

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: P776846

Luminaire Tested: HCDJBL510CSD-HCD42TRMW-500lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156A001)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD42TRMW-500lm-3000K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

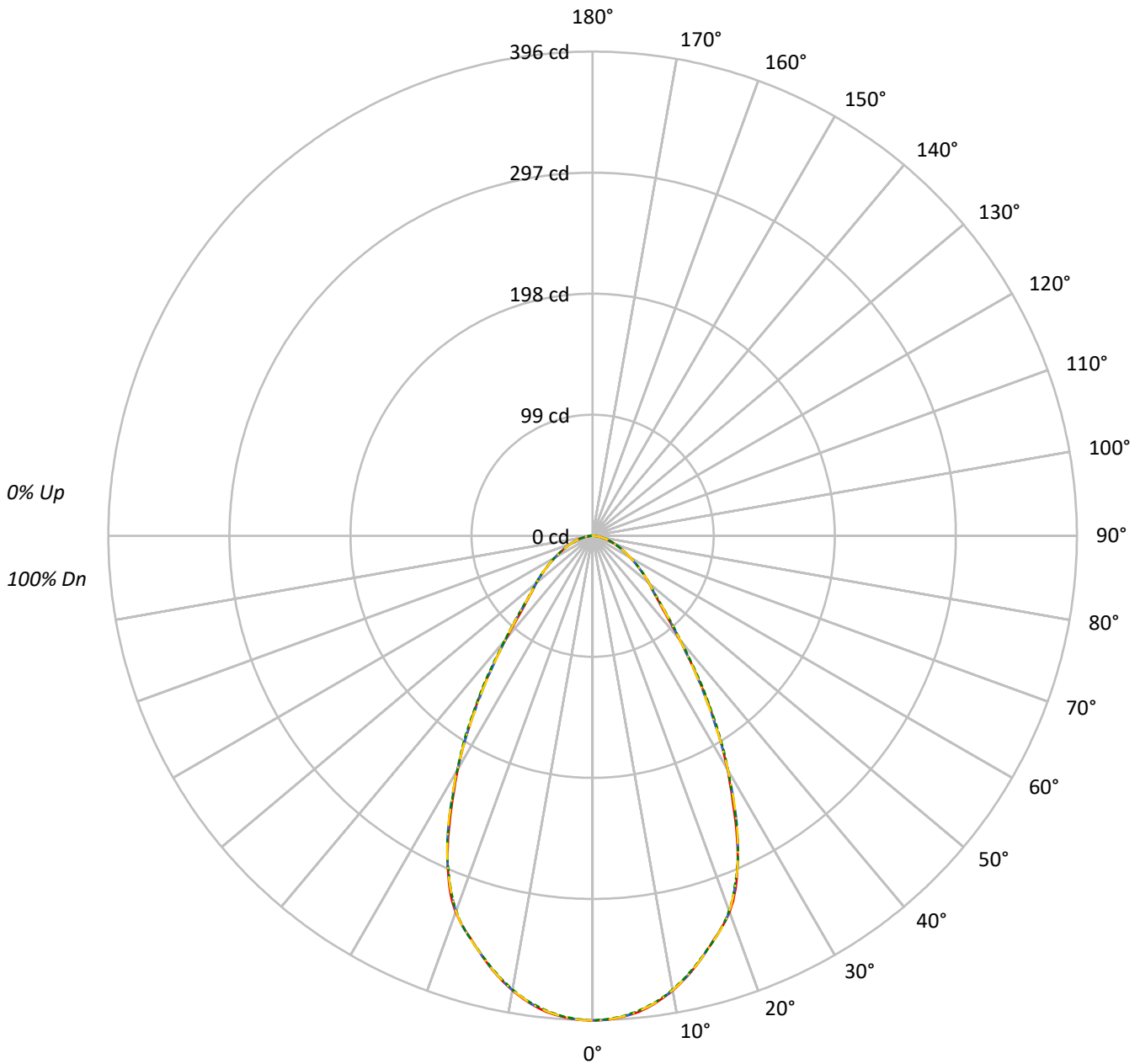
Lumens per Lamp: N/A
Luminaire Lumens: 511.9 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 5
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	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89	89	89	89	89	89		
	2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80	80	80	80	80	80		
	3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71	71	71	71	71	71		
	4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64	64	64	64	64	64		
	5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58	58	58	58	58	58		
	6	80	69	62	57	78	68	61	56	67	60	56	65	60	55	64	59	55	53	53	53	53	53	53		
	7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49	49	49	49	49	49		
	8	71	60	52	48	70	59	52	47	58	52	47	57	51	47	56	51	47	45	45	45	45	45	45		
	9	67	56	49	44	66	55	48	44	54	48	44	53	48	44	52	47	43	42	42	42	42	42	42		
	10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39	39	39	39	39	39		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	49887	49887	49887	49887
5°	49534	49433	49534	49433
10°	48254	48152	48254	48152
15°	46122	46070	46122	46070
20°	43861	43700	43861	43700
25°	38922	39047	38922	39047
30°	32028	32188	32028	32188
35°	24843	25119	24843	25119
40°	18039	18367	18039	18367
45°	13669	14007	13669	14007
50°	11767	11865	11767	11865
55°	10225	10334	10225	10334
60°	8935	9011	8935	9011
65°	7862	7921	7862	7921
70°	6918	6991	6918	6991
75°	6078	6078	6078	6078
80°	5291	5218	5291	5218
85°	4187	4187	4187	4187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14007 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	7.2
10°-20°	99.4	19.4
20°-30°	127.3	24.9
30°-40°	100.9	19.7
40°-50°	61.8	12.1
50°-60°	42.2	8.3
60°-70°	26.4	5.2
70°-80°	13.4	2.6
80°-90°	3.4	0.7
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°	263.7	51.5
0°-40°	364.6	71.2
0°-60°	468.7	91.6
0°-90°	511.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	396	396	396	396	396	
5°	392	391	392	391	392	37
15°	354	354	354	354	354	99
25°	280	281	280	281	280	127
35°	162	164	162	164	162	101
45°	77	79	77	79	77	61
55°	47	47	47	47	47	42
65°	26	27	26	27	26	26
75°	12	12	12	12	12	13
85°	3	3	3	3	3	3
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°	396.4	396.4	396.4	396.4	396.4	396.4	396.4	396.4	396.4	396.4	396.4
0.5°	396.5	396.4	396.3	396.3	396.1	396.3	396.3	396.4	396.5	396.4	396.3
1°	396.3	396.3	396.2	396.2	395.9	396.2	396.2	396.3	396.3	396.3	396.2
1.5°	396.1	396.0	396.0	395.9	395.7	395.9	396.0	396.0	396.1	396.0	396.0
2°	395.8	395.7	395.6	395.6	395.4	395.6	395.6	395.7	395.8	395.7	395.6
2.5°	395.4	395.3	395.2	395.1	394.9	395.1	395.2	395.3	395.4	395.3	395.2
3°	394.9	394.8	394.7	394.6	394.3	394.6	394.7	394.8	394.9	394.8	394.7
3.5°	394.3	394.2	394.0	393.9	393.8	393.9	394.0	394.2	394.3	394.2	394.0
4°	393.6	393.6	393.3	393.2	393.0	393.2	393.3	393.6	393.6	393.6	393.3
4.5°	392.9	392.8	392.5	392.4	392.1	392.4	392.5	392.8	392.9	392.8	392.5
5°	392.1	392.0	391.8	391.6	391.3	391.6	391.8	392.0	392.1	392.0	391.8
5.5°	391.3	391.0	390.7	390.6	390.3	390.6	390.7	391.0	391.3	391.0	390.7
6°	390.1	389.9	389.6	389.5	389.0	389.5	389.6	389.9	390.1	389.9	389.6
6.5°	388.9	388.7	388.4	388.2	387.8	388.2	388.4	388.7	388.9	388.7	388.4
7°	387.6	387.4	387.2	387.0	386.6	387.0	387.2	387.4	387.6	387.4	387.2
7.5°	386.2	386.0	385.8	385.6	385.3	385.6	385.8	386.0	386.2	386.0	385.8
8°	384.6	384.5	384.3	384.1	383.9	384.1	384.3	384.5	384.6	384.5	384.3
8.5°	383.0	382.8	382.6	382.5	382.2	382.5	382.6	382.8	383.0	382.8	382.6
9°	381.3	381.2	380.9	380.8	380.5	380.8	380.9	381.2	381.3	381.2	380.9
9.5°	379.5	379.4	379.1	379.0	378.7	379.0	379.1	379.4	379.5	379.4	379.1
10°	377.6	377.5	377.3	377.0	376.8	377.0	377.3	377.5	377.6	377.5	377.3
10.5°	375.6	375.5	375.2	375.0	374.8	375.0	375.2	375.5	375.6	375.5	375.2
11°	373.5	373.4	373.2	373.0	372.7	373.0	373.2	373.4	373.5	373.4	373.2
11.5°	371.3	371.2	371.0	370.8	370.6	370.8	371.0	371.2	371.3	371.2	371.0
12°	369.1	369.0	368.8	368.5	368.3	368.5	368.8	369.0	369.1	369.0	368.8
12.5°	366.7	366.6	366.5	366.2	365.9	366.2	366.5	366.6	366.7	366.6	366.5
13°	364.4	364.2	364.1	363.9	363.6	363.9	364.1	364.2	364.4	364.2	364.1
13.5°	361.9	361.8	361.6	361.4	361.2	361.4	361.6	361.8	361.9	361.8	361.6
14°	359.3	359.3	359.2	358.9	358.7	358.9	359.2	359.3	359.3	359.3	359.2
14.5°	356.7	356.6	356.6	356.3	356.1	356.3	356.6	356.6	356.7	356.6	356.6
15°	354.0	354.0	353.9	353.8	353.6	353.8	353.9	354.0	354.0	354.0	353.9
15.5°	351.2	351.2	351.3	351.2	351.1	351.2	351.3	351.2	351.2	351.2	351.3
16°	348.6	348.6	348.8	348.7	348.6	348.7	348.8	348.6	348.6	348.6	348.8
16.5°	345.9	346.0	346.3	346.3	346.2	346.3	346.3	346.0	345.9	346.0	346.3
17°	343.4	343.5	343.8	343.7	343.8	343.7	343.8	343.5	343.4	343.5	343.8
17.5°	341.0	341.1	341.3	341.2	341.2	341.2	341.3	341.1	341.0	341.1	341.3
18°	338.6	338.7	338.8	338.7	338.6	338.7	338.8	338.7	338.6	338.7	338.8
18.5°	336.1	336.1	336.1	336.0	335.8	336.0	336.1	336.1	336.1	336.1	336.1
19°	333.5	333.3	333.2	333.0	332.9	333.0	333.2	333.3	333.5	333.3	333.2
19.5°	330.6	330.4	330.1	330.0	329.8	330.0	330.1	330.4	330.6	330.4	330.1
20°	327.5	327.2	326.6	326.7	326.3	326.7	326.6	327.2	327.5	327.2	326.6
20.5°	324.0	323.6	322.9	323.1	322.7	323.1	322.9	323.6	324.0	323.6	322.9
21°	320.4	319.8	319.0	319.2	318.7	319.2	319.0	319.8	320.4	319.8	319.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	307.2	306.5	306.0	306.0	305.7	306.0	306.0	306.5	307.2	306.5	306.0
23°	302.1	301.6	301.5	301.1	301.0	301.1	301.5	301.6	302.1	301.6	301.5
23.5°	297.0	296.5	296.8	296.1	296.4	296.1	296.8	296.5	297.0	296.5	296.8
24°	291.6	291.3	291.9	291.0	291.5	291.0	291.9	291.3	291.6	291.3	291.9
24.5°	286.1	285.9	286.7	285.9	286.5	285.9	286.7	285.9	286.1	285.9	286.7
25°	280.3	280.4	281.4	280.7	281.2	280.7	281.4	280.4	280.3	280.4	281.4
25.5°	274.3	275.0	275.9	275.6	275.7	275.6	275.9	275.0	274.3	275.0	275.9
26°	268.2	269.4	270.2	270.2	269.8	270.2	270.2	269.4	268.2	269.4	270.2
26.5°	261.8	263.6	264.3	264.7	263.7	264.7	264.3	263.6	261.8	263.6	264.3
27°	255.7	257.7	258.3	258.9	257.5	258.9	258.3	257.7	255.7	257.7	258.3
27.5°	249.6	251.5	252.3	253.0	251.2	253.0	252.3	251.5	249.6	251.5	252.3
28°	243.6	245.4	246.1	246.9	244.9	246.9	246.1	245.4	243.6	245.4	246.1
28.5°	237.7	239.1	240.0	240.6	238.7	240.6	240.0	239.1	237.7	239.1	240.0
29°	231.8	232.8	233.8	234.2	233.0	234.2	233.8	232.8	231.8	232.8	233.8
29.5°	226.1	226.6	227.7	227.9	227.3	227.9	227.7	226.6	226.1	226.6	227.7
30°	220.4	220.2	221.4	221.5	221.5	221.5	221.4	220.2	220.4	220.2	221.4
30.5°	214.4	214.1	215.2	215.3	216.1	215.3	215.2	214.1	214.4	214.1	215.2
31°	208.5	207.7	209.0	209.2	210.4	209.2	209.0	207.7	208.5	207.7	209.0
31.5°	202.5	201.7	202.7	203.1	204.6	203.1	202.7	201.7	202.5	201.7	202.7
32°	196.3	195.6	196.5	197.1	198.7	197.1	196.5	195.6	196.3	195.6	196.5
32.5°	190.4	189.7	190.4	191.1	192.7	191.1	190.4	189.7	190.4	189.7	190.4
33°	184.4	183.9	184.1	185.2	186.7	185.2	184.1	183.9	184.4	183.9	184.1
33.5°	179.0	178.1	177.9	179.2	180.6	179.2	177.9	178.1	179.0	178.1	177.9
34°	173.2	172.2	171.7	173.4	174.8	173.4	171.7	172.2	173.2	172.2	171.7
34.5°	167.5	166.4	165.7	167.5	169.0	167.5	165.7	166.4	167.5	166.4	165.7
35°	161.7	160.8	160.1	161.8	163.5	161.8	160.1	160.8	161.7	160.8	160.1
35.5°	156.1	155.2	154.4	156.2	158.0	156.2	154.4	155.2	156.1	155.2	154.4
36°	150.6	149.7	149.0	150.8	152.6	150.8	149.0	149.7	150.6	149.7	149.0
36.5°	145.1	144.3	143.7	145.4	147.2	145.4	143.7	144.3	145.1	144.3	143.7
37°	139.6	139.0	138.5	140.2	141.7	140.2	138.5	139.0	139.6	139.0	138.5
37.5°	134.2	133.8	133.5	135.2	136.3	135.2	133.5	133.8	134.2	133.8	133.5
38°	128.9	128.8	128.7	130.3	131.0	130.3	128.7	128.8	128.9	128.8	128.7
38.5°	123.9	124.0	124.1	125.6	125.8	125.6	124.1	124.0	123.9	124.0	124.1
39°	119.1	119.3	119.6	120.9	120.9	120.9	119.6	119.3	119.1	119.3	119.6
39.5°	114.4	114.8	115.2	116.4	116.2	116.4	115.2	114.8	114.4	114.8	115.2
40°	109.8	110.4	111.0	112.0	111.8	112.0	111.0	110.4	109.8	110.4	111.0
40.5°	105.6	106.1	107.0	107.7	107.6	107.7	107.0	106.1	105.6	106.1	107.0
41°	101.5	102.0	103.2	103.6	103.8	103.6	103.2	102.0	101.5	102.0	103.2
41.5°	97.6	98.2	99.5	99.8	100.2	99.8	99.5	98.2	97.6	98.2	99.5
42°	94.0	94.6	96.0	96.1	96.8	96.1	96.0	94.6	94.0	94.6	96.0
42.5°	90.6	91.2	92.7	92.7	93.4	92.7	92.7	91.2	90.6	91.2	92.7
43°	87.4	88.0	89.5	89.6	90.2	89.6	89.5	88.0	87.4	88.0	89.5
43.5°	84.4	85.0	86.4	86.5	87.1	86.5	86.4	85.0	84.4	85.0	86.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	76.8	77.3	78.1	78.4	78.7	78.4	78.1	77.3	76.8	77.3	78.1
45.5°	74.5	75.0	75.8	76.0	76.2	76.0	75.8	75.0	74.5	75.0	75.8
46°	72.4	72.8	73.5	73.8	74.0	73.8	73.5	72.8	72.4	72.8	73.5
46.5°	70.5	70.8	71.3	71.7	71.8	71.7	71.3	70.8	70.5	70.8	71.3
47°	68.6	68.8	69.3	69.8	69.9	69.8	69.3	68.8	68.6	68.8	69.3
47.5°	66.8	67.0	67.5	68.0	68.2	68.0	67.5	67.0	66.8	67.0	67.5
48°	65.2	65.4	65.9	66.3	66.5	66.3	65.9	65.4	65.2	65.4	65.9
48.5°	63.9	64.0	64.3	64.8	64.9	64.8	64.3	64.0	63.9	64.0	64.3
49°	62.6	62.6	63.0	63.3	63.4	63.3	63.0	62.6	62.6	62.6	63.0
49.5°	61.4	61.4	61.6	61.9	62.0	61.9	61.6	61.4	61.4	61.4	61.6
50°	60.1	60.2	60.3	60.5	60.6	60.5	60.3	60.2	60.1	60.2	60.3
50.5°	58.8	58.9	59.0	59.2	59.2	59.2	59.0	58.9	58.8	58.9	59.0
51°	57.4	57.5	57.7	57.9	57.9	57.9	57.7	57.5	57.4	57.5	57.7
51.5°	56.0	56.1	56.3	56.5	56.6	56.5	56.3	56.1	56.0	56.1	56.3
52°	54.6	54.7	54.9	55.2	55.2	55.2	54.9	54.7	54.6	54.7	54.9
52.5°	53.1	53.2	53.5	53.7	53.8	53.7	53.5	53.2	53.1	53.2	53.5
53°	51.8	51.9	52.1	52.3	52.5	52.3	52.1	51.9	51.8	51.9	52.1
53.5°	50.4	50.5	50.8	51.0	51.1	51.0	50.8	50.5	50.4	50.5	50.8
54°	49.2	49.2	49.4	49.6	49.7	49.6	49.4	49.2	49.2	49.2	49.4
54.5°	47.9	47.9	48.2	48.4	48.5	48.4	48.2	47.9	47.9	47.9	48.2
55°	46.6	46.7	46.9	47.1	47.1	47.1	46.9	46.7	46.6	46.7	46.9
55.5°	45.4	45.5	45.7	45.9	45.9	45.9	45.7	45.5	45.4	45.5	45.7
56°	44.2	44.3	44.5	44.6	44.7	44.6	44.5	44.3	44.2	44.3	44.5
56.5°	43.1	43.2	43.3	43.5	43.5	43.5	43.3	43.2	43.1	43.2	43.3
57°	41.9	42.0	42.2	42.3	42.4	42.3	42.2	42.0	41.9	42.0	42.2
57.5°	40.7	40.9	41.0	41.1	41.3	41.1	41.0	40.9	40.7	40.9	41.0
58°	39.7	39.8	39.9	40.1	40.1	40.1	39.9	39.8	39.7	39.8	39.9
58.5°	38.6	38.7	38.9	39.0	39.0	39.0	38.9	38.7	38.6	38.7	38.9
59°	37.6	37.6	37.7	37.9	38.0	37.9	37.7	37.6	37.6	37.6	37.7
59.5°	36.5	36.6	36.7	36.8	36.9	36.8	36.7	36.6	36.5	36.6	36.7
60°	35.5	35.6	35.7	35.8	35.8	35.8	35.7	35.6	35.5	35.6	35.7
60.5°	34.5	34.6	34.7	34.8	34.8	34.8	34.7	34.6	34.5	34.6	34.7
61°	33.6	33.6	33.7	33.8	33.9	33.8	33.7	33.6	33.6	33.6	33.7
61.5°	32.6	32.7	32.8	32.9	32.9	32.9	32.8	32.7	32.6	32.7	32.8
62°	31.7	31.7	31.8	31.9	31.9	31.9	31.8	31.7	31.7	31.7	31.8
62.5°	30.7	30.8	30.8	31.0	31.0	31.0	30.8	30.8	30.7	30.8	30.8
63°	29.8	29.9	29.9	30.0	30.0	30.0	29.9	29.9	29.8	29.9	29.9
63.5°	28.9	29.0	29.0	29.1	29.2	29.1	29.0	29.0	28.9	29.0	29.0
64°	28.1	28.1	28.2	28.2	28.3	28.2	28.2	28.1	28.1	28.1	28.2
64.5°	27.2	27.3	27.3	27.4	27.4	27.4	27.3	27.3	27.2	27.3	27.3
65°	26.4	26.4	26.5	26.5	26.6	26.5	26.5	26.4	26.4	26.4	26.5
65.5°	25.6	25.6	25.6	25.7	25.7	25.7	25.6	25.6	25.6	25.6	25.6
66°	24.7	24.8	24.8	24.9	25.0	24.9	24.8	24.8	24.7	24.8	24.8



TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	22.4	22.5	22.5	22.6	22.6	22.6	22.5	22.5	22.4	22.5	22.5
68°	21.7	21.7	21.8	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.8
68.5°	20.9	21.0	21.0	21.0	21.1	21.0	21.0	21.0	20.9	21.0	21.0
69°	20.2	20.2	20.2	20.3	20.3	20.3	20.2	20.2	20.2	20.2	20.2
69.5°	19.5	19.5	19.5	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.5
70°	18.8	18.9	18.8	18.9	19.0	18.9	18.8	18.9	18.8	18.9	18.8
70.5°	18.2	18.2	18.2	18.2	18.3	18.2	18.2	18.2	18.2	18.2	18.2
71°	17.5	17.5	17.5	17.5	17.6	17.5	17.5	17.5	17.5	17.5	17.5
71.5°	16.8	16.8	16.9	16.9	16.9	16.9	16.9	16.8	16.8	16.8	16.9
72°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
72.5°	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
73°	14.9	14.9	14.9	15.0	15.0	15.0	14.9	14.9	14.9	14.9	14.9
73.5°	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
74°	13.7	13.7	13.7	13.8	13.8	13.8	13.7	13.7	13.7	13.7	13.7
74.5°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
75°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
75.5°	11.9	11.9	11.9	11.9	12.0	11.9	11.9	11.9	11.9	11.9	11.9
76°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
76.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
77°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
77.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
78°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
78.5°	8.8	8.8	8.7	8.7	8.8	8.7	8.7	8.8	8.8	8.8	8.7
79°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
79.5°	7.8	7.8	7.7	7.8	7.8	7.8	7.7	7.8	7.8	7.8	7.7
80°	7.3	7.3	7.2	7.2	7.2	7.2	7.2	7.3	7.3	7.3	7.2
80.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
81°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
81.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
82°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
82.5°	5.0	5.0	5.0	5.0	4.9	5.0	5.0	5.0	5.0	5.0	5.0
83°	4.6	4.6	4.6	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.6
83.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
84°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
84.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
85°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
86°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
86.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
87°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
88°	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
88.5°	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.5



TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

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	0.2	0.1	0.1	0.0	0.0	0.0	0.1



TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	396.4	396.4	396.4	396.4	396.4	396.4
0.5°	396.3	396.1	396.3	396.3	396.4	396.5
1°	396.2	395.9	396.2	396.2	396.3	396.3
1.5°	395.9	395.7	395.9	396.0	396.0	396.1
2°	395.6	395.4	395.6	395.6	395.7	395.8
2.5°	395.1	394.9	395.1	395.2	395.3	395.4
3°	394.6	394.3	394.6	394.7	394.8	394.9
3.5°	393.9	393.8	393.9	394.0	394.2	394.3
4°	393.2	393.0	393.2	393.3	393.6	393.6
4.5°	392.4	392.1	392.4	392.5	392.8	392.9
5°	391.6	391.3	391.6	391.8	392.0	392.1
5.5°	390.6	390.3	390.6	390.7	391.0	391.3
6°	389.5	389.0	389.5	389.6	389.9	390.1
6.5°	388.2	387.8	388.2	388.4	388.7	388.9
7°	387.0	386.6	387.0	387.2	387.4	387.6
7.5°	385.6	385.3	385.6	385.8	386.0	386.2
8°	384.1	383.9	384.1	384.3	384.5	384.6
8.5°	382.5	382.2	382.5	382.6	382.8	383.0
9°	380.8	380.5	380.8	380.9	381.2	381.3
9.5°	379.0	378.7	379.0	379.1	379.4	379.5
10°	377.0	376.8	377.0	377.3	377.5	377.6
10.5°	375.0	374.8	375.0	375.2	375.5	375.6
11°	373.0	372.7	373.0	373.2	373.4	373.5
11.5°	370.8	370.6	370.8	371.0	371.2	371.3
12°	368.5	368.3	368.5	368.8	369.0	369.1
12.5°	366.2	365.9	366.2	366.5	366.6	366.7
13°	363.9	363.6	363.9	364.1	364.2	364.4
13.5°	361.4	361.2	361.4	361.6	361.8	361.9
14°	358.9	358.7	358.9	359.2	359.3	359.3
14.5°	356.3	356.1	356.3	356.6	356.6	356.7
15°	353.8	353.6	353.8	353.9	354.0	354.0
15.5°	351.2	351.1	351.2	351.3	351.2	351.2
16°	348.7	348.6	348.7	348.8	348.6	348.6
16.5°	346.3	346.2	346.3	346.3	346.0	345.9
17°	343.7	343.8	343.7	343.8	343.5	343.4
17.5°	341.2	341.2	341.2	341.3	341.1	341.0
18°	338.7	338.6	338.7	338.8	338.7	338.6
18.5°	336.0	335.8	336.0	336.1	336.1	336.1
19°	333.0	332.9	333.0	333.2	333.3	333.5
19.5°	330.0	329.8	330.0	330.1	330.4	330.6
20°	326.7	326.3	326.7	326.6	327.2	327.5
20.5°	323.1	322.7	323.1	322.9	323.6	324.0
21°	319.2	318.7	319.2	319.0	319.8	320.4



TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	306.0	305.7	306.0	306.0	306.5	307.2
23°	301.1	301.0	301.1	301.5	301.6	302.1
23.5°	296.1	296.4	296.1	296.8	296.5	297.0
24°	291.0	291.5	291.0	291.9	291.3	291.6
24.5°	285.9	286.5	285.9	286.7	285.9	286.1
25°	280.7	281.2	280.7	281.4	280.4	280.3
25.5°	275.6	275.7	275.6	275.9	275.0	274.3
26°	270.2	269.8	270.2	270.2	269.4	268.2
26.5°	264.7	263.7	264.7	264.3	263.6	261.8
27°	258.9	257.5	258.9	258.3	257.7	255.7
27.5°	253.0	251.2	253.0	252.3	251.5	249.6
28°	246.9	244.9	246.9	246.1	245.4	243.6
28.5°	240.6	238.7	240.6	240.0	239.1	237.7
29°	234.2	233.0	234.2	233.8	232.8	231.8
29.5°	227.9	227.3	227.9	227.7	226.6	226.1
30°	221.5	221.5	221.5	221.4	220.2	220.4
30.5°	215.3	216.1	215.3	215.2	214.1	214.4
31°	209.2	210.4	209.2	209.0	207.7	208.5
31.5°	203.1	204.6	203.1	202.7	201.7	202.5
32°	197.1	198.7	197.1	196.5	195.6	196.3
32.5°	191.1	192.7	191.1	190.4	189.7	190.4
33°	185.2	186.7	185.2	184.1	183.9	184.4
33.5°	179.2	180.6	179.2	177.9	178.1	179.0
34°	173.4	174.8	173.4	171.7	172.2	173.2
34.5°	167.5	169.0	167.5	165.7	166.4	167.5
35°	161.8	163.5	161.8	160.1	160.8	161.7
35.5°	156.2	158.0	156.2	154.4	155.2	156.1
36°	150.8	152.6	150.8	149.0	149.7	150.6
36.5°	145.4	147.2	145.4	143.7	144.3	145.1
37°	140.2	141.7	140.2	138.5	139.0	139.6
37.5°	135.2	136.3	135.2	133.5	133.8	134.2
38°	130.3	131.0	130.3	128.7	128.8	128.9
38.5°	125.6	125.8	125.6	124.1	124.0	123.9
39°	120.9	120.9	120.9	119.6	119.3	119.1
39.5°	116.4	116.2	116.4	115.2	114.8	114.4
40°	112.0	111.8	112.0	111.0	110.4	109.8
40.5°	107.7	107.6	107.7	107.0	106.1	105.6
41°	103.6	103.8	103.6	103.2	102.0	101.5
41.5°	99.8	100.2	99.8	99.5	98.2	97.6
42°	96.1	96.8	96.1	96.0	94.6	94.0
42.5°	92.7	93.4	92.7	92.7	91.2	90.6
43°	89.6	90.2	89.6	89.5	88.0	87.4
43.5°	86.5	87.1	86.5	86.4	85.0	84.4

TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	78.4	78.7	78.4	78.1	77.3	76.8
45.5°	76.0	76.2	76.0	75.8	75.0	74.5
46°	73.8	74.0	73.8	73.5	72.8	72.4
46.5°	71.7	71.8	71.7	71.3	70.8	70.5
47°	69.8	69.9	69.8	69.3	68.8	68.6
47.5°	68.0	68.2	68.0	67.5	67.0	66.8
48°	66.3	66.5	66.3	65.9	65.4	65.2
48.5°	64.8	64.9	64.8	64.3	64.0	63.9
49°	63.3	63.4	63.3	63.0	62.6	62.6
49.5°	61.9	62.0	61.9	61.6	61.4	61.4
50°	60.5	60.6	60.5	60.3	60.2	60.1
50.5°	59.2	59.2	59.2	59.0	58.9	58.8
51°	57.9	57.9	57.9	57.7	57.5	57.4
51.5°	56.5	56.6	56.5	56.3	56.1	56.0
52°	55.2	55.2	55.2	54.9	54.7	54.6
52.5°	53.7	53.8	53.7	53.5	53.2	53.1
53°	52.3	52.5	52.3	52.1	51.9	51.8
53.5°	51.0	51.1	51.0	50.8	50.5	50.4
54°	49.6	49.7	49.6	49.4	49.2	49.2
54.5°	48.4	48.5	48.4	48.2	47.9	47.9
55°	47.1	47.1	47.1	46.9	46.7	46.6
55.5°	45.9	45.9	45.9	45.7	45.5	45.4
56°	44.6	44.7	44.6	44.5	44.3	44.2
56.5°	43.5	43.5	43.5	43.3	43.2	43.1
57°	42.3	42.4	42.3	42.2	42.0	41.9
57.5°	41.1	41.3	41.1	41.0	40.9	40.7
58°	40.1	40.1	40.1	39.9	39.8	39.7
58.5°	39.0	39.0	39.0	38.9	38.7	38.6
59°	37.9	38.0	37.9	37.7	37.6	37.6
59.5°	36.8	36.9	36.8	36.7	36.6	36.5
60°	35.8	35.8	35.8	35.7	35.6	35.5
60.5°	34.8	34.8	34.8	34.7	34.6	34.5
61°	33.8	33.9	33.8	33.7	33.6	33.6
61.5°	32.9	32.9	32.9	32.8	32.7	32.6
62°	31.9	31.9	31.9	31.8	31.7	31.7
62.5°	31.0	31.0	31.0	30.8	30.8	30.7
63°	30.0	30.0	30.0	29.9	29.9	29.8
63.5°	29.1	29.2	29.1	29.0	29.0	28.9
64°	28.2	28.3	28.2	28.2	28.1	28.1
64.5°	27.4	27.4	27.4	27.3	27.3	27.2
65°	26.5	26.6	26.5	26.5	26.4	26.4
65.5°	25.7	25.7	25.7	25.6	25.6	25.6
66°	24.9	25.0	24.9	24.8	24.8	24.7



TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	22.6	22.6	22.6	22.5	22.5	22.4
68°	21.8	21.8	21.8	21.8	21.7	21.7
68.5°	21.0	21.1	21.0	21.0	21.0	20.9
69°	20.3	20.3	20.3	20.2	20.2	20.2
69.5°	19.6	19.6	19.6	19.5	19.5	19.5
70°	18.9	19.0	18.9	18.8	18.9	18.8
70.5°	18.2	18.3	18.2	18.2	18.2	18.2
71°	17.5	17.6	17.5	17.5	17.5	17.5
71.5°	16.9	16.9	16.9	16.9	16.8	16.8
72°	16.2	16.2	16.2	16.2	16.2	16.2
72.5°	15.6	15.6	15.6	15.6	15.6	15.6
73°	15.0	15.0	15.0	14.9	14.9	14.9
73.5°	14.3	14.3	14.3	14.3	14.3	14.3
74°	13.8	13.8	13.8	13.7	13.7	13.7
74.5°	13.1	13.1	13.1	13.1	13.1	13.1
75°	12.5	12.5	12.5	12.5	12.5	12.5
75.5°	11.9	12.0	11.9	11.9	11.9	11.9
76°	11.4	11.4	11.4	11.4	11.4	11.4
76.5°	10.8	10.8	10.8	10.8	10.8	10.8
77°	10.3	10.3	10.3	10.3	10.3	10.3
77.5°	9.8	9.8	9.8	9.8	9.8	9.8
78°	9.2	9.2	9.2	9.2	9.2	9.2
78.5°	8.7	8.8	8.7	8.7	8.8	8.8
79°	8.2	8.2	8.2	8.2	8.2	8.2
79.5°	7.8	7.8	7.8	7.7	7.8	7.8
80°	7.2	7.2	7.2	7.2	7.3	7.3
80.5°	6.8	6.8	6.8	6.8	6.8	6.8
81°	6.3	6.3	6.3	6.3	6.3	6.3
81.5°	5.8	5.8	5.8	5.8	5.8	5.8
82°	5.4	5.4	5.4	5.4	5.4	5.4
82.5°	5.0	4.9	5.0	5.0	5.0	5.0
83°	4.5	4.5	4.5	4.6	4.6	4.6
83.5°	4.1	4.1	4.1	4.1	4.1	4.1
84°	3.7	3.7	3.7	3.7	3.7	3.7
84.5°	3.3	3.3	3.3	3.3	3.3	3.3
85°	2.9	2.9	2.9	2.9	2.9	2.9
85.5°	2.5	2.5	2.5	2.5	2.5	2.5
86°	2.1	2.1	2.1	2.1	2.1	2.1
86.5°	1.8	1.8	1.8	1.8	1.8	1.8
87°	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	1.1	1.1	1.1	1.1	1.1	1.1
88°	0.8	0.8	0.8	0.7	0.7	0.7
88.5°	0.5	0.6	0.5	0.5	0.4	0.4



TEST NUMBER: P776846

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.2	0.1	0.1	0.0	0.0

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
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°	316.2	315.7	314.8	315.0	314.5	315.0	314.8	315.7	316.2	315.7	314.8
22°	311.8	311.3	310.5	310.6	310.0	310.6	310.5	311.3	311.8	311.3	310.5



44°	81.7	82.3	83.5	83.6	84.1	83.6	83.5	82.3	81.7	82.3	83.5
44.5°	79.1	79.7	80.8	81.0	81.3	81.0	80.8	79.7	79.1	79.7	80.8



66.5°	23.9	24.0	24.0	24.1	24.2	24.1	24.0	24.0	23.9	24.0	24.0
67°	23.2	23.2	23.3	23.3	23.4	23.3	23.3	23.2	23.2	23.2	23.3



89°	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3
89.5°	0.0	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.1	0.2

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21.5°	315.0	314.5	315.0	314.8	315.7	316.2
22°	310.6	310.0	310.6	310.5	311.3	311.8



44°	83.6	84.1	83.6	83.5	82.3	81.7
44.5°	81.0	81.3	81.0	80.8	79.7	79.1



66.5°	24.1	24.2	24.1	24.0	24.0	23.9
67°	23.3	23.4	23.3	23.3	23.2	23.2

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89°	0.4	0.4	0.4	0.3	0.2	0.2
89.5°	0.2	0.3	0.2	0.2	0.1	0.0

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(END OF REPORT)