

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: P775864

Luminaire Tested: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B064-HCD82TRMW)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD82TRMW-1000lm-5000K
Description: 8 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

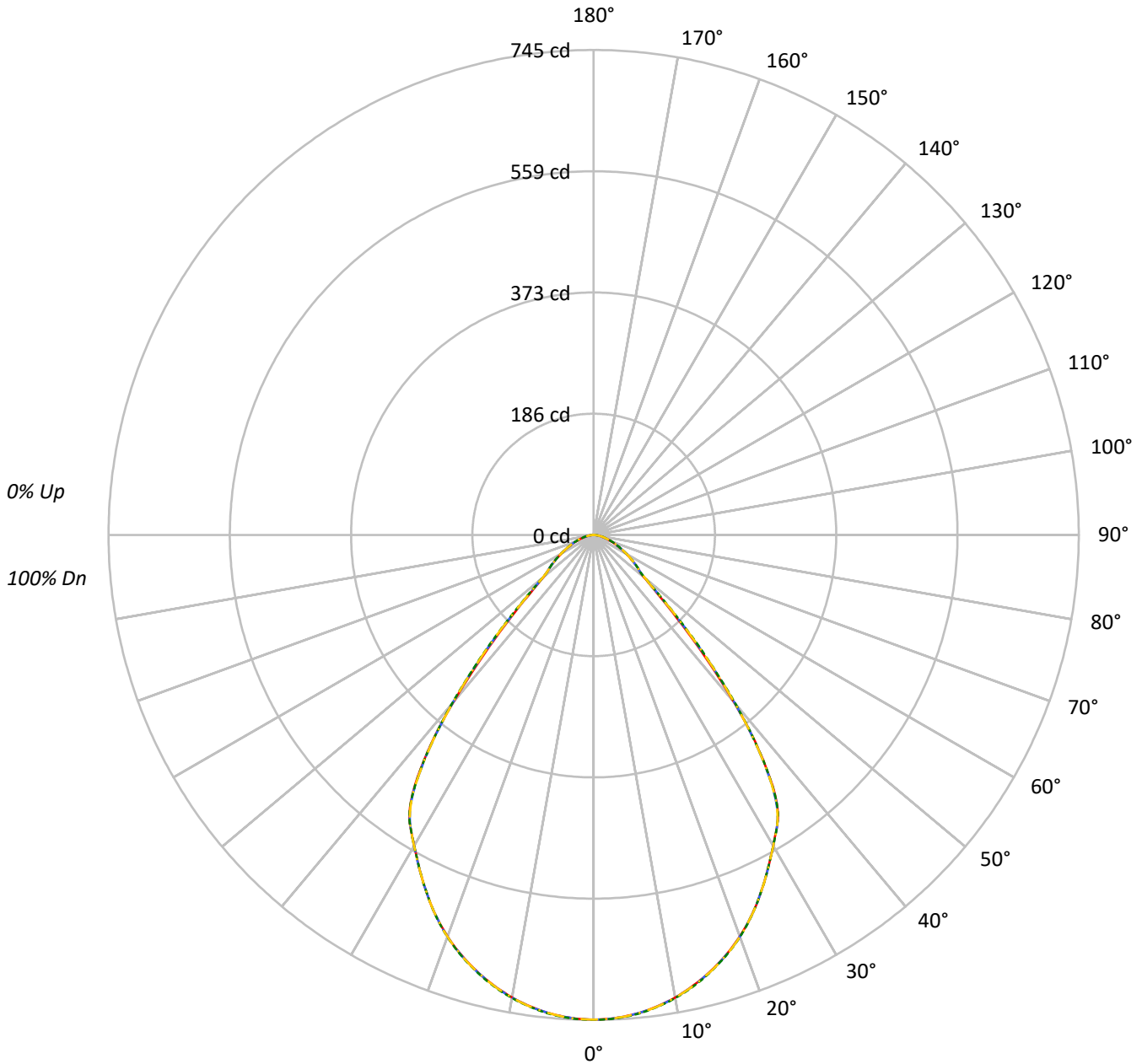
Lumens per Lamp: N/A
Luminaire Lumens: 1122.8 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.12
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	22733	22733	22733	22733
5°	22639	22657	22639	22657
10°	22364	22398	22364	22398
15°	21926	21961	21926	21961
20°	21326	21346	21326	21346
25°	20441	20444	20441	20444
30°	19439	19439	19439	19439
35°	18058	18024	18058	18024
40°	13347	13507	13347	13507
45°	7845	8229	7845	8229
50°	4802	4864	4802	4864
55°	4115	4120	4115	4120
60°	3511	3542	3511	3542
65°	2984	3049	2984	3049
70°	2535	2651	2535	2651
75°	2111	2277	2111	2277
80°	1688	1916	1688	1916
85°	1051	1471	1051	1471

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 8294 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	6.2
10°-20°	195.3	17.4
20°-30°	278.9	24.8
30°-40°	291.2	25.9
40°-50°	151.3	13.5
50°-60°	69.3	6.2
60°-70°	42.1	3.7
70°-80°	20.2	1.8
80°-90°	4.5	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	544.2	48.5
0°-40°	835.5	74.4
0°-60°	1056.1	94.1
0°-90°	1122.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1122.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	745	745	745	745	745	
5°	739	739	739	739	739	70
15°	694	695	694	695	694	195
25°	607	607	607	607	607	279
35°	484	484	484	484	484	292
45°	182	191	182	191	182	148
55°	77	77	77	77	77	69
65°	41	42	41	42	41	41
75°	18	19	18	19	18	19
85°	3	4	3	4	3	4
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°	744.6	744.6	744.6	744.6	744.6	744.6	744.6	744.6	744.6	744.6	744.6
0.5°	744.5	744.3	744.5	744.5	744.9	744.5	744.5	744.3	744.5	744.3	744.5
1°	744.4	744.1	744.4	744.4	744.7	744.4	744.4	744.1	744.4	744.1	744.4
1.5°	744.0	743.8	744.0	744.0	744.5	744.0	744.0	743.8	744.0	743.8	744.0
2°	743.6	743.4	743.6	743.6	744.0	743.6	743.6	743.4	743.6	743.4	743.6
2.5°	743.1	742.9	743.1	743.2	743.5	743.2	743.1	742.9	743.1	742.9	743.1
3°	742.4	742.2	742.4	742.5	743.0	742.5	742.4	742.2	742.4	742.2	742.4
3.5°	741.7	741.5	741.7	741.8	742.2	741.8	741.7	741.5	741.7	741.5	741.7
4°	740.7	740.6	740.8	740.9	741.4	740.9	740.8	740.6	740.7	740.6	740.8
4.5°	739.8	739.7	739.9	740.0	740.4	740.0	739.9	739.7	739.8	739.7	739.9
5°	738.7	738.5	738.7	738.9	739.3	738.9	738.7	738.5	738.7	738.5	738.7
5.5°	737.4	737.3	737.5	737.7	738.2	737.7	737.5	737.3	737.4	737.3	737.5
6°	736.1	735.9	736.3	736.5	736.8	736.5	736.3	735.9	736.1	735.9	736.3
6.5°	734.7	734.5	734.9	735.1	735.4	735.1	734.9	734.5	734.7	734.5	734.9
7°	733.2	732.9	733.3	733.5	733.9	733.5	733.3	732.9	733.2	732.9	733.3
7.5°	731.5	731.2	731.7	731.9	732.3	731.9	731.7	731.2	731.5	731.2	731.7
8°	729.6	729.5	729.9	730.1	730.6	730.1	729.9	729.5	729.6	729.5	729.9
8.5°	727.7	727.6	728.0	728.3	728.7	728.3	728.0	727.6	727.7	727.6	728.0
9°	725.8	725.7	726.0	726.3	726.8	726.3	726.0	725.7	725.8	725.7	726.0
9.5°	723.6	723.6	723.9	724.2	724.6	724.2	723.9	723.6	723.6	723.6	723.9
10°	721.4	721.3	721.8	722.1	722.5	722.1	721.8	721.3	721.4	721.3	721.8
10.5°	719.1	719.0	719.4	719.7	720.3	719.7	719.4	719.0	719.1	719.0	719.4
11°	716.6	716.6	717.0	717.4	717.8	717.4	717.0	716.6	716.6	716.6	717.0
11.5°	714.2	714.1	714.5	714.8	715.2	714.8	714.5	714.1	714.2	714.1	714.5
12°	711.5	711.5	711.8	712.3	712.7	712.3	711.8	711.5	711.5	711.5	711.8
12.5°	708.7	708.7	709.2	709.6	709.9	709.6	709.2	708.7	708.7	708.7	709.2
13°	706.0	706.0	706.4	706.7	707.1	706.7	706.4	706.0	706.0	706.0	706.4
13.5°	703.0	703.0	703.4	703.9	704.2	703.9	703.4	703.0	703.0	703.0	703.4
14°	700.1	700.0	700.4	700.8	701.2	700.8	700.4	700.0	700.1	700.0	700.4
14.5°	696.9	696.9	697.3	697.8	698.1	697.8	697.3	696.9	696.9	696.9	697.3
15°	693.7	693.8	694.2	694.6	694.8	694.6	694.2	693.8	693.7	693.8	694.2
15.5°	690.4	690.5	690.9	691.2	691.5	691.2	690.9	690.5	690.4	690.5	690.9
16°	687.1	687.1	687.5	687.8	688.0	687.8	687.5	687.1	687.1	687.1	687.5
16.5°	683.7	683.7	684.1	684.3	684.6	684.3	684.1	683.7	683.7	683.7	684.1
17°	680.0	680.0	680.5	680.8	681.0	680.8	680.5	680.0	680.0	680.0	680.5
17.5°	676.3	676.4	676.8	677.1	677.3	677.1	676.8	676.4	676.3	676.4	676.8
18°	672.6	672.6	673.0	673.2	673.4	673.2	673.0	672.6	672.6	672.6	673.0
18.5°	668.7	668.7	669.2	669.3	669.5	669.3	669.2	668.7	668.7	668.7	669.2
19°	664.7	664.7	665.1	665.3	665.4	665.3	665.1	664.7	664.7	664.7	665.1
19.5°	660.5	660.6	661.0	661.2	661.3	661.2	661.0	660.6	660.5	660.6	661.0
20°	656.4	656.4	656.7	656.8	657.0	656.8	656.7	656.4	656.4	656.4	656.7
20.5°	652.0	652.0	652.3	652.3	652.5	652.3	652.3	652.0	652.0	652.0	652.3
21°	647.5	647.5	647.8	647.8	647.9	647.8	647.8	647.5	647.5	647.5	647.8



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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°	633.1	633.1	633.3	633.2	633.4	633.2	633.3	633.1	633.1	633.1	633.3
23°	628.1	628.1	628.2	628.2	628.3	628.2	628.2	628.1	628.1	628.1	628.2
23.5°	623.0	623.0	623.1	623.0	623.1	623.0	623.1	623.0	623.0	623.0	623.1
24°	617.8	617.7	617.8	617.7	617.8	617.7	617.8	617.7	617.8	617.7	617.8
24.5°	612.2	612.2	612.4	612.3	612.3	612.3	612.4	612.2	612.2	612.2	612.4
25°	606.8	606.8	606.9	606.9	606.9	606.9	606.9	606.8	606.8	606.8	606.9
25.5°	601.3	601.2	601.4	601.3	601.3	601.3	601.4	601.2	601.3	601.2	601.4
26°	595.8	595.7	595.8	595.9	595.8	595.9	595.8	595.7	595.8	595.7	595.8
26.5°	590.1	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.1	590.2	590.2
27°	584.6	584.6	584.7	584.7	584.6	584.7	584.7	584.6	584.6	584.6	584.7
27.5°	578.9	578.9	579.1	579.1	578.9	579.1	579.1	578.9	578.9	578.9	579.1
28°	573.4	573.4	573.6	573.5	573.5	573.5	573.6	573.4	573.4	573.4	573.6
28.5°	567.8	567.8	568.1	568.0	567.8	568.0	568.1	567.8	567.8	567.8	568.1
29°	562.2	562.4	562.5	562.4	562.4	562.4	562.5	562.4	562.2	562.4	562.5
29.5°	556.8	556.9	557.1	557.1	556.9	557.1	557.1	556.9	556.8	556.9	557.1
30°	551.4	551.5	551.6	551.6	551.4	551.6	551.6	551.5	551.4	551.5	551.6
30.5°	546.1	546.3	546.4	546.3	546.0	546.3	546.4	546.3	546.1	546.3	546.4
31°	540.9	541.0	541.2	541.1	541.0	541.1	541.2	541.0	540.9	541.0	541.2
31.5°	535.8	535.8	536.0	535.8	535.6	535.8	536.0	535.8	535.8	535.8	536.0
32°	530.6	530.6	530.6	530.5	530.5	530.5	530.6	530.6	530.6	530.6	530.6
32.5°	525.4	525.0	524.9	524.8	525.3	524.8	524.9	525.0	525.4	525.0	524.9
33°	519.6	518.6	518.4	518.0	519.8	518.0	518.4	518.6	519.6	518.6	518.4
33.5°	512.6	511.0	511.1	510.5	512.8	510.5	511.1	511.0	512.6	511.0	511.1
34°	504.2	502.4	503.0	501.7	504.5	501.7	503.0	502.4	504.2	502.4	503.0
34.5°	495.1	492.5	493.6	492.3	494.9	492.3	493.6	492.5	495.1	492.5	493.6
35°	484.5	482.2	482.7	481.9	483.6	481.9	482.7	482.2	484.5	482.2	482.7
35.5°	472.7	471.4	470.8	470.0	471.2	470.0	470.8	471.4	472.7	471.4	470.8
36°	459.7	459.9	458.0	457.1	458.9	457.1	458.0	459.9	459.7	459.9	458.0
36.5°	446.0	447.0	444.4	443.5	445.4	443.5	444.4	447.0	446.0	447.0	444.4
37°	432.0	432.8	430.5	429.2	431.5	429.2	430.5	432.8	432.0	432.8	430.5
37.5°	417.4	417.4	415.8	414.6	416.7	414.6	415.8	417.4	417.4	417.4	415.8
38°	402.1	401.0	400.7	399.8	401.8	399.8	400.7	401.0	402.1	401.0	400.7
38.5°	386.2	384.3	385.1	384.4	386.4	384.4	385.1	384.3	386.2	384.3	385.1
39°	369.6	367.8	369.0	368.9	371.1	368.9	369.0	367.8	369.6	367.8	369.0
39.5°	352.6	351.3	352.8	353.2	355.2	353.2	352.8	351.3	352.6	351.3	352.8
40°	334.9	335.2	336.7	337.9	338.9	337.9	336.7	335.2	334.9	335.2	336.7
40.5°	317.2	318.8	320.4	322.4	322.5	322.4	320.4	318.8	317.2	318.8	320.4
41°	300.0	302.7	304.7	307.1	306.3	307.1	304.7	302.7	300.0	302.7	304.7
41.5°	283.1	286.2	289.0	291.8	290.2	291.8	289.0	286.2	283.1	286.2	289.0
42°	266.9	270.1	273.5	276.5	274.7	276.5	273.5	270.1	266.9	270.1	273.5
42.5°	251.2	254.3	258.0	261.5	259.5	261.5	258.0	254.3	251.2	254.3	258.0
43°	235.9	239.0	243.2	246.7	245.0	246.7	243.2	239.0	235.9	239.0	243.2
43.5°	221.4	224.2	228.7	232.5	230.7	232.5	228.7	224.2	221.4	224.2	228.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	181.7	183.7	188.6	192.1	190.6	192.1	188.6	183.7	181.7	183.7	188.6
45.5°	170.1	171.8	176.5	179.8	178.7	179.8	176.5	171.8	170.1	171.8	176.5
46°	159.1	161.1	165.1	168.2	167.2	168.2	165.1	161.1	159.1	161.1	165.1
46.5°	149.1	151.2	154.1	157.3	156.6	157.3	154.1	151.2	149.1	151.2	154.1
47°	139.7	142.2	144.2	147.3	146.5	147.3	144.2	142.2	139.7	142.2	144.2
47.5°	131.4	134.0	135.0	138.0	137.2	138.0	135.0	134.0	131.4	134.0	135.0
48°	123.9	126.2	126.8	129.8	128.6	129.8	126.8	126.2	123.9	126.2	126.8
48.5°	117.2	119.0	119.6	122.1	120.7	122.1	119.6	119.0	117.2	119.0	119.6
49°	111.1	112.5	113.1	115.2	113.9	115.2	113.1	112.5	111.1	112.5	113.1
49.5°	105.9	106.9	107.5	109.1	107.6	109.1	107.5	106.9	105.9	106.9	107.5
50°	101.1	102.0	102.7	103.8	102.4	103.8	102.7	102.0	101.1	102.0	102.7
50.5°	97.2	97.8	98.4	99.3	97.9	99.3	98.4	97.8	97.2	97.8	98.4
51°	93.9	94.5	94.8	95.5	94.3	95.5	94.8	94.5	93.9	94.5	94.8
51.5°	91.1	91.6	91.9	92.2	91.4	92.2	91.9	91.6	91.1	91.6	91.9
52°	89.0	89.2	89.4	89.5	89.1	89.5	89.4	89.2	89.0	89.2	89.4
52.5°	86.9	87.0	87.1	87.1	87.1	87.1	87.1	87.0	86.9	87.0	87.1
53°	85.0	85.1	85.1	85.1	85.2	85.1	85.1	85.1	85.0	85.1	85.1
53.5°	83.2	83.2	83.2	83.1	83.3	83.1	83.2	83.2	83.2	83.2	83.2
54°	81.3	81.3	81.3	81.2	81.4	81.2	81.3	81.3	81.3	81.3	81.3
54.5°	79.4	79.4	79.4	79.2	79.5	79.2	79.4	79.4	79.4	79.4	79.4
55°	77.3	77.3	77.3	77.3	77.4	77.3	77.3	77.3	77.3	77.3	77.3
55.5°	75.3	75.3	75.4	75.3	75.4	75.3	75.4	75.3	75.3	75.3	75.4
56°	73.3	73.3	73.4	73.4	73.4	73.4	73.4	73.3	73.3	73.3	73.4
56.5°	71.2	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.2	71.4	71.4
57°	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.2	69.3	69.3
57.5°	67.2	67.3	67.4	67.4	67.4	67.4	67.4	67.3	67.2	67.3	67.4
58°	65.2	65.4	65.4	65.5	65.5	65.5	65.4	65.4	65.2	65.4	65.4
58.5°	63.1	63.5	63.5	63.6	63.6	63.6	63.5	63.5	63.1	63.5	63.5
59°	61.2	61.5	61.6	61.6	61.6	61.6	61.6	61.5	61.2	61.5	61.6
59.5°	59.4	59.7	59.8	59.8	59.8	59.8	59.8	59.7	59.4	59.7	59.8
60°	57.5	57.9	58.0	58.1	58.0	58.1	58.0	57.9	57.5	57.9	58.0
60.5°	55.7	56.1	56.3	56.3	56.3	56.3	56.3	56.1	55.7	56.1	56.3
61°	54.0	54.4	54.6	54.6	54.6	54.6	54.6	54.4	54.0	54.4	54.6
61.5°	52.3	52.7	52.9	53.0	53.0	53.0	52.9	52.7	52.3	52.7	52.9
62°	50.6	51.0	51.3	51.3	51.3	51.3	51.3	51.0	50.6	51.0	51.3
62.5°	49.0	49.4	49.7	49.7	49.7	49.7	49.7	49.4	49.0	49.4	49.7
63°	47.2	47.8	48.2	48.2	48.2	48.2	48.2	47.8	47.2	47.8	48.2
63.5°	45.8	46.3	46.6	46.7	46.7	46.7	46.6	46.3	45.8	46.3	46.6
64°	44.3	44.7	45.1	45.2	45.2	45.2	45.1	44.7	44.3	44.7	45.1
64.5°	42.8	43.2	43.7	43.7	43.7	43.7	43.7	43.2	42.8	43.2	43.7
65°	41.3	41.7	42.2	42.3	42.2	42.3	42.2	41.7	41.3	41.7	42.2
65.5°	39.9	40.3	40.8	41.0	41.0	41.0	40.8	40.3	39.9	40.3	40.8
66°	38.5	38.9	39.5	39.6	39.6	39.6	39.5	38.9	38.5	38.9	39.5



TEST NUMBER: P775864

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	34.5	35.0	35.5	35.7	35.6	35.7	35.5	35.0	34.5	35.0	35.5
68°	33.2	33.7	34.3	34.5	34.5	34.5	34.3	33.7	33.2	33.7	34.3
68.5°	32.0	32.4	33.1	33.2	33.2	33.2	33.1	32.4	32.0	32.4	33.1
69°	30.7	31.3	31.9	32.0	32.0	32.0	31.9	31.3	30.7	31.3	31.9
69.5°	29.5	30.0	30.7	30.8	30.8	30.8	30.7	30.0	29.5	30.0	30.7
70°	28.4	28.8	29.5	29.7	29.7	29.7	29.5	28.8	28.4	28.8	29.5
70.5°	27.2	27.6	28.4	28.5	28.5	28.5	28.4	27.6	27.2	27.6	28.4
71°	26.1	26.6	27.2	27.4	27.4	27.4	27.2	26.6	26.1	26.6	27.2
71.5°	25.0	25.4	26.1	26.3	26.2	26.3	26.1	25.4	25.0	25.4	26.1
72°	23.9	24.3	25.1	25.3	25.2	25.3	25.1	24.3	23.9	24.3	25.1
72.5°	22.8	23.3	24.0	24.2	24.1	24.2	24.0	23.3	22.8	23.3	24.0
73°	21.8	22.2	22.9	23.1	23.1	23.1	22.9	22.2	21.8	22.2	22.9
73.5°	20.8	21.2	22.0	22.2	22.2	22.2	22.0	21.2	20.8	21.2	22.0
74°	19.8	20.3	20.9	21.2	21.1	21.2	20.9	20.3	19.8	20.3	20.9
74.5°	18.9	19.2	19.9	20.3	20.2	20.3	19.9	19.2	18.9	19.2	19.9
75°	17.9	18.2	19.0	19.3	19.3	19.3	19.0	18.2	17.9	18.2	19.0
75.5°	17.0	17.4	18.0	18.3	18.3	18.3	18.0	17.4	17.0	17.4	18.0
76°	16.1	16.4	17.2	17.5	17.4	17.5	17.2	16.4	16.1	16.4	17.2
76.5°	15.1	15.6	16.2	16.5	16.5	16.5	16.2	15.6	15.1	15.6	16.2
77°	14.3	14.7	15.4	15.7	15.7	15.7	15.4	14.7	14.3	14.7	15.4
77.5°	13.5	13.9	14.5	14.8	14.8	14.8	14.5	13.9	13.5	13.9	14.5
78°	12.7	13.0	13.7	14.1	14.0	14.1	13.7	13.0	12.7	13.0	13.7
78.5°	11.8	12.2	12.9	13.2	13.2	13.2	12.9	12.2	11.8	12.2	12.9
79°	11.1	11.4	12.1	12.5	12.4	12.5	12.1	11.4	11.1	11.4	12.1
79.5°	10.3	10.6	11.3	11.6	11.6	11.6	11.3	10.6	10.3	10.6	11.3
80°	9.6	9.8	10.6	10.9	10.9	10.9	10.6	9.8	9.6	9.8	10.6
80.5°	8.9	9.1	9.8	10.1	10.1	10.1	9.8	9.1	8.9	9.1	9.8
81°	8.1	8.3	9.1	9.4	9.4	9.4	9.1	8.3	8.1	8.3	9.1
81.5°	7.5	7.6	8.3	8.7	8.7	8.7	8.3	7.6	7.5	7.6	8.3
82°	6.7	6.9	7.6	8.0	8.0	8.0	7.6	6.9	6.7	6.9	7.6
82.5°	6.1	6.2	6.9	7.4	7.4	7.4	6.9	6.2	6.1	6.2	6.9
83°	5.4	5.5	6.3	6.7	6.6	6.7	6.3	5.5	5.4	5.5	6.3
83.5°	4.8	4.9	5.7	6.0	6.0	6.0	5.7	4.9	4.8	4.9	5.7
84°	4.2	4.3	5.0	5.3	5.3	5.3	5.0	4.3	4.2	4.3	5.0
84.5°	3.5	3.6	4.4	4.8	4.8	4.8	4.4	3.6	3.5	3.6	4.4
85°	3.0	3.1	3.8	4.2	4.2	4.2	3.8	3.1	3.0	3.1	3.8
85.5°	2.5	2.6	3.3	3.5	3.5	3.5	3.3	2.6	2.5	2.6	3.3
86°	1.9	2.1	2.8	3.0	3.0	3.0	2.8	2.1	1.9	2.1	2.8
86.5°	1.5	1.7	2.2	2.5	2.5	2.5	2.2	1.7	1.5	1.7	2.2
87°	1.2	1.3	1.7	1.9	1.9	1.9	1.7	1.3	1.2	1.3	1.7
87.5°	0.9	1.0	1.3	1.5	1.4	1.5	1.3	1.0	0.9	1.0	1.3
88°	0.5	0.6	1.0	1.1	0.9	1.1	1.0	0.6	0.5	0.6	1.0
88.5°	0.3	0.4	0.6	0.7	0.5	0.7	0.6	0.4	0.3	0.4	0.6



TEST NUMBER: P775864
CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P775864

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	744.6	744.6	744.6	744.6	744.6	744.6
0.5°	744.5	744.9	744.5	744.5	744.3	744.5
1°	744.4	744.7	744.4	744.4	744.1	744.4
1.5°	744.0	744.5	744.0	744.0	743.8	744.0
2°	743.6	744.0	743.6	743.6	743.4	743.6
2.5°	743.2	743.5	743.2	743.1	742.9	743.1
3°	742.5	743.0	742.5	742.4	742.2	742.4
3.5°	741.8	742.2	741.8	741.7	741.5	741.7
4°	740.9	741.4	740.9	740.8	740.6	740.7
4.5°	740.0	740.4	740.0	739.9	739.7	739.8
5°	738.9	739.3	738.9	738.7	738.5	738.7
5.5°	737.7	738.2	737.7	737.5	737.3	737.4
6°	736.5	736.8	736.5	736.3	735.9	736.1
6.5°	735.1	735.4	735.1	734.9	734.5	734.7
7°	733.5	733.9	733.5	733.3	732.9	733.2
7.5°	731.9	732.3	731.9	731.7	731.2	731.5
8°	730.1	730.6	730.1	729.9	729.5	729.6
8.5°	728.3	728.7	728.3	728.0	727.6	727.7
9°	726.3	726.8	726.3	726.0	725.7	725.8
9.5°	724.2	724.6	724.2	723.9	723.6	723.6
10°	722.1	722.5	722.1	721.8	721.3	721.4
10.5°	719.7	720.3	719.7	719.4	719.0	719.1
11°	717.4	717.8	717.4	717.0	716.6	716.6
11.5°	714.8	715.2	714.8	714.5	714.1	714.2
12°	712.3	712.7	712.3	711.8	711.5	711.5
12.5°	709.6	709.9	709.6	709.2	708.7	708.7
13°	706.7	707.1	706.7	706.4	706.0	706.0
13.5°	703.9	704.2	703.9	703.4	703.0	703.0
14°	700.8	701.2	700.8	700.4	700.0	700.1
14.5°	697.8	698.1	697.8	697.3	696.9	696.9
15°	694.6	694.8	694.6	694.2	693.8	693.7
15.5°	691.2	691.5	691.2	690.9	690.5	690.4
16°	687.8	688.0	687.8	687.5	687.1	687.1
16.5°	684.3	684.6	684.3	684.1	683.7	683.7
17°	680.8	681.0	680.8	680.5	680.0	680.0
17.5°	677.1	677.3	677.1	676.8	676.4	676.3
18°	673.2	673.4	673.2	673.0	672.6	672.6
18.5°	669.3	669.5	669.3	669.2	668.7	668.7
19°	665.3	665.4	665.3	665.1	664.7	664.7
19.5°	661.2	661.3	661.2	661.0	660.6	660.5
20°	656.8	657.0	656.8	656.7	656.4	656.4
20.5°	652.3	652.5	652.3	652.3	652.0	652.0
21°	647.8	647.9	647.8	647.8	647.5	647.5



TEST NUMBER: P775864

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	633.2	633.4	633.2	633.3	633.1	633.1
23°	628.2	628.3	628.2	628.2	628.1	628.1
23.5°	623.0	623.1	623.0	623.1	623.0	623.0
24°	617.7	617.8	617.7	617.8	617.7	617.8
24.5°	612.3	612.3	612.3	612.4	612.2	612.2
25°	606.9	606.9	606.9	606.9	606.8	606.8
25.5°	601.3	601.3	601.3	601.4	601.2	601.3
26°	595.9	595.8	595.9	595.8	595.7	595.8
26.5°	590.2	590.2	590.2	590.2	590.2	590.1
27°	584.7	584.6	584.7	584.7	584.6	584.6
27.5°	579.1	578.9	579.1	579.1	578.9	578.9
28°	573.5	573.5	573.5	573.6	573.4	573.4
28.5°	568.0	567.8	568.0	568.1	567.8	567.8
29°	562.4	562.4	562.4	562.5	562.4	562.2
29.5°	557.1	556.9	557.1	557.1	556.9	556.8
30°	551.6	551.4	551.6	551.6	551.5	551.4
30.5°	546.3	546.0	546.3	546.4	546.3	546.1
31°	541.1	541.0	541.1	541.2	541.0	540.9
31.5°	535.8	535.6	535.8	536.0	535.8	535.8
32°	530.5	530.5	530.5	530.6	530.6	530.6
32.5°	524.8	525.3	524.8	524.9	525.0	525.4
33°	518.0	519.8	518.0	518.4	518.6	519.6
33.5°	510.5	512.8	510.5	511.1	511.0	512.6
34°	501.7	504.5	501.7	503.0	502.4	504.2
34.5°	492.3	494.9	492.3	493.6	492.5	495.1
35°	481.9	483.6	481.9	482.7	482.2	484.5
35.5°	470.0	471.2	470.0	470.8	471.4	472.7
36°	457.1	458.9	457.1	458.0	459.9	459.7
36.5°	443.5	445.4	443.5	444.4	447.0	446.0
37°	429.2	431.5	429.2	430.5	432.8	432.0
37.5°	414.6	416.7	414.6	415.8	417.4	417.4
38°	399.8	401.8	399.8	400.7	401.0	402.1
38.5°	384.4	386.4	384.4	385.1	384.3	386.2
39°	368.9	371.1	368.9	369.0	367.8	369.6
39.5°	353.2	355.2	353.2	352.8	351.3	352.6
40°	337.9	338.9	337.9	336.7	335.2	334.9
40.5°	322.4	322.5	322.4	320.4	318.8	317.2
41°	307.1	306.3	307.1	304.7	302.7	300.0
41.5°	291.8	290.2	291.8	289.0	286.2	283.1
42°	276.5	274.7	276.5	273.5	270.1	266.9
42.5°	261.5	259.5	261.5	258.0	254.3	251.2
43°	246.7	245.0	246.7	243.2	239.0	235.9
43.5°	232.5	230.7	232.5	228.7	224.2	221.4



TEST NUMBER: P775864

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	192.1	190.6	192.1	188.6	183.7	181.7
45.5°	179.8	178.7	179.8	176.5	171.8	170.1
46°	168.2	167.2	168.2	165.1	161.1	159.1
46.5°	157.3	156.6	157.3	154.1	151.2	149.1
47°	147.3	146.5	147.3	144.2	142.2	139.7
47.5°	138.0	137.2	138.0	135.0	134.0	131.4
48°	129.8	128.6	129.8	126.8	126.2	123.9
48.5°	122.1	120.7	122.1	119.6	119.0	117.2
49°	115.2	113.9	115.2	113.1	112.5	111.1
49.5°	109.1	107.6	109.1	107.5	106.9	105.9
50°	103.8	102.4	103.8	102.7	102.0	101.1
50.5°	99.3	97.9	99.3	98.4	97.8	97.2
51°	95.5	94.3	95.5	94.8	94.5	93.9
51.5°	92.2	91.4	92.2	91.9	91.6	91.1
52°	89.5	89.1	89.5	89.4	89.2	89.0
52.5°	87.1	87.1	87.1	87.1	87.0	86.9
53°	85.1	85.2	85.1	85.1	85.1	85.0
53.5°	83.1	83.3	83.1	83.2	83.2	83.2
54°	81.2	81.4	81.2	81.3	81.3	81.3
54.5°	79.2	79.5	79.2	79.4	79.4	79.4
55°	77.3	77.4	77.3	77.3	77.3	77.3
55.5°	75.3	75.4	75.3	75.4	75.3	75.3
56°	73.4	73.4	73.4	73.4	73.3	73.3
56.5°	71.4	71.4	71.4	71.4	71.4	71.2
57°	69.3	69.3	69.3	69.3	69.3	69.2
57.5°	67.4	67.4	67.4	67.4	67.3	67.2
58°	65.5	65.5	65.5	65.4	65.4	65.2
58.5°	63.6	63.6	63.6	63.5	63.5	63.1
59°	61.6	61.6	61.6	61.6	61.5	61.2
59.5°	59.8	59.8	59.8	59.8	59.7	59.4
60°	58.1	58.0	58.1	58.0	57.9	57.5
60.5°	56.3	56.3	56.3	56.3	56.1	55.7
61°	54.6	54.6	54.6	54.6	54.4	54.0
61.5°	53.0	53.0	53.0	52.9	52.7	52.3
62°	51.3	51.3	51.3	51.3	51.0	50.6
62.5°	49.7	49.7	49.7	49.7	49.4	49.0
63°	48.2	48.2	48.2	48.2	47.8	47.2
63.5°	46.7	46.7	46.7	46.6	46.3	45.8
64°	45.2	45.2	45.2	45.1	44.7	44.3
64.5°	43.7	43.7	43.7	43.7	43.2	42.8
65°	42.3	42.2	42.3	42.2	41.7	41.3
65.5°	41.0	41.0	41.0	40.8	40.3	39.9
66°	39.6	39.6	39.6	39.5	38.9	38.5



TEST NUMBER: P775864

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	35.7	35.6	35.7	35.5	35.0	34.5
68°	34.5	34.5	34.5	34.3	33.7	33.2
68.5°	33.2	33.2	33.2	33.1	32.4	32.0
69°	32.0	32.0	32.0	31.9	31.3	30.7
69.5°	30.8	30.8	30.8	30.7	30.0	29.5
70°	29.7	29.7	29.7	29.5	28.8	28.4
70.5°	28.5	28.5	28.5	28.4	27.6	27.2
71°	27.4	27.4	27.4	27.2	26.6	26.1
71.5°	26.3	26.2	26.3	26.1	25.4	25.0
72°	25.3	25.2	25.3	25.1	24.3	23.9
72.5°	24.2	24.1	24.2	24.0	23.3	22.8
73°	23.1	23.1	23.1	22.9	22.2	21.8
73.5°	22.2	22.2	22.2	22.0	21.2	20.8
74°	21.2	21.1	21.2	20.9	20.3	19.8
74.5°	20.3	20.2	20.3	19.9	19.2	18.9
75°	19.3	19.3	19.3	19.0	18.2	17.9
75.5°	18.3	18.3	18.3	18.0	17.4	17.0
76°	17.5	17.4	17.5	17.2	16.4	16.1
76.5°	16.5	16.5	16.5	16.2	15.6	15.1
77°	15.7	15.7	15.7	15.4	14.7	14.3
77.5°	14.8	14.8	14.8	14.5	13.9	13.5
78°	14.1	14.0	14.1	13.7	13.0	12.7
78.5°	13.2	13.2	13.2	12.9	12.2	11.8
79°	12.5	12.4	12.5	12.1	11.4	11.1
79.5°	11.6	11.6	11.6	11.3	10.6	10.3
80°	10.9	10.9	10.9	10.6	9.8	9.6
80.5°	10.1	10.1	10.1	9.8	9.1	8.9
81°	9.4	9.4	9.4	9.1	8.3	8.1
81.5°	8.7	8.7	8.7	8.3	7.6	7.5
82°	8.0	8.0	8.0	7.6	6.9	6.7
82.5°	7.4	7.4	7.4	6.9	6.2	6.1
83°	6.7	6.6	6.7	6.3	5.5	5.4
83.5°	6.0	6.0	6.0	5.7	4.9	4.8
84°	5.3	5.3	5.3	5.0	4.3	4.2
84.5°	4.8	4.8	4.8	4.4	3.6	3.5
85°	4.2	4.2	4.2	3.8	3.1	3.0
85.5°	3.5	3.5	3.5	3.3	2.6	2.5
86°	3.0	3.0	3.0	2.8	2.1	1.9
86.5°	2.5	2.5	2.5	2.2	1.7	1.5
87°	1.9	1.9	1.9	1.7	1.3	1.2
87.5°	1.5	1.4	1.5	1.3	1.0	0.9
88°	1.1	0.9	1.1	1.0	0.6	0.5
88.5°	0.7	0.5	0.7	0.6	0.4	0.3



TEST NUMBER: P775864

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.0	0.1	0.1	0.0	0.0

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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°	642.8	642.9	643.1	643.1	643.3	643.1	643.1	642.9	642.8	642.9	643.1
22°	638.1	638.1	638.2	638.2	638.5	638.2	638.2	638.1	638.1	638.1	638.2



44°	207.6	209.9	214.8	218.4	216.8	218.4	214.8	209.9	207.6	209.9	214.8
44.5°	194.4	196.4	201.4	205.1	203.4	205.1	201.4	196.4	194.4	196.4	201.4



66.5°	37.0	37.5	38.1	38.2	38.3	38.2	38.1	37.5	37.0	37.5	38.1
67°	35.7	36.2	36.8	37.0	37.0	37.0	36.8	36.2	35.7	36.2	36.8



89°	0.1	0.2	0.3	0.5	0.3	0.5	0.3	0.2	0.1	0.2	0.3
89.5°	0.0	0.1	0.2	0.3	0.1	0.3	0.2	0.1	0.0	0.1	0.2

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21.5°	643.1	643.3	643.1	643.1	642.9	642.8
22°	638.2	638.5	638.2	638.2	638.1	638.1

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44°	218.4	216.8	218.4	214.8	209.9	207.6
44.5°	205.1	203.4	205.1	201.4	196.4	194.4

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66.5°	38.2	38.3	38.2	38.1	37.5	37.0
67°	37.0	37.0	37.0	36.8	36.2	35.7

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89°	0.5	0.3	0.5	0.3	0.2	0.1
89.5°	0.3	0.1	0.3	0.2	0.1	0.0

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(END OF REPORT)