

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: P775857

Luminaire Tested: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B065-HCD82TRMB)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD82TRMB-1000lm-3500K
Description: 8 INCH ROUND NARROW MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 684.2 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.06 / 1.08
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

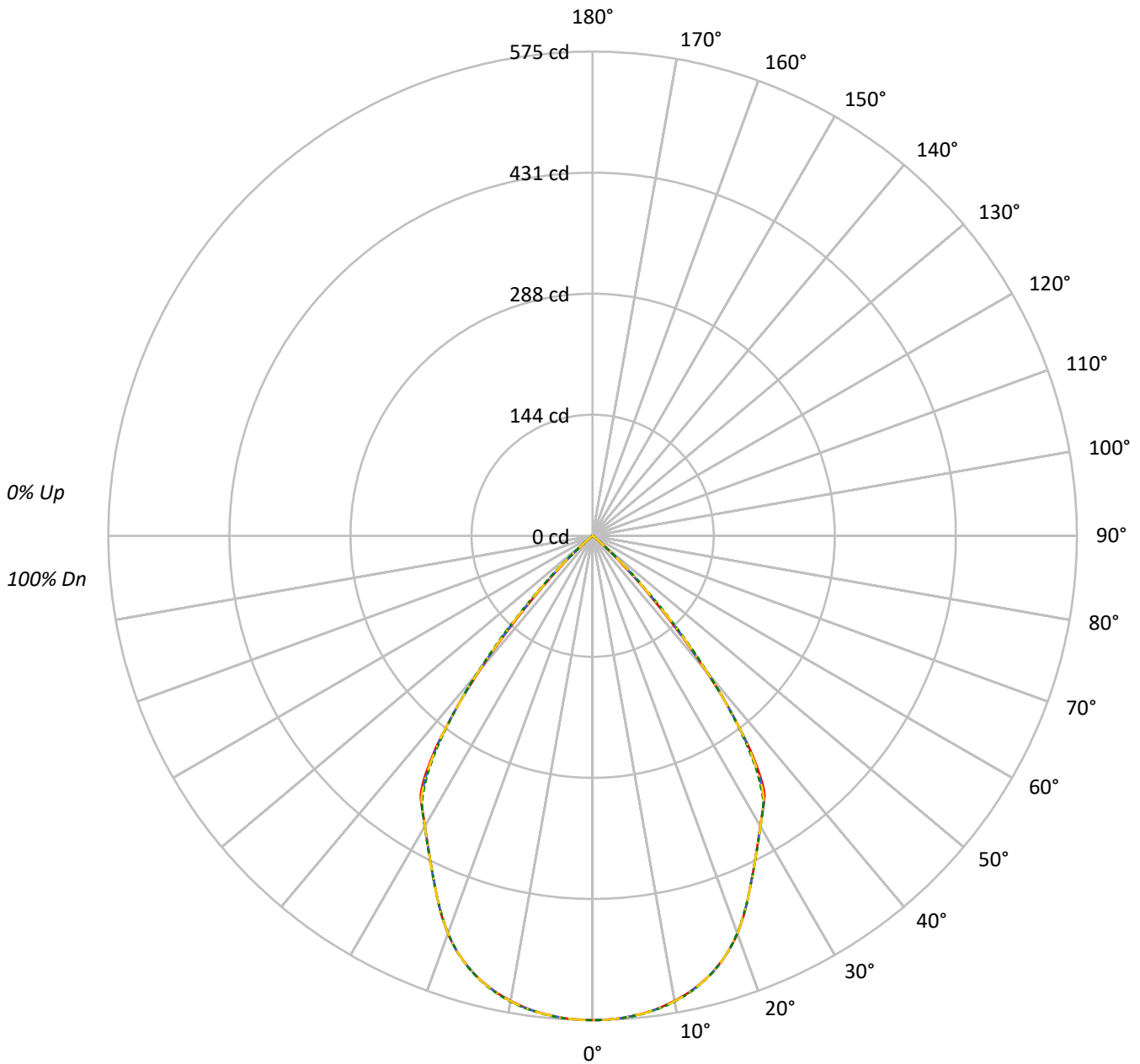
Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93																			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86																			
3	101	95	89	85	99	93	88	85	91	86	83	88	85	82	86	83	81	79																			
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	81	77	74	73																			
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67																			
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62																			
7	81	71	64	60	79	70	64	60	69	63	59	68	63	59	66	62	59	57																			
8	76	66	60	55	75	66	60	55	64	59	55	63	58	55	62	58	55	53																			
9	72	62	56	51	71	61	55	51	60	55	51	60	55	51	59	54	51	49																			
10	69	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17564	17564	17564	17564
5°	17524	17539	17524	17539
10°	17386	17413	17386	17413
15°	17052	17068	17052	17068
20°	16329	16313	16329	16313
25°	15081	15095	15081	15095
30°	14041	14063	14041	14063
35°	12888	12627	12888	12627
40°	8318	8549	8318	8549
45°	3053	3670	3053	3670
50°	351	560	351	560
55°	53	53	53	53
60°	31	31	31	31
65°	22	22	22	22
70°	18	18	18	18
75°	12	12	12	12
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3670 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	7.9
10°-20°	151.3	22.1
20°-30°	206.3	30.1
30°-40°	203.7	29.8
40°-50°	66.7	9.7
50°-60°	1.6	0.2
60°-70°	0.3	0.0
70°-80°	0.1	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°	411.9	60.2
0°-40°	615.6	90.0
0°-60°	683.8	99.9
0°-90°	684.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	684.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	575	575	575	575	575	
5°	572	572	572	572	572	54
15°	540	540	540	540	540	151
25°	448	448	448	448	448	206
35°	346	339	346	339	346	204
45°	71	85	71	85	71	63
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
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°	575.3	575.3	575.3	575.3	575.3	575.3	575.3	575.3	575.3	575.3	575.3
0.5°	575.2	575.2	575.3	575.2	575.3	575.2	575.3	575.2	575.2	575.2	575.3
1°	575.1	575.1	575.2	575.1	575.3	575.1	575.2	575.1	575.1	575.1	575.2
1.5°	574.9	575.0	575.0	575.0	575.1	575.0	575.0	575.0	574.9	575.0	575.0
2°	574.7	574.7	574.8	574.8	574.9	574.8	574.8	574.7	574.7	574.7	574.8
2.5°	574.4	574.5	574.5	574.5	574.6	574.5	574.5	574.5	574.4	574.5	574.5
3°	574.1	574.1	574.2	574.2	574.3	574.2	574.2	574.1	574.1	574.1	574.2
3.5°	573.7	573.7	573.8	573.8	573.9	573.8	573.8	573.7	573.7	573.7	573.8
4°	573.2	573.2	573.3	573.3	573.5	573.3	573.3	573.2	573.2	573.2	573.3
4.5°	572.5	572.5	572.7	572.8	572.9	572.8	572.7	572.5	572.5	572.5	572.7
5°	571.8	571.9	572.0	572.1	572.3	572.1	572.0	571.9	571.8	571.9	572.0
5.5°	571.2	571.2	571.3	571.4	571.6	571.4	571.3	571.2	571.2	571.2	571.3
6°	570.4	570.4	570.6	570.7	570.9	570.7	570.6	570.4	570.4	570.4	570.6
6.5°	569.4	569.5	569.7	569.9	570.1	569.9	569.7	569.5	569.4	569.5	569.7
7°	568.5	568.5	568.8	568.9	569.1	568.9	568.8	568.5	568.5	568.5	568.8
7.5°	567.5	567.5	567.8	567.9	568.1	567.9	567.8	567.5	567.5	567.5	567.8
8°	566.3	566.4	566.6	566.8	567.1	566.8	566.6	566.4	566.3	566.4	566.6
8.5°	565.1	565.2	565.4	565.6	565.8	565.6	565.4	565.2	565.1	565.2	565.4
9°	563.7	563.8	564.1	564.4	564.6	564.4	564.1	563.8	563.7	563.8	564.1
9.5°	562.3	562.4	562.7	563.0	563.2	563.0	562.7	562.4	562.3	562.4	562.7
10°	560.8	560.9	561.1	561.5	561.7	561.5	561.1	560.9	560.8	560.9	561.1
10.5°	559.2	559.3	559.6	559.9	560.1	559.9	559.6	559.3	559.2	559.3	559.6
11°	557.5	557.6	557.9	558.1	558.3	558.1	557.9	557.6	557.5	557.6	557.9
11.5°	555.6	555.8	556.1	556.3	556.6	556.3	556.1	555.8	555.6	555.8	556.1
12°	553.8	553.8	554.1	554.4	554.6	554.4	554.1	553.8	553.8	553.8	554.1
12.5°	551.7	551.7	552.0	552.3	552.5	552.3	552.0	551.7	551.7	551.7	552.0
13°	549.5	549.6	549.8	550.2	550.3	550.2	549.8	549.6	549.5	549.6	549.8
13.5°	547.1	547.3	547.6	547.8	548.0	547.8	547.6	547.3	547.1	547.3	547.6
14°	544.8	544.9	545.1	545.3	545.5	545.3	545.1	544.9	544.8	544.9	545.1
14.5°	542.2	542.3	542.5	542.7	542.9	542.7	542.5	542.3	542.2	542.3	542.5
15°	539.5	539.5	539.7	539.9	540.0	539.9	539.7	539.5	539.5	539.5	539.7
15.5°	536.6	536.6	536.8	537.0	537.1	537.0	536.8	536.6	536.6	536.6	536.8
16°	533.5	533.6	533.7	533.8	534.0	533.8	533.7	533.6	533.5	533.6	533.7
16.5°	530.4	530.4	530.5	530.6	530.7	530.6	530.5	530.4	530.4	530.4	530.5
17°	526.9	526.9	527.0	527.1	527.2	527.1	527.0	526.9	526.9	526.9	527.0
17.5°	523.3	523.3	523.4	523.4	523.5	523.4	523.4	523.3	523.3	523.3	523.4
18°	519.7	519.6	519.6	519.6	519.7	519.6	519.6	519.6	519.7	519.6	519.6
18.5°	515.6	515.6	515.5	515.5	515.5	515.5	515.5	515.6	515.6	515.6	515.5
19°	511.5	511.5	511.4	511.3	511.3	511.3	511.4	511.5	511.5	511.5	511.4
19.5°	507.1	507.0	506.9	506.8	506.8	506.8	506.9	507.0	507.1	507.0	506.9
20°	502.6	502.5	502.4	502.2	502.1	502.2	502.4	502.5	502.6	502.5	502.4
20.5°	497.7	497.6	497.4	497.2	497.1	497.2	497.4	497.6	497.7	497.6	497.4
21°	492.6	492.6	492.4	492.0	491.8	492.0	492.4	492.6	492.6	492.6	492.4



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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°	476.3	476.3	476.1	475.8	475.8	475.8	476.1	476.3	476.3	476.3	476.1
23°	470.6	470.6	470.5	470.2	470.2	470.2	470.5	470.6	470.6	470.6	470.5
23.5°	464.8	464.9	464.8	464.6	464.6	464.6	464.8	464.9	464.8	464.9	464.8
24°	459.0	459.1	459.1	459.0	459.1	459.0	459.1	459.1	459.0	459.1	459.1
24.5°	453.4	453.4	453.5	453.4	453.6	453.4	453.5	453.4	453.4	453.4	453.5
25°	447.7	447.8	447.9	447.9	448.1	447.9	447.9	447.8	447.7	447.8	447.9
25.5°	442.3	442.3	442.4	442.5	442.8	442.5	442.4	442.3	442.3	442.3	442.4
26°	437.0	437.1	437.2	437.3	437.5	437.3	437.2	437.1	437.0	437.1	437.2
26.5°	431.7	431.8	431.9	432.0	432.3	432.0	431.9	431.8	431.7	431.8	431.9
27°	426.6	426.6	426.8	426.8	427.1	426.8	426.8	426.6	426.6	426.6	426.8
27.5°	421.5	421.6	421.7	421.9	422.1	421.9	421.7	421.6	421.5	421.6	421.7
28°	416.5	416.6	416.8	416.9	417.3	416.9	416.8	416.6	416.5	416.6	416.8
28.5°	411.8	412.0	412.1	412.2	412.5	412.2	412.1	412.0	411.8	412.0	412.1
29°	407.2	407.3	407.4	407.5	407.8	407.5	407.4	407.3	407.2	407.3	407.4
29.5°	402.6	402.7	402.9	403.1	403.3	403.1	402.9	402.7	402.6	402.7	402.9
30°	398.3	398.3	398.5	398.6	398.9	398.6	398.5	398.3	398.3	398.3	398.5
30.5°	393.9	394.0	394.1	394.3	394.6	394.3	394.1	394.0	393.9	394.0	394.1
31°	389.8	389.9	390.1	390.2	390.5	390.2	390.1	389.9	389.8	389.9	390.1
31.5°	385.8	385.9	385.9	386.1	386.3	386.1	385.9	385.9	385.8	385.9	385.9
32°	382.0	382.0	382.0	381.9	382.1	381.9	382.0	382.0	382.0	382.0	382.0
32.5°	378.3	378.2	378.0	377.6	377.1	377.6	378.0	378.2	378.3	378.2	378.0
33°	374.2	374.0	373.0	372.0	370.8	372.0	373.0	374.0	374.2	374.0	373.0
33.5°	369.9	368.8	366.9	365.1	363.7	365.1	366.9	368.8	369.9	368.8	366.9
34°	363.7	362.3	359.6	357.3	355.8	357.3	359.6	362.3	363.7	362.3	359.6
34.5°	355.5	354.3	351.3	349.1	347.6	349.1	351.3	354.3	355.5	354.3	351.3
35°	345.8	344.7	342.0	340.2	338.8	340.2	342.0	344.7	345.8	344.7	342.0
35.5°	335.3	334.6	332.1	330.3	328.8	330.3	332.1	334.6	335.3	334.6	332.1
36°	324.0	323.4	321.4	319.5	317.9	319.5	321.4	323.4	324.0	323.4	321.4
36.5°	311.9	311.5	309.8	307.8	306.1	307.8	309.8	311.5	311.9	311.5	309.8
37°	298.5	298.1	297.1	295.7	294.0	295.7	297.1	298.1	298.5	298.1	297.1
37.5°	284.6	284.1	283.7	282.8	281.5	282.8	283.7	284.1	284.6	284.1	283.7
38°	269.8	269.2	269.4	269.3	268.7	269.3	269.4	269.2	269.8	269.2	269.4
38.5°	255.5	254.6	254.8	255.3	255.8	255.3	254.8	254.6	255.5	254.6	254.8
39°	240.1	239.8	240.0	241.2	242.6	241.2	240.0	239.8	240.1	239.8	240.0
39.5°	224.7	225.0	225.4	226.9	228.8	226.9	225.4	225.0	224.7	225.0	225.4
40°	208.7	209.7	210.6	212.7	214.5	212.7	210.6	209.7	208.7	209.7	210.6
40.5°	193.2	194.7	196.4	198.7	200.3	198.7	196.4	194.7	193.2	194.7	196.4
41°	177.4	179.3	182.2	184.8	186.4	184.8	182.2	179.3	177.4	179.3	182.2
41.5°	162.3	164.4	167.9	171.0	172.5	171.0	167.9	164.4	162.3	164.4	167.9
42°	147.6	149.5	153.6	157.4	158.7	157.4	153.6	149.5	147.6	149.5	153.6
42.5°	133.3	135.6	140.3	144.0	145.2	144.0	140.3	135.6	133.3	135.6	140.3
43°	119.5	122.1	126.8	130.7	132.1	130.7	126.8	122.1	119.5	122.1	126.8
43.5°	106.7	109.2	113.7	117.8	119.6	117.8	113.7	109.2	106.7	109.2	113.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	70.7	72.9	77.6	82.4	85.0	82.4	77.6	72.9	70.7	72.9	77.6
45.5°	59.8	62.4	67.3	72.3	74.6	72.3	67.3	62.4	59.8	62.4	67.3
46°	50.3	52.5	57.9	62.8	65.7	62.8	57.9	52.5	50.3	52.5	57.9
46.5°	41.7	44.0	49.1	53.8	56.9	53.8	49.1	44.0	41.7	44.0	49.1
47°	34.9	36.3	40.6	45.3	48.0	45.3	40.6	36.3	34.9	36.3	40.6
47.5°	28.5	29.3	33.3	37.3	39.1	37.3	33.3	29.3	28.5	29.3	33.3
48°	22.7	23.5	26.5	30.2	32.0	30.2	26.5	23.5	22.7	23.5	26.5
48.5°	18.2	18.7	21.3	23.9	25.6	23.9	21.3	18.7	18.2	18.7	21.3
49°	13.7	14.2	16.4	19.0	19.9	19.0	16.4	14.2	13.7	14.2	16.4
49.5°	10.4	10.6	12.0	14.3	15.5	14.3	12.0	10.6	10.4	10.6	12.0
50°	7.4	7.2	9.1	11.2	11.8	11.2	9.1	7.2	7.4	7.2	9.1
50.5°	4.6	5.0	6.4	8.4	9.5	8.4	6.4	5.0	4.6	5.0	6.4
51°	2.5	3.3	4.5	5.6	7.3	5.6	4.5	3.3	2.5	3.3	4.5
51.5°	2.0	2.1	2.9	3.6	5.4	3.6	2.9	2.1	2.0	2.1	2.9
52°	1.7	1.8	1.9	2.3	3.5	2.3	1.9	1.8	1.7	1.8	1.9
52.5°	1.3	1.6	1.6	1.8	1.7	1.8	1.6	1.6	1.3	1.6	1.6
53°	1.3	1.3	1.5	1.5	1.3	1.5	1.5	1.3	1.3	1.3	1.5
53.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
54°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
54.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
55°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
55.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
56°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
56.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
57°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
57.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58.5°	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7
59°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
59.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
60°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
60.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
61°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
61.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
62°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
63°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
63.5°	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
64°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
64.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
66°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
68°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
68.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
71°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
71.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1	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°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
78°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	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: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

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: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	575.3	575.3	575.3	575.3	575.3	575.3
0.5°	575.2	575.3	575.2	575.3	575.2	575.2
1°	575.1	575.3	575.1	575.2	575.1	575.1
1.5°	575.0	575.1	575.0	575.0	575.0	574.9
2°	574.8	574.9	574.8	574.8	574.7	574.7
2.5°	574.5	574.6	574.5	574.5	574.5	574.4
3°	574.2	574.3	574.2	574.2	574.1	574.1
3.5°	573.8	573.9	573.8	573.8	573.7	573.7
4°	573.3	573.5	573.3	573.3	573.2	573.2
4.5°	572.8	572.9	572.8	572.7	572.5	572.5
5°	572.1	572.3	572.1	572.0	571.9	571.8
5.5°	571.4	571.6	571.4	571.3	571.2	571.2
6°	570.7	570.9	570.7	570.6	570.4	570.4
6.5°	569.9	570.1	569.9	569.7	569.5	569.4
7°	568.9	569.1	568.9	568.8	568.5	568.5
7.5°	567.9	568.1	567.9	567.8	567.5	567.5
8°	566.8	567.1	566.8	566.6	566.4	566.3
8.5°	565.6	565.8	565.6	565.4	565.2	565.1
9°	564.4	564.6	564.4	564.1	563.8	563.7
9.5°	563.0	563.2	563.0	562.7	562.4	562.3
10°	561.5	561.7	561.5	561.1	560.9	560.8
10.5°	559.9	560.1	559.9	559.6	559.3	559.2
11°	558.1	558.3	558.1	557.9	557.6	557.5
11.5°	556.3	556.6	556.3	556.1	555.8	555.6
12°	554.4	554.6	554.4	554.1	553.8	553.8
12.5°	552.3	552.5	552.3	552.0	551.7	551.7
13°	550.2	550.3	550.2	549.8	549.6	549.5
13.5°	547.8	548.0	547.8	547.6	547.3	547.1
14°	545.3	545.5	545.3	545.1	544.9	544.8
14.5°	542.7	542.9	542.7	542.5	542.3	542.2
15°	539.9	540.0	539.9	539.7	539.5	539.5
15.5°	537.0	537.1	537.0	536.8	536.6	536.6
16°	533.8	534.0	533.8	533.7	533.6	533.5
16.5°	530.6	530.7	530.6	530.5	530.4	530.4
17°	527.1	527.2	527.1	527.0	526.9	526.9
17.5°	523.4	523.5	523.4	523.4	523.3	523.3
18°	519.6	519.7	519.6	519.6	519.6	519.7
18.5°	515.5	515.5	515.5	515.5	515.6	515.6
19°	511.3	511.3	511.3	511.4	511.5	511.5
19.5°	506.8	506.8	506.8	506.9	507.0	507.1
20°	502.2	502.1	502.2	502.4	502.5	502.6
20.5°	497.2	497.1	497.2	497.4	497.6	497.7
21°	492.0	491.8	492.0	492.4	492.6	492.6

TEST NUMBER: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	475.8	475.8	475.8	476.1	476.3	476.3
23°	470.2	470.2	470.2	470.5	470.6	470.6
23.5°	464.6	464.6	464.6	464.8	464.9	464.8
24°	459.0	459.1	459.0	459.1	459.1	459.0
24.5°	453.4	453.6	453.4	453.5	453.4	453.4
25°	447.9	448.1	447.9	447.9	447.8	447.7
25.5°	442.5	442.8	442.5	442.4	442.3	442.3
26°	437.3	437.5	437.3	437.2	437.1	437.0
26.5°	432.0	432.3	432.0	431.9	431.8	431.7
27°	426.8	427.1	426.8	426.8	426.6	426.6
27.5°	421.9	422.1	421.9	421.7	421.6	421.5
28°	416.9	417.3	416.9	416.8	416.6	416.5
28.5°	412.2	412.5	412.2	412.1	412.0	411.8
29°	407.5	407.8	407.5	407.4	407.3	407.2
29.5°	403.1	403.3	403.1	402.9	402.7	402.6
30°	398.6	398.9	398.6	398.5	398.3	398.3
30.5°	394.3	394.6	394.3	394.1	394.0	393.9
31°	390.2	390.5	390.2	390.1	389.9	389.8
31.5°	386.1	386.3	386.1	385.9	385.9	385.8
32°	381.9	382.1	381.9	382.0	382.0	382.0
32.5°	377.6	377.1	377.6	378.0	378.2	378.3
33°	372.0	370.8	372.0	373.0	374.0	374.2
33.5°	365.1	363.7	365.1	366.9	368.8	369.9
34°	357.3	355.8	357.3	359.6	362.3	363.7
34.5°	349.1	347.6	349.1	351.3	354.3	355.5
35°	340.2	338.8	340.2	342.0	344.7	345.8
35.5°	330.3	328.8	330.3	332.1	334.6	335.3
36°	319.5	317.9	319.5	321.4	323.4	324.0
36.5°	307.8	306.1	307.8	309.8	311.5	311.9
37°	295.7	294.0	295.7	297.1	298.1	298.5
37.5°	282.8	281.5	282.8	283.7	284.1	284.6
38°	269.3	268.7	269.3	269.4	269.2	269.8
38.5°	255.3	255.8	255.3	254.8	254.6	255.5
39°	241.2	242.6	241.2	240.0	239.8	240.1
39.5°	226.9	228.8	226.9	225.4	225.0	224.7
40°	212.7	214.5	212.7	210.6	209.7	208.7
40.5°	198.7	200.3	198.7	196.4	194.7	193.2
41°	184.8	186.4	184.8	182.2	179.3	177.4
41.5°	171.0	172.5	171.0	167.9	164.4	162.3
42°	157.4	158.7	157.4	153.6	149.5	147.6
42.5°	144.0	145.2	144.0	140.3	135.6	133.3
43°	130.7	132.1	130.7	126.8	122.1	119.5
43.5°	117.8	119.6	117.8	113.7	109.2	106.7



TEST NUMBER: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	82.4	85.0	82.4	77.6	72.9	70.7
45.5°	72.3	74.6	72.3	67.3	62.4	59.8
46°	62.8	65.7	62.8	57.9	52.5	50.3
46.5°	53.8	56.9	53.8	49.1	44.0	41.7
47°	45.3	48.0	45.3	40.6	36.3	34.9
47.5°	37.3	39.1	37.3	33.3	29.3	28.5
48°	30.2	32.0	30.2	26.5	23.5	22.7
48.5°	23.9	25.6	23.9	21.3	18.7	18.2
49°	19.0	19.9	19.0	16.4	14.2	13.7
49.5°	14.3	15.5	14.3	12.0	10.6	10.4
50°	11.2	11.8	11.2	9.1	7.2	7.4
50.5°	8.4	9.5	8.4	6.4	5.0	4.6
51°	5.6	7.3	5.6	4.5	3.3	2.5
51.5°	3.6	5.4	3.6	2.9	2.1	2.0
52°	2.3	3.5	2.3	1.9	1.8	1.7
52.5°	1.8	1.7	1.8	1.6	1.6	1.3
53°	1.5	1.3	1.5	1.5	1.3	1.3
53.5°	1.2	1.2	1.2	1.2	1.2	1.2
54°	1.1	1.1	1.1	1.1	1.1	1.1
54.5°	1.1	1.1	1.1	1.1	1.1	1.1
55°	1.0	1.0	1.0	1.0	1.0	1.0
55.5°	1.0	1.0	1.0	1.0	1.0	1.0
56°	0.9	0.9	0.9	0.9	0.9	0.9
56.5°	0.8	0.8	0.8	0.8	0.8	0.8
57°	0.8	0.8	0.8	0.8	0.8	0.8
57.5°	0.7	0.7	0.7	0.7	0.7	0.7
58°	0.7	0.7	0.7	0.7	0.7	0.7
58.5°	0.7	0.7	0.7	0.7	0.7	0.6
59°	0.6	0.6	0.6	0.6	0.6	0.6
59.5°	0.6	0.6	0.6	0.6	0.6	0.6
60°	0.5	0.5	0.5	0.5	0.5	0.5
60.5°	0.5	0.5	0.5	0.5	0.5	0.5
61°	0.5	0.5	0.5	0.5	0.5	0.5
61.5°	0.4	0.4	0.4	0.4	0.4	0.4
62°	0.4	0.4	0.4	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4	0.4
63°	0.4	0.4	0.4	0.4	0.4	0.4
63.5°	0.4	0.4	0.4	0.4	0.4	0.3
64°	0.3	0.3	0.3	0.3	0.3	0.3
64.5°	0.3	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.3	0.3	0.3	0.3
65.5°	0.3	0.3	0.3	0.3	0.3	0.3
66°	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.2	0.2	0.2	0.2	0.2	0.2
68°	0.2	0.2	0.2	0.2	0.2	0.2
68.5°	0.2	0.2	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.2	0.2	0.2	0.2	0.2	0.1
71°	0.1	0.1	0.1	0.1	0.1	0.1
71.5°	0.1	0.1	0.1	0.1	0.1	0.1
72°	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	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	0.0
78°	0.1	0.1	0.1	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	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
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: P775857

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-3500K

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°	487.3	487.2	487.0	486.7	486.6	486.7	487.0	487.2	487.3	487.2	487.0
22°	481.9	481.8	481.6	481.3	481.2	481.3	481.6	481.8	481.9	481.8	481.6



44°	94.2	96.2	101.0	105.2	107.7	105.2	101.0	96.2	94.2	96.2	101.0
44.5°	82.3	84.2	88.9	93.6	96.1	93.6	88.9	84.2	82.3	84.2	88.9



66.5°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
67°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2



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°	486.7	486.6	486.7	487.0	487.2	487.3
22°	481.3	481.2	481.3	481.6	481.8	481.9

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44°	105.2	107.7	105.2	101.0	96.2	94.2
44.5°	93.6	96.1	93.6	88.9	84.2	82.3

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66.5°	0.3	0.3	0.3	0.3	0.2	0.2
67°	0.2	0.2	0.2	0.2	0.2	0.2

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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)