

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: P775720

Luminaire Tested: HCDJBL510CSD-HCD61TRH-1000lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B036)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD61TRH-1000lm-2700K
Description: 6 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

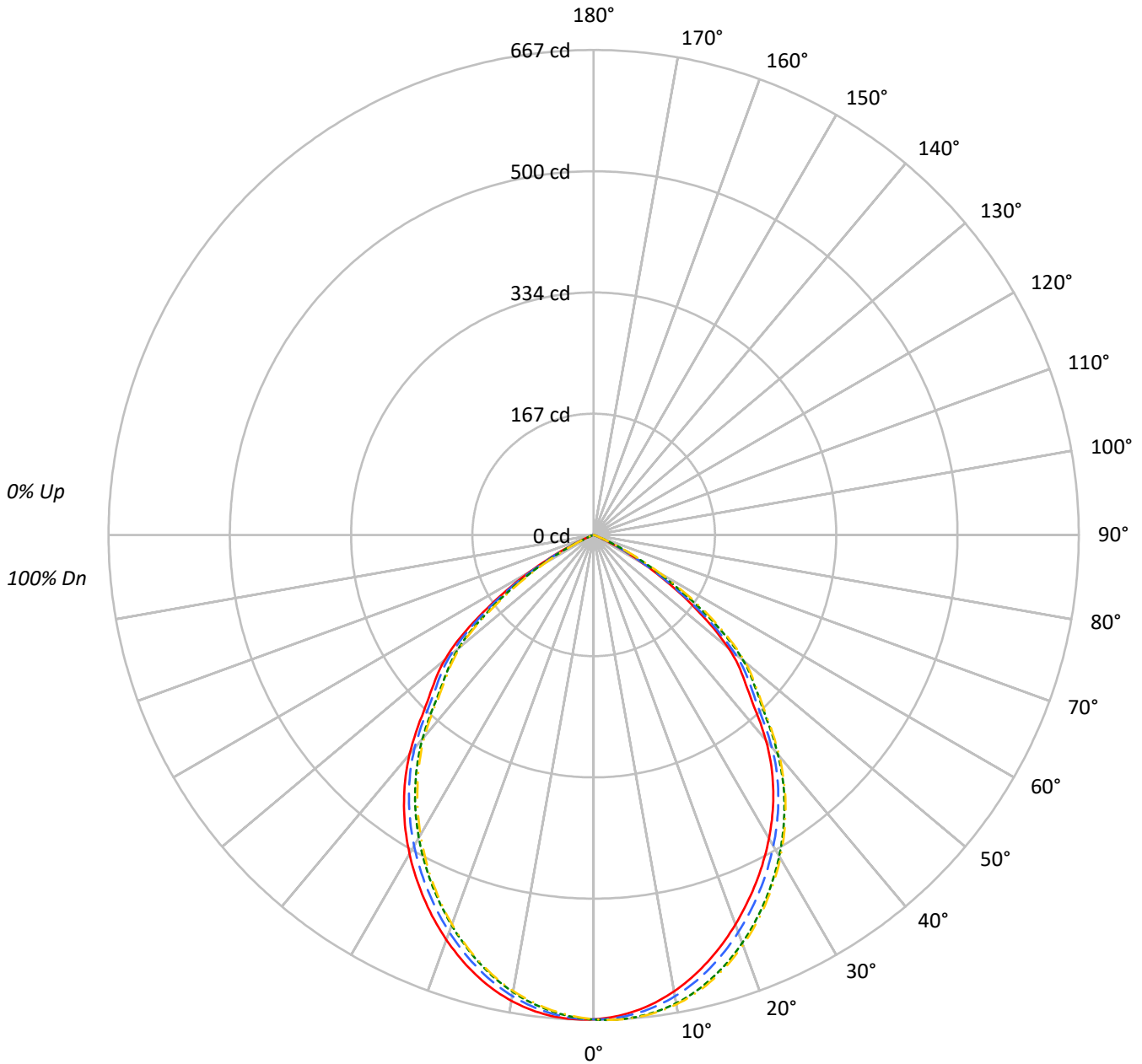
Lumens per Lamp: N/A
Luminaire Lumens: 1190.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.2
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	89	102	96	91	87	93	89	86	90	87	84	87	84	82	80								
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71								
4	90	80	73	68	88	79	72	67	77	71	66	74	70	65	72	68	65	63								
5	84	73	65	60	82	72	65	60	70	64	59	68	63	58	66	62	58	56								
6	78	67	59	53	76	66	58	53	64	58	53	62	57	52	61	56	52	50								
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45								
8	68	56	49	43	67	55	48	43	54	48	43	53	47	43	52	47	43	41								
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37								
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	36527	36527	36527	36527
5°	36171	36628	36545	36193
10°	35481	36400	36227	35543
15°	34472	35795	35545	34558
20°	33253	34851	34554	33329
25°	31931	33661	33383	31949
30°	30524	32302	32056	30441
35°	28804	30597	30437	28643
40°	26357	28217	28174	26206
45°	23188	25142	25057	23026
50°	20630	22873	22788	20724
55°	15206	17605	17729	15617
60°	8694	10854	11118	9330
65°	2504	4073	3840	3256
70°	64	96	64	192
75°	42	42	42	42
80°	32	32	32	32
85°	63	0	0	63

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 25382 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	5.3
10°-20°	173.9	14.6
20°-30°	248.8	20.9
30°-40°	275.4	23.1
40°-50°	242.0	20.3
50°-60°	154.1	12.9
60°-70°	32.8	2.8
70°-80°	0.3	0.0
80°-90°	0.1	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	485.3	40.8
0°-40°	760.7	63.9
0°-60°	1156.8	97.2
0°-90°	1190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1190.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	666	666	666	666	666	
5°	657	666	664	658	657	62
15°	607	631	626	609	607	171
25°	528	556	552	528	528	243
35°	430	457	455	428	430	268
45°	299	324	323	297	299	233
55°	159	184	186	163	159	142
65°	19	31	30	25	19	26
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°	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3
0.5°	665.8	666.1	666.4	666.3	667.0	666.9	666.6	666.5	666.5	666.5	666.4
1°	665.3	665.7	666.3	666.3	667.2	667.2	666.9	666.8	666.7	666.5	666.2
1.5°	664.7	665.3	666.0	666.3	667.4	667.5	667.2	667.0	666.7	666.4	665.9
2°	663.9	664.7	665.6	666.1	667.4	667.6	667.4	667.1	666.7	666.1	665.5
2.5°	663.1	664.0	665.1	665.8	667.4	667.7	667.4	667.1	666.5	665.8	665.0
3°	662.2	663.2	664.5	665.5	667.2	667.6	667.4	666.9	666.3	665.4	664.4
3.5°	661.1	662.3	663.8	665.0	667.0	667.4	667.3	666.7	665.9	664.8	663.6
4°	659.9	661.3	663.0	664.4	666.6	667.2	667.0	666.4	665.4	664.2	662.7
4.5°	658.6	660.2	662.0	663.6	666.2	666.9	666.7	666.0	664.8	663.4	661.8
5°	657.3	658.9	660.9	662.8	665.6	666.4	666.2	665.4	664.1	662.5	660.8
5.5°	655.8	657.5	659.7	661.9	665.0	665.8	665.7	664.8	663.2	661.5	659.6
6°	654.1	656.0	658.5	660.9	664.2	665.2	665.0	664.0	662.3	660.3	658.2
6.5°	652.5	654.4	657.1	659.7	663.3	664.4	664.2	663.1	661.3	659.1	656.9
7°	650.7	652.7	655.6	658.4	662.3	663.5	663.3	662.1	660.2	657.8	655.4
7.5°	648.7	650.9	654.0	657.0	661.1	662.5	662.3	661.0	658.9	656.3	653.7
8°	646.7	648.9	652.2	655.5	660.0	661.4	661.2	659.7	657.5	654.8	652.0
8.5°	644.5	646.9	650.4	654.0	658.6	660.2	660.0	658.4	656.0	653.1	650.1
9°	642.3	644.7	648.5	652.2	657.1	658.8	658.6	656.9	654.3	651.3	648.1
9.5°	639.9	642.5	646.4	650.4	655.5	657.4	657.1	655.4	652.6	649.4	646.1
10°	637.4	640.0	644.2	648.5	653.9	655.8	655.6	653.7	650.8	647.4	643.9
10.5°	634.8	637.5	642.0	646.4	652.1	654.1	653.9	651.9	648.9	645.3	641.6
11°	632.1	635.0	639.6	644.2	650.2	652.3	652.1	649.9	646.7	643.1	639.2
11.5°	629.3	632.3	637.1	641.9	648.1	650.3	650.1	647.9	644.5	640.7	636.7
12°	626.5	629.5	634.6	639.5	646.0	648.3	648.1	645.7	642.3	638.2	634.1
12.5°	623.5	626.7	631.9	637.1	643.7	646.1	645.9	643.5	639.9	635.7	631.4
13°	620.4	623.8	629.1	634.5	641.3	643.9	643.6	641.1	637.3	633.0	628.6
13.5°	617.3	620.7	626.2	631.8	638.8	641.5	641.2	638.6	634.8	630.3	625.8
14°	614.1	617.6	623.3	628.9	636.2	639.0	638.7	636.0	632.0	627.4	622.8
14.5°	610.8	614.3	620.2	626.2	633.5	636.3	636.0	633.3	629.1	624.5	619.6
15°	607.4	611.0	617.1	623.1	630.7	633.6	633.3	630.4	626.3	621.4	616.5
15.5°	604.0	607.7	613.8	620.1	627.8	630.7	630.4	627.5	623.3	618.3	613.3
16°	600.4	604.2	610.5	616.7	624.8	627.9	627.4	624.5	620.0	615.1	609.9
16.5°	596.9	600.7	607.2	613.7	621.6	624.8	624.3	621.4	616.9	611.8	606.5
17°	593.1	597.1	603.7	610.3	618.4	621.7	621.2	618.2	613.6	608.5	603.1
17.5°	589.4	593.5	600.1	606.8	615.1	618.3	618.0	614.8	610.3	605.0	599.6
18°	585.6	589.8	596.6	603.2	611.7	615.0	614.5	611.4	606.8	601.5	595.8
18.5°	581.8	586.0	592.9	599.8	608.2	611.5	611.1	608.0	603.2	597.9	592.3
19°	577.9	582.3	589.2	596.1	604.6	608.0	607.6	604.4	599.7	594.3	588.5
19.5°	574.1	578.5	585.4	592.5	601.0	604.4	604.0	600.9	596.0	590.6	584.8
20°	570.0	574.5	581.5	588.6	597.4	600.7	600.3	597.2	592.3	586.8	580.9
20.5°	566.0	570.5	577.6	584.7	593.5	597.0	596.6	593.4	588.6	583.0	577.1
21°	561.9	566.6	573.7	580.9	589.7	593.1	592.7	589.6	584.7	579.1	573.0



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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°	549.3	554.2	561.5	568.7	577.7	581.1	580.8	577.6	572.9	567.1	560.9
23°	545.2	550.1	557.2	564.6	573.5	577.0	576.7	573.6	568.8	563.0	556.5
23.5°	540.9	545.9	553.0	560.3	569.4	572.9	572.5	569.5	564.6	558.8	552.4
24°	536.6	541.6	548.6	556.0	565.3	568.7	568.4	565.2	560.5	554.6	548.1
24.5°	532.3	537.3	544.4	551.8	561.0	564.2	564.1	560.9	556.1	550.2	543.9
25°	527.9	533.0	540.0	547.3	556.5	559.8	559.6	556.5	551.9	546.0	539.5
25.5°	523.6	528.7	535.7	543.0	552.1	555.4	555.2	552.2	547.6	541.6	535.2
26°	519.1	524.4	531.3	538.6	547.7	550.8	550.7	547.9	543.2	537.2	530.7
26.5°	514.6	519.9	526.7	534.1	543.2	546.4	546.3	543.4	538.7	532.7	526.3
27°	510.2	515.5	522.2	529.6	538.7	541.7	541.8	538.7	534.3	528.2	521.8
27.5°	505.6	511.0	517.7	524.8	534.0	537.1	537.2	534.2	529.8	523.7	517.2
28°	501.0	506.4	513.0	520.2	529.4	532.6	532.4	529.7	525.2	519.1	512.5
28.5°	496.3	501.7	508.3	515.4	524.6	527.6	527.6	525.0	520.6	514.4	508.0
29°	491.6	497.2	503.6	510.7	519.9	522.8	522.9	520.1	515.9	509.7	503.3
29.5°	486.9	492.4	498.9	505.8	515.1	517.9	518.1	515.3	511.2	505.0	498.6
30°	482.2	487.7	494.1	501.0	510.3	513.2	513.1	510.6	506.4	500.2	493.7
30.5°	477.2	482.9	489.2	496.2	505.1	508.0	508.0	505.7	501.4	495.3	488.8
31°	472.2	478.0	484.3	491.1	500.2	502.9	503.1	500.5	496.6	490.5	484.0
31.5°	467.3	473.1	479.2	486.0	495.0	497.8	497.9	495.6	491.5	485.5	479.1
32°	462.3	468.2	474.2	480.9	489.9	492.8	492.7	490.5	486.6	480.4	474.1
32.5°	457.2	463.0	469.1	475.8	484.7	487.4	487.3	485.4	481.5	475.4	468.9
33°	452.0	457.9	463.9	470.6	479.4	482.0	482.2	480.1	476.3	470.3	463.8
33.5°	446.8	452.6	458.7	465.2	473.9	476.6	476.7	474.8	470.9	465.2	458.7
34°	441.4	447.4	453.4	460.0	468.5	471.3	471.2	469.4	465.6	459.8	453.4
34.5°	436.0	442.1	448.0	454.3	463.0	465.4	465.6	463.8	460.2	454.4	448.1
35°	430.4	436.6	442.6	448.8	457.2	459.9	460.0	458.2	454.8	449.1	442.6
35.5°	424.7	431.0	437.1	443.1	451.6	454.0	454.2	452.6	449.1	443.7	437.1
36°	419.0	425.5	431.3	437.4	445.8	448.3	448.4	446.9	443.6	438.2	431.7
36.5°	413.1	419.6	425.6	431.4	440.0	442.1	442.5	440.9	437.8	432.3	426.1
37°	407.3	413.7	419.8	425.5	433.6	436.1	436.3	434.8	432.0	426.6	420.3
37.5°	401.3	407.6	413.8	419.5	427.5	429.6	429.9	428.7	425.9	420.9	414.5
38°	395.0	401.6	407.7	413.1	421.2	423.3	423.7	422.4	419.7	414.9	408.9
38.5°	388.7	395.3	401.4	406.7	414.7	416.9	417.3	415.9	413.6	408.8	402.6
39°	382.1	388.9	394.9	400.3	408.1	410.1	410.6	409.4	407.3	402.6	396.3
39.5°	375.3	381.8	388.0	393.3	401.2	403.3	403.8	402.7	400.7	396.0	389.6
40°	368.3	374.8	380.8	386.2	394.3	396.4	396.8	395.9	393.7	389.3	383.3
40.5°	360.7	367.4	373.5	378.9	386.9	389.1	389.8	388.8	386.7	382.3	376.0
41°	353.4	360.0	366.1	371.6	379.7	381.9	382.4	381.5	379.6	375.0	368.7
41.5°	346.2	352.6	358.7	364.3	372.5	374.6	375.3	374.2	372.2	367.5	361.3
42°	338.9	345.2	351.3	356.9	365.2	367.7	368.3	367.3	365.1	360.5	354.5
42.5°	330.9	337.4	343.6	349.3	357.9	360.3	361.1	360.2	357.9	353.3	347.0
43°	323.7	330.1	336.4	342.0	350.4	352.9	353.7	352.6	350.4	345.6	339.6
43.5°	317.0	323.3	329.6	335.2	343.4	345.9	346.6	345.3	342.7	337.9	331.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	299.1	305.3	311.4	316.7	324.3	326.7	327.4	326.0	323.2	318.3	312.6
45.5°	293.5	299.8	305.8	311.0	318.5	320.8	321.5	320.1	317.3	312.6	306.7
46°	288.3	294.6	300.4	305.6	312.9	315.1	315.8	314.4	311.7	306.9	301.2
46.5°	283.1	289.4	295.1	300.2	307.3	309.6	310.3	309.0	306.2	301.5	295.8
47°	278.0	284.2	290.0	295.0	301.9	304.2	304.9	303.6	300.8	296.3	290.7
47.5°	272.9	279.1	284.8	289.8	296.6	299.0	299.7	298.2	295.5	291.1	285.5
48°	267.7	273.9	279.4	284.6	291.3	293.8	294.4	293.0	290.4	286.0	280.4
48.5°	261.9	268.0	273.8	279.1	286.1	288.6	289.3	288.0	285.2	280.8	275.3
49°	255.6	261.3	267.2	273.0	280.4	283.1	284.0	282.6	279.6	275.0	269.7
49.5°	249.2	254.6	260.6	266.6	274.4	277.3	278.1	276.5	273.5	268.7	263.3
50°	241.9	247.1	253.1	259.6	268.2	271.4	272.2	270.5	267.2	262.4	257.0
50.5°	234.2	239.5	245.7	252.4	261.4	264.7	265.4	264.2	260.6	255.8	250.0
51°	226.3	231.8	237.6	244.6	254.1	257.1	258.2	257.0	253.6	248.5	242.8
51.5°	218.3	223.7	229.6	236.4	246.4	249.6	251.0	249.3	246.3	241.0	235.3
52°	210.1	215.4	221.2	227.8	238.0	241.8	243.2	241.6	238.4	233.2	227.6
52.5°	201.8	207.0	213.0	219.1	229.4	233.8	235.2	233.6	230.0	225.0	219.7
53°	193.3	198.5	204.1	210.0	220.5	225.5	227.3	225.2	221.1	216.4	211.7
53.5°	184.7	189.8	195.5	200.9	211.5	217.2	219.3	217.0	212.4	208.0	203.3
54°	176.1	181.0	186.3	191.6	202.4	208.4	210.9	208.0	203.5	199.2	194.8
54.5°	167.6	172.7	177.3	182.4	193.4	199.7	202.2	199.2	194.4	190.4	186.1
55°	159.1	163.9	168.1	173.2	184.2	191.2	193.8	190.6	185.5	181.5	177.7
55.5°	150.5	155.2	159.2	164.1	175.4	182.1	185.2	181.7	176.9	172.5	168.9
56°	142.1	146.4	150.2	154.8	166.3	173.1	176.2	172.5	168.0	163.4	160.2
56.5°	133.8	138.0	141.1	145.9	157.4	164.4	167.4	163.8	159.3	154.5	151.5
57°	125.6	129.3	132.1	137.0	148.5	155.2	158.5	155.1	150.6	145.8	143.0
57.5°	117.4	120.9	123.5	128.5	140.1	146.5	149.8	146.6	142.3	137.1	134.2
58°	109.4	112.5	115.1	119.9	131.6	137.6	140.8	137.9	133.8	128.4	125.8
58.5°	101.6	104.4	106.7	111.8	123.4	129.1	132.0	129.6	125.8	120.2	117.6
59°	93.9	96.2	98.5	103.7	115.1	120.5	123.2	121.1	117.5	112.1	109.3
59.5°	86.7	88.5	90.7	95.7	107.0	112.2	114.5	113.2	109.3	104.3	101.4
60°	79.3	80.6	83.0	88.1	99.0	103.9	106.1	104.8	101.4	97.0	93.9
60.5°	72.2	73.3	75.6	80.7	91.5	96.2	98.2	97.2	94.0	89.7	86.5
61°	65.4	66.1	68.3	73.2	84.1	88.5	90.3	89.7	86.6	82.4	79.1
61.5°	58.7	59.3	61.4	66.7	76.6	80.8	82.4	82.1	79.2	75.1	71.7
62°	52.2	52.6	55.0	59.8	69.1	73.1	74.5	74.5	71.8	67.8	64.3
62.5°	46.2	46.4	48.7	53.4	62.0	65.4	66.6	66.9	64.4	61.1	57.7
63°	40.3	40.4	42.9	47.4	55.3	58.3	59.4	59.8	56.7	54.8	51.4
63.5°	34.3	35.0	37.2	41.6	48.8	51.4	52.6	52.9	49.6	48.7	45.5
64°	29.3	30.6	32.8	36.0	42.7	45.1	46.2	46.5	42.7	42.8	39.9
64.5°	24.3	26.3	28.4	31.5	36.8	39.0	40.1	40.2	36.0	37.3	34.6
65°	19.3	22.1	24.0	27.0	31.4	33.2	34.4	34.4	29.6	31.9	29.7
65.5°	14.3	17.8	19.6	22.5	26.2	27.9	29.0	28.8	23.9	27.0	25.3
66°	10.5	13.5	15.2	18.0	21.4	22.9	24.0	23.6	18.6	22.3	20.9



TEST NUMBER: P775720

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	3.3	5.7	6.6	7.3	11.2	12.1	13.0	12.7	8.5	12.4	11.7
68°	2.6	3.9	4.6	4.9	8.3	9.0	9.7	9.6	5.1	9.5	9.1
68.5°	1.9	3.0	2.8	3.1	5.3	5.9	6.5	6.5	1.7	6.6	6.4
69°	1.2	2.2	2.2	2.4	2.4	2.9	3.3	3.4	0.8	3.8	3.8
69.5°	0.5	1.3	1.6	1.7	1.2	1.5	1.7	1.9	0.5	2.3	2.2
70°	0.4	0.5	1.0	1.0	0.6	0.7	0.8	0.9	0.4	1.2	1.2
70.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.6	0.6
71°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
72°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
72.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
73°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
73.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
74°	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
74.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
76°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
76.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
77°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2
78°	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
78.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
79°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
79.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
80.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
81°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
81.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
83°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
83.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
84.5°	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
85.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
86°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
86.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
87°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
87.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
88°	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
88.5°	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1



TEST NUMBER: P775720

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.1	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.0	0.2	0.1



TEST NUMBER: P775720

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	666.3	666.3	666.3	666.3	666.3	666.3
0.5°	665.9	666.2	665.9	665.5	665.6	665.8
1°	665.6	665.7	665.3	664.9	665.0	665.3
1.5°	665.1	665.0	664.5	664.1	664.2	664.7
2°	664.6	664.3	663.7	663.3	663.5	663.9
2.5°	663.9	663.4	662.8	662.3	662.5	663.1
3°	663.1	662.5	661.8	661.3	661.5	662.2
3.5°	662.3	661.4	660.7	660.2	660.4	661.1
4°	661.3	660.3	659.5	659.0	659.2	659.9
4.5°	660.2	659.0	658.2	657.6	657.9	658.6
5°	659.0	657.7	656.9	656.3	656.5	657.3
5.5°	657.7	656.2	655.4	654.7	654.9	655.8
6°	656.3	654.7	653.8	653.2	653.3	654.1
6.5°	654.7	653.1	652.2	651.5	651.5	652.5
7°	653.1	651.3	650.4	649.7	649.8	650.7
7.5°	651.4	649.4	648.5	647.8	647.9	648.7
8°	649.5	647.5	646.5	645.8	645.8	646.7
8.5°	647.5	645.4	644.5	643.7	643.7	644.5
9°	645.4	643.2	642.3	641.6	641.4	642.3
9.5°	643.2	640.9	640.0	639.3	639.1	639.9
10°	640.9	638.5	637.6	636.9	636.6	637.4
10.5°	638.5	636.0	635.1	634.4	634.1	634.8
11°	635.9	633.4	632.5	631.8	631.4	632.1
11.5°	633.3	630.6	629.8	629.1	628.7	629.3
12°	630.7	627.9	627.0	626.3	625.8	626.5
12.5°	627.8	624.9	624.1	623.4	622.9	623.5
13°	624.9	621.9	621.2	620.5	619.8	620.4
13.5°	621.8	618.7	618.1	617.3	616.7	617.3
14°	618.7	615.5	614.9	614.1	613.5	614.1
14.5°	615.6	612.3	611.7	610.9	610.2	610.8
15°	612.2	608.9	608.3	607.5	606.7	607.4
15.5°	608.8	605.5	604.8	604.1	603.3	604.0
16°	605.4	601.9	601.2	600.5	599.8	600.4
16.5°	601.9	598.3	597.7	597.0	596.1	596.9
17°	598.4	594.7	594.0	593.3	592.5	593.1
17.5°	594.8	590.9	590.2	589.5	588.6	589.4
18°	591.0	587.1	586.4	585.7	584.8	585.6
18.5°	587.2	583.2	582.4	581.8	580.9	581.8
19°	583.3	579.3	578.5	577.8	577.0	577.9
19.5°	579.5	575.4	574.5	573.8	573.0	574.1
20°	575.6	571.3	570.3	569.6	568.9	570.0
20.5°	571.6	567.2	566.2	565.5	564.8	566.0
21°	567.6	562.9	562.0	561.2	560.6	561.9

TEST NUMBER: P775720

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	555.1	550.2	548.9	548.1	547.8	549.3
23°	550.9	545.8	544.5	543.4	543.5	545.2
23.5°	546.7	541.4	540.0	539.1	539.1	540.9
24°	542.4	537.0	535.4	534.4	534.7	536.6
24.5°	538.0	532.6	530.9	529.9	530.1	532.3
25°	533.7	528.2	526.2	525.1	525.6	527.9
25.5°	529.3	523.7	521.6	520.6	521.2	523.6
26°	524.8	519.1	516.8	515.6	516.6	519.1
26.5°	520.3	514.4	512.2	511.0	512.0	514.6
27°	515.8	509.8	507.3	506.1	507.3	510.2
27.5°	511.3	505.1	502.5	501.2	502.5	505.6
28°	506.7	500.3	497.6	496.3	497.7	501.0
28.5°	502.0	495.5	492.7	491.3	492.9	496.3
29°	497.3	490.7	487.7	486.2	488.1	491.6
29.5°	492.6	485.8	482.7	481.2	483.1	486.9
30°	487.8	480.9	477.5	476.2	478.1	482.2
30.5°	482.9	475.9	472.4	471.0	473.1	477.2
31°	478.1	470.8	467.2	465.7	468.0	472.2
31.5°	473.0	465.7	462.0	460.5	462.8	467.3
32°	467.9	460.6	456.6	455.2	457.7	462.3
32.5°	462.9	455.4	451.3	449.9	452.4	457.2
33°	457.7	450.0	446.0	444.6	447.1	452.0
33.5°	452.5	444.6	440.6	439.1	441.8	446.8
34°	447.1	439.2	435.1	433.5	436.4	441.4
34.5°	441.7	433.6	429.4	428.0	430.8	436.0
35°	436.3	428.0	423.8	422.4	425.2	430.4
35.5°	430.7	422.3	418.3	416.8	419.6	424.7
36°	425.2	416.5	412.5	411.1	413.9	419.0
36.5°	419.4	410.7	406.8	405.3	408.2	413.1
37°	413.5	404.7	400.8	399.5	402.3	407.3
37.5°	407.6	398.6	394.8	393.6	396.3	401.3
38°	401.5	392.5	388.8	387.5	390.2	395.0
38.5°	395.3	386.1	382.5	381.3	383.9	388.7
39°	388.8	379.7	376.3	375.1	377.7	382.1
39.5°	382.4	373.0	369.6	368.6	370.8	375.3
40°	375.7	366.2	362.7	361.7	363.8	368.3
40.5°	368.6	359.1	355.6	354.6	356.5	360.7
41°	361.3	351.8	348.4	347.3	349.4	353.4
41.5°	354.0	344.5	341.1	340.2	342.0	346.2
42°	347.0	337.6	334.1	333.0	335.0	338.9
42.5°	339.8	330.4	326.8	325.4	327.3	330.9
43°	332.5	322.9	319.4	318.3	320.0	323.7
43.5°	325.0	315.6	312.2	311.0	313.0	317.0



TEST NUMBER: P775720

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	305.6	297.0	293.8	292.9	294.9	299.1
45.5°	299.9	291.3	288.1	287.4	289.4	293.5
46°	294.5	286.0	282.9	282.1	284.2	288.3
46.5°	289.1	280.9	277.7	277.0	279.0	283.1
47°	284.2	275.9	272.6	271.9	273.9	278.0
47.5°	279.0	270.6	267.6	266.8	268.9	272.9
48°	274.0	265.8	262.6	261.8	263.8	267.7
48.5°	269.0	260.5	257.6	256.6	258.5	261.9
49°	263.5	255.2	252.1	251.0	252.6	255.6
49.5°	257.4	249.0	246.4	245.2	246.3	249.2
50°	251.1	243.0	240.2	239.0	239.6	241.9
50.5°	244.3	236.0	233.6	232.0	232.2	234.2
51°	236.9	228.8	226.2	224.5	224.6	226.3
51.5°	229.5	221.0	218.5	216.4	216.8	218.3
52°	222.0	213.2	210.3	208.1	208.3	210.1
52.5°	214.1	204.9	201.9	199.7	199.8	201.8
53°	206.1	196.7	193.4	191.0	191.2	193.3
53.5°	197.8	188.3	184.6	182.2	182.4	184.7
54°	189.6	179.9	176.0	173.5	173.7	176.1
54.5°	181.2	171.7	167.5	164.8	165.0	167.6
55°	173.1	163.4	158.8	156.0	156.4	159.1
55.5°	164.7	154.9	150.4	147.1	148.0	150.5
56°	156.2	146.7	141.9	138.5	139.6	142.1
56.5°	148.0	138.6	133.7	130.1	131.4	133.8
57°	139.5	130.6	125.3	121.7	123.1	125.6
57.5°	131.4	122.7	117.3	113.6	115.0	117.4
58°	123.3	114.9	109.5	105.8	107.1	109.4
58.5°	115.1	107.1	101.9	98.0	99.6	101.6
59°	107.1	99.6	94.5	90.6	91.8	93.9
59.5°	99.6	92.3	87.1	83.4	84.7	86.7
60°	92.2	85.1	80.0	76.4	77.7	79.3
60.5°	84.8	77.8	73.2	69.8	70.8	72.2
61°	77.4	71.0	66.5	63.5	64.0	65.4
61.5°	70.0	64.3	60.2	57.5	57.9	58.7
62°	63.1	57.6	54.1	51.5	51.8	52.2
62.5°	56.4	51.3	48.3	46.1	45.9	46.2
63°	50.0	45.3	42.8	40.8	40.3	40.3
63.5°	43.9	39.6	37.7	36.0	35.3	34.3
64°	38.1	34.1	33.4	32.0	31.2	29.3
64.5°	32.9	29.6	29.2	27.9	27.1	24.3
65°	27.8	25.1	25.0	23.9	22.9	19.3
65.5°	23.2	20.7	20.7	19.9	18.8	14.3
66°	19.0	16.2	16.5	15.9	14.6	10.5



TEST NUMBER: P775720
 CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	10.4	7.3	7.7	7.6	6.3	3.3
68°	8.0	5.2	5.6	5.4	4.4	2.6
68.5°	5.6	3.6	3.7	3.6	3.6	1.9
69°	3.2	2.8	2.9	2.8	2.8	1.2
69.5°	1.9	2.0	2.1	2.0	2.0	0.5
70°	1.0	1.2	1.2	1.2	1.2	0.4
70.5°	0.5	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.3	0.3	0.3	0.3	0.3
72°	0.3	0.3	0.3	0.3	0.3	0.3
72.5°	0.3	0.3	0.3	0.3	0.3	0.3
73°	0.3	0.3	0.3	0.3	0.3	0.3
73.5°	0.3	0.3	0.3	0.3	0.3	0.3
74°	0.3	0.3	0.3	0.3	0.2	0.2
74.5°	0.2	0.2	0.2	0.2	0.2	0.2
75°	0.2	0.2	0.2	0.2	0.2	0.2
75.5°	0.2	0.2	0.2	0.2	0.2	0.2
76°	0.2	0.2	0.2	0.2	0.2	0.2
76.5°	0.2	0.2	0.2	0.2	0.2	0.2
77°	0.2	0.2	0.2	0.2	0.2	0.2
77.5°	0.2	0.2	0.2	0.2	0.2	0.2
78°	0.2	0.2	0.2	0.2	0.2	0.2
78.5°	0.1	0.2	0.2	0.2	0.2	0.1
79°	0.1	0.1	0.2	0.2	0.2	0.1
79.5°	0.1	0.1	0.2	0.2	0.1	0.1
80°	0.1	0.1	0.2	0.2	0.1	0.1
80.5°	0.1	0.1	0.2	0.2	0.1	0.1
81°	0.1	0.1	0.2	0.2	0.1	0.1
81.5°	0.1	0.1	0.2	0.2	0.1	0.1
82°	0.1	0.1	0.2	0.2	0.1	0.1
82.5°	0.1	0.1	0.2	0.2	0.1	0.1
83°	0.1	0.1	0.2	0.2	0.1	0.1
83.5°	0.1	0.1	0.2	0.2	0.1	0.1
84°	0.1	0.1	0.2	0.2	0.1	0.1
84.5°	0.1	0.1	0.2	0.2	0.1	0.1
85°	0.1	0.1	0.2	0.2	0.2	0.1
85.5°	0.1	0.1	0.2	0.2	0.2	0.1
86°	0.1	0.1	0.2	0.2	0.2	0.1
86.5°	0.1	0.1	0.2	0.3	0.2	0.1
87°	0.1	0.1	0.3	0.3	0.3	0.1
87.5°	0.1	0.2	0.3	0.4	0.3	0.1
88°	0.1	0.2	0.4	0.5	0.4	0.1
88.5°	0.1	0.2	0.5	0.6	0.5	0.1



TEST NUMBER: P775720

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.4	0.7	0.5	0.7	0.1

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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°	557.7	562.5	569.6	576.8	585.8	589.1	588.7	585.6	580.7	575.2	569.0
22°	553.5	558.3	565.5	572.9	581.8	585.2	584.8	581.6	576.8	571.2	564.9



44°	310.6	317.1	323.2	328.8	336.8	339.3	339.9	338.5	335.7	330.8	325.1
44.5°	304.7	311.0	317.2	322.6	330.4	332.8	333.4	332.2	329.3	324.4	318.4



66.5°	7.6	10.4	11.9	13.5	17.1	18.3	19.4	18.9	15.2	18.1	17.1
67°	5.2	7.8	9.1	10.2	14.2	15.2	16.2	15.8	11.8	15.2	14.4



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

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21.5°	563.6	558.6	557.6	556.8	556.4	557.7
22°	559.2	554.4	553.3	552.3	552.0	553.5



44°	318.1	309.0	305.8	304.6	306.7	310.6
44.5°	311.7	302.9	299.6	298.7	300.7	304.7



66.5°	15.3	12.7	13.3	12.8	11.5	7.6
67°	12.8	9.7	10.3	10.0	8.7	5.2

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89°	0.1	0.3	0.5	0.7	0.5	0.1
89.5°	0.1	0.3	0.6	0.7	0.6	0.1

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(END OF REPORT)