

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: P775902

Luminaire Tested: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P775902
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B027)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K
Description: 8 INCH SQUARE MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

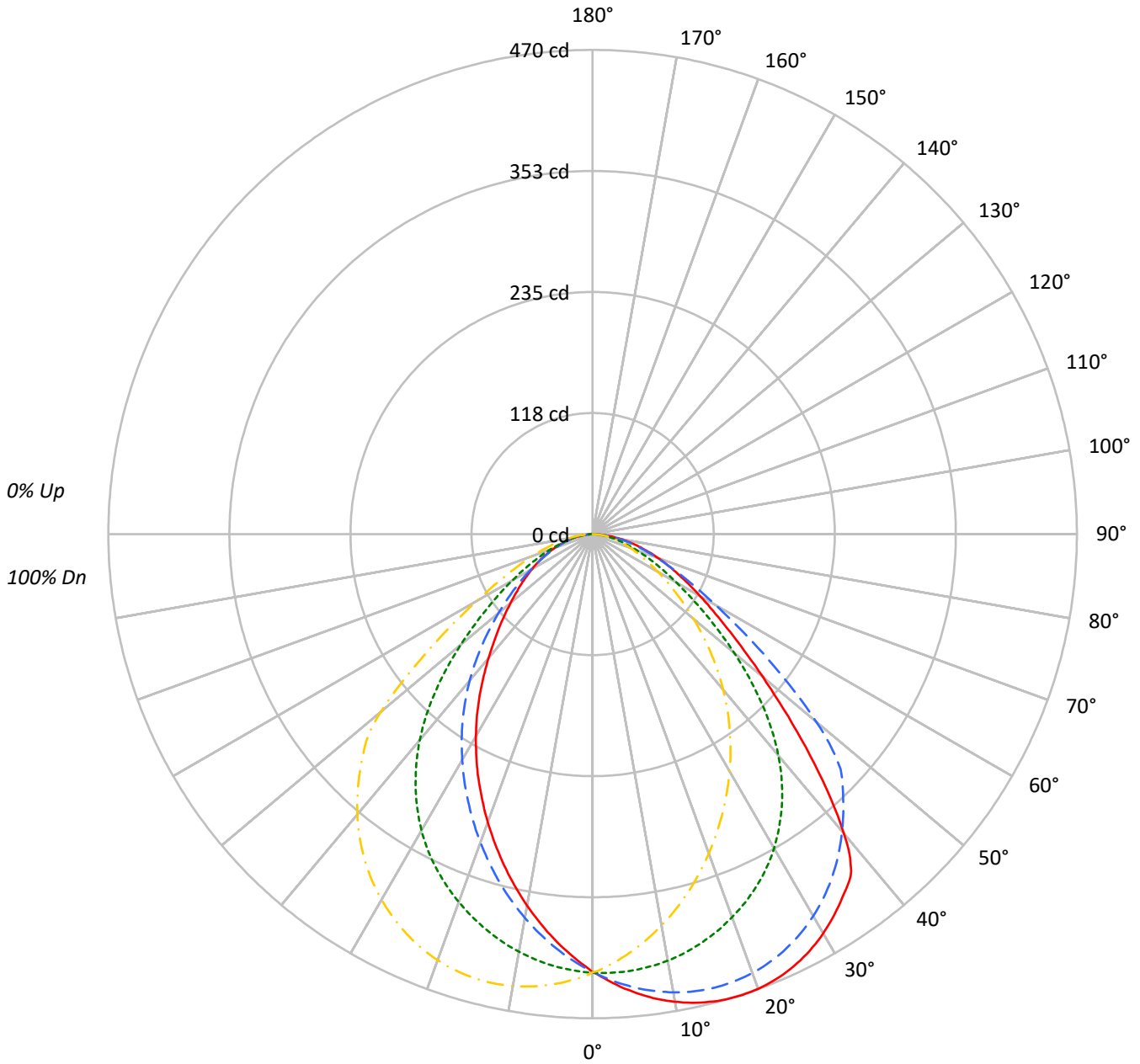
Lumens per Lamp: N/A
Luminaire Lumens: 926.5 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.2 / 1.3
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): 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					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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87								
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75								
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65								
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57								
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50								
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44								
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40								
8	64	52	44	38	63	51	43	38	50	43	38	49	42	38	47	42	38	36								
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32								
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10196	10196	10196	10196
5°	10733	10242	9565	10133
10°	11225	10236	8914	10022
15°	11645	10188	8252	9875
20°	11985	10100	7591	9694
25°	12242	9969	6934	9485
30°	12390	9749	6274	9195
35°	12461	9376	5591	8767
40°	11882	8774	4917	8170
45°	9926	7857	4344	7308
50°	8050	6689	3880	6230
55°	6672	5489	3524	5175
60°	5779	4503	3256	4316
65°	5174	3762	3001	3637
70°	4711	3176	2713	3078
75°	4289	2668	2464	2603
80°	3853	2196	2154	2127
85°	3136	1706	1403	1568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	4.3
10°-20°	113.4	12.2
20°-30°	167.8	18.1
30°-40°	193.3	20.9
40°-50°	176.0	19.0
50°-60°	120.5	13.0
60°-70°	70.8	7.6
70°-80°	35.7	3.9
80°-90°	8.9	1.0
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°	321.3	34.7
0°-40°	514.6	55.5
0°-60°	811.1	87.5
0°-90°	926.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	926.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	425	425	425	425	425	
5°	446	426	397	421	446	43
15°	469	410	332	398	469	133
25°	463	377	262	358	463	213
35°	426	320	191	300	426	265
45°	293	232	128	216	293	226
55°	160	131	84	124	160	145
65°	91	66	53	64	91	91
75°	46	29	27	28	46	49
85°	11	6	5	6	11	13
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°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2
0.5°	426.8	426.9	426.9	426.4	425.9	425.2	424.6	422.1	422.0	422.2	423.1
1°	429.2	429.1	428.7	427.6	426.0	424.3	423.0	419.8	419.4	419.8	421.1
1.5°	431.5	431.4	430.4	428.5	426.2	423.5	421.3	417.5	416.9	417.3	419.2
2°	433.7	433.6	432.1	429.5	426.2	422.6	419.6	415.1	414.2	414.7	417.1
2.5°	435.9	435.6	433.8	430.5	426.2	421.7	417.8	412.7	411.5	412.2	415.0
3°	438.0	437.6	435.4	431.4	426.2	420.7	416.1	410.2	408.8	409.6	412.9
3.5°	440.1	439.6	437.0	432.2	426.1	419.7	414.2	407.7	406.0	406.9	410.7
4°	442.2	441.5	438.4	432.9	426.0	418.5	412.2	405.2	403.2	404.3	408.4
4.5°	444.0	443.4	439.8	433.7	425.8	417.5	410.4	402.6	400.3	401.5	406.1
5°	445.9	445.2	441.2	434.4	425.5	416.3	408.3	399.8	397.4	398.7	403.7
5.5°	447.7	446.9	442.6	435.0	425.2	415.1	406.2	397.2	394.4	395.9	401.4
6°	449.5	448.6	443.8	435.5	424.9	413.8	404.2	394.4	391.4	393.0	399.0
6.5°	451.2	450.1	445.0	436.0	424.4	412.5	402.0	391.7	388.5	390.1	396.6
7°	452.8	451.8	446.1	436.5	424.0	411.1	399.8	388.8	385.3	387.1	394.0
7.5°	454.4	453.2	447.2	437.0	423.5	409.7	397.5	385.9	382.3	384.2	391.5
8°	455.8	454.7	448.3	437.3	423.0	408.3	395.2	383.0	379.1	381.1	388.9
8.5°	457.2	456.0	449.2	437.6	422.5	406.7	392.9	380.1	375.9	378.1	386.3
9°	458.5	457.3	450.0	437.8	421.9	405.3	390.6	377.2	372.7	374.8	383.6
9.5°	459.9	458.5	451.0	438.0	421.1	403.6	388.2	374.2	369.5	371.8	381.1
10°	461.0	459.7	451.7	438.1	420.4	402.0	385.7	371.1	366.1	368.6	378.4
10.5°	462.1	460.7	452.4	438.2	419.6	400.3	383.2	368.1	362.9	365.4	375.6
11°	463.3	461.7	453.0	438.2	418.8	398.6	380.6	365.0	359.6	362.3	372.8
11.5°	464.2	462.7	453.6	438.2	417.9	396.8	378.2	361.9	356.3	359.0	369.9
12°	465.1	463.5	454.2	438.1	417.0	395.0	375.6	358.8	352.9	355.8	367.1
12.5°	466.0	464.3	454.6	438.0	416.1	393.2	373.0	355.6	349.6	352.6	364.3
13°	466.8	465.0	455.0	437.8	415.0	391.3	370.3	352.4	346.2	349.2	361.4
13.5°	467.4	465.7	455.3	437.5	413.9	389.3	367.6	349.2	342.7	345.9	358.5
14°	468.0	466.3	455.6	437.2	412.7	387.4	364.8	345.9	339.3	342.5	355.5
14.5°	468.7	466.8	455.8	436.9	411.6	385.4	362.1	342.6	335.9	339.2	352.5
15°	469.1	467.2	455.9	436.5	410.4	383.2	359.3	339.2	332.4	335.8	349.5
15.5°	469.5	467.6	456.0	435.9	409.1	381.2	356.5	336.0	329.0	332.5	346.5
16°	469.8	467.9	455.9	435.4	407.8	379.0	353.6	332.7	325.5	329.1	343.5
16.5°	470.1	468.1	455.8	434.8	406.5	376.8	350.7	329.4	322.0	325.8	340.5
17°	470.2	468.2	455.7	434.2	405.1	374.6	347.8	326.0	318.5	322.2	337.3
17.5°	470.3	468.2	455.5	433.5	403.6	372.4	344.8	322.7	315.0	318.9	334.3
18°	470.4	468.4	455.2	432.7	402.2	370.1	341.9	319.3	311.5	315.3	331.2
18.5°	470.3	468.2	454.9	431.9	400.6	367.8	338.9	315.9	308.0	312.0	327.9
19°	470.2	468.0	454.5	431.0	399.0	365.4	335.9	312.5	304.4	308.6	324.8
19.5°	470.0	467.8	454.0	430.0	397.4	363.0	332.9	309.2	301.0	305.2	321.7
20°	469.7	467.5	453.4	429.1	395.8	360.7	329.9	305.8	297.5	301.6	318.4
20.5°	469.4	467.2	452.8	428.1	394.1	358.2	326.8	302.4	293.9	298.1	315.2
21°	468.9	466.7	452.1	427.0	392.3	355.8	323.7	298.8	290.4	294.7	312.1



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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°	467.1	464.8	449.6	423.4	387.0	348.1	314.3	288.7	279.8	284.3	302.4
23°	466.4	464.1	448.7	422.1	385.0	345.5	311.2	285.2	276.3	280.8	299.2
23.5°	465.6	463.3	447.6	420.7	383.0	343.0	308.1	281.7	272.7	277.4	295.9
24°	464.6	462.3	446.6	419.4	381.1	340.3	304.8	278.2	269.2	273.9	292.6
24.5°	463.7	461.3	445.4	417.9	379.0	337.6	301.6	274.8	265.6	270.5	289.3
25°	462.7	460.3	444.1	416.4	376.8	334.9	298.4	271.4	262.1	266.9	286.1
25.5°	461.4	459.1	442.8	414.7	374.6	332.0	295.2	268.0	258.7	263.4	282.9
26°	460.2	457.9	441.5	413.2	372.5	329.2	292.0	264.5	255.0	260.0	279.5
26.5°	458.9	456.5	440.1	411.4	370.2	326.4	288.8	260.9	251.4	256.5	276.3
27°	457.6	455.2	438.5	409.7	367.8	323.5	285.5	257.4	247.9	253.1	273.0
27.5°	456.1	453.8	437.0	407.9	365.3	320.6	282.3	254.0	244.5	249.4	269.6
28°	454.5	452.2	435.3	405.9	362.8	317.6	279.0	250.6	240.9	246.0	266.3
28.5°	452.9	450.5	433.7	403.9	360.2	314.6	275.8	247.1	237.2	242.5	263.1
29°	451.2	448.8	431.9	402.0	357.7	311.5	272.4	243.5	233.7	239.0	259.7
29.5°	449.4	447.0	430.1	399.9	354.9	308.5	269.1	240.1	230.2	235.5	256.4
30°	447.5	445.3	428.2	397.7	352.1	305.3	265.8	236.5	226.6	232.0	253.1
30.5°	445.7	443.3	426.2	395.5	349.2	302.1	262.6	233.1	222.9	228.4	249.8
31°	443.6	441.3	424.2	393.1	346.3	298.7	259.2	229.5	219.4	225.0	246.4
31.5°	441.5	439.3	422.2	390.7	343.3	295.5	255.8	226.0	215.9	221.5	243.1
32°	439.5	437.2	420.0	388.1	340.2	292.2	252.5	222.5	212.4	218.0	239.8
32.5°	437.2	434.9	417.7	385.5	336.9	288.7	249.0	219.0	208.8	214.5	236.5
33°	435.0	432.7	415.4	382.9	333.7	285.3	245.7	215.4	205.3	210.9	233.2
33.5°	432.7	430.4	413.1	380.1	330.5	281.9	242.3	212.1	201.7	207.5	229.9
34°	430.4	428.1	410.8	377.3	327.1	278.4	238.9	208.4	198.1	204.0	226.4
34.5°	428.0	425.6	408.2	374.4	323.7	274.9	235.5	204.9	194.6	200.5	223.0
35°	425.7	423.1	405.7	371.4	320.3	271.4	232.1	201.4	191.0	197.1	219.7
35.5°	423.4	420.6	403.0	368.2	316.7	267.8	228.5	198.0	187.5	193.5	216.3
36°	421.2	418.0	400.4	365.1	313.0	264.4	225.1	194.5	184.0	190.0	212.9
36.5°	418.8	415.5	397.7	361.8	309.2	260.7	221.7	190.8	180.5	186.5	209.5
37°	415.9	413.1	394.8	358.5	305.5	257.0	218.2	187.3	177.1	183.0	206.1
37.5°	412.2	410.6	392.0	355.2	301.5	253.3	214.6	183.9	173.7	179.6	202.6
38°	406.9	408.2	389.0	351.7	297.4	249.7	211.1	180.4	170.2	176.1	199.2
38.5°	401.5	405.4	386.0	348.0	293.4	245.9	207.6	176.9	166.9	172.6	195.8
39°	394.8	402.3	383.0	344.2	289.1	242.2	204.1	173.4	163.6	169.3	192.4
39.5°	387.5	397.8	379.9	340.5	284.9	238.4	200.6	170.0	160.3	165.9	188.9
40°	379.6	393.0	376.7	336.5	280.3	234.5	197.1	166.6	157.1	162.6	185.5
40.5°	371.0	386.8	373.6	332.4	275.9	230.8	193.5	163.2	154.0	159.3	182.0
41°	362.8	380.3	370.3	328.0	271.3	226.9	189.9	160.0	150.9	156.2	178.5
41.5°	353.9	372.3	367.0	323.7	266.6	223.0	186.4	156.7	147.9	152.8	175.0
42°	345.4	364.9	363.6	319.0	261.9	219.1	182.9	153.5	144.9	149.7	171.6
42.5°	336.5	356.4	360.1	314.3	257.0	215.3	179.3	150.2	142.0	146.6	168.2
43°	327.7	348.5	356.8	309.3	252.1	211.3	175.8	147.1	139.1	143.6	164.7
43.5°	318.7	339.7	353.3	304.5	247.2	207.3	172.3	143.9	136.2	140.5	161.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	292.7	314.2	343.2	288.3	231.7	195.5	161.7	135.0	128.1	131.9	151.1
45.5°	283.7	305.4	339.7	282.8	226.6	191.5	158.2	132.1	125.4	129.1	147.8
46°	275.9	297.1	335.8	277.1	221.4	187.5	154.7	129.2	122.9	126.3	144.3
46.5°	267.1	288.2	331.8	271.2	216.1	183.5	151.3	126.4	120.3	123.6	141.0
47°	259.7	280.3	326.0	265.2	210.8	179.6	147.8	123.7	117.8	121.0	137.8
47.5°	251.0	271.6	320.5	259.0	205.4	175.5	144.3	121.2	115.5	118.5	134.6
48°	244.2	264.1	313.4	252.7	200.4	171.6	140.9	118.4	113.1	116.0	131.5
48.5°	236.0	255.4	306.8	246.3	195.0	167.6	137.5	115.8	110.7	113.5	128.3
49°	229.6	248.3	298.8	240.0	189.7	163.7	134.2	113.3	108.4	111.0	125.2
49.5°	221.8	240.1	291.4	233.6	184.5	159.8	130.9	110.8	106.2	108.6	122.2
50°	215.8	233.4	282.9	227.2	179.3	155.8	127.6	108.3	104.0	106.2	119.2
50.5°	208.5	225.8	274.7	220.6	174.0	151.9	124.4	105.9	101.8	104.0	116.2
51°	203.0	219.1	266.2	213.9	169.0	148.1	121.3	103.5	99.8	101.8	113.3
51.5°	196.2	212.1	258.0	207.4	163.9	144.3	118.1	101.2	97.8	99.5	110.5
52°	190.8	205.9	249.3	201.0	158.9	140.5	115.0	99.0	95.7	97.3	107.7
52.5°	184.8	199.4	241.4	194.6	154.0	136.7	112.0	96.7	93.6	95.3	104.9
53°	179.8	193.3	233.0	188.0	149.3	133.0	109.1	94.5	91.6	93.1	102.2
53.5°	174.2	187.3	225.1	181.6	144.6	129.3	106.2	92.4	89.8	91.1	99.5
54°	169.2	181.4	216.9	175.3	140.0	125.7	103.3	90.4	87.9	89.2	97.0
54.5°	164.2	176.0	209.3	169.2	135.4	122.1	100.5	88.4	86.2	87.3	94.4
55°	159.6	170.3	201.8	163.1	131.3	118.6	97.9	86.4	84.3	85.3	92.0
55.5°	155.1	165.9	194.3	157.3	127.0	115.0	95.2	84.4	82.5	83.5	89.5
56°	150.6	160.2	187.3	151.6	122.8	111.6	92.5	82.4	80.7	81.6	87.2
56.5°	146.6	156.2	180.2	146.1	118.8	108.3	90.0	80.5	79.1	79.7	84.9
57°	142.1	150.9	173.8	140.7	114.9	105.0	87.5	78.8	77.5	78.0	82.6
57.5°	138.7	147.1	166.9	135.6	111.1	101.8	85.1	77.0	75.8	76.2	80.4
58°	134.4	142.3	160.8	130.6	107.5	98.7	82.6	75.3	74.1	74.5	78.1
58.5°	131.3	138.4	154.8	125.9	104.0	95.6	80.3	73.5	72.5	72.8	75.9
59°	127.2	134.2	148.9	121.4	100.4	92.6	77.8	71.8	70.9	71.1	73.7
59.5°	124.4	130.5	143.5	117.0	97.1	89.8	75.5	70.1	69.4	69.5	71.7
60°	120.5	126.5	137.9	112.8	93.9	87.0	73.2	68.4	67.9	67.9	69.6
60.5°	117.4	122.6	133.2	108.7	90.7	84.2	71.1	66.8	66.4	66.4	67.6
61°	114.1	119.3	127.8	104.8	87.8	81.4	69.0	65.1	64.9	64.8	65.7
61.5°	111.0	115.4	123.4	101.2	84.9	78.6	66.8	63.6	63.5	63.4	63.8
62°	108.0	112.4	118.8	97.6	81.9	75.9	64.8	62.1	62.0	61.8	61.8
62.5°	105.0	108.8	114.2	94.2	79.0	73.4	62.9	60.6	60.5	60.4	60.1
63°	102.1	105.7	110.3	90.9	76.4	70.8	60.9	59.1	58.9	58.9	58.3
63.5°	99.3	102.5	106.1	87.8	73.7	68.4	58.9	57.7	57.5	57.5	56.5
64°	96.6	99.3	102.4	84.6	71.2	66.1	57.1	56.2	55.9	56.0	54.9
64.5°	93.8	96.5	98.7	81.7	68.8	63.8	55.3	54.8	54.4	54.5	53.2
65°	91.2	93.5	95.0	78.9	66.3	61.5	53.5	53.3	52.9	53.0	51.6
65.5°	88.6	90.8	91.7	76.1	63.9	59.3	51.9	51.8	51.5	51.6	50.0
66°	86.0	88.0	88.3	73.4	61.6	57.2	50.2	50.3	50.0	50.2	48.5



TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	78.7	79.9	79.1	65.9	55.1	50.9	45.5	46.2	45.8	46.1	44.1
68°	76.4	77.5	76.2	63.6	53.0	49.1	44.0	44.8	44.3	44.7	42.8
68.5°	74.0	75.0	73.5	61.3	51.0	47.2	42.6	43.6	43.0	43.4	41.3
69°	71.8	72.6	70.7	59.0	49.1	45.4	41.1	42.2	41.5	42.0	40.0
69.5°	69.6	70.2	68.1	56.8	47.1	43.5	39.8	40.9	40.2	40.8	38.7
70°	67.2	67.8	65.7	54.7	45.3	41.7	38.4	39.7	38.7	39.5	37.4
70.5°	65.0	65.4	63.2	52.6	43.4	40.1	37.2	38.4	37.5	38.2	36.1
71°	62.9	63.2	60.8	50.6	41.6	38.5	35.8	37.1	36.0	36.9	34.9
71.5°	60.7	61.0	58.4	48.7	39.9	36.9	34.6	35.8	34.8	35.5	33.7
72°	58.6	58.8	56.1	46.7	38.2	35.2	33.3	34.5	33.5	34.3	32.5
72.5°	56.5	56.6	53.9	44.7	36.6	33.8	32.1	33.2	32.4	33.0	31.4
73°	54.5	54.6	51.8	43.0	34.9	32.2	31.0	32.0	31.3	31.9	30.2
73.5°	52.3	52.4	49.6	41.1	33.3	30.8	29.8	30.9	30.0	30.7	29.1
74°	50.3	50.3	47.5	39.3	31.8	29.3	28.7	29.7	28.9	29.5	28.0
74.5°	48.4	48.3	45.5	37.6	30.3	28.0	27.5	28.5	27.8	28.3	26.8
75°	46.3	46.3	43.5	36.0	28.8	26.6	26.5	27.4	26.6	27.1	25.7
75.5°	44.4	44.3	41.5	34.4	27.3	25.3	25.4	26.2	25.5	26.0	24.6
76°	42.5	42.4	39.7	32.8	26.0	24.0	24.3	25.1	24.3	24.9	23.5
76.5°	40.5	40.4	37.8	31.2	24.6	22.8	23.3	23.9	23.3	23.7	22.4
77°	38.6	38.5	36.0	29.6	23.3	21.5	22.3	22.8	22.2	22.6	21.4
77.5°	36.9	36.7	34.3	28.1	22.0	20.4	21.1	21.6	21.1	21.4	20.3
78°	35.1	34.9	32.5	26.5	20.7	19.3	20.1	20.5	20.0	20.3	19.3
78.5°	33.2	33.1	30.8	25.1	19.5	18.1	19.1	19.5	18.9	19.3	18.2
79°	31.5	31.3	29.0	23.6	18.3	17.1	18.1	18.3	17.8	18.1	17.2
79.5°	29.6	29.5	27.2	22.2	17.1	16.1	17.1	17.2	16.8	17.1	16.2
80°	27.9	27.8	25.6	20.8	15.9	15.0	16.1	16.1	15.6	16.1	15.1
80.5°	26.1	26.0	23.9	19.4	14.8	14.1	15.1	14.9	14.6	14.9	14.1
81°	24.4	24.3	22.4	18.1	13.8	13.2	14.1	13.8	13.6	13.9	13.2
81.5°	22.7	22.6	20.8	16.8	12.7	12.2	13.0	12.6	12.4	12.7	12.1
82°	21.0	21.0	19.3	15.5	11.7	11.3	12.0	11.6	11.4	11.7	11.2
82.5°	19.4	19.4	17.7	14.3	10.7	10.5	11.1	10.5	10.4	10.7	10.1
83°	17.7	17.7	16.3	13.0	9.8	9.6	10.0	9.4	9.2	9.5	9.2
83.5°	16.1	16.2	14.7	11.8	8.9	8.8	9.1	8.3	8.2	8.5	8.3
84°	14.5	14.6	13.3	10.8	8.0	8.0	8.2	7.2	7.1	7.5	7.4
84.5°	12.9	13.0	11.9	9.6	7.0	7.1	7.4	6.2	6.1	6.4	6.5
85°	11.4	11.5	10.6	8.6	6.2	6.3	6.4	5.1	5.1	5.3	5.6
85.5°	9.8	9.9	9.3	7.5	5.3	5.5	5.5	4.1	4.0	4.3	4.8
86°	8.3	8.5	8.1	6.5	4.5	4.8	4.7	3.3	3.2	3.4	3.9
86.5°	6.7	7.0	6.9	5.5	3.7	3.9	3.8	2.6	2.5	2.7	3.1
87°	5.3	5.7	5.7	4.6	3.0	3.1	3.0	1.9	1.9	2.1	2.4
87.5°	4.2	4.6	4.6	3.5	2.3	2.4	2.3	1.2	1.2	1.3	1.6
88°	3.4	3.5	3.5	2.7	1.6	1.7	1.4	0.6	0.6	0.7	0.8
88.5°	2.6	2.7	2.7	1.9	0.9	0.8	0.7	0.2	0.2	0.2	0.2



TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	425.2	425.2	425.2	425.2	425.2	425.2
0.5°	424.1	425.5	426.5	427.7	426.4	426.8
1°	422.9	425.2	427.1	429.1	428.5	429.2
1.5°	421.7	424.8	427.8	430.5	430.5	431.5
2°	420.3	424.4	428.3	431.8	432.4	433.7
2.5°	419.0	423.9	428.8	433.1	434.4	435.9
3°	417.5	423.5	429.2	434.3	436.4	438.0
3.5°	416.1	422.9	429.5	435.5	438.1	440.1
4°	414.6	422.4	429.8	436.7	439.9	442.2
4.5°	413.1	421.8	430.1	437.7	441.5	444.0
5°	411.4	421.0	430.4	438.6	443.2	445.9
5.5°	409.8	420.3	430.6	439.6	444.6	447.7
6°	408.2	419.6	430.7	440.5	446.2	449.5
6.5°	406.4	418.8	430.7	441.3	447.6	451.2
7°	404.7	417.8	430.7	442.2	449.0	452.8
7.5°	402.8	417.0	430.7	442.8	450.3	454.4
8°	400.9	416.0	430.6	443.4	451.6	455.8
8.5°	399.1	415.0	430.5	444.0	452.7	457.2
9°	397.2	413.9	430.1	444.5	453.9	458.5
9.5°	395.2	412.9	429.9	445.0	454.9	459.9
10°	393.2	411.6	429.6	445.4	455.8	461.0
10.5°	391.2	410.5	429.3	445.7	456.8	462.1
11°	389.1	409.2	428.9	446.0	457.6	463.3
11.5°	387.0	408.0	428.4	446.2	458.3	464.2
12°	384.8	406.6	427.9	446.4	459.0	465.1
12.5°	382.6	405.3	427.3	446.5	459.7	466.0
13°	380.4	403.8	426.6	446.5	460.2	466.8
13.5°	378.2	402.4	426.0	446.4	460.7	467.4
14°	375.9	400.9	425.3	446.3	461.1	468.0
14.5°	373.5	399.4	424.4	446.2	461.4	468.7
15°	371.1	397.8	423.6	445.9	461.6	469.1
15.5°	368.7	396.2	422.7	445.6	461.8	469.5
16°	366.4	394.5	421.8	445.3	462.0	469.8
16.5°	363.9	392.9	420.8	444.8	462.0	470.1
17°	361.4	391.1	419.8	444.3	462.0	470.2
17.5°	358.8	389.3	418.6	443.8	461.9	470.3
18°	356.3	387.5	417.5	443.2	461.7	470.4
18.5°	353.7	385.6	416.4	442.5	461.5	470.3
19°	351.1	383.8	415.1	441.7	461.2	470.2
19.5°	348.5	381.9	413.8	440.9	460.8	470.0
20°	345.9	379.9	412.5	440.1	460.3	469.7
20.5°	343.2	378.0	411.1	439.2	459.8	469.4
21°	340.5	375.9	409.6	438.0	459.1	468.9

TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	332.3	369.7	405.1	434.7	456.9	467.1
23°	329.5	367.5	403.5	433.5	455.9	466.4
23.5°	326.7	365.3	401.9	432.1	455.0	465.6
24°	323.9	363.1	400.2	430.8	454.0	464.6
24.5°	321.0	360.9	398.5	429.3	452.8	463.7
25°	318.2	358.5	396.7	427.9	451.6	462.7
25.5°	315.3	356.1	394.8	426.3	450.2	461.4
26°	312.4	353.7	393.0	424.7	449.0	460.2
26.5°	309.4	351.2	391.0	423.0	447.5	458.9
27°	306.5	348.8	389.0	421.2	446.0	457.6
27.5°	303.5	346.2	387.0	419.5	444.4	456.1
28°	300.5	343.5	384.8	417.6	442.8	454.5
28.5°	297.3	340.8	382.6	415.7	441.0	452.9
29°	294.3	338.0	380.3	413.8	439.3	451.2
29.5°	291.1	335.1	378.1	411.8	437.3	449.4
30°	287.9	332.1	375.6	409.7	435.4	447.5
30.5°	284.7	329.1	373.0	407.7	433.5	445.7
31°	281.3	326.1	370.5	405.4	431.4	443.6
31.5°	278.1	322.9	367.8	403.2	429.2	441.5
32°	274.8	319.7	365.0	400.9	427.0	439.5
32.5°	271.4	316.4	362.1	398.6	424.8	437.2
33°	268.1	313.1	359.2	396.2	422.4	435.0
33.5°	264.6	309.8	356.2	393.6	420.0	432.7
34°	261.0	306.3	353.1	391.1	417.6	430.4
34.5°	257.6	303.0	349.9	388.5	415.1	428.0
35°	254.3	299.5	346.7	385.8	412.5	425.7
35.5°	250.7	295.9	343.4	383.1	410.0	423.4
36°	247.2	292.2	340.1	380.3	407.4	421.2
36.5°	243.7	288.6	336.5	377.4	404.7	418.8
37°	240.2	284.9	333.0	374.4	402.0	415.9
37.5°	236.6	281.0	329.4	371.4	399.3	412.2
38°	233.1	277.1	325.7	368.3	396.7	406.9
38.5°	229.5	273.2	321.8	365.1	394.1	401.5
39°	226.0	269.2	318.0	361.9	391.6	394.8
39.5°	222.2	265.3	313.9	358.6	388.6	387.5
40°	218.7	261.0	309.8	355.2	385.5	379.6
40.5°	215.1	256.8	305.6	351.8	380.6	371.0
41°	211.4	252.6	301.1	348.3	375.9	362.8
41.5°	207.8	248.2	296.6	344.7	369.7	353.9
42°	204.2	243.8	292.0	341.1	363.3	345.4
42.5°	200.6	239.2	287.2	337.5	355.7	336.5
43°	197.0	234.5	282.3	333.8	348.6	327.7
43.5°	193.2	229.9	277.1	330.0	340.6	318.7



TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	182.1	215.5	260.6	318.3	316.9	292.7
45.5°	178.3	210.5	254.9	314.3	308.6	283.7
46°	174.6	205.8	248.9	310.4	300.6	275.9
46.5°	170.9	200.9	243.0	306.3	292.4	267.1
47°	167.1	195.9	236.9	302.4	284.6	259.7
47.5°	163.5	191.0	230.9	297.9	276.3	251.0
48°	159.7	186.2	224.8	293.4	268.6	244.2
48.5°	156.0	181.3	218.6	288.3	260.6	236.0
49°	152.3	176.6	212.5	281.8	253.3	229.6
49.5°	148.7	171.9	206.5	275.5	245.6	221.8
50°	145.1	167.0	200.4	268.2	238.7	215.8
50.5°	141.3	162.4	194.3	260.7	231.1	208.5
51°	137.8	157.7	188.1	253.0	224.3	203.0
51.5°	134.2	153.3	182.2	244.9	217.5	196.2
52°	130.7	148.7	176.4	236.7	211.1	190.8
52.5°	127.2	144.3	170.8	229.1	204.4	184.8
53°	123.6	140.1	165.0	221.1	198.0	179.8
53.5°	120.3	136.0	159.5	213.3	192.2	174.2
54°	116.9	131.7	154.2	205.5	186.1	169.2
54.5°	113.6	127.8	149.0	198.2	180.6	164.2
55°	110.3	123.8	144.0	191.0	174.5	159.6
55.5°	107.1	120.1	139.1	183.8	169.6	155.1
56°	103.9	116.4	134.3	177.1	163.8	150.6
56.5°	100.9	112.8	129.9	170.3	159.4	146.6
57°	97.8	109.1	125.4	164.0	153.8	142.1
57.5°	94.7	105.7	121.2	157.8	149.6	138.7
58°	91.8	102.4	117.0	151.9	144.6	134.4
58.5°	89.2	99.2	113.2	146.2	140.5	131.3
59°	86.5	96.1	109.5	140.5	136.1	127.2
59.5°	83.8	93.0	105.8	135.5	131.9	124.4
60°	81.1	90.0	102.2	130.4	128.0	120.5
60.5°	78.3	87.0	98.9	125.5	124.1	117.4
61°	75.7	84.2	95.6	120.7	120.5	114.1
61.5°	73.3	81.5	92.5	116.3	116.6	111.0
62°	70.8	78.8	89.5	112.0	113.5	108.0
62.5°	68.4	76.1	86.6	108.0	109.9	105.0
63°	66.1	73.6	83.6	104.1	106.7	102.1
63.5°	63.9	71.1	80.9	100.3	103.4	99.3
64°	61.7	68.7	78.2	96.5	100.1	96.6
64.5°	59.5	66.3	75.6	93.2	97.2	93.8
65°	57.4	64.1	73.0	89.8	94.1	91.2
65.5°	55.3	61.7	70.5	86.7	91.4	88.6
66°	53.3	59.5	68.1	83.5	88.5	86.0



TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	47.6	53.2	61.3	75.0	80.4	78.7
68°	45.9	51.4	59.0	72.1	77.9	76.4
68.5°	44.1	49.4	57.0	69.6	75.4	74.0
69°	42.5	47.5	54.9	67.0	72.8	71.8
69.5°	40.7	45.7	52.9	64.5	70.4	69.6
70°	39.1	43.9	50.9	62.1	68.0	67.2
70.5°	37.5	42.0	49.0	59.7	65.7	65.0
71°	35.9	40.4	47.0	57.5	63.5	62.9
71.5°	34.5	38.6	45.3	55.2	61.2	60.7
72°	33.0	37.2	43.4	53.0	58.9	58.6
72.5°	31.6	35.6	41.6	50.9	56.7	56.5
73°	30.1	34.1	39.9	48.8	54.6	54.5
73.5°	28.8	32.5	38.1	46.8	52.5	52.3
74°	27.4	31.0	36.6	44.8	50.4	50.3
74.5°	26.2	29.5	35.0	42.8	48.4	48.4
75°	25.0	28.1	33.4	40.9	46.3	46.3
75.5°	23.7	26.6	31.8	39.0	44.3	44.4
76°	22.5	25.3	30.2	36.9	42.5	42.5
76.5°	21.3	23.9	28.7	35.2	40.5	40.5
77°	20.3	22.7	27.2	33.5	38.5	38.6
77.5°	19.3	21.3	25.8	31.9	36.7	36.9
78°	18.1	20.1	24.3	30.1	34.9	35.1
78.5°	17.1	18.9	23.0	28.5	33.1	33.2
79°	16.2	17.7	21.5	26.8	31.4	31.5
79.5°	15.2	16.6	20.2	25.2	29.5	29.6
80°	14.3	15.4	18.8	23.5	27.8	27.9
80.5°	13.4	14.4	17.6	22.0	26.0	26.1
81°	12.4	13.3	16.4	20.4	24.3	24.4
81.5°	11.5	12.2	15.1	18.8	22.7	22.7
82°	10.7	11.3	13.9	17.3	20.9	21.0
82.5°	9.7	10.3	12.7	15.8	19.4	19.4
83°	8.9	9.3	11.6	14.4	17.7	17.7
83.5°	8.1	8.4	10.5	12.9	16.2	16.1
84°	7.2	7.5	9.3	11.6	14.5	14.5
84.5°	6.4	6.6	8.3	10.3	12.9	12.9
85°	5.6	5.7	7.2	9.0	11.5	11.4
85.5°	4.8	5.0	6.2	7.9	9.9	9.8
86°	3.9	4.1	5.3	6.6	8.5	8.3
86.5°	3.2	3.4	4.3	5.5	7.1	6.7
87°	2.4	2.7	3.5	4.5	5.9	5.3
87.5°	1.6	2.0	2.7	3.3	4.8	4.2
88°	0.8	1.2	1.9	2.5	3.7	3.4
88.5°	0.2	0.5	1.0	1.7	2.8	2.6



TEST NUMBER: P775902

CATALOG NUMBER: HCDJBL510CSD-HCD8TSQH-HCD8TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

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

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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°	468.4	466.2	451.4	425.9	390.6	353.2	320.6	295.4	286.9	291.3	308.9
22°	467.8	465.6	450.5	424.7	388.8	350.7	317.5	292.0	283.3	287.9	305.6



44°	310.0	331.3	349.9	299.3	242.1	203.4	168.8	141.0	133.5	137.6	157.8
44.5°	301.1	322.6	346.5	293.9	237.0	199.4	165.3	137.9	130.7	134.7	154.5



66.5°	83.7	85.2	85.1	70.8	59.4	55.0	48.6	49.0	48.6	48.8	47.0
67°	81.2	82.6	82.1	68.3	57.3	53.0	47.0	47.6	47.1	47.4	45.6



89°	1.8	1.8	1.8	1.0	0.3	0.2	0.2	0.1	0.0	0.1	0.1
89.5°	0.9	0.9	0.9	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.0

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21.5°	337.8	373.8	408.2	437.0	458.5	468.4
22°	335.1	371.7	406.6	435.9	457.7	467.8



44°	189.5	225.1	271.8	326.2	333.0	310.0
44.5°	185.9	220.4	266.3	322.2	324.7	301.1

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66.5°	51.5	57.5	65.8	80.6	85.7	83.7
67°	49.5	55.4	63.5	77.7	83.1	81.2

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89°	0.0	0.1	0.2	0.8	1.9	1.8
89.5°	0.0	0.0	0.0	0.1	1.0	0.9

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(END OF REPORT)