

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: P775911

Luminaire Tested: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775911  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2310613A001)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K  
Description: 8 INCH SQUARE MEDIUM MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

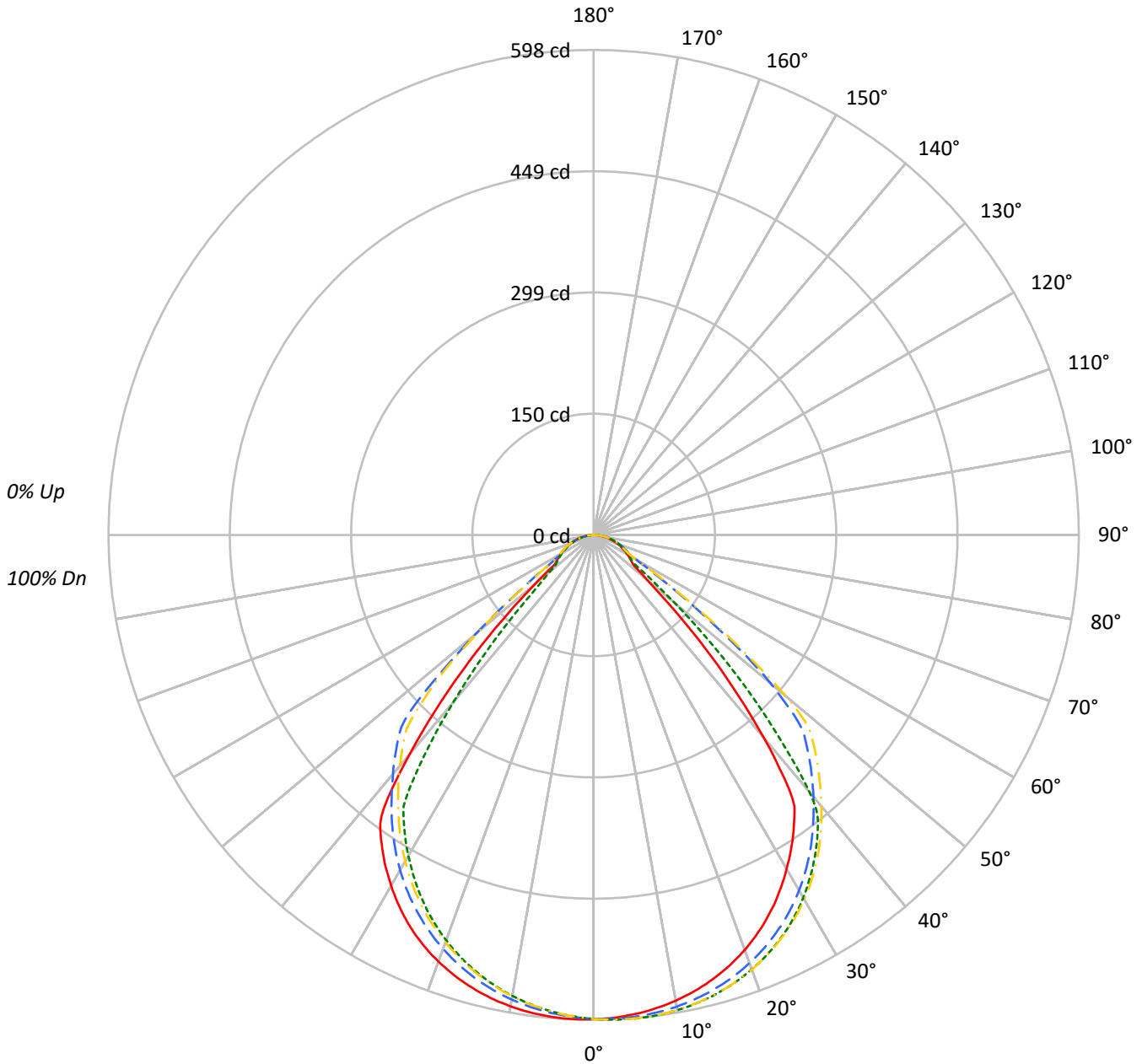
Lumens per Lamp: N/A  
Luminaire Lumens: 1080.9 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.29  
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')  
CIE Type: Direct

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



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### Luminous Intensity Polar Plot





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**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	100	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	84	81	79	79	79	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70	70	70	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63	63	63	63
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56	56	56	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51	51	51	51
7	73	62	54	49	72	61	54	49	60	53	48	58	52	48	57	52	48	46	46	46	46
8	69	57	50	44	67	56	49	44	55	49	44	54	48	44	53	48	44	42	42	42	42
9	65	53	45	41	63	52	45	40	51	45	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	60	49	42	37	48	41	37	47	41	37	46	41	37	35	35	35	35

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

	0°	90°	180°	270°
0°	14310	14310	14310	14310
5°	14271	14406	14358	14201
10°	14198	14485	14375	14054
15°	14078	14540	14353	13849
20°	13897	14550	14282	13573
25°	13602	14483	14126	13178
30°	13174	14306	13825	12648
35°	12616	13966	13380	11964
40°	10223	12956	11021	8395
45°	6226	8912	6992	4615
50°	3193	4864	3570	2608
55°	2383	2492	2324	2228
60°	2302	2374	2240	2148
65°	2230	2332	2167	2071
70°	2159	2300	2096	1984
75°	2047	2307	2001	1844
80°	1850	2334	1850	1588
85°	1321	2504	1458	935

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 135°  
 Vertical Angle: 45°  
 Luminance: 13171 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.5	5.2
10°-20°	161.4	14.9
20°-30°	241.3	22.3
30°-40°	276.9	25.6
40°-50°	201.1	18.6
50°-60°	73.7	6.8
60°-70°	39.5	3.7
70°-80°	23.9	2.2
80°-90°	6.7	0.6
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°	459.2	42.5
0°-40°	736.0	68.1
0°-60°	1010.8	93.5
0°-90°	1080.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	597	597	597	597	597	
5°	593	598	596	590	593	56
15°	567	586	578	558	567	160
25°	514	547	534	498	514	236
35°	431	477	457	409	431	263
45°	184	263	206	136	184	145
55°	57	60	56	53	57	53
65°	39	41	38	36	39	39
75°	22	25	22	20	22	23
85°	5	9	5	3	5	6
90°	0	1	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°	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8
0.5°	597.0	597.1	596.8	596.7	597.2	597.2	597.2	597.4	597.4	597.1	596.3
1°	596.8	597.0	596.9	597.0	597.6	597.5	597.5	597.6	597.5	597.0	596.0
1.5°	596.5	596.9	597.0	597.2	597.9	597.8	597.8	597.8	597.5	596.9	595.7
2°	596.2	596.7	597.0	597.3	598.1	598.1	598.0	597.9	597.5	596.8	595.4
2.5°	595.7	596.5	597.0	597.5	598.3	598.3	598.2	597.9	597.5	596.6	594.9
3°	595.3	596.2	596.9	597.6	598.5	598.5	598.3	597.9	597.4	596.4	594.4
3.5°	594.9	595.9	596.8	597.6	598.5	598.6	598.4	598.0	597.3	596.1	593.8
4°	594.2	595.5	596.7	597.6	598.5	598.6	598.5	597.9	597.1	595.7	593.2
4.5°	593.6	595.1	596.4	597.4	598.5	598.6	598.4	597.8	596.8	595.3	592.6
5°	592.9	594.5	596.2	597.3	598.5	598.6	598.4	597.6	596.5	594.7	591.9
5.5°	592.2	594.0	595.8	597.1	598.4	598.4	598.2	597.4	596.1	594.1	591.2
6°	591.4	593.4	595.5	596.9	598.2	598.3	598.0	597.1	595.7	593.6	590.4
6.5°	590.7	592.7	595.0	596.6	598.0	598.1	597.8	596.8	595.2	593.0	589.5
7°	589.8	592.0	594.5	596.3	597.7	597.9	597.5	596.4	594.6	592.3	588.5
7.5°	588.7	591.3	593.9	595.9	597.4	597.7	597.2	596.0	594.0	591.6	587.6
8°	587.7	590.5	593.4	595.5	597.0	597.3	596.8	595.5	593.4	590.8	586.5
8.5°	586.7	589.5	592.7	594.9	596.6	596.9	596.4	595.0	592.7	589.9	585.4
9°	585.6	588.6	592.0	594.3	596.1	596.5	595.9	594.3	592.0	588.9	584.2
9.5°	584.3	587.6	591.3	593.7	595.6	595.9	595.4	593.7	591.2	587.9	583.0
10°	583.1	586.5	590.6	593.1	594.9	595.4	594.6	592.9	590.4	586.9	581.8
10.5°	581.8	585.4	589.6	592.4	594.2	594.7	594.0	592.1	589.3	585.9	580.4
11°	580.5	584.2	588.7	591.6	593.5	594.1	593.3	591.3	588.3	584.7	578.9
11.5°	579.0	583.0	587.6	590.8	592.8	593.3	592.5	590.4	587.3	583.5	577.5
12°	577.5	581.7	586.7	589.9	592.0	592.5	591.7	589.4	586.3	582.2	576.1
12.5°	575.9	580.4	585.6	588.9	591.1	591.7	590.9	588.5	585.1	580.8	574.5
13°	574.4	578.8	584.4	587.9	590.2	590.8	589.9	587.4	583.8	579.3	572.8
13.5°	572.6	577.4	583.2	586.9	589.1	589.9	588.8	586.3	582.5	577.9	571.1
14°	570.9	575.8	582.0	585.8	588.0	588.7	587.8	585.1	581.2	576.4	569.3
14.5°	569.0	574.2	580.7	584.7	586.9	587.7	586.7	583.8	579.8	574.9	567.4
15°	567.1	572.5	579.2	583.3	585.7	586.6	585.5	582.5	578.2	573.1	565.6
15.5°	565.2	570.8	577.8	582.0	584.4	585.3	584.3	581.2	576.7	571.5	563.6
16°	563.1	568.8	576.3	580.7	583.1	584.0	583.0	579.8	575.1	569.7	561.6
16.5°	561.1	567.1	574.7	579.2	581.8	582.7	581.6	578.2	573.4	567.8	559.5
17°	558.9	565.2	573.0	577.7	580.3	581.3	580.2	576.7	571.7	566.0	557.3
17.5°	556.7	563.1	571.4	576.2	578.7	579.9	578.6	575.1	569.9	564.0	555.1
18°	554.5	561.1	569.6	574.6	577.2	578.3	577.2	573.2	567.9	562.0	552.8
18.5°	552.0	558.9	567.7	572.9	575.6	576.7	575.6	571.6	566.0	559.9	550.4
19°	549.6	556.7	565.9	571.1	573.8	575.1	573.8	569.7	563.9	557.7	547.9
19.5°	547.1	554.4	563.8	569.3	572.0	573.3	572.1	567.9	561.9	555.5	545.5
20°	544.6	552.0	561.8	567.4	570.2	571.6	570.3	565.8	559.7	553.2	542.9
20.5°	541.8	549.6	559.8	565.5	568.2	569.7	568.4	563.8	557.4	550.9	540.3
21°	539.1	547.1	557.6	563.4	566.3	567.8	566.4	561.7	555.2	548.3	537.5



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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°	530.3	539.2	550.6	556.9	559.8	561.5	560.2	555.0	547.8	540.6	529.2
23°	527.2	536.3	548.1	554.7	557.5	559.3	558.0	552.6	545.2	537.8	526.2
23.5°	524.1	533.4	545.7	552.2	555.1	557.0	555.7	550.2	542.4	535.0	523.1
24°	520.8	530.4	543.0	549.8	552.7	554.7	553.2	547.5	539.8	532.1	520.1
24.5°	517.5	527.3	540.4	547.3	550.2	552.2	550.9	545.0	536.8	529.2	516.8
25°	514.1	524.2	537.6	544.6	547.4	549.7	548.3	542.3	533.9	526.1	513.7
25.5°	510.6	520.9	534.9	541.9	544.9	547.0	545.8	539.6	530.9	522.9	510.3
26°	507.1	517.6	531.9	539.2	542.0	544.5	543.1	536.7	527.7	519.8	506.9
26.5°	503.5	514.3	529.1	536.3	539.2	541.7	540.4	533.7	524.5	516.4	503.5
27°	499.8	510.8	526.1	533.4	536.2	538.7	537.6	530.6	521.1	513.0	499.9
27.5°	495.8	507.2	522.9	530.5	533.1	535.8	534.8	527.5	517.7	509.6	496.3
28°	492.0	503.7	519.7	527.3	530.0	532.8	531.8	524.4	514.3	506.0	492.8
28.5°	487.9	500.0	516.5	524.3	526.7	529.7	528.8	521.0	510.7	502.3	488.9
29°	484.1	496.2	513.2	520.9	523.7	526.4	525.7	517.7	506.9	498.7	485.1
29.5°	479.8	492.3	509.8	517.6	520.0	523.1	522.5	514.2	503.3	494.7	481.1
30°	475.8	488.4	506.3	514.3	516.7	519.8	519.2	510.7	499.3	490.9	477.2
30.5°	471.4	484.4	502.8	510.8	512.8	516.3	515.9	507.0	495.5	486.9	473.1
31°	467.4	480.4	499.2	507.1	509.5	512.8	512.4	503.4	491.5	482.9	469.0
31.5°	463.0	476.1	495.4	503.6	505.4	509.1	509.0	499.6	487.5	478.8	464.8
32°	458.7	471.9	491.6	499.8	501.5	505.5	505.3	495.7	483.5	474.7	460.5
32.5°	454.1	467.8	487.8	495.9	497.6	501.6	501.6	491.8	479.3	470.5	456.0
33°	449.8	463.6	483.7	492.0	493.8	497.9	497.9	487.9	475.0	466.3	451.6
33.5°	445.2	459.2	479.8	488.2	489.6	493.9	494.0	483.9	470.7	462.2	447.2
34°	440.6	454.9	475.6	484.1	485.4	489.8	490.0	479.7	466.3	457.9	442.6
34.5°	435.6	450.4	471.4	480.0	481.2	485.7	486.0	475.6	461.6	453.5	438.0
35°	431.0	445.9	467.2	475.8	477.1	481.7	481.9	471.4	457.1	449.0	433.3
35.5°	426.2	441.3	462.9	471.6	472.6	477.6	477.7	467.3	452.4	444.4	428.6
36°	421.3	436.8	458.4	467.4	468.2	473.3	473.4	462.9	447.6	439.8	423.8
36.5°	416.0	432.0	454.0	463.2	463.5	469.1	469.0	458.4	442.3	435.1	418.9
37°	407.3	427.2	449.5	458.8	458.8	464.6	464.6	453.8	434.5	430.2	414.1
37.5°	396.8	422.4	444.9	454.3	454.0	460.1	460.0	449.2	424.8	425.4	409.1
38°	382.7	417.4	440.3	449.8	449.1	455.4	455.5	444.4	412.8	420.2	404.2
38.5°	368.6	412.3	435.5	445.2	443.6	450.8	450.8	439.7	398.6	414.4	399.4
39°	355.0	404.6	430.8	440.6	435.7	446.0	446.2	434.8	383.6	404.9	394.5
39.5°	341.1	394.4	426.1	435.8	426.0	441.1	441.4	429.3	367.9	394.4	389.6
40°	326.6	381.1	421.4	430.9	413.9	436.1	436.6	420.3	352.1	381.9	384.8
40.5°	311.5	367.1	416.6	425.9	400.1	430.7	431.7	411.3	337.1	367.9	380.1
41°	296.1	353.7	411.7	420.9	384.5	422.3	427.0	399.3	322.7	354.0	375.4
41.5°	280.9	340.3	406.9	415.5	368.7	412.9	422.1	386.1	308.0	338.4	370.6
42°	266.4	326.2	402.0	408.3	352.8	401.5	417.3	371.7	293.2	324.1	365.7
42.5°	252.6	311.5	397.1	398.9	337.7	387.9	412.5	356.6	277.9	310.3	360.9
43°	238.5	296.9	392.3	387.8	323.0	373.2	407.6	341.9	262.8	297.1	356.0
43.5°	224.4	282.2	387.3	375.3	308.2	357.7	402.9	327.6	247.9	282.6	351.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	183.6	239.7	372.6	332.1	262.8	313.2	388.4	285.1	206.2	240.7	335.3
45.5°	170.6	226.2	367.6	317.7	247.5	299.1	383.4	270.5	192.5	226.1	327.0
46°	158.5	212.7	362.5	304.2	233.4	284.6	378.4	256.0	179.4	213.2	317.2
46.5°	146.6	198.9	357.4	290.6	219.5	269.6	373.4	241.3	166.5	199.8	303.5
47°	134.9	185.5	352.1	276.6	205.6	254.6	368.3	227.5	154.1	187.8	286.7
47.5°	124.4	172.8	342.7	262.5	192.0	239.9	363.0	214.0	142.2	174.6	269.9
48°	114.3	160.4	332.9	248.5	178.4	226.1	357.5	200.9	131.6	162.8	252.6
48.5°	105.4	148.6	320.7	234.3	165.5	212.6	349.0	187.6	121.1	150.8	236.0
49°	97.7	137.0	308.6	221.2	153.1	198.9	337.3	174.6	111.5	139.1	220.0
49.5°	91.2	126.2	296.4	207.7	141.4	185.6	324.4	162.1	102.4	128.6	204.2
50°	85.6	115.8	284.6	195.4	130.4	172.4	308.5	149.9	95.7	118.8	188.6
50.5°	80.9	106.3	271.7	182.8	120.2	159.6	291.7	138.5	89.0	109.1	173.8
51°	76.5	97.9	256.8	170.2	110.4	147.5	274.0	127.3	82.4	100.3	160.0
51.5°	72.1	91.2	241.7	157.6	101.5	135.9	256.1	117.2	75.8	93.2	147.2
52°	67.8	85.3	225.9	146.2	94.5	124.9	238.8	107.7	69.2	86.2	134.7
52.5°	64.1	80.3	209.7	134.8	87.3	114.7	221.7	100.4	64.0	79.3	123.4
53°	61.3	75.7	194.0	124.4	80.3	105.2	206.0	93.0	60.3	72.2	113.1
53.5°	60.0	71.5	178.8	114.2	73.2	97.9	191.0	85.7	58.6	66.6	103.6
54°	58.9	67.2	164.4	105.3	67.9	90.7	176.4	78.3	57.5	61.6	96.5
54.5°	57.9	63.1	150.5	96.3	62.9	83.4	162.0	71.0	56.5	57.9	89.5
55°	57.0	59.9	138.3	88.5	59.6	76.2	148.2	65.8	55.6	56.3	82.5
55.5°	56.0	57.9	126.7	81.4	58.0	69.0	135.2	60.8	54.6	55.2	75.5
56°	55.1	56.8	115.4	75.0	57.0	63.5	123.2	56.9	53.7	54.3	68.5
56.5°	54.2	55.9	105.2	69.1	56.0	58.9	112.8	55.3	52.7	53.2	64.0
57°	53.2	54.9	96.1	63.6	55.0	56.0	104.2	54.2	51.8	52.3	60.1
57.5°	52.3	54.0	87.8	58.9	54.1	54.8	95.7	53.2	51.0	51.4	56.8
58°	51.5	53.0	80.5	55.8	53.1	53.9	87.0	52.2	50.1	50.5	54.2
58.5°	50.6	52.1	74.2	54.6	52.2	52.8	78.4	51.4	49.3	49.7	51.9
59°	49.8	51.2	68.5	53.5	51.3	51.9	70.0	50.5	48.3	48.8	50.0
59.5°	48.9	50.4	64.1	52.5	50.4	51.0	64.3	49.6	47.5	47.9	48.3
60°	48.0	49.5	60.3	51.6	49.5	50.1	59.8	48.8	46.7	47.1	46.9
60.5°	47.1	48.7	57.2	50.7	48.6	49.2	56.3	47.8	45.9	46.3	45.8
61°	46.3	47.8	54.7	49.8	47.7	48.2	53.2	47.0	45.1	45.5	44.9
61.5°	45.4	47.0	52.3	49.0	46.9	47.4	51.0	46.2	44.2	44.7	44.0
62°	44.6	46.1	50.4	48.0	46.1	46.6	49.0	45.4	43.3	43.9	42.9
62.5°	43.7	45.3	48.7	47.2	45.3	45.8	47.3	44.6	42.4	43.0	42.0
63°	42.7	44.5	47.3	46.3	44.4	45.0	45.8	43.8	41.6	42.1	41.1
63.5°	41.9	43.7	46.3	45.5	43.6	44.2	44.7	42.9	40.8	41.3	40.3
64°	41.0	42.8	45.3	44.7	42.7	43.3	43.7	42.1	39.9	40.4	39.4
64.5°	40.2	41.9	44.4	43.8	41.9	42.5	42.7	41.3	39.1	39.6	38.5
65°	39.3	41.1	43.5	42.9	41.1	41.7	41.8	40.5	38.2	38.8	37.5
65.5°	38.4	40.3	42.4	42.1	40.2	40.9	40.9	39.7	37.3	37.8	36.7
66°	37.5	39.4	41.5	41.3	39.4	40.1	40.0	38.8	36.5	37.0	35.8





TEST NUMBER: P775911

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	35.0	37.2	38.9	38.8	36.9	37.6	37.3	36.2	34.1	34.5	33.1
68°	34.2	36.3	37.9	37.8	36.1	36.8	36.4	35.4	33.3	33.6	32.2
68.5°	33.4	35.4	36.8	36.9	35.3	35.9	35.6	34.6	32.4	32.7	31.3
69°	32.5	34.4	36.0	36.1	34.5	35.1	34.7	33.7	31.6	31.8	30.5
69.5°	31.6	33.5	35.2	35.3	33.7	34.3	33.9	32.8	30.8	31.0	29.6
70°	30.8	32.6	34.3	34.6	32.8	33.5	32.9	32.0	29.9	30.2	28.7
70.5°	29.9	31.7	33.5	33.8	32.1	32.6	32.1	31.2	29.1	29.3	27.8
71°	29.1	30.9	32.5	32.8	31.3	31.8	31.2	30.3	28.3	28.5	26.9
71.5°	28.2	30.1	31.7	32.0	30.5	31.0	30.4	29.5	27.4	27.6	26.0
72°	27.3	29.2	30.8	31.2	29.7	30.2	29.5	28.7	26.6	26.7	25.2
72.5°	26.4	28.3	29.9	30.4	29.0	29.4	28.7	27.8	25.8	25.9	24.3
73°	25.6	27.4	29.0	29.5	28.2	28.6	27.7	26.9	25.0	25.1	23.5
73.5°	24.7	26.5	28.2	28.7	27.3	27.7	26.9	26.1	24.2	24.2	22.5
74°	23.9	25.7	27.2	27.8	26.5	26.9	26.1	25.3	23.4	23.4	21.6
74.5°	22.9	24.8	26.3	27.0	25.7	26.1	25.2	24.5	22.4	22.4	20.8
75°	22.1	24.0	25.5	26.2	24.9	25.3	24.4	23.6	21.6	21.6	19.9
75.5°	21.2	23.1	24.6	25.4	24.2	24.5	23.6	22.7	20.8	20.7	19.0
76°	20.3	22.1	23.7	24.5	23.4	23.7	22.6	21.8	20.0	19.8	18.2
76.5°	19.5	21.2	22.8	23.7	22.5	22.8	21.8	21.0	19.2	19.0	17.2
77°	18.6	20.4	21.9	22.8	21.7	22.0	21.0	20.2	18.3	18.2	16.4
77.5°	17.7	19.5	21.0	21.9	20.9	21.2	20.1	19.3	17.4	17.2	15.5
78°	16.8	18.6	20.2	21.1	20.1	20.4	19.3	18.5	16.6	16.4	14.7
78.5°	16.0	17.7	19.3	20.3	19.3	19.6	18.5	17.5	15.8	15.5	13.8
79°	15.1	16.8	18.5	19.4	18.6	18.8	17.5	16.7	15.0	14.7	13.0
79.5°	14.3	15.9	17.5	18.6	17.7	18.0	16.7	15.9	14.2	13.8	12.0
80°	13.4	15.1	16.6	17.7	16.9	17.0	15.9	15.0	13.4	13.0	11.2
80.5°	12.5	14.2	15.8	16.8	16.1	16.3	15.1	14.2	12.5	12.0	10.4
81°	11.7	13.3	15.0	16.0	15.4	15.5	14.3	13.4	11.7	11.2	9.5
81.5°	10.8	12.3	14.1	15.2	14.6	14.6	13.4	12.5	10.9	10.3	8.7
82°	10.0	11.5	13.2	14.3	13.8	13.9	12.5	11.6	10.1	9.5	7.9
82.5°	9.1	10.6	12.3	13.5	13.0	13.0	11.7	10.8	9.3	8.6	6.9
83°	8.3	9.8	11.5	12.6	12.2	12.1	10.9	10.0	8.5	7.8	6.1
83.5°	7.3	8.9	10.6	11.8	11.4	11.3	10.1	9.1	7.6	6.8	5.4
84°	6.5	8.0	9.8	11.0	10.6	10.5	9.3	8.3	6.8	6.0	4.7
84.5°	5.7	7.1	8.9	10.1	9.9	9.7	8.5	7.4	6.0	5.2	4.0
85°	4.8	6.2	8.1	9.3	9.1	9.0	7.6	6.5	5.3	4.3	3.3
85.5°	4.0	5.4	7.2	8.5	8.3	8.2	6.8	5.7	4.5	3.5	2.5
86°	3.4	4.5	6.3	7.6	7.5	7.3	6.0	4.9	3.8	2.8	1.9
86.5°	2.7	3.6	5.6	6.9	6.7	6.5	5.3	4.0	3.0	2.1	1.2
87°	2.0	3.0	4.9	6.1	5.9	5.7	4.6	3.3	2.2	1.6	0.6
87.5°	1.4	2.3	4.2	5.3	5.2	5.0	3.9	2.7	1.7	1.1	0.1
88°	0.8	1.7	3.6	4.6	4.4	4.2	3.3	2.0	1.2	0.6	0.0
88.5°	0.3	1.1	2.9	3.8	3.7	3.5	2.5	1.5	0.7	0.1	0.0



TEST NUMBER: P775911  
CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.8	1.5	1.4	1.2	0.6	0.1	0.0	0.0	0.0



TEST NUMBER: P775911

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	596.8	596.8	596.8	596.8	596.8	596.8
0.5°	596.0	596.4	596.3	596.4	596.7	597.0
1°	595.6	595.9	595.7	595.9	596.3	596.8
1.5°	595.1	595.4	595.1	595.3	595.9	596.5
2°	594.5	594.7	594.4	594.7	595.4	596.2
2.5°	593.9	594.0	593.8	594.0	594.7	595.7
3°	593.3	593.4	593.0	593.4	594.1	595.3
3.5°	592.6	592.6	592.3	592.6	593.5	594.9
4°	591.9	591.8	591.4	591.8	592.8	594.2
4.5°	591.1	590.9	590.6	591.0	592.1	593.6
5°	590.3	590.0	589.5	590.0	591.2	592.9
5.5°	589.3	588.9	588.5	589.0	590.4	592.2
6°	588.3	587.9	587.4	588.0	589.4	591.4
6.5°	587.3	586.8	586.3	586.9	588.5	590.7
7°	586.2	585.6	585.1	585.8	587.4	589.8
7.5°	585.1	584.3	583.7	584.5	586.4	588.7
8°	583.8	583.0	582.4	583.3	585.2	587.7
8.5°	582.5	581.7	581.1	582.0	583.9	586.7
9°	581.2	580.2	579.7	580.6	582.7	585.6
9.5°	579.8	578.7	578.1	579.1	581.4	584.3
10°	578.3	577.2	576.5	577.6	580.0	583.1
10.5°	576.7	575.6	574.9	576.1	578.5	581.8
11°	575.2	573.8	573.2	574.5	577.0	580.5
11.5°	573.4	572.1	571.5	572.8	575.5	579.0
12°	571.8	570.3	569.6	571.0	573.7	577.5
12.5°	570.0	568.3	567.7	569.3	572.0	575.9
13°	568.1	566.4	565.7	567.3	570.4	574.4
13.5°	566.2	564.4	563.7	565.5	568.5	572.6
14°	564.3	562.3	561.6	563.4	566.6	570.9
14.5°	562.2	560.2	559.5	561.4	564.7	569.0
15°	560.1	557.9	557.1	559.3	562.6	567.1
15.5°	557.9	555.7	555.0	557.1	560.5	565.2
16°	555.7	553.2	552.6	554.8	558.4	563.1
16.5°	553.4	550.9	550.2	552.5	556.2	561.1
17°	551.0	548.4	547.6	550.1	554.0	558.9
17.5°	548.5	545.8	545.1	547.7	551.6	556.7
18°	546.1	543.1	542.5	545.2	549.2	554.5
18.5°	543.4	540.4	539.9	542.5	546.7	552.0
19°	540.8	537.6	536.9	540.0	544.2	549.6
19.5°	538.1	534.9	534.2	537.2	541.6	547.1
20°	535.4	531.9	531.3	534.5	538.9	544.6
20.5°	532.4	528.9	528.3	531.7	536.1	541.8
21°	529.6	525.8	525.3	528.7	533.2	539.1



TEST NUMBER: P775911

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	520.3	516.0	515.7	519.6	524.3	530.3
23°	517.1	512.5	512.3	516.4	521.2	527.2
23.5°	513.8	509.2	509.0	513.3	518.0	524.1
24°	510.4	505.5	505.5	509.9	514.8	520.8
24.5°	506.9	501.8	501.8	506.5	511.4	517.5
25°	503.4	498.1	498.2	503.1	508.1	514.1
25.5°	499.8	494.3	494.5	499.6	504.5	510.6
26°	496.0	490.4	490.7	495.9	501.0	507.1
26.5°	492.2	486.5	486.8	492.2	497.3	503.5
27°	488.5	482.4	482.9	488.6	493.7	499.8
27.5°	484.5	478.3	478.9	484.8	489.8	495.8
28°	480.5	474.1	474.7	480.8	485.9	492.0
28.5°	476.4	469.8	470.6	476.9	482.0	487.9
29°	472.4	465.5	466.4	472.9	478.2	484.1
29.5°	468.2	461.2	462.2	468.8	474.0	479.8
30°	463.9	456.8	457.8	464.7	469.9	475.8
30.5°	459.6	452.4	453.5	460.4	465.7	471.4
31°	455.3	447.9	449.1	456.2	461.4	467.4
31.5°	450.9	443.3	444.5	451.9	457.2	463.0
32°	446.5	438.6	440.0	447.5	452.8	458.7
32.5°	442.2	433.9	435.6	442.9	448.4	454.1
33°	437.6	429.1	431.0	438.5	444.0	449.8
33.5°	433.0	424.2	426.2	433.9	439.4	445.2
34°	428.3	419.3	421.7	429.3	435.1	440.6
34.5°	423.7	414.1	416.8	424.4	430.5	435.6
35°	418.9	408.7	412.0	419.8	425.9	431.0
35.5°	414.1	397.9	407.0	415.1	421.4	426.2
36°	409.2	385.6	402.1	410.2	416.7	421.3
36.5°	404.2	371.7	396.7	405.4	411.8	416.0
37°	398.9	357.8	389.1	400.6	407.0	407.3
37.5°	392.7	343.5	378.4	395.8	402.1	396.8
38°	382.2	328.8	365.3	390.9	397.1	382.7
38.5°	369.5	313.7	351.7	386.0	392.2	368.6
39°	356.2	298.2	338.9	381.2	386.9	355.0
39.5°	342.7	282.6	325.2	376.3	378.5	341.1
40°	329.2	268.2	311.1	371.5	368.4	326.6
40.5°	315.1	253.8	296.3	366.5	355.4	311.5
41°	300.5	239.9	281.9	361.6	342.3	296.1
41.5°	285.6	225.6	267.5	356.7	329.7	280.9
42°	271.1	212.0	253.6	351.9	316.6	266.4
42.5°	256.8	197.9	240.2	347.0	303.5	252.6
43°	243.0	184.5	227.4	342.1	289.8	238.5
43.5°	229.6	171.7	214.0	337.0	275.8	224.4

TEST NUMBER: P775911

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	189.6	136.1	174.8	312.8	235.3	183.6
45.5°	176.8	124.9	162.7	301.4	222.7	170.6
46°	164.3	114.8	151.2	289.7	209.8	158.5
46.5°	152.4	105.9	139.7	278.6	197.0	146.6
47°	140.9	98.4	128.6	267.0	184.1	134.9
47.5°	129.8	92.1	118.4	255.2	171.9	124.4
48°	119.0	86.9	108.9	240.9	160.0	114.3
48.5°	109.5	82.3	100.8	226.1	148.6	105.4
49°	100.8	78.1	93.8	210.5	137.4	97.7
49.5°	95.2	73.9	87.8	195.8	127.0	91.2
50°	89.8	69.9	82.8	181.9	116.6	85.6
50.5°	84.4	65.7	78.4	168.7	107.2	80.9
51°	78.8	62.4	74.4	155.8	98.6	76.5
51.5°	73.4	60.3	70.3	144.1	91.4	72.1
52°	69.3	59.1	66.2	132.9	85.1	67.8
52.5°	65.3	58.0	62.3	121.9	79.7	64.1
53°	61.3	57.1	59.4	112.0	75.0	61.3
53.5°	58.1	56.2	57.9	103.0	70.7	60.0
54°	56.4	55.2	56.8	94.5	66.4	58.9
54.5°	55.4	54.3	55.9	87.4	62.4	57.9
55°	54.4	53.3	54.9	80.6	59.1	57.0
55.5°	53.4	52.4	54.0	74.7	57.0	56.0
56°	52.5	51.6	53.0	69.3	56.0	55.1
56.5°	51.6	50.7	52.1	65.1	55.0	54.2
57°	50.8	49.9	51.2	61.3	54.1	53.2
57.5°	49.9	49.0	50.4	58.2	53.1	52.3
58°	49.1	48.1	49.6	55.6	52.2	51.5
58.5°	48.2	47.3	48.7	53.4	51.3	50.6
59°	47.3	46.5	47.8	51.4	50.5	49.8
59.5°	46.5	45.7	47.0	49.7	49.6	48.9
60°	45.7	44.8	46.1	48.3	48.7	48.0
60.5°	44.9	44.0	45.4	47.3	47.8	47.1
61°	44.1	43.1	44.6	46.4	46.9	46.3
61.5°	43.1	42.3	43.8	45.5	46.1	45.4
62°	42.3	41.4	42.8	44.5	45.2	44.6
62.5°	41.5	40.6	42.0	43.6	44.4	43.7
63°	40.6	39.8	41.2	42.6	43.5	42.7
63.5°	39.8	38.9	40.3	41.7	42.5	41.9
64°	39.0	38.0	39.5	40.8	41.6	41.0
64.5°	38.0	37.3	38.6	39.9	40.7	40.2
65°	37.2	36.5	37.7	39.0	39.9	39.3
65.5°	36.3	35.7	36.7	38.1	39.0	38.4
66°	35.5	34.9	36.0	37.2	38.0	37.5



TEST NUMBER: P775911

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	32.9	32.3	33.7	34.5	35.4	35.0
68°	32.1	31.5	32.7	33.7	34.5	34.2
68.5°	31.2	30.7	31.9	32.7	33.6	33.4
69°	30.4	29.9	31.1	31.8	32.7	32.5
69.5°	29.5	29.1	30.2	30.9	31.8	31.6
70°	28.7	28.3	29.4	30.0	30.9	30.8
70.5°	27.8	27.4	28.5	29.1	30.0	29.9
71°	27.0	26.6	27.6	28.2	29.2	29.1
71.5°	26.1	25.8	26.8	27.2	28.3	28.2
72°	25.3	24.9	25.9	26.3	27.3	27.3
72.5°	24.4	24.1	25.0	25.4	26.4	26.4
73°	23.6	23.3	24.2	24.6	25.5	25.6
73.5°	22.6	22.3	23.3	23.7	24.6	24.7
74°	21.8	21.5	22.4	22.7	23.8	23.9
74.5°	20.9	20.7	21.5	21.8	22.8	22.9
75°	20.1	19.9	20.6	20.9	21.9	22.1
75.5°	19.2	19.0	19.8	20.0	20.9	21.2
76°	18.4	18.2	18.9	19.1	20.1	20.3
76.5°	17.4	17.3	18.1	18.2	19.2	19.5
77°	16.6	16.5	17.1	17.3	18.3	18.6
77.5°	15.7	15.7	16.3	16.4	17.3	17.7
78°	14.9	14.9	15.4	15.5	16.4	16.8
78.5°	14.0	14.0	14.6	14.6	15.5	16.0
79°	13.2	13.2	13.7	13.7	14.6	15.1
79.5°	12.2	12.3	12.7	12.7	13.7	14.3
80°	11.4	11.5	11.9	11.9	12.7	13.4
80.5°	10.5	10.7	11.0	11.0	11.8	12.5
81°	9.7	9.9	10.2	10.1	10.9	11.7
81.5°	8.9	9.1	9.4	9.3	10.0	10.8
82°	8.1	8.3	8.5	8.5	9.1	10.0
82.5°	7.2	7.3	7.6	7.6	8.3	9.1
83°	6.3	6.5	6.8	6.8	7.3	8.3
83.5°	5.5	5.7	5.9	6.0	6.3	7.3
84°	4.7	4.9	5.1	5.3	5.5	6.5
84.5°	4.0	4.2	4.3	4.5	4.6	5.7
85°	3.2	3.4	3.5	3.8	3.9	4.8
85.5°	2.3	2.5	2.8	3.1	3.3	4.0
86°	1.5	1.8	1.9	2.3	2.7	3.4
86.5°	0.8	1.0	1.1	1.6	1.9	2.7
87°	0.2	0.3	0.4	0.8	1.3	2.0
87.5°	0.0	0.0	0.1	0.3	0.8	1.4
88°	0.0	0.0	0.0	0.0	0.3	0.8
88.5°	0.0	0.0	0.0	0.0	0.0	0.3



TEST NUMBER: P775911

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQMW-1000lm-3000K

**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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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°	536.2	544.6	555.3	561.4	564.2	565.8	564.5	559.6	552.8	545.8	534.9
22°	533.2	541.9	553.0	559.2	562.0	563.7	562.4	557.3	550.4	543.1	532.0



44°	210.5	267.6	382.3	361.1	293.1	342.4	398.1	313.7	233.5	268.6	346.0
44.5°	196.9	253.5	377.3	346.6	278.0	327.4	393.3	299.3	219.5	253.8	341.0



66.5°	36.7	38.6	40.6	40.4	38.6	39.3	39.1	37.9	35.7	36.1	34.9
67°	35.9	37.6	39.7	39.6	37.7	38.5	38.2	37.1	34.9	35.3	34.1



89°	0.0	0.6	2.1	3.1	2.9	2.7	1.9	0.9	0.3	0.0	0.0
89.5°	0.0	0.1	1.5	2.2	2.1	1.9	1.2	0.4	0.0	0.0	0.0



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21.5°	526.5	522.5	522.2	525.7	530.4	536.2
22°	523.5	519.3	518.9	522.7	527.4	533.2



44°	216.4	159.5	200.6	331.6	262.0	210.5
44.5°	203.1	147.3	187.4	322.5	248.5	196.9

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66.5°	34.7	34.1	35.2	36.3	37.1	36.7
67°	33.9	33.3	34.4	35.4	36.2	35.9

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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)