

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: P775723

Luminaire Tested: HCDJBL5510CSD-HCD61TRH-1000lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775723
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-4000K
Description: 6 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

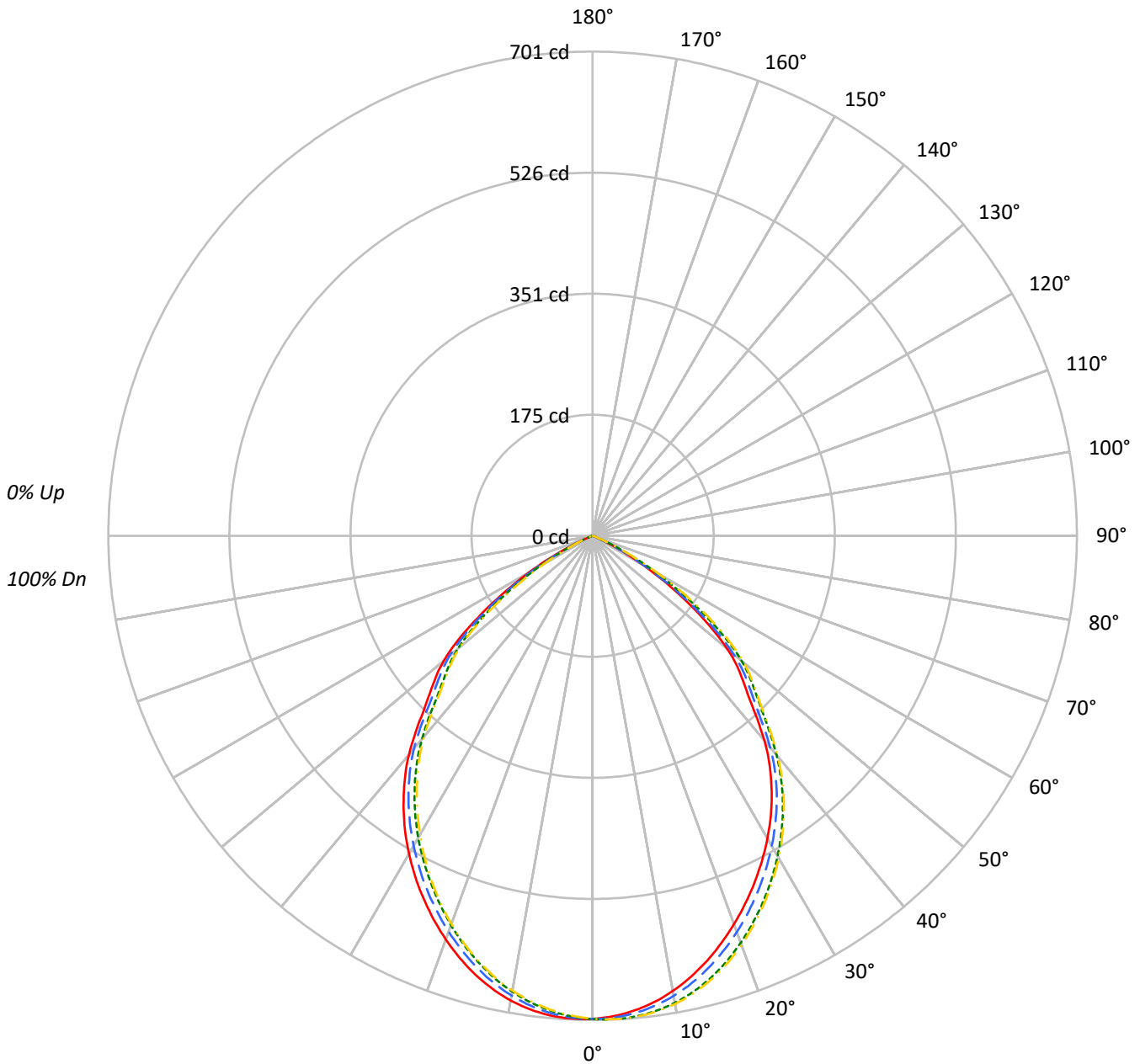
Lumens per Lamp: N/A
Luminaire Lumens: 1249.2 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.2
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): 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	100	100	100	100	100		
	1	112	108	105	103	109	106	103	101	102	100	98	98	97	95	95	93	92	90	90	90	90	90	90		
	2	104	98	93	89	102	96	92	87	93	89	86	90	87	84	87	84	82	80	80	80	80	80	80		
	3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71	71	71	71	71	71		
	4	90	80	73	68	88	79	72	67	77	71	66	74	70	65	72	68	65	63	63	63	63	63	63		
	5	84	73	65	60	82	72	65	60	70	64	59	68	63	58	66	62	58	56	56	56	56	56	56		
	6	78	67	59	53	76	66	58	53	64	58	53	62	57	52	61	56	52	50	50	50	50	50	50		
	7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45	45	45	45	45	45		
	8	68	56	49	43	67	55	48	43	54	48	43	53	47	43	52	47	43	41	41	41	41	41	41		
	9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37	37	37	37	37	37		
	10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34	34	34	34	34	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	38347	38347	38347	38347
5°	37970	38449	38367	37992
10°	37246	38215	38031	37313
15°	36186	37577	37316	36277
20°	34904	36584	36269	34986
25°	33522	35337	35046	33540
30°	32043	33910	33651	31954
35°	30243	32116	31949	30069
40°	27666	29620	29577	27509
45°	24344	26390	26297	24173
50°	21654	24016	23922	21756
55°	15961	18484	18618	16401
60°	9122	11392	11666	9791
65°	2633	4281	4034	3424
70°	64	96	64	208
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: 26638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	5.3
10°-20°	182.6	14.6
20°-30°	261.2	20.9
30°-40°	289.1	23.1
40°-50°	254.0	20.3
50°-60°	161.7	12.9
60°-70°	34.4	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°	509.5	40.8
0°-40°	798.6	63.9
0°-60°	1214.3	97.2
0°-90°	1249.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1249.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	700	700	700	700	700	
5°	690	699	697	690	690	65
15°	638	662	658	639	638	179
25°	554	584	579	554	554	255
35°	452	480	477	449	452	281
45°	314	340	339	312	314	244
55°	167	193	195	172	167	149
65°	20	33	31	26	20	27
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	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°	699.5	699.5	699.5	699.5	699.5	699.5	699.5	699.5	699.5	699.5	699.5
0.5°	699.0	699.3	699.6	699.5	700.2	700.1	699.8	699.7	699.7	699.7	699.6
1°	698.4	698.8	699.5	699.5	700.4	700.4	700.1	700.0	699.9	699.7	699.4
1.5°	697.8	698.4	699.2	699.5	700.6	700.7	700.4	700.2	699.9	699.6	699.1
2°	697.0	697.8	698.7	699.3	700.6	700.8	700.6	700.3	699.9	699.3	698.6
2.5°	696.1	697.1	698.2	699.0	700.6	700.9	700.6	700.3	699.7	699.0	698.1
3°	695.2	696.2	697.6	698.6	700.4	700.8	700.6	700.1	699.5	698.5	697.5
3.5°	694.0	695.3	696.9	698.1	700.2	700.6	700.5	699.9	699.1	697.9	696.6
4°	692.8	694.2	696.0	697.5	699.8	700.4	700.2	699.6	698.5	697.3	695.7
4.5°	691.4	693.1	695.0	696.6	699.4	700.1	699.9	699.2	697.9	696.4	694.8
5°	690.0	691.7	693.8	695.8	698.7	699.6	699.4	698.5	697.2	695.5	693.7
5.5°	688.4	690.2	692.5	694.9	698.1	699.0	698.8	697.9	696.2	694.4	692.4
6°	686.7	688.7	691.3	693.8	697.3	698.3	698.1	697.1	695.3	693.2	691.0
6.5°	685.0	687.0	689.8	692.5	696.3	697.5	697.3	696.1	694.2	691.9	689.6
7°	683.1	685.2	688.2	691.2	695.3	696.5	696.3	695.1	693.1	690.5	688.0
7.5°	681.0	683.3	686.6	689.7	694.0	695.5	695.3	693.9	691.7	689.0	686.2
8°	678.9	681.2	684.7	688.1	692.9	694.3	694.1	692.5	690.2	687.4	684.5
8.5°	676.6	679.1	682.8	686.6	691.4	693.1	692.9	691.2	688.7	685.6	682.5
9°	674.3	676.8	680.8	684.7	689.8	691.6	691.4	689.6	686.9	683.7	680.4
9.5°	671.7	674.5	678.6	682.8	688.1	690.1	689.8	688.0	685.1	681.7	678.3
10°	669.1	671.8	676.3	680.8	686.5	688.4	688.2	686.2	683.2	679.6	675.9
10.5°	666.4	669.2	673.9	678.6	684.6	686.7	686.5	684.4	681.2	677.4	673.5
11°	663.5	666.6	671.4	676.3	682.6	684.8	684.6	682.2	678.9	675.1	671.0
11.5°	660.6	663.8	668.8	673.8	680.4	682.7	682.5	680.1	676.6	672.6	668.4
12°	657.7	660.8	666.2	671.3	678.2	680.6	680.4	677.8	674.3	670.0	665.7
12.5°	654.5	657.9	663.3	668.8	675.7	678.3	678.0	675.5	671.7	667.3	662.8
13°	651.3	654.8	660.4	666.1	673.2	675.9	675.6	673.0	669.0	664.5	659.9
13.5°	648.0	651.6	657.4	663.2	670.6	673.4	673.1	670.4	666.4	661.7	656.9
14°	644.6	648.3	654.3	660.2	667.9	670.8	670.5	667.6	663.4	658.6	653.8
14.5°	641.2	644.8	651.0	657.4	665.0	668.0	667.6	664.8	660.4	655.6	650.4
15°	637.6	641.4	647.8	654.1	662.1	665.1	664.8	661.8	657.5	652.3	647.2
15.5°	634.0	637.9	644.3	650.9	659.0	662.1	661.8	658.7	654.3	649.1	643.8
16°	630.2	634.2	640.9	647.4	655.9	659.1	658.6	655.6	650.8	645.7	640.2
16.5°	626.6	630.6	637.4	644.2	652.5	655.9	655.4	652.3	647.6	642.2	636.7
17°	622.6	626.8	633.7	640.6	649.2	652.6	652.1	648.9	644.1	638.8	633.1
17.5°	618.7	623.0	629.9	637.0	645.7	649.1	648.7	645.4	640.6	635.1	629.4
18°	614.7	619.1	626.3	633.2	642.1	645.6	645.1	641.8	637.0	631.4	625.4
18.5°	610.7	615.1	622.4	629.6	638.4	641.9	641.5	638.2	633.2	627.6	621.7
19°	606.6	611.2	618.5	625.7	634.7	638.2	637.8	634.4	629.5	623.8	617.7
19.5°	602.6	607.2	614.5	621.9	630.9	634.4	634.0	630.8	625.6	619.9	613.9
20°	598.3	603.0	610.4	617.8	627.1	630.6	630.1	626.9	621.7	616.0	609.8
20.5°	594.1	598.8	606.3	613.8	623.0	626.7	626.3	622.9	617.8	612.0	605.8
21°	589.8	594.7	602.2	609.8	619.0	622.6	622.2	618.9	613.8	607.9	601.5



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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°	576.7	581.8	589.4	596.9	606.4	610.0	609.7	606.3	601.4	595.3	588.7
23°	572.4	577.5	585.0	592.6	602.0	605.7	605.3	602.1	597.0	591.0	584.2
23.5°	567.8	573.1	580.6	588.2	597.7	601.4	600.9	597.8	592.6	586.6	579.9
24°	563.3	568.6	575.9	583.7	593.4	596.9	596.6	593.3	588.3	582.2	575.4
24.5°	558.8	564.1	571.5	579.3	588.9	592.2	592.1	588.7	583.8	577.6	571.0
25°	554.2	559.5	566.9	574.6	584.2	587.7	587.5	584.2	579.4	573.2	566.4
25.5°	549.7	555.0	562.4	570.0	579.6	583.1	582.9	579.7	574.9	568.6	561.9
26°	544.9	550.5	557.8	565.4	575.0	578.2	578.1	575.2	570.3	564.0	557.1
26.5°	540.2	545.8	552.9	560.7	570.3	573.6	573.5	570.5	565.5	559.2	552.5
27°	535.6	541.2	548.2	556.0	565.5	568.7	568.8	565.5	560.9	554.5	547.8
27.5°	530.8	536.4	543.5	550.9	560.6	563.8	564.0	560.8	556.2	549.8	542.9
28°	525.9	531.6	538.5	546.1	555.8	559.1	558.9	556.1	551.3	544.9	538.0
28.5°	521.0	526.7	533.6	541.1	550.7	553.9	553.9	551.1	546.5	540.0	533.3
29°	516.0	521.9	528.7	536.1	545.8	548.8	548.9	546.0	541.6	535.1	528.3
29.5°	511.1	516.9	523.7	531.0	540.7	543.7	543.9	540.9	536.6	530.1	523.4
30°	506.2	511.9	518.7	525.9	535.7	538.7	538.6	536.0	531.6	525.1	518.3
30.5°	500.9	506.9	513.5	520.9	530.2	533.3	533.3	530.9	526.3	519.9	513.1
31°	495.7	501.8	508.4	515.5	525.1	527.9	528.1	525.4	521.3	514.9	508.1
31.5°	490.5	496.6	503.0	510.2	519.6	522.6	522.7	520.2	515.9	509.6	502.9
32°	485.3	491.5	497.8	504.8	514.3	517.3	517.2	514.9	510.8	504.3	497.7
32.5°	479.9	486.0	492.4	499.4	508.8	511.6	511.5	509.5	505.4	499.0	492.2
33°	474.4	480.6	486.9	494.0	503.2	506.0	506.2	504.0	500.0	493.7	486.8
33.5°	469.0	475.1	481.5	488.3	497.5	500.3	500.4	498.4	494.3	488.3	481.5
34°	463.3	469.6	475.9	482.8	491.8	494.7	494.6	492.7	488.7	482.6	475.9
34.5°	457.6	464.0	470.2	476.9	486.0	488.5	488.7	486.8	483.1	477.0	470.3
35°	451.9	458.3	464.6	471.1	479.9	482.7	482.8	481.0	477.4	471.4	464.6
35.5°	445.9	452.5	458.8	465.1	474.0	476.5	476.8	475.1	471.4	465.7	458.8
36°	439.9	446.7	452.8	459.1	467.9	470.6	470.7	469.1	465.6	459.9	453.2
36.5°	433.7	440.5	446.8	452.9	461.8	464.0	464.5	462.8	459.5	453.9	447.3
37°	427.6	434.3	440.7	446.7	455.2	457.7	457.9	456.5	453.5	447.9	441.2
37.5°	421.3	427.9	434.4	440.4	448.8	451.0	451.3	450.1	447.1	441.9	435.2
38°	414.7	421.6	428.0	433.7	442.2	444.4	444.8	443.5	440.6	435.6	429.3
38.5°	408.0	415.0	421.4	427.0	435.4	437.7	438.1	436.6	434.2	429.2	422.7
39°	401.1	408.3	414.6	420.2	428.4	430.5	431.1	429.8	427.6	422.7	416.0
39.5°	394.0	400.8	407.3	412.9	421.2	423.4	423.9	422.8	420.7	415.7	409.0
40°	386.6	393.4	399.7	405.4	413.9	416.1	416.6	415.6	413.3	408.7	402.4
40.5°	378.6	385.7	392.1	397.8	406.2	408.5	409.2	408.2	405.9	401.3	394.7
41°	371.0	377.9	384.3	390.1	398.6	400.9	401.4	400.5	398.5	393.7	387.0
41.5°	363.4	370.1	376.5	382.4	391.0	393.2	394.0	392.8	390.7	385.8	379.3
42°	355.7	362.3	368.8	374.6	383.4	386.0	386.6	385.6	383.3	378.4	372.1
42.5°	347.3	354.2	360.7	366.7	375.7	378.2	379.1	378.1	375.7	370.9	364.2
43°	339.8	346.5	353.1	359.0	367.8	370.4	371.3	370.1	367.8	362.8	356.5
43.5°	332.7	339.3	346.0	351.8	360.5	363.1	363.8	362.5	359.7	354.7	348.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	314.0	320.5	326.8	332.4	340.4	342.9	343.6	342.2	339.2	334.1	328.1
45.5°	308.1	314.8	321.1	326.5	334.3	336.7	337.4	336.0	333.0	328.1	322.0
46°	302.7	309.3	315.4	320.8	328.4	330.7	331.5	330.0	327.2	322.2	316.2
46.5°	297.2	303.8	309.8	315.2	322.6	325.1	325.8	324.4	321.5	316.5	310.6
47°	291.9	298.4	304.5	309.7	317.0	319.4	320.1	318.7	315.8	311.1	305.2
47.5°	286.5	293.0	299.0	304.2	311.4	313.9	314.7	313.1	310.2	305.6	299.7
48°	281.0	287.5	293.3	298.8	305.8	308.5	309.1	307.6	304.9	300.3	294.4
48.5°	274.9	281.3	287.4	293.0	300.4	303.0	303.7	302.4	299.4	294.8	289.0
49°	268.3	274.3	280.5	286.6	294.4	297.2	298.2	296.7	293.5	288.7	283.1
49.5°	261.6	267.3	273.6	279.9	288.1	291.1	292.0	290.3	287.1	282.1	276.4
50°	253.9	259.4	265.7	272.5	281.6	284.9	285.8	284.0	280.5	275.5	269.8
50.5°	245.8	251.4	257.9	265.0	274.4	277.9	278.6	277.4	273.6	268.5	262.4
51°	237.5	243.3	249.4	256.8	266.7	269.9	271.1	269.8	266.2	260.9	254.9
51.5°	229.1	234.8	241.0	248.1	258.7	262.0	263.5	261.7	258.5	253.0	247.0
52°	220.5	226.1	232.2	239.1	249.8	253.8	255.3	253.6	250.2	244.8	238.9
52.5°	211.8	217.3	223.6	230.0	240.8	245.4	246.9	245.2	241.4	236.2	230.6
53°	202.9	208.3	214.2	220.4	231.4	236.7	238.6	236.4	232.1	227.1	222.2
53.5°	193.9	199.2	205.2	210.9	222.0	228.0	230.2	227.8	222.9	218.3	213.4
54°	184.9	190.1	195.6	201.1	212.4	218.7	221.4	218.3	213.6	209.1	204.4
54.5°	176.0	181.3	186.2	191.5	203.0	209.6	212.2	209.1	204.0	199.8	195.4
55°	167.0	172.1	176.5	181.9	193.4	200.7	203.4	200.0	194.8	190.6	186.6
55.5°	158.0	162.9	167.1	172.3	184.2	191.2	194.5	190.8	185.7	181.1	177.3
56°	149.2	153.7	157.7	162.5	174.6	181.8	185.0	181.1	176.4	171.6	168.2
56.5°	140.5	144.9	148.1	153.2	165.3	172.6	175.8	172.0	167.3	162.2	159.1
57°	131.8	135.7	138.7	143.8	155.9	162.9	166.4	162.8	158.1	153.1	150.1
57.5°	123.2	126.9	129.6	134.9	147.1	153.8	157.3	153.9	149.4	143.9	140.9
58°	114.8	118.1	120.8	125.9	138.2	144.5	147.8	144.8	140.5	134.8	132.1
58.5°	106.6	109.6	112.0	117.4	129.5	135.5	138.6	136.1	132.1	126.2	123.4
59°	98.5	101.0	103.4	108.8	120.8	126.5	129.3	127.1	123.3	117.7	114.7
59.5°	91.0	92.9	95.2	100.4	112.3	117.8	120.2	118.8	114.7	109.5	106.4
60°	83.2	84.6	87.1	92.5	103.9	109.1	111.4	110.0	106.4	101.8	98.5
60.5°	75.7	76.9	79.3	84.7	96.0	101.0	103.1	102.0	98.6	94.1	90.8
61°	68.6	69.3	71.6	76.8	88.2	92.9	94.8	94.1	90.9	86.5	83.0
61.5°	61.7	62.3	64.5	70.0	80.4	84.8	86.5	86.1	83.1	78.8	75.2
62°	54.8	55.3	57.8	62.8	72.5	76.7	78.2	78.2	75.3	71.1	67.4
62.5°	48.5	48.7	51.2	56.1	65.1	68.6	69.9	70.2	67.6	64.2	60.6
63°	42.3	42.4	45.1	49.8	58.1	61.2	62.4	62.8	59.6	57.6	54.0
63.5°	36.0	36.8	39.1	43.7	51.3	54.0	55.3	55.6	52.1	51.2	47.8
64°	30.8	32.1	34.5	37.8	44.9	47.4	48.5	48.9	44.9	45.0	41.9
64.5°	25.5	27.6	29.8	33.1	38.7	41.0	42.1	42.2	37.8	39.2	36.4
65°	20.3	23.2	25.2	28.4	33.0	34.9	36.1	36.1	31.1	33.5	31.2
65.5°	15.0	18.7	20.6	23.6	27.5	29.3	30.5	30.3	25.1	28.4	26.6
66°	11.0	14.2	16.0	18.9	22.5	24.1	25.2	24.8	19.5	23.4	22.0



TEST NUMBER: P775723

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	3.5	6.0	6.9	7.7	11.8	12.7	13.7	13.3	8.9	13.0	12.3
68°	2.7	4.1	4.8	5.1	8.7	9.5	10.2	10.1	5.4	10.0	9.6
68.5°	2.0	3.2	2.9	3.3	5.6	6.2	6.8	6.8	1.8	6.9	6.7
69°	1.3	2.3	2.3	2.5	2.5	3.0	3.5	3.6	0.8	4.0	4.0
69.5°	0.5	1.4	1.7	1.8	1.3	1.6	1.8	2.0	0.5	2.4	2.3
70°	0.4	0.5	1.1	1.1	0.6	0.7	0.8	0.9	0.4	1.3	1.3
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: P775723
CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

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: P775723

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	699.5	699.5	699.5	699.5	699.5	699.5
0.5°	699.1	699.4	699.1	698.6	698.7	699.0
1°	698.7	698.8	698.4	698.0	698.1	698.4
1.5°	698.2	698.1	697.6	697.2	697.3	697.8
2°	697.7	697.4	696.7	696.3	696.5	697.0
2.5°	697.0	696.4	695.8	695.3	695.5	696.1
3°	696.1	695.5	694.8	694.2	694.4	695.2
3.5°	695.3	694.3	693.6	693.1	693.3	694.0
4°	694.2	693.2	692.3	691.8	692.0	692.8
4.5°	693.1	691.8	691.0	690.3	690.7	691.4
5°	691.8	690.4	689.6	689.0	689.2	690.0
5.5°	690.4	688.9	688.0	687.3	687.5	688.4
6°	689.0	687.3	686.3	685.7	685.8	686.7
6.5°	687.3	685.6	684.7	683.9	683.9	685.0
7°	685.6	683.7	682.8	682.0	682.1	683.1
7.5°	683.8	681.7	680.8	680.0	680.1	681.0
8°	681.8	679.7	678.7	677.9	677.9	678.9
8.5°	679.7	677.5	676.6	675.7	675.7	676.6
9°	677.5	675.2	674.3	673.5	673.3	674.3
9.5°	675.2	672.8	671.8	671.1	670.9	671.7
10°	672.8	670.3	669.3	668.6	668.3	669.1
10.5°	670.3	667.6	666.7	666.0	665.7	666.4
11°	667.5	664.9	664.0	663.2	662.8	663.5
11.5°	664.8	662.0	661.1	660.4	660.0	660.6
12°	662.1	659.1	658.2	657.5	656.9	657.7
12.5°	659.0	656.0	655.1	654.4	653.9	654.5
13°	656.0	652.8	652.1	651.4	650.6	651.3
13.5°	652.7	649.5	648.8	648.0	647.4	648.0
14°	649.5	646.1	645.5	644.6	644.0	644.6
14.5°	646.2	642.7	642.1	641.3	640.5	641.2
15°	642.6	639.2	638.5	637.7	636.9	637.6
15.5°	639.1	635.6	634.9	634.1	633.3	634.0
16°	635.5	631.8	631.1	630.4	629.6	630.2
16.5°	631.8	628.0	627.4	626.7	625.7	626.6
17°	628.1	624.3	623.5	622.8	621.9	622.6
17.5°	624.4	620.3	619.5	618.8	617.8	618.7
18°	620.4	616.3	615.5	614.8	613.9	614.7
18.5°	616.4	612.2	611.3	610.7	609.8	610.7
19°	612.3	608.1	607.2	606.5	605.7	606.6
19.5°	608.3	604.0	603.0	602.3	601.5	602.6
20°	604.2	599.7	598.6	597.9	597.2	598.3
20.5°	600.0	595.4	594.3	593.6	592.8	594.1
21°	595.8	590.8	589.9	589.1	588.4	589.8



TEST NUMBER: P775723

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	582.8	577.6	576.2	575.4	575.1	576.7
23°	578.3	573.0	571.6	570.5	570.6	572.4
23.5°	573.9	568.4	566.9	565.9	565.9	567.8
24°	569.4	563.7	562.1	561.0	561.3	563.3
24.5°	564.8	559.1	557.3	556.3	556.5	558.8
25°	560.3	554.5	552.4	551.2	551.8	554.2
25.5°	555.7	549.8	547.6	546.5	547.1	549.7
26°	550.9	544.9	542.5	541.3	542.3	544.9
26.5°	546.2	540.0	537.7	536.4	537.5	540.2
27°	541.5	535.2	532.5	531.3	532.5	535.6
27.5°	536.7	530.2	527.5	526.1	527.5	530.8
28°	531.9	525.2	522.4	521.0	522.5	525.9
28.5°	527.0	520.1	517.2	515.7	517.4	521.0
29°	522.0	515.1	511.9	510.4	512.4	516.0
29.5°	517.1	510.0	506.7	505.1	507.1	511.1
30°	512.1	504.8	501.2	499.9	501.9	506.2
30.5°	506.9	499.6	495.9	494.4	496.6	500.9
31°	501.9	494.2	490.4	488.8	491.3	495.7
31.5°	496.5	488.8	484.9	483.4	485.8	490.5
32°	491.1	483.5	479.3	477.8	480.4	485.3
32.5°	485.9	478.0	473.7	472.2	474.9	479.9
33°	480.4	472.3	468.1	466.7	469.3	474.4
33.5°	475.0	466.7	462.5	460.9	463.7	469.0
34°	469.3	461.0	456.8	455.1	458.1	463.3
34.5°	463.6	455.2	450.8	449.3	452.3	457.6
35°	457.9	449.3	444.9	443.5	446.4	451.9
35.5°	452.2	443.3	439.1	437.6	440.5	445.9
36°	446.4	437.3	433.1	431.6	434.5	439.9
36.5°	440.3	431.2	427.1	425.5	428.5	433.7
37°	434.1	424.9	420.8	419.4	422.3	427.6
37.5°	427.9	418.4	414.5	413.2	416.0	421.3
38°	421.5	412.0	408.2	406.8	409.6	414.7
38.5°	415.0	405.3	401.5	400.3	403.0	408.0
39°	408.2	398.6	395.0	393.8	396.5	401.1
39.5°	401.4	391.6	388.0	386.9	389.2	394.0
40°	394.4	384.4	380.7	379.7	381.9	386.6
40.5°	386.9	376.9	373.3	372.2	374.2	378.6
41°	379.3	369.3	365.7	364.6	366.8	371.0
41.5°	371.6	361.6	358.0	357.1	359.0	363.4
42°	364.2	354.4	350.7	349.5	351.6	355.7
42.5°	356.7	346.8	343.0	341.5	343.5	347.3
43°	349.0	338.9	335.2	334.1	335.9	339.8
43.5°	341.1	331.2	327.7	326.5	328.5	332.7



TEST NUMBER: P775723

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	320.8	311.8	308.5	307.5	309.6	314.0
45.5°	314.9	305.8	302.5	301.7	303.8	308.1
46°	309.2	300.3	297.0	296.2	298.4	302.7
46.5°	303.5	294.9	291.5	290.8	292.9	297.2
47°	298.4	289.6	286.2	285.4	287.5	291.9
47.5°	292.9	284.1	280.9	280.1	282.3	286.5
48°	287.7	279.0	275.7	274.8	276.9	281.0
48.5°	282.4	273.5	270.4	269.4	271.4	274.9
49°	276.6	267.9	264.6	263.5	265.2	268.3
49.5°	270.2	261.4	258.7	257.4	258.5	261.6
50°	263.6	255.1	252.1	250.9	251.5	253.9
50.5°	256.4	247.7	245.2	243.5	243.7	245.8
51°	248.7	240.2	237.4	235.6	235.8	237.5
51.5°	240.9	232.0	229.3	227.1	227.6	229.1
52°	233.0	223.8	220.7	218.4	218.6	220.5
52.5°	224.7	215.1	211.9	209.6	209.7	211.8
53°	216.3	206.4	203.0	200.5	200.7	202.9
53.5°	207.6	197.6	193.8	191.3	191.5	193.9
54°	199.0	188.9	184.8	182.2	182.4	184.9
54.5°	190.3	180.3	175.9	173.0	173.2	176.0
55°	181.8	171.6	166.7	163.8	164.2	167.0
55.5°	172.9	162.6	157.9	154.4	155.4	158.0
56°	164.0	154.0	149.0	145.4	146.6	149.2
56.5°	155.4	145.5	140.4	136.6	137.9	140.5
57°	146.5	137.1	131.5	127.8	129.2	131.8
57.5°	137.9	128.8	123.1	119.2	120.7	123.2
58°	129.4	120.6	114.9	111.0	112.4	114.8
58.5°	120.8	112.4	106.9	102.9	104.5	106.6
59°	112.4	104.5	99.2	95.1	96.3	98.5
59.5°	104.5	96.9	91.4	87.5	88.9	91.0
60°	96.8	89.3	83.9	80.2	81.5	83.2
60.5°	89.0	81.6	76.8	73.2	74.3	75.7
61°	81.2	74.5	69.8	66.6	67.1	68.6
61.5°	73.4	67.4	63.2	60.4	60.8	61.7
62°	66.2	60.5	56.8	54.1	54.4	54.8
62.5°	59.3	53.9	50.7	48.4	48.2	48.5
63°	52.5	47.6	45.0	42.9	42.3	42.3
63.5°	46.1	41.6	39.6	37.8	37.1	36.0
64°	40.0	35.8	35.1	33.6	32.8	30.8
64.5°	34.6	31.1	30.7	29.3	28.5	25.5
65°	29.2	26.4	26.3	25.1	24.1	20.3
65.5°	24.4	21.7	21.7	20.9	19.8	15.0
66°	20.0	17.0	17.3	16.7	15.3	11.0



TEST NUMBER: P775723

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	10.9	7.7	8.1	8.0	6.6	3.5
68°	8.4	5.5	5.9	5.7	4.6	2.7
68.5°	5.9	3.8	3.9	3.8	3.8	2.0
69°	3.4	2.9	3.0	2.9	2.9	1.3
69.5°	2.0	2.1	2.2	2.1	2.1	0.5
70°	1.1	1.3	1.3	1.3	1.3	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: P775723

CATALOG NUMBER: HCDJBL510CSD-HCD61TRH-1000lm-4000K

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°	585.5	590.4	597.9	605.5	614.9	618.4	618.0	614.7	609.5	603.8	597.3
22°	581.1	586.1	593.6	601.4	610.7	614.3	613.9	610.5	605.5	599.6	592.9



44°	326.1	332.8	339.2	345.1	353.5	356.1	356.8	355.3	352.4	347.2	341.2
44.5°	319.9	326.5	332.9	338.6	346.8	349.3	349.9	348.7	345.6	340.5	334.2



66.5°	8.0	10.9	12.5	14.2	18.0	19.2	20.4	19.9	16.0	19.0	18.0
67°	5.5	8.2	9.6	10.7	14.9	16.0	17.0	16.6	12.4	16.0	15.1



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°	591.6	586.4	585.4	584.5	584.1	585.5
22°	587.1	582.0	580.9	579.8	579.5	581.1



44°	333.9	324.4	321.1	319.8	322.0	326.1
44.5°	327.2	318.0	314.5	313.6	315.7	319.9

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66.5°	16.1	13.3	14.0	13.4	12.1	8.0
67°	13.4	10.2	10.8	10.5	9.1	5.5

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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)