471.6	473.3
34.5°	462.2	464.6	462.2	463.4	462.4	464.8
35°	452.3	453.9	452.3	453.1	452.6	454.8
35.5°	441.2	442.3	441.2	441.9	442.5	443.7
36°	429.1	430.8	429.1	429.9	431.7	431.5
36.5°	416.3	418.1	416.3	417.2	419.6	418.7
37°	402.9	405.1	402.9	404.1	406.3	405.5
37.5°	389.2	391.2	389.2	390.3	391.8	391.8
38°	375.3	377.2	375.3	376.2	376.5	377.5
38.5°	360.8	362.7	360.8	361.5	360.7	362.5
39°	346.3	348.3	346.3	346.4	345.2	346.9
39.5°	331.6	333.4	331.6	331.2	329.8	331.0
40°	317.2	318.1	317.2	316.1	314.7	314.4
40.5°	302.7	302.8	302.7	300.8	299.3	297.8
41°	288.2	287.5	288.2	286.0	284.1	281.6
41.5°	273.9	272.4	273.9	271.3	268.6	265.7
42°	259.5	257.9	259.5	256.7	253.5	250.5
42.5°	245.5	243.6	245.5	242.2	238.7	235.8
43°	231.6	230.0	231.6	228.3	224.4	221.5
43.5°	218.3	216.6	218.3	214.7	210.5	207.9



TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	180.3	178.9	180.3	177.0	172.4	170.6
45.5°	168.8	167.7	168.8	165.7	161.3	159.7
46°	157.9	157.0	157.9	155.0	151.2	149.4
46.5°	147.7	147.0	147.7	144.7	142.0	140.0
47°	138.3	137.6	138.3	135.4	133.5	131.2
47.5°	129.6	128.8	129.6	126.8	125.8	123.3
48°	121.8	120.7	121.8	119.0	118.4	116.3
48.5°	114.6	113.3	114.6	112.2	111.7	110.0
49°	108.1	106.9	108.1	106.1	105.6	104.3
49.5°	102.4	101.0	102.4	100.9	100.3	99.4
50°	97.4	96.1	97.4	96.4	95.7	94.9
50.5°	93.2	91.9	93.2	92.4	91.8	91.2
51°	89.6	88.5	89.6	89.0	88.7	88.1
51.5°	86.5	85.8	86.5	86.3	86.0	85.5
52°	84.0	83.6	84.0	83.9	83.7	83.5
52.5°	81.8	81.8	81.8	81.8	81.7	81.6
53°	79.9	80.0	79.9	79.9	79.9	79.8
53.5°	78.0	78.2	78.0	78.1	78.1	78.1
54°	76.2	76.4	76.2	76.3	76.3	76.3
54.5°	74.4	74.6	74.4	74.5	74.5	74.5
55°	72.6	72.7	72.6	72.6	72.6	72.6
55.5°	70.7	70.8	70.7	70.8	70.7	70.7
56°	68.9	68.9	68.9	68.9	68.8	68.8
56.5°	67.0	67.0	67.0	67.0	67.0	66.9
57°	65.1	65.1	65.1	65.1	65.1	65.0
57.5°	63.3	63.3	63.3	63.3	63.2	63.1
58°	61.5	61.5	61.5	61.4	61.4	61.2
58.5°	59.7	59.7	59.7	59.6	59.6	59.3
59°	57.9	57.9	57.9	57.9	57.8	57.5
59.5°	56.2	56.2	56.2	56.2	56.1	55.8
60°	54.6	54.5	54.6	54.5	54.4	54.0
60.5°	52.9	52.9	52.9	52.9	52.7	52.3
61°	51.3	51.3	51.3	51.3	51.1	50.7
61.5°	49.8	49.8	49.8	49.7	49.5	49.1
62°	48.2	48.2	48.2	48.2	47.9	47.5
62.5°	46.7	46.7	46.7	46.7	46.4	46.0
63°	45.3	45.3	45.3	45.3	44.9	44.4
63.5°	43.9	43.9	43.9	43.8	43.5	43.0
64°	42.5	42.5	42.5	42.4	42.0	41.6
64.5°	41.0	41.0	41.0	41.0	40.5	40.1
65°	39.7	39.6	39.7	39.6	39.1	38.7
65.5°	38.4	38.4	38.4	38.3	37.8	37.4
66°	37.1	37.1	37.1	37.0	36.5	36.1



TEST NUMBER: P775860

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	33.5	33.4	33.5	33.3	32.8	32.3
68°	32.3	32.3	32.3	32.2	31.6	31.1
68.5°	31.1	31.1	31.1	31.0	30.4	30.0
69°	30.0	30.0	30.0	29.9	29.3	28.8
69.5°	28.9	28.9	28.9	28.8	28.1	27.7
70°	27.8	27.8	27.8	27.7	27.0	26.6
70.5°	26.7	26.7	26.7	26.6	25.9	25.5
71°	25.7	25.7	25.7	25.5	24.9	24.5
71.5°	24.7	24.6	24.7	24.5	23.8	23.4
72°	23.7	23.6	23.7	23.5	22.8	22.4
72.5°	22.7	22.6	22.7	22.5	21.8	21.4
73°	21.7	21.7	21.7	21.5	20.8	20.4
73.5°	20.8	20.8	20.8	20.6	19.9	19.5
74°	19.9	19.8	19.9	19.6	19.0	18.6
74.5°	19.0	18.9	19.0	18.7	18.0	17.7
75°	18.1	18.1	18.1	17.8	17.1	16.8
75.5°	17.2	17.2	17.2	16.9	16.3	15.9
76°	16.4	16.3	16.4	16.1	15.4	15.1
76.5°	15.5	15.5	15.5	15.2	14.6	14.2
77°	14.7	14.7	14.7	14.4	13.8	13.4
77.5°	13.9	13.9	13.9	13.6	13.0	12.7
78°	13.2	13.1	13.2	12.8	12.2	11.9
78.5°	12.4	12.4	12.4	12.1	11.4	11.1
79°	11.7	11.6	11.7	11.3	10.7	10.4
79.5°	10.9	10.9	10.9	10.6	9.9	9.7
80°	10.2	10.2	10.2	9.9	9.2	9.0
80.5°	9.5	9.5	9.5	9.2	8.5	8.3
81°	8.8	8.8	8.8	8.5	7.8	7.6
81.5°	8.2	8.2	8.2	7.8	7.1	7.0
82°	7.5	7.5	7.5	7.1	6.5	6.3
82.5°	6.9	6.9	6.9	6.5	5.8	5.7
83°	6.3	6.2	6.3	5.9	5.2	5.1
83.5°	5.6	5.6	5.6	5.3	4.6	4.5
84°	5.0	5.0	5.0	4.7	4.0	3.9
84.5°	4.5	4.5	4.5	4.1	3.4	3.3
85°	3.9	3.9	3.9	3.6	2.9	2.8
85.5°	3.3	3.3	3.3	3.1	2.4	2.3
86°	2.8	2.8	2.8	2.6	2.0	1.8
86.5°	2.3	2.3	2.3	2.1	1.6	1.4
87°	1.8	1.8	1.8	1.6	1.2	1.1
87.5°	1.4	1.3	1.4	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: P775860  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-2700K

**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



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°	603.4	603.5	603.7	603.7	603.8	603.7	603.7	603.5	603.4	603.5	603.7
22°	599.0	599.0	599.1	599.1	599.3	599.1	599.1	599.0	599.0	599.0	599.1



44°	194.8	197.0	201.6	205.0	203.5	205.0	201.6	197.0	194.8	197.0	201.6
44.5°	182.5	184.3	189.0	192.5	190.9	192.5	189.0	184.3	182.5	184.3	189.0



66.5°	34.7	35.2	35.7	35.8	35.9	35.8	35.7	35.2	34.7	35.2	35.7
67°	33.5	33.9	34.5	34.7	34.7	34.7	34.5	33.9	33.5	33.9	34.5



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





21.5°	603.7	603.8	603.7	603.7	603.5	603.4
22°	599.1	599.3	599.1	599.1	599.0	599.0



44°	205.0	203.5	205.0	201.6	197.0	194.8
44.5°	192.5	190.9	192.5	189.0	184.3	182.5

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

Scaled Data Report



66.5°	35.8	35.9	35.8	35.7	35.2	34.7
67°	34.7	34.7	34.7	34.5	33.9	33.5

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)