

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: P775820

Luminaire Tested: HCDJBL510CSD-HCD81TRH-1000lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B043-HCD81TRH)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD81TRH-1000lm-2700K
Description: 8 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

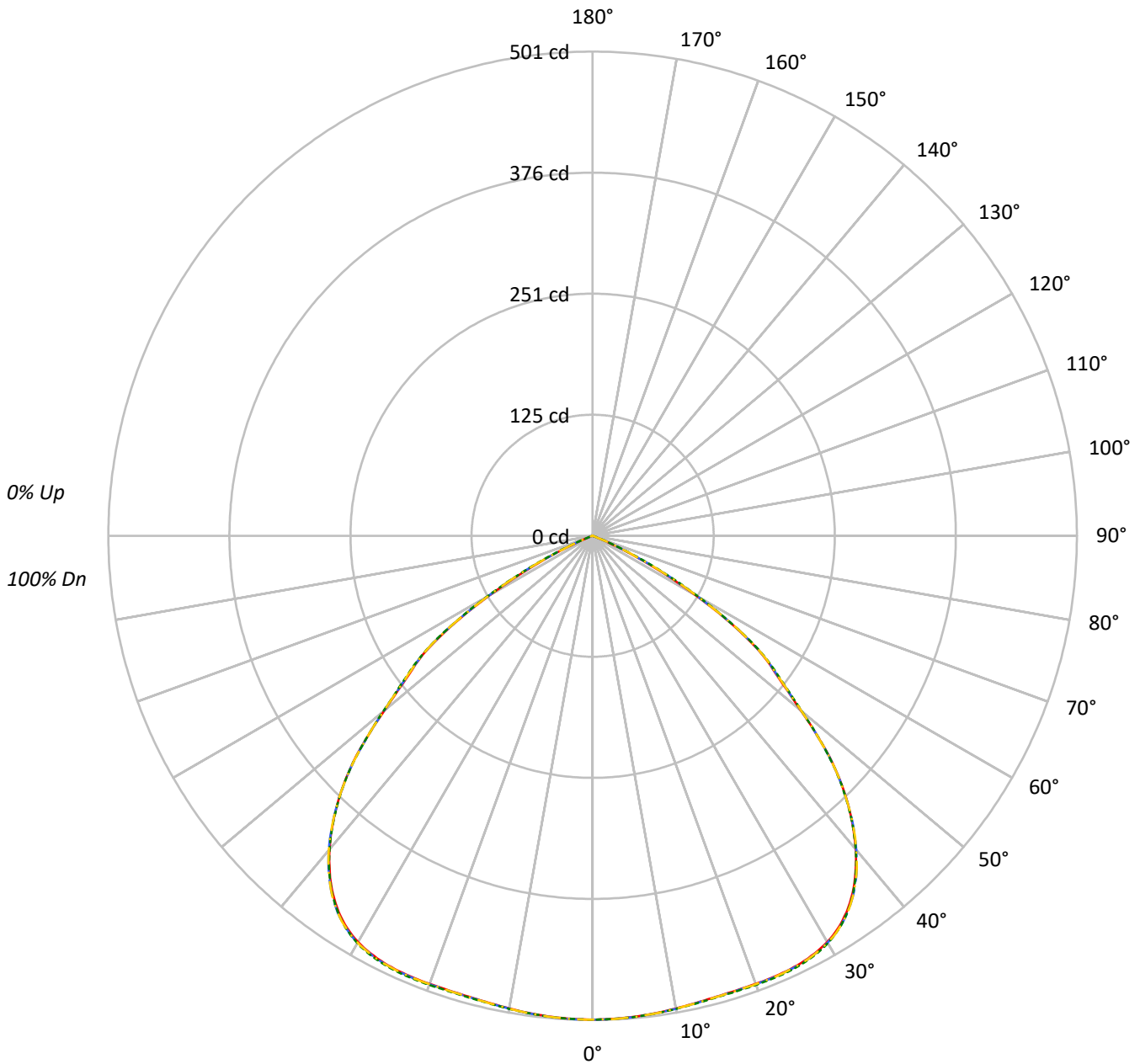
Lumens per Lamp: N/A
Luminaire Lumens: 1216.0 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.42 / 1.43
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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	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	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78								
3	96	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68								
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	66	62	60								
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53								
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33								
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15287	15287	15287	15287
5°	15308	15314	15308	15314
10°	15398	15411	15398	15411
15°	15611	15633	15611	15633
20°	16030	16066	16030	16066
25°	16591	16638	16591	16638
30°	17108	17158	17108	17158
35°	17290	17327	17290	17327
40°	16870	16878	16870	16878
45°	15733	15712	15733	15712
50°	13351	13446	13351	13446
55°	11412	11476	11412	11476
60°	7504	7797	7504	7797
65°	2644	3186	2644	3186
70°	45	241	45	241
75°	12	12	12	12
80°	0	18	0	18
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15733 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	3.9
10°-20°	140.2	11.5
20°-30°	227.7	18.7
30°-40°	289.1	23.8
40°-50°	277.3	22.8
50°-60°	186.6	15.3
60°-70°	47.2	3.9
70°-80°	0.2	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	415.5	34.2
0°-40°	704.6	57.9
0°-60°	1168.6	96.1
0°-90°	1216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1216.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	501	501	501	501	501	
5°	500	500	500	500	500	48
15°	494	495	494	495	494	140
25°	492	494	492	494	492	227
35°	464	465	464	465	464	289
45°	364	364	364	364	364	277
55°	214	216	214	216	214	185
65°	37	44	37	44	37	44
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°	500.7	500.7	500.7	500.7	500.7	500.7	500.7	500.7	500.7	500.7	500.7
0.5°	500.6	500.6	500.7	500.8	500.7	500.8	500.7	500.6	500.6	500.6	500.7
1°	500.6	500.6	500.7	500.8	500.6	500.8	500.7	500.6	500.6	500.6	500.7
1.5°	500.5	500.5	500.6	500.7	500.6	500.7	500.6	500.5	500.5	500.5	500.6
2°	500.4	500.4	500.6	500.6	500.5	500.6	500.6	500.4	500.4	500.4	500.6
2.5°	500.3	500.4	500.5	500.6	500.4	500.6	500.5	500.4	500.3	500.4	500.5
3°	500.2	500.2	500.4	500.4	500.3	500.4	500.4	500.2	500.2	500.2	500.4
3.5°	500.0	500.1	500.2	500.3	500.2	500.3	500.2	500.1	500.0	500.1	500.2
4°	499.9	499.9	500.0	500.2	500.0	500.2	500.0	499.9	499.9	499.9	500.0
4.5°	499.7	499.8	499.9	500.0	499.9	500.0	499.9	499.8	499.7	499.8	499.9
5°	499.5	499.6	499.7	499.8	499.7	499.8	499.7	499.6	499.5	499.6	499.7
5.5°	499.3	499.3	499.5	499.6	499.5	499.6	499.5	499.3	499.3	499.3	499.5
6°	499.0	499.1	499.2	499.4	499.3	499.4	499.2	499.1	499.0	499.1	499.2
6.5°	498.8	498.9	499.0	499.2	499.0	499.2	499.0	498.9	498.8	498.9	499.0
7°	498.5	498.6	498.8	498.9	498.8	498.9	498.8	498.6	498.5	498.6	498.8
7.5°	498.2	498.3	498.5	498.6	498.5	498.6	498.5	498.3	498.2	498.3	498.5
8°	498.0	498.0	498.2	498.4	498.3	498.4	498.2	498.0	498.0	498.0	498.2
8.5°	497.7	497.7	497.9	498.0	498.0	498.0	497.9	497.7	497.7	497.7	497.9
9°	497.3	497.4	497.6	497.8	497.7	497.8	497.6	497.4	497.3	497.4	497.6
9.5°	497.0	497.1	497.3	497.5	497.4	497.5	497.3	497.1	497.0	497.1	497.3
10°	496.7	496.8	497.0	497.2	497.1	497.2	497.0	496.8	496.7	496.8	497.0
10.5°	496.3	496.4	496.5	496.9	496.8	496.9	496.5	496.4	496.3	496.4	496.5
11°	496.0	496.0	496.2	496.5	496.4	496.5	496.2	496.0	496.0	496.0	496.2
11.5°	495.7	495.7	495.9	496.2	496.1	496.2	495.9	495.7	495.7	495.7	495.9
12°	495.4	495.4	495.6	495.9	495.9	495.9	495.6	495.4	495.4	495.4	495.6
12.5°	495.1	495.1	495.4	495.6	495.6	495.6	495.4	495.1	495.1	495.1	495.4
13°	494.8	494.9	495.1	495.3	495.4	495.3	495.1	494.9	494.8	494.9	495.1
13.5°	494.5	494.6	494.9	495.1	495.1	495.1	494.9	494.6	494.5	494.6	494.9
14°	494.3	494.4	494.6	494.9	494.9	494.9	494.6	494.4	494.3	494.4	494.6
14.5°	494.1	494.2	494.4	494.7	494.8	494.7	494.4	494.2	494.1	494.2	494.4
15°	493.9	494.0	494.2	494.6	494.6	494.6	494.2	494.0	493.9	494.0	494.2
15.5°	493.7	493.8	494.1	494.4	494.5	494.4	494.1	493.8	493.7	493.8	494.1
16°	493.6	493.7	493.9	494.3	494.4	494.3	493.9	493.7	493.6	493.7	493.9
16.5°	493.5	493.6	493.8	494.2	494.3	494.2	493.8	493.6	493.5	493.6	493.8
17°	493.4	493.5	493.8	494.2	494.3	494.2	493.8	493.5	493.4	493.5	493.8
17.5°	493.4	493.5	493.7	494.2	494.3	494.2	493.7	493.5	493.4	493.5	493.7
18°	493.3	493.4	493.7	494.2	494.3	494.2	493.7	493.4	493.3	493.4	493.7
18.5°	493.3	493.4	493.7	494.2	494.3	494.2	493.7	493.4	493.3	493.4	493.7
19°	493.4	493.4	493.7	494.3	494.4	494.3	493.7	493.4	493.4	493.4	493.7
19.5°	493.4	493.5	493.8	494.3	494.5	494.3	493.8	493.5	493.4	493.5	493.8
20°	493.4	493.5	493.8	494.4	494.5	494.4	493.8	493.5	493.4	493.5	493.8
20.5°	493.5	493.5	493.9	494.4	494.6	494.4	493.9	493.5	493.5	493.5	493.9
21°	493.5	493.6	493.9	494.5	494.6	494.5	493.9	493.6	493.5	493.6	493.9



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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°	493.4	493.5	493.9	494.5	494.7	494.5	493.9	493.5	493.4	493.5	493.9
23°	493.3	493.4	493.8	494.4	494.6	494.4	493.8	493.4	493.3	493.4	493.8
23.5°	493.2	493.3	493.7	494.3	494.5	494.3	493.7	493.3	493.2	493.3	493.7
24°	493.1	493.1	493.5	494.2	494.4	494.2	493.5	493.1	493.1	493.1	493.5
24.5°	492.8	492.9	493.3	494.0	494.2	494.0	493.3	492.9	492.8	492.9	493.3
25°	492.5	492.6	493.1	493.8	493.9	493.8	493.1	492.6	492.5	492.6	493.1
25.5°	492.2	492.3	492.8	493.5	493.6	493.5	492.8	492.3	492.2	492.3	492.8
26°	491.8	491.9	492.4	493.1	493.3	493.1	492.4	491.9	491.8	491.9	492.4
26.5°	491.3	491.4	492.0	492.7	492.8	492.7	492.0	491.4	491.3	491.4	492.0
27°	490.8	490.9	491.4	492.1	492.2	492.1	491.4	490.9	490.8	490.9	491.4
27.5°	490.1	490.3	490.8	491.5	491.6	491.5	490.8	490.3	490.1	490.3	490.8
28°	489.4	489.5	490.1	490.8	490.9	490.8	490.1	489.5	489.4	489.5	490.1
28.5°	488.6	488.7	489.3	490.0	490.0	490.0	489.3	488.7	488.6	488.7	489.3
29°	487.6	487.8	488.4	489.0	489.1	489.0	488.4	487.8	487.6	487.8	488.4
29.5°	486.5	486.7	487.4	488.0	488.0	488.0	487.4	486.7	486.5	486.7	487.4
30°	485.3	485.5	486.2	486.8	486.7	486.8	486.2	485.5	485.3	485.5	486.2
30.5°	484.0	484.2	484.9	485.5	485.4	485.5	484.9	484.2	484.0	484.2	484.9
31°	482.5	482.7	483.5	484.0	483.8	484.0	483.5	482.7	482.5	482.7	483.5
31.5°	480.8	481.1	481.9	482.3	482.1	482.3	481.9	481.1	480.8	481.1	481.9
32°	478.9	479.3	480.1	480.5	480.3	480.5	480.1	479.3	478.9	479.3	480.1
32.5°	476.9	477.3	478.1	478.4	478.2	478.4	478.1	477.3	476.9	477.3	478.1
33°	474.7	475.1	476.0	476.2	475.9	476.2	476.0	475.1	474.7	475.1	476.0
33.5°	472.2	472.7	473.6	473.8	473.5	473.8	473.6	472.7	472.2	472.7	473.6
34°	469.7	470.2	471.1	471.2	470.8	471.2	471.1	470.2	469.7	470.2	471.1
34.5°	466.8	467.4	468.3	468.3	467.9	468.3	468.3	467.4	466.8	467.4	468.3
35°	463.9	464.4	465.4	465.3	464.9	465.3	465.4	464.4	463.9	464.4	465.4
35.5°	460.7	461.2	462.2	462.1	461.7	462.1	462.2	461.2	460.7	461.2	462.2
36°	457.3	457.9	458.9	458.7	458.2	458.7	458.9	457.9	457.3	457.9	458.9
36.5°	453.8	454.3	455.3	455.1	454.5	455.1	455.3	454.3	453.8	454.3	455.3
37°	449.9	450.5	451.4	451.3	450.7	451.3	451.4	450.5	449.9	450.5	451.4
37.5°	446.0	446.5	447.5	447.2	446.6	447.2	447.5	446.5	446.0	446.5	447.5
38°	441.8	442.4	443.3	443.0	442.3	443.0	443.3	442.4	441.8	442.4	443.3
38.5°	437.4	438.0	438.9	438.5	437.9	438.5	438.9	438.0	437.4	438.0	438.9
39°	433.0	433.5	434.3	434.0	433.3	434.0	434.3	433.5	433.0	433.5	434.3
39.5°	428.3	428.7	429.5	429.2	428.5	429.2	429.5	428.7	428.3	428.7	429.5
40°	423.3	423.7	424.5	424.2	423.5	424.2	424.5	423.7	423.3	423.7	424.5
40.5°	418.3	418.6	419.3	419.0	418.3	419.0	419.3	418.6	418.3	418.6	419.3
41°	413.0	413.3	413.9	413.7	413.0	413.7	413.9	413.3	413.0	413.3	413.9
41.5°	407.6	407.8	408.4	408.0	407.5	408.0	408.4	407.8	407.6	407.8	408.4
42°	401.9	402.1	402.5	402.3	401.8	402.3	402.5	402.1	401.9	402.1	402.5
42.5°	396.2	396.2	396.6	396.4	395.9	396.4	396.6	396.2	396.2	396.2	396.6
43°	390.2	390.2	390.5	390.3	389.8	390.3	390.5	390.2	390.2	390.2	390.5
43.5°	384.0	384.0	384.1	383.9	383.6	383.9	384.1	384.0	384.0	384.0	384.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	364.4	364.1	364.1	364.0	363.9	364.0	364.1	364.1	364.4	364.1	364.1
45.5°	357.4	357.1	357.0	356.9	356.8	356.9	357.0	357.1	357.4	357.1	357.0
46°	350.2	349.8	349.7	349.7	349.6	349.7	349.7	349.8	350.2	349.8	349.7
46.5°	342.7	342.3	342.2	342.1	342.0	342.1	342.2	342.3	342.7	342.3	342.2
47°	334.7	334.3	334.0	333.8	333.6	333.8	334.0	334.3	334.7	334.3	334.0
47.5°	326.0	325.6	325.2	325.3	325.2	325.3	325.2	325.6	326.0	325.6	325.2
48°	316.8	316.7	316.9	317.0	317.1	317.0	316.9	316.7	316.8	316.7	316.9
48.5°	307.9	307.9	308.3	308.4	308.4	308.4	308.3	307.9	307.9	307.9	308.3
49°	299.4	299.3	299.6	299.7	299.8	299.7	299.6	299.3	299.4	299.3	299.6
49.5°	290.2	290.3	290.9	291.3	291.4	291.3	290.9	290.3	290.2	290.3	290.9
50°	281.1	281.5	282.3	282.8	283.1	282.8	282.3	281.5	281.1	281.5	282.3
50.5°	272.7	273.2	274.0	274.5	274.7	274.5	274.0	273.2	272.7	273.2	274.0
51°	265.0	265.3	266.1	266.5	266.7	266.5	266.1	265.3	265.0	265.3	266.1
51.5°	257.6	257.8	258.7	259.4	259.7	259.4	258.7	257.8	257.6	257.8	258.7
52°	250.3	250.7	251.6	252.5	252.9	252.5	251.6	250.7	250.3	250.7	251.6
52.5°	243.7	244.1	245.1	246.0	246.6	246.0	245.1	244.1	243.7	244.1	245.1
53°	237.6	238.0	239.1	240.0	240.4	240.0	239.1	238.0	237.6	238.0	239.1
53.5°	231.9	232.3	233.3	234.1	234.5	234.1	233.3	232.3	231.9	232.3	233.3
54°	226.5	226.8	227.7	228.2	228.4	228.2	227.7	226.8	226.5	226.8	227.7
54.5°	220.7	221.0	221.7	222.3	222.4	222.3	221.7	221.0	220.7	221.0	221.7
55°	214.4	214.7	215.4	215.8	215.6	215.8	215.4	214.7	214.4	214.7	215.4
55.5°	207.1	207.4	208.2	208.6	208.5	208.6	208.2	207.4	207.1	207.4	208.2
56°	199.0	199.4	200.4	200.9	200.8	200.9	200.4	199.4	199.0	199.4	200.4
56.5°	190.4	191.0	191.9	192.7	192.6	192.7	191.9	191.0	190.4	191.0	191.9
57°	181.4	181.9	183.2	183.7	183.8	183.7	183.2	181.9	181.4	181.9	183.2
57.5°	172.0	172.6	174.0	174.6	174.7	174.6	174.0	172.6	172.0	172.6	174.0
58°	162.5	163.1	164.5	165.4	165.6	165.4	164.5	163.1	162.5	163.1	164.5
58.5°	152.8	153.3	154.8	155.9	156.2	155.9	154.8	153.3	152.8	153.3	154.8
59°	143.0	143.5	144.9	146.4	146.8	146.4	144.9	143.5	143.0	143.5	144.9
59.5°	132.9	133.5	135.1	136.9	137.3	136.9	135.1	133.5	132.9	133.5	135.1
60°	122.9	123.8	125.4	127.5	127.7	127.5	125.4	123.8	122.9	123.8	125.4
60.5°	113.1	113.9	116.1	118.0	118.4	118.0	116.1	113.9	113.1	113.9	116.1
61°	103.5	104.5	106.9	108.7	109.2	108.7	106.9	104.5	103.5	104.5	106.9
61.5°	94.3	95.2	97.8	99.4	100.3	99.4	97.8	95.2	94.3	95.2	97.8
62°	85.2	86.1	88.8	90.4	91.4	90.4	88.8	86.1	85.2	86.1	88.8
62.5°	76.1	77.3	80.1	81.7	82.8	81.7	80.1	77.3	76.1	77.3	80.1
63°	67.2	68.7	71.6	73.3	74.6	73.3	71.6	68.7	67.2	68.7	71.6
63.5°	59.0	60.3	63.4	65.2	66.5	65.2	63.4	60.3	59.0	60.3	63.4
64°	51.2	52.6	55.4	57.5	58.7	57.5	55.4	52.6	51.2	52.6	55.4
64.5°	43.7	45.0	47.8	50.2	51.4	50.2	47.8	45.0	43.7	45.0	47.8
65°	36.6	38.4	40.7	43.0	44.1	43.0	40.7	38.4	36.6	38.4	40.7
65.5°	30.4	32.1	34.1	36.4	37.4	36.4	34.1	32.1	30.4	32.1	34.1
66°	24.5	26.2	28.2	30.4	30.9	30.4	28.2	26.2	24.5	26.2	28.2



TEST NUMBER: P775820

CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	9.8	12.5	13.5	15.4	15.5	15.4	13.5	12.5	9.8	12.5	13.5
68°	6.0	8.8	9.8	11.7	11.5	11.7	9.8	8.8	6.0	8.8	9.8
68.5°	2.6	5.7	6.9	8.3	9.2	8.3	6.9	5.7	2.6	5.7	6.9
69°	1.4	3.5	4.5	5.4	7.1	5.4	4.5	3.5	1.4	3.5	4.5
69.5°	0.9	1.7	2.5	3.2	4.9	3.2	2.5	1.7	0.9	1.7	2.5
70°	0.5	1.0	1.2	1.4	2.7	1.4	1.2	1.0	0.5	1.0	1.2
70.5°	0.2	0.5	0.7	0.6	0.8	0.6	0.7	0.5	0.2	0.5	0.7
71°	0.2	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.4
71.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
72°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
72.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
73.5°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
74°	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
77°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
77.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
78°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
80.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
81°	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775820
CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P775820

CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	500.7	500.7	500.7	500.7	500.7	500.7
0.5°	500.8	500.7	500.8	500.7	500.6	500.6
1°	500.8	500.6	500.8	500.7	500.6	500.6
1.5°	500.7	500.6	500.7	500.6	500.5	500.5
2°	500.6	500.5	500.6	500.6	500.4	500.4
2.5°	500.6	500.4	500.6	500.5	500.4	500.3
3°	500.4	500.3	500.4	500.4	500.2	500.2
3.5°	500.3	500.2	500.3	500.2	500.1	500.0
4°	500.2	500.0	500.2	500.0	499.9	499.9
4.5°	500.0	499.9	500.0	499.9	499.8	499.7
5°	499.8	499.7	499.8	499.7	499.6	499.5
5.5°	499.6	499.5	499.6	499.5	499.3	499.3
6°	499.4	499.3	499.4	499.2	499.1	499.0
6.5°	499.2	499.0	499.2	499.0	498.9	498.8
7°	498.9	498.8	498.9	498.8	498.6	498.5
7.5°	498.6	498.5	498.6	498.5	498.3	498.2
8°	498.4	498.3	498.4	498.2	498.0	498.0
8.5°	498.0	498.0	498.0	497.9	497.7	497.7
9°	497.8	497.7	497.8	497.6	497.4	497.3
9.5°	497.5	497.4	497.5	497.3	497.1	497.0
10°	497.2	497.1	497.2	497.0	496.8	496.7
10.5°	496.9	496.8	496.9	496.5	496.4	496.3
11°	496.5	496.4	496.5	496.2	496.0	496.0
11.5°	496.2	496.1	496.2	495.9	495.7	495.7
12°	495.9	495.9	495.9	495.6	495.4	495.4
12.5°	495.6	495.6	495.6	495.4	495.1	495.1
13°	495.3	495.4	495.3	495.1	494.9	494.8
13.5°	495.1	495.1	495.1	494.9	494.6	494.5
14°	494.9	494.9	494.9	494.6	494.4	494.3
14.5°	494.7	494.8	494.7	494.4	494.2	494.1
15°	494.6	494.6	494.6	494.2	494.0	493.9
15.5°	494.4	494.5	494.4	494.1	493.8	493.7
16°	494.3	494.4	494.3	493.9	493.7	493.6
16.5°	494.2	494.3	494.2	493.8	493.6	493.5
17°	494.2	494.3	494.2	493.8	493.5	493.4
17.5°	494.2	494.3	494.2	493.7	493.5	493.4
18°	494.2	494.3	494.2	493.7	493.4	493.3
18.5°	494.2	494.3	494.2	493.7	493.4	493.3
19°	494.3	494.4	494.3	493.7	493.4	493.4
19.5°	494.3	494.5	494.3	493.8	493.5	493.4
20°	494.4	494.5	494.4	493.8	493.5	493.4
20.5°	494.4	494.6	494.4	493.9	493.5	493.5
21°	494.5	494.6	494.5	493.9	493.6	493.5

TEST NUMBER: P775820

CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	494.5	494.7	494.5	493.9	493.5	493.4
23°	494.4	494.6	494.4	493.8	493.4	493.3
23.5°	494.3	494.5	494.3	493.7	493.3	493.2
24°	494.2	494.4	494.2	493.5	493.1	493.1
24.5°	494.0	494.2	494.0	493.3	492.9	492.8
25°	493.8	493.9	493.8	493.1	492.6	492.5
25.5°	493.5	493.6	493.5	492.8	492.3	492.2
26°	493.1	493.3	493.1	492.4	491.9	491.8
26.5°	492.7	492.8	492.7	492.0	491.4	491.3
27°	492.1	492.2	492.1	491.4	490.9	490.8
27.5°	491.5	491.6	491.5	490.8	490.3	490.1
28°	490.8	490.9	490.8	490.1	489.5	489.4
28.5°	490.0	490.0	490.0	489.3	488.7	488.6
29°	489.0	489.1	489.0	488.4	487.8	487.6
29.5°	488.0	488.0	488.0	487.4	486.7	486.5
30°	486.8	486.7	486.8	486.2	485.5	485.3
30.5°	485.5	485.4	485.5	484.9	484.2	484.0
31°	484.0	483.8	484.0	483.5	482.7	482.5
31.5°	482.3	482.1	482.3	481.9	481.1	480.8
32°	480.5	480.3	480.5	480.1	479.3	478.9
32.5°	478.4	478.2	478.4	478.1	477.3	476.9
33°	476.2	475.9	476.2	476.0	475.1	474.7
33.5°	473.8	473.5	473.8	473.6	472.7	472.2
34°	471.2	470.8	471.2	471.1	470.2	469.7
34.5°	468.3	467.9	468.3	468.3	467.4	466.8
35°	465.3	464.9	465.3	465.4	464.4	463.9
35.5°	462.1	461.7	462.1	462.2	461.2	460.7
36°	458.7	458.2	458.7	458.9	457.9	457.3
36.5°	455.1	454.5	455.1	455.3	454.3	453.8
37°	451.3	450.7	451.3	451.4	450.5	449.9
37.5°	447.2	446.6	447.2	447.5	446.5	446.0
38°	443.0	442.3	443.0	443.3	442.4	441.8
38.5°	438.5	437.9	438.5	438.9	438.0	437.4
39°	434.0	433.3	434.0	434.3	433.5	433.0
39.5°	429.2	428.5	429.2	429.5	428.7	428.3
40°	424.2	423.5	424.2	424.5	423.7	423.3
40.5°	419.0	418.3	419.0	419.3	418.6	418.3
41°	413.7	413.0	413.7	413.9	413.3	413.0
41.5°	408.0	407.5	408.0	408.4	407.8	407.6
42°	402.3	401.8	402.3	402.5	402.1	401.9
42.5°	396.4	395.9	396.4	396.6	396.2	396.2
43°	390.3	389.8	390.3	390.5	390.2	390.2
43.5°	383.9	383.6	383.9	384.1	384.0	384.0



TEST NUMBER: P775820

CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	364.0	363.9	364.0	364.1	364.1	364.4
45.5°	356.9	356.8	356.9	357.0	357.1	357.4
46°	349.7	349.6	349.7	349.7	349.8	350.2
46.5°	342.1	342.0	342.1	342.2	342.3	342.7
47°	333.8	333.6	333.8	334.0	334.3	334.7
47.5°	325.3	325.2	325.3	325.2	325.6	326.0
48°	317.0	317.1	317.0	316.9	316.7	316.8
48.5°	308.4	308.4	308.4	308.3	307.9	307.9
49°	299.7	299.8	299.7	299.6	299.3	299.4
49.5°	291.3	291.4	291.3	290.9	290.3	290.2
50°	282.8	283.1	282.8	282.3	281.5	281.1
50.5°	274.5	274.7	274.5	274.0	273.2	272.7
51°	266.5	266.7	266.5	266.1	265.3	265.0
51.5°	259.4	259.7	259.4	258.7	257.8	257.6
52°	252.5	252.9	252.5	251.6	250.7	250.3
52.5°	246.0	246.6	246.0	245.1	244.1	243.7
53°	240.0	240.4	240.0	239.1	238.0	237.6
53.5°	234.1	234.5	234.1	233.3	232.3	231.9
54°	228.2	228.4	228.2	227.7	226.8	226.5
54.5°	222.3	222.4	222.3	221.7	221.0	220.7
55°	215.8	215.6	215.8	215.4	214.7	214.4
55.5°	208.6	208.5	208.6	208.2	207.4	207.1
56°	200.9	200.8	200.9	200.4	199.4	199.0
56.5°	192.7	192.6	192.7	191.9	191.0	190.4
57°	183.7	183.8	183.7	183.2	181.9	181.4
57.5°	174.6	174.7	174.6	174.0	172.6	172.0
58°	165.4	165.6	165.4	164.5	163.1	162.5
58.5°	155.9	156.2	155.9	154.8	153.3	152.8
59°	146.4	146.8	146.4	144.9	143.5	143.0
59.5°	136.9	137.3	136.9	135.1	133.5	132.9
60°	127.5	127.7	127.5	125.4	123.8	122.9
60.5°	118.0	118.4	118.0	116.1	113.9	113.1
61°	108.7	109.2	108.7	106.9	104.5	103.5
61.5°	99.4	100.3	99.4	97.8	95.2	94.3
62°	90.4	91.4	90.4	88.8	86.1	85.2
62.5°	81.7	82.8	81.7	80.1	77.3	76.1
63°	73.3	74.6	73.3	71.6	68.7	67.2
63.5°	65.2	66.5	65.2	63.4	60.3	59.0
64°	57.5	58.7	57.5	55.4	52.6	51.2
64.5°	50.2	51.4	50.2	47.8	45.0	43.7
65°	43.0	44.1	43.0	40.7	38.4	36.6
65.5°	36.4	37.4	36.4	34.1	32.1	30.4
66°	30.4	30.9	30.4	28.2	26.2	24.5



TEST NUMBER: P775820

CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	15.4	15.5	15.4	13.5	12.5	9.8
68°	11.7	11.5	11.7	9.8	8.8	6.0
68.5°	8.3	9.2	8.3	6.9	5.7	2.6
69°	5.4	7.1	5.4	4.5	3.5	1.4
69.5°	3.2	4.9	3.2	2.5	1.7	0.9
70°	1.4	2.7	1.4	1.2	1.0	0.5
70.5°	0.6	0.8	0.6	0.7	0.5	0.2
71°	0.3	0.3	0.3	0.4	0.3	0.2
71.5°	0.2	0.2	0.2	0.2	0.2	0.2
72°	0.2	0.2	0.2	0.2	0.2	0.2
72.5°	0.2	0.2	0.2	0.2	0.2	0.2
73°	0.2	0.2	0.2	0.2	0.2	0.1
73.5°	0.2	0.2	0.2	0.2	0.1	0.1
74°	0.2	0.2	0.2	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	0.1
75.5°	0.1	0.1	0.1	0.1	0.1	0.1
76°	0.1	0.1	0.1	0.1	0.1	0.1
76.5°	0.1	0.1	0.1	0.1	0.1	0.1
77°	0.1	0.1	0.1	0.1	0.1	0.1
77.5°	0.1	0.1	0.1	0.1	0.1	0.1
78°	0.1	0.1	0.1	0.1	0.1	0.1
78.5°	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
79.5°	0.1	0.1	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.0	0.0
80.5°	0.1	0.1	0.1	0.1	0.0	0.0
81°	0.0	0.1	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775820
CATALOG NUMBER: HCDJBL510CSD-HCD81TRH-1000lm-2700K

CANDELA DISTRIBUTION (continued):

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

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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°	493.5	493.6	493.9	494.5	494.7	494.5	493.9	493.6	493.5	493.6	493.9
22°	493.5	493.5	493.9	494.5	494.7	494.5	493.9	493.5	493.5	493.5	493.9



44°	377.7	377.5	377.6	377.4	377.2	377.4	377.6	377.5	377.7	377.5	377.6
44.5°	371.2	370.9	371.0	370.9	370.6	370.9	371.0	370.9	371.2	370.9	371.0



66.5°	19.6	21.2	22.6	24.7	25.3	24.7	22.6	21.2	19.6	21.2	22.6
67°	14.7	16.4	17.9	19.9	20.1	19.9	17.9	16.4	14.7	16.4	17.9



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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21.5°	494.5	494.7	494.5	493.9	493.6	493.5
22°	494.5	494.7	494.5	493.9	493.5	493.5



44°	377.4	377.2	377.4	377.6	377.5	377.7
44.5°	370.9	370.6	370.9	371.0	370.9	371.2

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66.5°	24.7	25.3	24.7	22.6	21.2	19.6
67°	19.9	20.1	19.9	17.9	16.4	14.7

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89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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(END OF REPORT)