

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: P775715

Luminaire Tested: HCDJBL510CSD-HCD61TRC-1000lm-2700K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775715  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B035-HCD61TRC)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL510CSD-HCD61TRC-1000lm-2700K  
Description: 6 INCH ROUND SHALLOW-WIDE SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

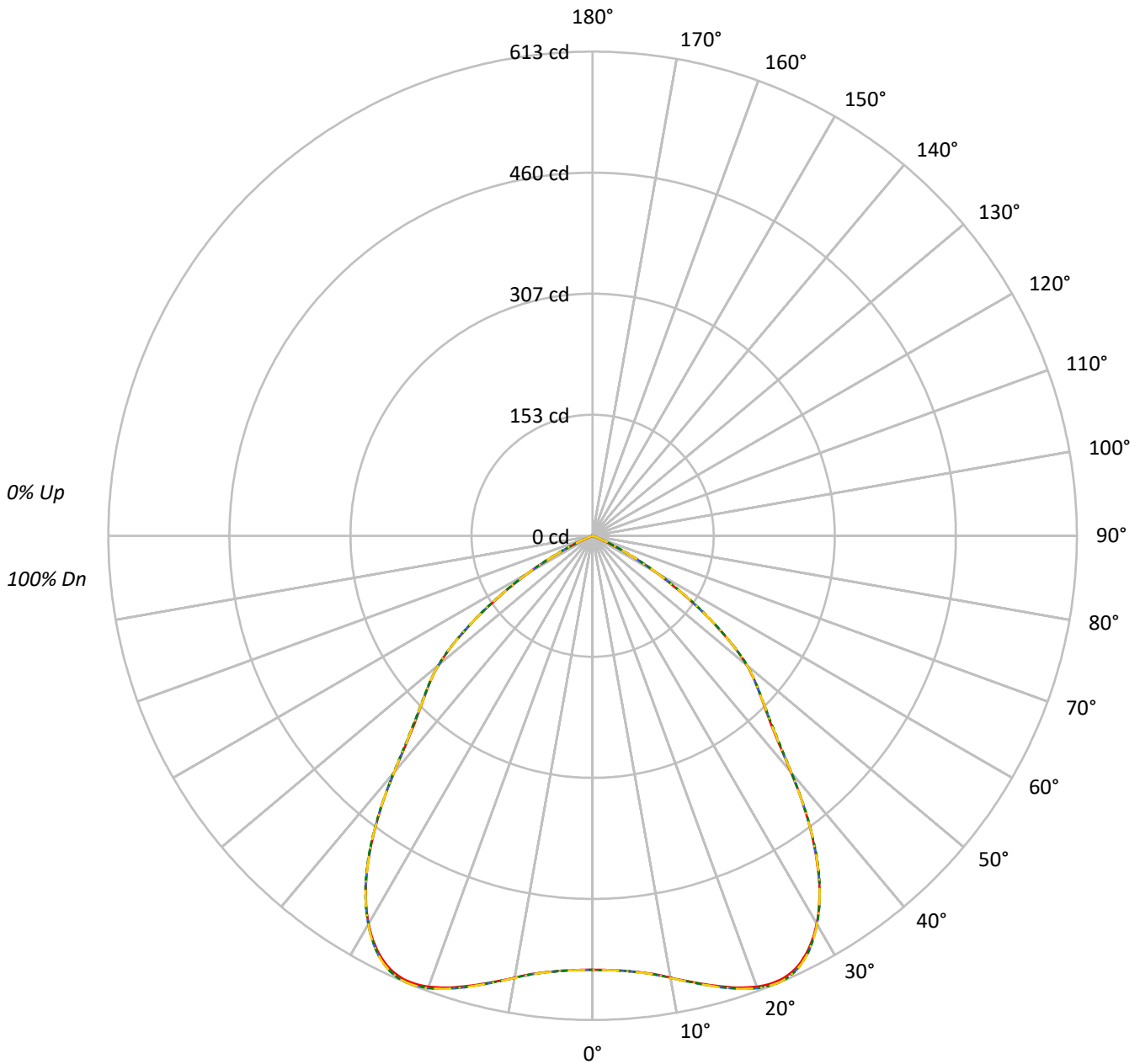
Lumens per Lamp: N/A  
Luminaire Lumens: 1235.0 lumens  
Efficiency: N/A  
Efficacy: 123.5 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.39 / 1.3  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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



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### 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	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	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80								
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71								
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63								
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56								
6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52	50								
7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	47	45								
8	68	56	48	43	66	55	48	43	54	47	43	53	47	42	52	46	42	40								
9	63	51	44	39	62	51	44	39	50	43	39	49	43	39	48	42	38	37								
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34								

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

	0°	90°	180°	270°
0°	30129	30129	30129	30129
5°	30459	30481	30459	30481
10°	31624	31635	31624	31635
15°	33456	33491	33456	33491
20°	35441	35540	35441	35540
25°	36619	36770	36619	36770
30°	35904	35949	35904	35949
35°	32966	33073	32966	33073
40°	27945	28060	27945	28060
45°	23933	24057	23933	24057
50°	21714	21765	21714	21765
55°	16716	16888	16716	16888
60°	10076	10394	10076	10394
65°	3152	4021	3152	4021
70°	16	160	16	160
75°	0	21	0	21
80°	0	0	0	0
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 24057 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.3	4.3
10°-20°	167.8	13.6
20°-30°	277.5	22.5
30°-40°	304.6	24.7
40°-50°	241.9	19.6
50°-60°	155.8	12.6
60°-70°	34.1	2.8
70°-80°	0.1	0.0
80°-90°	0.0	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°	498.6	40.4
0°-40°	803.2	65.0
0°-60°	1200.8	97.2
0°-90°	1235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1235.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	550	550	550	550	550	
5°	554	554	554	554	554	53
15°	590	590	590	590	590	168
25°	605	608	605	608	605	277
35°	493	494	493	494	493	304
45°	309	310	309	310	309	241
55°	175	177	175	177	175	155
65°	24	31	24	31	24	31
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
0.5°	549.4	549.6	549.7	549.8	549.7	549.8	549.7	549.6	549.4	549.6	549.7
1°	549.6	549.7	549.8	549.9	549.8	549.9	549.8	549.7	549.6	549.7	549.8
1.5°	549.8	549.9	550.0	550.1	550.0	550.1	550.0	549.9	549.8	549.9	550.0
2°	550.1	550.2	550.3	550.3	550.2	550.3	550.3	550.2	550.1	550.2	550.3
2.5°	550.4	550.5	550.7	550.7	550.6	550.7	550.7	550.5	550.4	550.5	550.7
3°	550.9	551.0	551.1	551.1	551.0	551.1	551.1	551.0	550.9	551.0	551.1
3.5°	551.4	551.5	551.7	551.7	551.6	551.7	551.7	551.5	551.4	551.5	551.7
4°	552.0	552.1	552.3	552.4	552.3	552.4	552.3	552.1	552.0	552.1	552.3
4.5°	552.7	552.8	553.0	553.1	553.0	553.1	553.0	552.8	552.7	552.8	553.0
5°	553.5	553.6	553.8	553.9	553.9	553.9	553.8	553.6	553.5	553.6	553.8
5.5°	554.3	554.5	554.7	554.9	554.8	554.9	554.7	554.5	554.3	554.5	554.7
6°	555.3	555.4	555.7	555.9	555.8	555.9	555.7	555.4	555.3	555.4	555.7
6.5°	556.4	556.5	556.8	556.9	556.8	556.9	556.8	556.5	556.4	556.5	556.8
7°	557.6	557.7	558.0	558.1	558.0	558.1	558.0	557.7	557.6	557.7	558.0
7.5°	559.0	559.1	559.4	559.4	559.3	559.4	559.4	559.1	559.0	559.1	559.4
8°	560.4	560.6	560.9	561.0	560.9	561.0	560.9	560.6	560.4	560.6	560.9
8.5°	562.1	562.3	562.7	562.7	562.6	562.7	562.7	562.3	562.1	562.3	562.7
9°	564.0	564.2	564.5	564.6	564.4	564.6	564.5	564.2	564.0	564.2	564.5
9.5°	566.0	566.2	566.5	566.6	566.3	566.6	566.5	566.2	566.0	566.2	566.5
10°	568.1	568.3	568.6	568.6	568.3	568.6	568.6	568.3	568.1	568.3	568.6
10.5°	570.2	570.4	570.6	570.6	570.4	570.6	570.6	570.4	570.2	570.4	570.6
11°	572.3	572.6	572.8	572.7	572.5	572.7	572.8	572.6	572.3	572.6	572.8
11.5°	574.5	574.7	574.9	574.8	574.6	574.8	574.9	574.7	574.5	574.7	574.9
12°	576.6	576.8	577.0	577.0	576.8	577.0	577.0	576.8	576.6	576.8	577.0
12.5°	578.7	579.0	579.2	579.2	579.0	579.2	579.2	579.0	578.7	579.0	579.2
13°	580.8	581.2	581.4	581.4	581.2	581.4	581.4	581.2	580.8	581.2	581.4
13.5°	583.0	583.4	583.7	583.6	583.4	583.6	583.7	583.4	583.0	583.4	583.7
14°	585.1	585.6	586.0	586.0	585.6	586.0	586.0	585.6	585.1	585.6	586.0
14.5°	587.3	587.8	588.2	588.3	587.9	588.3	588.2	587.8	587.3	587.8	588.2
15°	589.5	590.0	590.5	590.6	590.1	590.6	590.5	590.0	589.5	590.0	590.5
15.5°	591.6	592.2	592.8	592.8	592.3	592.8	592.8	592.2	591.6	592.2	592.8
16°	593.7	594.4	595.0	595.0	594.5	595.0	595.0	594.4	593.7	594.4	595.0
16.5°	595.7	596.4	597.1	597.1	596.6	597.1	597.1	596.4	595.7	596.4	597.1
17°	597.8	598.5	599.2	599.2	598.6	599.2	599.2	598.5	597.8	598.5	599.2
17.5°	599.7	600.5	601.2	601.2	600.6	601.2	601.2	600.5	599.7	600.5	601.2
18°	601.5	602.4	603.1	603.1	602.6	603.1	603.1	602.4	601.5	602.4	603.1
18.5°	603.2	604.2	604.9	604.9	604.4	604.9	604.9	604.2	603.2	604.2	604.9
19°	604.8	605.8	606.6	606.5	606.1	606.5	606.6	605.8	604.8	605.8	606.6
19.5°	606.2	607.2	608.2	608.0	607.7	608.0	608.2	607.2	606.2	607.2	608.2
20°	607.5	608.5	609.6	609.3	609.2	609.3	609.6	608.5	607.5	608.5	609.6
20.5°	608.6	609.6	610.7	610.4	610.4	610.4	610.7	609.6	608.6	609.6	610.7
21°	609.4	610.4	611.6	611.2	611.4	611.2	611.6	610.4	609.4	610.4	611.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	610.4	611.3	612.7	612.2	612.8	612.2	612.7	611.3	610.4	611.3	612.7
23°	610.2	611.0	612.5	611.9	612.6	611.9	612.5	611.0	610.2	611.0	612.5
23.5°	609.6	610.4	611.9	611.2	612.1	611.2	611.9	610.4	609.6	610.4	611.9
24°	608.6	609.4	610.9	610.3	611.1	610.3	610.9	609.4	608.6	609.4	610.9
24.5°	607.2	608.0	609.5	609.0	609.7	609.0	609.5	608.0	607.2	608.0	609.5
25°	605.4	606.3	607.7	607.3	607.9	607.3	607.7	606.3	605.4	606.3	607.7
25.5°	603.4	604.2	605.6	605.3	605.6	605.3	605.6	604.2	603.4	604.2	605.6
26°	600.9	601.7	603.0	602.9	603.0	602.9	603.0	601.7	600.9	601.7	603.0
26.5°	597.8	598.7	600.0	600.1	599.9	600.1	600.0	598.7	597.8	598.7	600.0
27°	594.6	595.5	596.6	596.9	596.4	596.9	596.6	595.5	594.6	595.5	596.6
27.5°	590.9	591.8	592.8	593.3	592.5	593.3	592.8	591.8	590.9	591.8	592.8
28°	586.8	587.7	588.5	589.3	588.2	589.3	588.5	587.7	586.8	587.7	588.5
28.5°	582.5	583.2	584.0	585.0	583.6	585.0	584.0	583.2	582.5	583.2	584.0
29°	577.7	578.4	579.0	580.2	578.7	580.2	579.0	578.4	577.7	578.4	579.0
29.5°	572.6	573.2	573.9	574.9	573.5	574.9	573.9	573.2	572.6	573.2	573.9
30°	567.2	567.6	568.1	569.3	567.9	569.3	568.1	567.6	567.2	567.6	568.1
30.5°	561.4	561.6	562.2	563.4	562.0	563.4	562.2	561.6	561.4	561.6	562.2
31°	555.1	555.3	555.9	557.0	555.8	557.0	555.9	555.3	555.1	555.3	555.9
31.5°	548.6	548.6	549.3	550.2	549.3	550.2	549.3	548.6	548.6	548.6	549.3
32°	541.7	541.6	542.2	543.1	542.5	543.1	542.2	541.6	541.7	541.6	542.2
32.5°	534.4	534.2	535.0	535.6	535.4	535.6	535.0	534.2	534.4	534.2	535.0
33°	526.8	526.6	527.3	527.8	527.9	527.8	527.3	526.6	526.8	526.6	527.3
33.5°	518.8	518.4	519.3	519.6	519.9	519.6	519.3	518.4	518.8	518.4	519.3
34°	510.5	510.1	510.9	511.0	511.8	511.0	510.9	510.1	510.5	510.1	510.9
34.5°	501.6	501.6	502.1	502.2	503.1	502.2	502.1	501.6	501.6	501.6	502.1
35°	492.6	492.5	493.0	493.2	494.2	493.2	493.0	492.5	492.6	492.5	493.0
35.5°	483.3	483.3	483.7	483.9	484.9	483.9	483.7	483.3	483.3	483.3	483.7
36°	473.9	473.9	474.2	474.5	475.2	474.5	474.2	473.9	473.9	473.9	474.2
36.5°	464.2	464.3	464.5	464.7	465.5	464.7	464.5	464.3	464.2	464.3	464.5
37°	454.1	454.3	454.4	454.7	455.3	454.7	454.4	454.3	454.1	454.3	454.4
37.5°	444.0	444.1	444.3	444.6	444.9	444.6	444.3	444.1	444.0	444.1	444.3
38°	433.7	433.7	434.0	434.2	434.5	434.2	434.0	433.7	433.7	433.7	434.0
38.5°	423.2	423.2	423.5	423.7	423.9	423.7	423.5	423.2	423.2	423.2	423.5
39°	412.5	412.5	412.9	413.2	413.3	413.2	412.9	412.5	412.5	412.5	412.9
39.5°	401.5	401.6	402.0	402.6	402.7	402.6	402.0	401.6	401.5	401.6	402.0
40°	390.5	390.6	391.3	391.8	392.1	391.8	391.3	390.6	390.5	390.6	391.3
40.5°	379.7	379.9	380.8	381.7	381.9	381.7	380.8	379.9	379.7	379.9	380.8
41°	369.5	369.8	370.7	371.7	372.1	371.7	370.7	369.8	369.5	369.8	370.7
41.5°	359.9	360.3	361.1	362.1	362.4	362.1	361.1	360.3	359.9	360.3	361.1
42°	351.1	351.3	352.1	352.8	353.4	352.8	352.1	351.3	351.1	351.3	352.1
42.5°	342.8	342.9	343.9	344.6	345.0	344.6	343.9	342.9	342.8	342.9	343.9
43°	334.8	334.9	336.0	336.8	337.7	336.8	336.0	334.9	334.8	334.9	336.0
43.5°	327.4	327.7	328.5	329.3	330.0	329.3	328.5	327.7	327.4	327.7	328.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	308.7	308.7	309.4	309.7	310.3	309.7	309.4	308.7	308.7	308.7	309.4
45.5°	303.0	303.0	303.7	304.0	304.3	304.0	303.7	303.0	303.0	303.0	303.7
46°	297.5	297.6	298.1	298.5	298.7	298.5	298.1	297.6	297.5	297.6	298.1
46.5°	292.2	292.2	292.7	293.0	293.4	293.0	292.7	292.2	292.2	292.2	292.7
47°	287.0	287.0	287.4	287.8	288.1	287.8	287.4	287.0	287.0	287.0	287.4
47.5°	281.8	281.8	282.3	282.6	282.7	282.6	282.3	281.8	281.8	281.8	282.3
48°	276.8	276.7	277.2	277.5	277.7	277.5	277.2	276.7	276.8	276.7	277.2
48.5°	271.6	271.6	272.0	272.4	272.5	272.4	272.0	271.6	271.6	271.6	272.0
49°	266.2	266.3	266.7	267.0	267.2	267.0	266.7	266.3	266.2	266.3	266.7
49.5°	260.7	260.6	261.1	261.4	261.5	261.4	261.1	260.6	260.7	260.6	261.1
50°	254.6	254.6	254.9	255.2	255.2	255.2	254.9	254.6	254.6	254.6	254.9
50.5°	247.9	247.9	248.1	248.5	248.5	248.5	248.1	247.9	247.9	247.9	248.1
51°	240.8	240.7	241.0	241.3	241.6	241.3	241.0	240.7	240.8	240.7	241.0
51.5°	233.3	233.2	233.6	234.0	234.1	234.0	233.6	233.2	233.3	233.2	233.6
52°	225.5	225.6	225.9	226.2	226.4	226.2	225.9	225.6	225.5	225.6	225.9
52.5°	217.5	217.4	217.9	218.3	218.4	218.3	217.9	217.4	217.5	217.4	217.9
53°	209.1	209.2	209.7	210.2	210.1	210.2	209.7	209.2	209.1	209.2	209.7
53.5°	200.6	200.7	201.3	201.7	201.9	201.7	201.3	200.7	200.6	200.7	201.3
54°	192.0	192.2	192.8	193.2	193.3	193.2	192.8	192.2	192.0	192.2	192.8
54.5°	183.5	183.5	184.3	184.8	185.0	184.8	184.3	183.5	183.5	183.5	184.3
55°	174.9	175.0	175.9	176.3	176.7	176.3	175.9	175.0	174.9	175.0	175.9
55.5°	166.1	166.3	167.2	167.8	168.2	167.8	167.2	166.3	166.1	166.3	167.2
56°	157.4	157.7	158.7	159.2	159.7	159.2	158.7	157.7	157.4	157.7	158.7
56.5°	148.8	149.1	150.1	150.7	151.2	150.7	150.1	149.1	148.8	149.1	150.1
57°	140.2	140.7	141.6	142.3	142.8	142.3	141.6	140.7	140.2	140.7	141.6
57.5°	131.8	132.3	133.2	134.0	134.5	134.0	133.2	132.3	131.8	132.3	133.2
58°	123.5	123.9	124.9	125.9	126.3	125.9	124.9	123.9	123.5	123.9	124.9
58.5°	115.2	115.8	116.8	118.0	118.3	118.0	116.8	115.8	115.2	115.8	116.8
59°	107.2	107.9	108.7	110.0	110.3	110.0	108.7	107.9	107.2	107.9	108.7
59.5°	99.5	100.0	100.9	102.2	102.5	102.2	100.9	100.0	99.5	100.0	100.9
60°	91.9	92.3	93.2	94.4	94.8	94.4	93.2	92.3	91.9	92.3	93.2
60.5°	84.3	84.7	85.6	86.8	87.4	86.8	85.6	84.7	84.3	84.7	85.6
61°	76.9	77.3	78.4	79.5	80.1	79.5	78.4	77.3	76.9	77.3	78.4
61.5°	69.3	70.2	71.3	72.4	73.3	72.4	71.3	70.2	69.3	70.2	71.3
62°	62.2	63.2	64.3	65.5	66.4	65.5	64.3	63.2	62.2	63.2	64.3
62.5°	55.1	56.4	57.6	58.8	59.8	58.8	57.6	56.4	55.1	56.4	57.6
63°	48.2	50.0	51.1	52.3	53.4	52.3	51.1	50.0	48.2	50.0	51.1
63.5°	41.6	43.9	45.1	46.2	47.4	46.2	45.1	43.9	41.6	43.9	45.1
64°	35.2	38.2	39.6	40.6	41.8	40.6	39.6	38.2	35.2	38.2	39.6
64.5°	29.5	33.0	34.3	35.2	36.4	35.2	34.3	33.0	29.5	33.0	34.3
65°	24.3	28.0	29.3	30.1	31.0	30.1	29.3	28.0	24.3	28.0	29.3
65.5°	19.4	23.6	24.7	25.1	25.9	25.1	24.7	23.6	19.4	23.6	24.7
66°	15.2	19.6	20.4	21.0	21.4	21.0	20.4	19.6	15.2	19.6	20.4





TEST NUMBER: P775715

CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	4.7	9.1	9.8	10.4	11.0	10.4	9.8	9.1	4.7	9.1	9.8
68°	2.8	6.4	7.0	7.8	9.0	7.8	7.0	6.4	2.8	6.4	7.0
68.5°	1.7	4.2	5.0	5.5	7.0	5.5	5.0	4.2	1.7	4.2	5.0
69°	1.0	2.5	3.1	3.5	5.0	3.5	3.1	2.5	1.0	2.5	3.1
69.5°	0.6	1.6	1.8	1.8	3.0	1.8	1.8	1.6	0.6	1.6	1.8
70°	0.1	0.8	1.0	1.0	1.0	1.0	1.0	0.8	0.1	0.8	1.0
70.5°	0.1	0.3	0.6	0.6	0.4	0.6	0.6	0.3	0.1	0.3	0.6
71°	0.1	0.1	0.3	0.3	0.1	0.3	0.3	0.1	0.1	0.1	0.3
71.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
75.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	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: P775715  
CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775715

CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	549.6	549.6	549.6	549.6	549.6	549.6
0.5°	549.8	549.7	549.8	549.7	549.6	549.4
1°	549.9	549.8	549.9	549.8	549.7	549.6
1.5°	550.1	550.0	550.1	550.0	549.9	549.8
2°	550.3	550.2	550.3	550.3	550.2	550.1
2.5°	550.7	550.6	550.7	550.7	550.5	550.4
3°	551.1	551.0	551.1	551.1	551.0	550.9
3.5°	551.7	551.6	551.7	551.7	551.5	551.4
4°	552.4	552.3	552.4	552.3	552.1	552.0
4.5°	553.1	553.0	553.1	553.0	552.8	552.7
5°	553.9	553.9	553.9	553.8	553.6	553.5
5.5°	554.9	554.8	554.9	554.7	554.5	554.3
6°	555.9	555.8	555.9	555.7	555.4	555.3
6.5°	556.9	556.8	556.9	556.8	556.5	556.4
7°	558.1	558.0	558.1	558.0	557.7	557.6
7.5°	559.4	559.3	559.4	559.4	559.1	559.0
8°	561.0	560.9	561.0	560.9	560.6	560.4
8.5°	562.7	562.6	562.7	562.7	562.3	562.1
9°	564.6	564.4	564.6	564.5	564.2	564.0
9.5°	566.6	566.3	566.6	566.5	566.2	566.0
10°	568.6	568.3	568.6	568.6	568.3	568.1
10.5°	570.6	570.4	570.6	570.6	570.4	570.2
11°	572.7	572.5	572.7	572.8	572.6	572.3
11.5°	574.8	574.6	574.8	574.9	574.7	574.5
12°	577.0	576.8	577.0	577.0	576.8	576.6
12.5°	579.2	579.0	579.2	579.2	579.0	578.7
13°	581.4	581.2	581.4	581.4	581.2	580.8
13.5°	583.6	583.4	583.6	583.7	583.4	583.0
14°	586.0	585.6	586.0	586.0	585.6	585.1
14.5°	588.3	587.9	588.3	588.2	587.8	587.3
15°	590.6	590.1	590.6	590.5	590.0	589.5
15.5°	592.8	592.3	592.8	592.8	592.2	591.6
16°	595.0	594.5	595.0	595.0	594.4	593.7
16.5°	597.1	596.6	597.1	597.1	596.4	595.7
17°	599.2	598.6	599.2	599.2	598.5	597.8
17.5°	601.2	600.6	601.2	601.2	600.5	599.7
18°	603.1	602.6	603.1	603.1	602.4	601.5
18.5°	604.9	604.4	604.9	604.9	604.2	603.2
19°	606.5	606.1	606.5	606.6	605.8	604.8
19.5°	608.0	607.7	608.0	608.2	607.2	606.2
20°	609.3	609.2	609.3	609.6	608.5	607.5
20.5°	610.4	610.4	610.4	610.7	609.6	608.6
21°	611.2	611.4	611.2	611.6	610.4	609.4



TEST NUMBER: P775715

CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	612.2	612.8	612.2	612.7	611.3	610.4
23°	611.9	612.6	611.9	612.5	611.0	610.2
23.5°	611.2	612.1	611.2	611.9	610.4	609.6
24°	610.3	611.1	610.3	610.9	609.4	608.6
24.5°	609.0	609.7	609.0	609.5	608.0	607.2
25°	607.3	607.9	607.3	607.7	606.3	605.4
25.5°	605.3	605.6	605.3	605.6	604.2	603.4
26°	602.9	603.0	602.9	603.0	601.7	600.9
26.5°	600.1	599.9	600.1	600.0	598.7	597.8
27°	596.9	596.4	596.9	596.6	595.5	594.6
27.5°	593.3	592.5	593.3	592.8	591.8	590.9
28°	589.3	588.2	589.3	588.5	587.7	586.8
28.5°	585.0	583.6	585.0	584.0	583.2	582.5
29°	580.2	578.7	580.2	579.0	578.4	577.7
29.5°	574.9	573.5	574.9	573.9	573.2	572.6
30°	569.3	567.9	569.3	568.1	567.6	567.2
30.5°	563.4	562.0	563.4	562.2	561.6	561.4
31°	557.0	555.8	557.0	555.9	555.3	555.1
31.5°	550.2	549.3	550.2	549.3	548.6	548.6
32°	543.1	542.5	543.1	542.2	541.6	541.7
32.5°	535.6	535.4	535.6	535.0	534.2	534.4
33°	527.8	527.9	527.8	527.3	526.6	526.8
33.5°	519.6	519.9	519.6	519.3	518.4	518.8
34°	511.0	511.8	511.0	510.9	510.1	510.5
34.5°	502.2	503.1	502.2	502.1	501.6	501.6
35°	493.2	494.2	493.2	493.0	492.5	492.6
35.5°	483.9	484.9	483.9	483.7	483.3	483.3
36°	474.5	475.2	474.5	474.2	473.9	473.9
36.5°	464.7	465.5	464.7	464.5	464.3	464.2
37°	454.7	455.3	454.7	454.4	454.3	454.1
37.5°	444.6	444.9	444.6	444.3	444.1	444.0
38°	434.2	434.5	434.2	434.0	433.7	433.7
38.5°	423.7	423.9	423.7	423.5	423.2	423.2
39°	413.2	413.3	413.2	412.9	412.5	412.5
39.5°	402.6	402.7	402.6	402.0	401.6	401.5
40°	391.8	392.1	391.8	391.3	390.6	390.5
40.5°	381.7	381.9	381.7	380.8	379.9	379.7
41°	371.7	372.1	371.7	370.7	369.8	369.5
41.5°	362.1	362.4	362.1	361.1	360.3	359.9
42°	352.8	353.4	352.8	352.1	351.3	351.1
42.5°	344.6	345.0	344.6	343.9	342.9	342.8
43°	336.8	337.7	336.8	336.0	334.9	334.8
43.5°	329.3	330.0	329.3	328.5	327.7	327.4



TEST NUMBER: P775715

CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	309.7	310.3	309.7	309.4	308.7	308.7
45.5°	304.0	304.3	304.0	303.7	303.0	303.0
46°	298.5	298.7	298.5	298.1	297.6	297.5
46.5°	293.0	293.4	293.0	292.7	292.2	292.2
47°	287.8	288.1	287.8	287.4	287.0	287.0
47.5°	282.6	282.7	282.6	282.3	281.8	281.8
48°	277.5	277.7	277.5	277.2	276.7	276.8
48.5°	272.4	272.5	272.4	272.0	271.6	271.6
49°	267.0	267.2	267.0	266.7	266.3	266.2
49.5°	261.4	261.5	261.4	261.1	260.6	260.7
50°	255.2	255.2	255.2	254.9	254.6	254.6
50.5°	248.5	248.5	248.5	248.1	247.9	247.9
51°	241.3	241.6	241.3	241.0	240.7	240.8
51.5°	234.0	234.1	234.0	233.6	233.2	233.3
52°	226.2	226.4	226.2	225.9	225.6	225.5
52.5°	218.3	218.4	218.3	217.9	217.4	217.5
53°	210.2	210.1	210.2	209.7	209.2	209.1
53.5°	201.7	201.9	201.7	201.3	200.7	200.6
54°	193.2	193.3	193.2	192.8	192.2	192.0
54.5°	184.8	185.0	184.8	184.3	183.5	183.5
55°	176.3	176.7	176.3	175.9	175.0	174.9
55.5°	167.8	168.2	167.8	167.2	166.3	166.1
56°	159.2	159.7	159.2	158.7	157.7	157.4
56.5°	150.7	151.2	150.7	150.1	149.1	148.8
57°	142.3	142.8	142.3	141.6	140.7	140.2
57.5°	134.0	134.5	134.0	133.2	132.3	131.8
58°	125.9	126.3	125.9	124.9	123.9	123.5
58.5°	118.0	118.3	118.0	116.8	115.8	115.2
59°	110.0	110.3	110.0	108.7	107.9	107.2
59.5°	102.2	102.5	102.2	100.9	100.0	99.5
60°	94.4	94.8	94.4	93.2	92.3	91.9
60.5°	86.8	87.4	86.8	85.6	84.7	84.3
61°	79.5	80.1	79.5	78.4	77.3	76.9
61.5°	72.4	73.3	72.4	71.3	70.2	69.3
62°	65.5	66.4	65.5	64.3	63.2	62.2
62.5°	58.8	59.8	58.8	57.6	56.4	55.1
63°	52.3	53.4	52.3	51.1	50.0	48.2
63.5°	46.2	47.4	46.2	45.1	43.9	41.6
64°	40.6	41.8	40.6	39.6	38.2	35.2
64.5°	35.2	36.4	35.2	34.3	33.0	29.5
65°	30.1	31.0	30.1	29.3	28.0	24.3
65.5°	25.1	25.9	25.1	24.7	23.6	19.4
66°	21.0	21.4	21.0	20.4	19.6	15.2



TEST NUMBER: P775715

CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	10.4	11.0	10.4	9.8	9.1	4.7
68°	7.8	9.0	7.8	7.0	6.4	2.8
68.5°	5.5	7.0	5.5	5.0	4.2	1.7
69°	3.5	5.0	3.5	3.1	2.5	1.0
69.5°	1.8	3.0	1.8	1.8	1.6	0.6
70°	1.0	1.0	1.0	1.0	0.8	0.1
70.5°	0.6	0.4	0.6	0.6	0.3	0.1
71°	0.3	0.1	0.3	0.3	0.1	0.1
71.5°	0.1	0.1	0.1	0.1	0.1	0.1
72°	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.0	0.0
75.5°	0.1	0.1	0.1	0.0	0.0	0.0
76°	0.0	0.1	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	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: P775715

CATALOG NUMBER: HCDJBL510CSD-HCD61TRC-1000lm-2700K

**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

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9



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— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - 135°-315°

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21.5°	610.1	611.0	612.3	611.8	612.2	611.8	612.3	611.0	610.1	611.0	612.3
22°	610.4	611.3	612.7	612.1	612.6	612.1	612.7	611.3	610.4	611.3	612.7



44°	320.7	320.9	321.7	322.2	323.0	322.2	321.7	320.9	320.7	320.9	321.7
44.5°	314.6	314.7	315.4	315.8	316.3	315.8	315.4	314.7	314.6	314.7	315.4



66.5°	11.1	15.6	16.6	17.2	17.3	17.2	16.6	15.6	11.1	15.6	16.6
67°	7.7	12.3	12.9	13.5	13.6	13.5	12.9	12.3	7.7	12.3	12.9



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



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21.5°	611.8	612.2	611.8	612.3	611.0	610.1
22°	612.1	612.6	612.1	612.7	611.3	610.4



44°	322.2	323.0	322.2	321.7	320.9	320.7
44.5°	315.8	316.3	315.8	315.4	314.7	314.6



66.5°	17.2	17.3	17.2	16.6	15.6	11.1
67°	13.5	13.6	13.5	12.9	12.3	7.7

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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

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(END OF REPORT)