

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: P775730

Luminaire Tested: HCDJBS510CSD-HCD61TRMB-1000lm-2700K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775730  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B038)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL510CSD-HCD61TRMB-1000lm-2700K  
Description: 6 INCH ROUND SHALLOW-WIDE MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1022.0 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.32  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

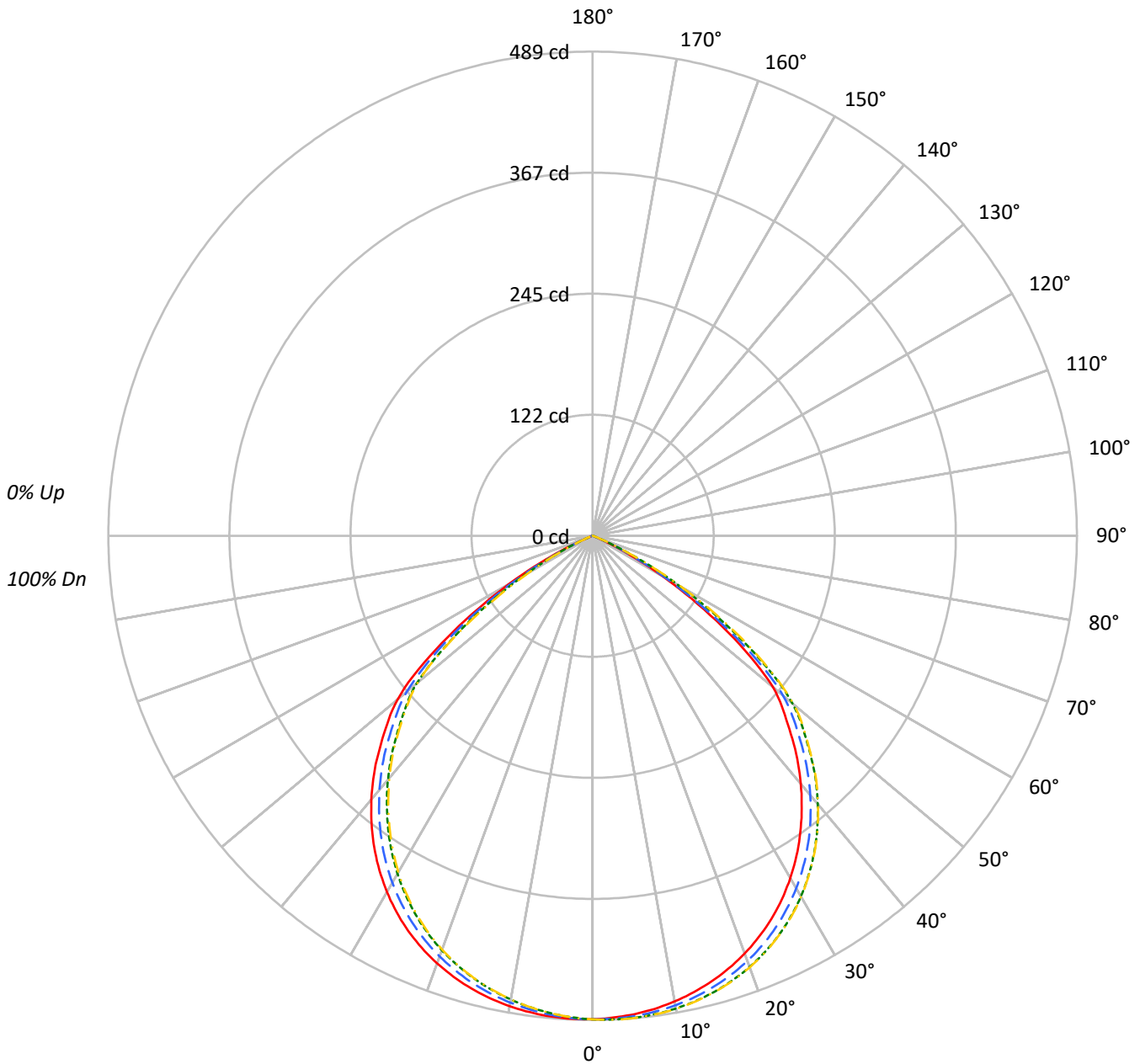
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90								
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79								
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	71	69								
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61								
5	82	71	64	58	81	70	63	58	68	62	57	66	61	56	65	60	56	54								
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48								
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43								
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39								
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35								
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	26774	26774	26774	26774
5°	26689	26887	26816	26640
10°	26580	26987	26853	26475
15°	26425	27043	26862	26271
20°	26188	27034	26801	25984
25°	25822	26911	26633	25556
30°	25270	26624	26289	24947
35°	24467	26107	25725	24092
40°	23394	25305	24868	23000
45°	21956	24080	23592	21545
50°	20238	22473	21918	19769
55°	15292	17720	17137	14824
60°	8870	11085	10657	8694
65°	2724	4203	3853	2945
70°	48	80	48	48
75°	21	42	21	21
80°	32	32	0	32
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 112.5°  
 Vertical Angle: 45°  
 Luminance: 24165 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.2	4.5
10°-20°	132.5	13.0
20°-30°	199.6	19.5
30°-40°	234.1	22.9
40°-50°	226.7	22.2
50°-60°	150.8	14.8
60°-70°	31.8	3.1
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°	378.3	37.0
0°-40°	612.5	59.9
0°-60°	990.0	96.9
0°-90°	1022.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1022.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	488	488	488	488	488	
5°	485	489	487	484	485	46
15°	466	476	473	463	466	131
25°	427	445	440	422	427	196
35°	366	390	384	360	366	228
45°	283	311	304	278	283	218
55°	160	185	179	155	160	142
65°	21	32	30	23	21	27
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°	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4	488.4
0.5°	488.1	488.1	488.4	488.7	488.6	488.7	488.7	488.6	488.3	488.2	488.3
1°	487.9	488.1	488.4	488.8	488.8	488.9	488.9	488.7	488.4	488.1	488.1
1.5°	487.7	487.9	488.4	488.7	488.9	489.0	489.0	488.8	488.4	488.1	488.0
2°	487.4	487.7	488.3	488.7	489.0	489.2	489.2	488.8	488.4	487.9	487.8
2.5°	487.1	487.5	488.1	488.7	489.0	489.2	489.2	488.8	488.3	487.8	487.5
3°	486.7	487.3	488.0	488.6	489.0	489.2	489.2	488.8	488.2	487.6	487.2
3.5°	486.4	487.0	487.8	488.5	488.9	489.2	489.2	488.8	488.0	487.3	486.8
4°	485.9	486.6	487.6	488.3	488.9	489.1	489.1	488.6	487.8	487.1	486.5
4.5°	485.5	486.3	487.3	488.1	488.7	489.0	489.0	488.5	487.6	486.8	486.1
5°	485.0	485.9	486.9	487.9	488.6	488.9	488.8	488.3	487.3	486.4	485.6
5.5°	484.5	485.4	486.6	487.7	488.4	488.7	488.6	488.0	487.0	486.0	485.1
6°	483.8	484.9	486.3	487.4	488.1	488.5	488.4	487.7	486.7	485.5	484.5
6.5°	483.2	484.4	485.8	487.0	487.9	488.2	488.1	487.4	486.3	485.1	483.9
7°	482.5	483.8	485.3	486.6	487.5	487.9	487.8	487.0	485.9	484.5	483.3
7.5°	481.8	483.2	484.8	486.2	487.2	487.6	487.5	486.6	485.3	484.0	482.7
8°	481.1	482.6	484.2	485.7	486.8	487.2	487.1	486.2	484.9	483.4	482.0
8.5°	480.2	481.9	483.6	485.2	486.3	486.8	486.7	485.7	484.3	482.7	481.2
9°	479.4	481.1	482.9	484.6	485.9	486.3	486.2	485.2	483.7	482.1	480.5
9.5°	478.5	480.3	482.2	484.0	485.3	485.8	485.7	484.6	483.1	481.3	479.6
10°	477.5	479.5	481.5	483.3	484.8	485.2	485.1	484.1	482.4	480.5	478.8
10.5°	476.6	478.6	480.7	482.6	484.1	484.6	484.5	483.4	481.7	479.7	477.9
11°	475.5	477.7	479.9	481.9	483.5	484.0	483.8	482.7	481.0	478.9	476.9
11.5°	474.5	476.7	479.0	481.0	482.8	483.3	483.1	481.9	480.1	478.0	476.0
12°	473.3	475.7	478.1	480.2	482.0	482.6	482.4	481.2	479.3	477.1	474.9
12.5°	472.2	474.6	477.1	479.3	481.2	481.8	481.6	480.4	478.5	476.1	473.9
13°	470.9	473.5	476.1	478.4	480.3	481.0	480.7	479.5	477.5	475.1	472.7
13.5°	469.7	472.3	475.1	477.4	479.5	480.1	479.9	478.6	476.5	474.0	471.5
14°	468.4	471.1	473.9	476.4	478.5	479.2	478.9	477.6	475.5	472.9	470.3
14.5°	467.0	469.9	472.8	475.4	477.5	478.2	477.9	476.6	474.4	471.7	469.1
15°	465.6	468.5	471.6	474.2	476.5	477.2	476.9	475.5	473.3	470.5	467.8
15.5°	464.1	467.2	470.4	473.1	475.4	476.1	475.9	474.5	472.1	469.3	466.5
16°	462.7	465.8	469.1	471.9	474.3	475.0	474.7	473.3	470.9	468.0	465.0
16.5°	461.1	464.3	467.7	470.7	473.1	473.8	473.5	472.1	469.7	466.6	463.5
17°	459.5	462.8	466.3	469.3	471.9	472.6	472.3	470.8	468.4	465.2	462.0
17.5°	457.9	461.3	464.9	467.9	470.6	471.4	471.1	469.6	467.0	463.7	460.4
18°	456.2	459.8	463.4	466.5	469.2	470.0	469.7	468.1	465.6	462.2	458.8
18.5°	454.4	458.1	461.9	465.1	467.9	468.6	468.3	466.7	464.1	460.7	457.2
19°	452.6	456.3	460.2	463.6	466.4	467.2	466.9	465.2	462.6	459.1	455.5
19.5°	450.8	454.6	458.6	462.0	465.0	465.8	465.4	463.7	461.0	457.5	453.8
20°	448.9	452.9	456.9	460.4	463.4	464.2	463.9	462.2	459.4	455.8	452.1
20.5°	446.9	451.0	455.1	458.8	461.8	462.6	462.3	460.5	457.8	454.0	450.1
21°	445.0	449.0	453.4	457.1	460.1	461.0	460.6	458.9	456.1	452.2	448.3



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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°	438.6	443.1	447.6	451.5	454.9	455.7	455.3	453.5	450.5	446.5	442.2
23°	436.4	441.0	445.6	449.6	453.0	453.9	453.4	451.6	448.6	444.4	440.0
23.5°	434.1	438.8	443.6	447.6	451.1	452.0	451.6	449.7	446.7	442.3	437.9
24°	431.8	436.6	441.4	445.6	449.1	450.0	449.5	447.6	444.6	440.2	435.7
24.5°	429.3	434.2	439.2	443.4	447.1	448.0	447.5	445.6	442.5	438.0	433.4
25°	426.9	431.8	436.9	441.2	444.9	445.8	445.3	443.5	440.3	435.8	431.0
25.5°	424.4	429.5	434.6	439.0	442.8	443.7	443.2	441.3	438.1	433.4	428.6
26°	421.9	427.0	432.3	436.7	440.6	441.4	441.0	439.0	435.8	431.0	426.2
26.5°	419.2	424.5	429.8	434.4	438.3	439.2	438.7	436.7	433.5	428.6	423.6
27°	416.6	421.9	427.3	432.0	435.9	436.9	436.3	434.4	431.0	426.1	421.1
27.5°	413.8	419.2	424.7	429.5	433.6	434.5	434.0	432.0	428.6	423.6	418.5
28°	411.0	416.5	422.1	426.9	431.1	431.9	431.5	429.5	426.0	420.9	415.8
28.5°	408.1	413.8	419.5	424.4	428.5	429.5	429.0	427.0	423.4	418.3	413.1
29°	405.2	410.9	416.7	421.8	425.9	426.8	426.4	424.4	420.9	415.6	410.3
29.5°	402.3	408.1	413.9	419.1	423.4	424.2	423.7	421.7	418.1	412.9	407.4
30°	399.2	405.1	411.1	416.3	420.6	421.5	421.0	419.0	415.3	409.9	404.5
30.5°	396.1	402.2	408.2	413.4	417.8	418.7	418.3	416.3	412.5	407.0	401.6
31°	393.0	399.1	405.2	410.5	415.0	415.8	415.4	413.4	409.6	404.1	398.5
31.5°	389.7	396.0	402.2	407.6	412.1	412.9	412.4	410.5	406.6	401.1	395.5
32°	386.5	392.8	399.1	404.7	409.1	410.0	409.5	407.5	403.6	398.0	392.3
32.5°	383.1	389.6	395.9	401.5	406.1	406.9	406.6	404.6	400.6	394.9	389.1
33°	379.8	386.3	392.8	398.4	403.1	403.9	403.5	401.4	397.5	391.7	385.9
33.5°	376.4	383.0	389.5	395.2	399.9	400.7	400.3	398.2	394.3	388.5	382.6
34°	372.8	379.6	386.2	392.0	396.7	397.6	397.1	395.1	391.0	385.2	379.2
34.5°	369.2	376.2	382.8	388.6	393.4	394.3	393.9	391.8	387.7	381.8	375.8
35°	365.6	372.6	379.3	385.3	390.1	390.9	390.5	388.5	384.4	378.3	372.2
35.5°	362.0	369.0	375.9	381.8	386.7	387.6	387.1	385.1	380.9	374.9	368.7
36°	358.2	365.3	372.2	378.4	383.3	384.1	383.7	381.7	377.4	371.4	365.1
36.5°	354.6	361.7	368.6	374.8	379.8	380.7	380.3	378.2	373.8	367.8	361.5
37°	350.7	358.0	364.9	371.0	376.3	377.1	376.7	374.7	370.2	364.1	357.8
37.5°	346.8	354.2	361.2	367.4	372.5	373.4	372.9	371.0	366.5	360.5	354.2
38°	342.8	350.4	357.4	363.6	368.9	369.7	369.3	367.2	362.9	356.6	350.4
38.5°	339.0	346.5	353.7	359.8	365.2	366.0	365.7	363.5	359.1	353.0	346.5
39°	335.1	342.7	349.8	356.1	361.4	362.2	361.9	359.8	355.2	349.1	342.7
39.5°	331.0	338.7	345.8	352.1	357.5	358.4	358.0	355.9	351.4	345.2	338.7
40°	326.9	334.6	341.9	348.1	353.6	354.5	354.1	352.1	347.5	341.2	334.8
40.5°	322.8	330.6	337.8	344.1	349.6	350.6	350.2	348.0	343.5	337.3	330.8
41°	318.6	326.4	333.7	339.9	345.6	346.6	346.2	344.0	339.5	333.2	326.7
41.5°	314.3	322.2	329.5	335.9	341.4	342.5	342.2	339.9	335.3	329.1	322.6
42°	310.1	317.9	325.3	331.6	337.3	338.4	338.0	335.8	331.2	324.9	318.4
42.5°	305.8	313.8	321.0	327.3	333.1	334.2	333.9	331.5	326.9	320.8	314.2
43°	301.3	309.4	316.6	322.9	328.8	329.8	329.6	327.2	322.6	316.3	309.9
43.5°	296.9	304.8	312.2	318.4	324.3	325.5	325.2	322.8	318.2	311.9	305.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	283.2	291.1	298.3	304.5	310.6	311.7	311.6	309.0	304.3	298.1	291.7
45.5°	278.6	286.4	293.7	299.8	305.9	307.2	307.0	304.3	299.6	293.4	287.0
46°	274.1	281.9	289.1	295.2	301.3	302.7	302.4	299.8	295.0	288.7	282.5
46.5°	269.7	277.5	284.6	290.7	296.8	298.4	298.1	295.3	290.3	284.2	277.9
47°	265.4	273.1	280.2	286.2	292.3	293.9	293.7	290.8	285.8	279.6	273.4
47.5°	261.1	268.8	275.8	281.8	287.9	289.5	289.3	286.4	281.4	275.2	269.1
48°	256.8	264.4	271.3	277.3	283.5	285.2	285.0	282.1	277.0	270.8	264.8
48.5°	252.6	260.0	267.0	272.9	279.1	281.1	280.7	277.7	272.5	266.5	260.5
49°	248.0	255.3	262.0	267.9	274.2	276.2	275.9	272.9	267.7	261.6	255.6
49.5°	243.0	250.3	256.8	262.5	269.0	270.9	270.6	267.6	262.4	256.3	250.5
50°	237.3	244.8	251.1	256.5	263.5	265.4	265.2	262.1	257.0	250.9	244.9
50.5°	231.0	238.0	244.8	250.4	257.4	259.1	258.6	255.9	251.0	244.6	238.6
51°	224.0	231.0	237.8	243.6	250.7	252.3	251.9	249.4	244.4	237.8	231.7
51.5°	216.6	223.5	230.3	236.4	243.6	245.1	244.9	242.1	237.5	230.8	224.4
52°	208.7	215.9	222.5	228.6	235.9	237.8	237.6	234.7	229.9	223.2	217.0
52.5°	201.0	208.1	214.5	220.0	228.0	230.4	230.2	227.0	221.7	215.4	209.4
53°	193.0	199.9	206.2	211.4	219.7	222.3	222.3	219.0	213.4	207.4	201.6
53.5°	184.9	191.7	197.8	202.7	211.2	214.5	214.6	210.7	204.8	199.2	193.6
54°	176.6	183.4	189.0	193.8	202.6	206.4	206.5	202.4	196.3	190.9	185.3
54.5°	168.4	175.1	180.2	184.9	193.9	198.1	198.3	193.8	187.6	182.1	177.2
55°	160.0	166.6	171.3	175.9	185.4	190.0	190.2	185.3	179.3	173.7	169.0
55.5°	151.6	157.9	162.4	167.0	176.7	181.2	181.7	176.5	170.6	164.9	160.5
56°	143.4	149.5	153.4	157.9	167.8	172.6	173.1	168.0	162.2	156.1	152.3
56.5°	135.2	141.0	144.5	149.5	159.1	163.9	164.4	159.3	153.4	147.5	143.9
57°	126.8	132.5	135.6	140.7	150.5	155.2	155.8	150.9	145.2	138.8	135.6
57.5°	118.8	124.0	127.0	132.1	142.0	146.4	147.1	142.4	136.7	130.5	127.3
58°	110.9	115.7	118.4	123.8	133.5	137.7	138.4	134.0	128.6	122.0	119.1
58.5°	103.2	107.4	109.9	115.6	125.2	129.1	129.8	125.8	120.6	113.9	111.1
59°	95.6	99.3	101.9	107.6	117.0	120.5	121.2	117.8	112.6	105.9	103.3
59.5°	88.0	91.1	94.0	99.7	109.0	112.2	112.5	109.7	104.6	98.2	95.7
60°	80.9	83.4	86.5	91.9	101.1	104.0	104.1	101.8	97.2	91.0	88.2
60.5°	73.6	75.8	78.9	84.3	93.7	96.2	96.4	94.3	89.8	83.8	80.7
61°	66.6	68.4	71.6	77.0	86.3	88.5	88.6	86.8	82.5	76.6	73.2
61.5°	59.8	61.4	64.8	69.9	78.9	80.7	80.8	79.3	75.1	69.3	65.7
62°	53.3	54.8	58.0	63.0	71.4	72.9	72.9	71.7	67.6	62.7	59.2
62.5°	47.1	48.5	51.7	56.4	64.0	65.2	65.1	64.2	60.8	56.2	52.7
63°	41.2	42.4	45.5	50.3	57.0	58.0	57.9	57.2	54.3	50.1	46.6
63.5°	35.4	36.8	39.8	44.2	50.4	51.3	51.2	50.6	48.1	44.2	40.9
64°	30.6	32.3	34.3	38.5	44.1	44.8	44.8	44.2	41.8	38.6	35.6
64.5°	25.8	27.9	29.9	33.5	38.1	38.7	38.6	38.0	35.7	33.4	30.5
65°	21.0	23.4	25.4	28.8	32.4	32.9	32.9	32.3	29.7	28.3	25.9
65.5°	16.3	19.0	20.9	24.0	26.9	27.6	27.6	26.8	24.0	23.6	21.6
66°	11.5	14.5	16.5	19.3	21.9	22.5	22.5	21.7	18.7	19.2	17.6





TEST NUMBER: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	3.7	6.2	7.2	7.9	11.4	11.8	11.8	11.2	8.4	10.1	9.3
68°	2.8	4.3	5.0	5.3	8.4	8.7	8.7	8.3	5.0	7.6	6.5
68.5°	2.0	3.5	3.1	3.3	5.4	5.6	5.6	5.3	1.6	5.0	3.8
69°	1.1	2.7	2.4	2.5	2.5	2.6	2.5	2.5	0.5	2.4	2.2
69.5°	0.3	1.9	1.7	1.8	1.2	1.2	1.2	1.2	0.3	1.2	1.1
70°	0.3	1.1	1.0	1.0	0.5	0.5	0.5	0.5	0.3	0.5	0.5
70.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
71°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
71.5°	0.2	0.2	0.2	0.2	0.3	0.3	0.3	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°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74.5°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
75°	0.1	0.1	0.1	0.1	0.2	0.2	0.2	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°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	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	0.0	0.1	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: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-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: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	488.4	488.4	488.4	488.4	488.4	488.4
0.5°	488.3	488.2	488.2	488.3	488.2	488.1
1°	488.1	487.9	487.9	488.0	488.0	487.9
1.5°	487.9	487.6	487.5	487.7	487.7	487.7
2°	487.6	487.2	487.1	487.3	487.3	487.4
2.5°	487.3	486.7	486.7	486.8	486.9	487.1
3°	486.9	486.3	486.2	486.4	486.5	486.7
3.5°	486.5	485.8	485.7	485.9	486.1	486.4
4°	486.0	485.3	485.1	485.3	485.6	485.9
4.5°	485.5	484.7	484.5	484.7	485.0	485.5
5°	485.0	484.1	483.9	484.1	484.4	485.0
5.5°	484.4	483.4	483.2	483.4	483.8	484.5
6°	483.8	482.7	482.5	482.7	483.1	483.8
6.5°	483.1	482.0	481.7	481.9	482.5	483.2
7°	482.4	481.2	480.9	481.2	481.7	482.5
7.5°	481.7	480.3	480.1	480.3	480.9	481.8
8°	480.9	479.5	479.1	479.4	480.1	481.1
8.5°	480.0	478.6	478.2	478.5	479.2	480.2
9°	479.2	477.6	477.2	477.5	478.2	479.4
9.5°	478.2	476.7	476.3	476.5	477.3	478.5
10°	477.3	475.6	475.2	475.5	476.3	477.5
10.5°	476.3	474.5	474.1	474.4	475.2	476.6
11°	475.3	473.4	472.9	473.3	474.1	475.5
11.5°	474.2	472.3	471.7	472.0	473.0	474.5
12°	473.1	471.0	470.5	470.8	471.8	473.3
12.5°	471.9	469.8	469.2	469.5	470.6	472.2
13°	470.7	468.5	467.9	468.2	469.3	470.9
13.5°	469.4	467.2	466.5	466.8	467.9	469.7
14°	468.2	465.8	465.1	465.4	466.6	468.4
14.5°	466.8	464.3	463.7	464.0	465.1	467.0
15°	465.4	462.9	462.1	462.5	463.7	465.6
15.5°	464.0	461.3	460.5	460.9	462.1	464.1
16°	462.4	459.8	458.9	459.3	460.6	462.7
16.5°	461.0	458.1	457.3	457.7	459.0	461.1
17°	459.4	456.4	455.6	455.9	457.3	459.5
17.5°	457.7	454.7	453.8	454.2	455.6	457.9
18°	456.1	452.9	452.0	452.4	453.8	456.2
18.5°	454.3	451.1	450.1	450.5	452.0	454.4
19°	452.5	449.3	448.2	448.6	450.1	452.6
19.5°	450.7	447.4	446.2	446.6	448.3	450.8
20°	448.8	445.4	444.2	444.6	446.3	448.9
20.5°	446.9	443.3	442.1	442.5	444.2	446.9
21°	444.9	441.2	440.0	440.3	442.1	445.0

TEST NUMBER: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	438.5	434.6	433.2	433.6	435.5	438.6
23°	436.4	432.3	430.8	431.2	433.2	436.4
23.5°	434.1	430.0	428.5	428.8	430.9	434.1
24°	431.8	427.6	426.0	426.3	428.4	431.8
24.5°	429.4	425.0	423.5	423.8	425.9	429.3
25°	427.0	422.5	420.9	421.2	423.4	426.9
25.5°	424.5	420.0	418.2	418.6	420.8	424.4
26°	422.0	417.3	415.5	415.9	418.2	421.9
26.5°	419.3	414.5	412.7	413.1	415.4	419.2
27°	416.6	411.7	410.0	410.3	412.7	416.6
27.5°	414.0	409.0	407.2	407.4	409.9	413.8
28°	411.2	406.1	404.2	404.5	407.0	411.0
28.5°	408.3	403.1	401.2	401.5	404.0	408.1
29°	405.5	400.2	398.2	398.6	401.1	405.2
29.5°	402.6	397.1	395.1	395.4	398.1	402.3
30°	399.5	394.1	392.0	392.3	394.9	399.2
30.5°	396.5	390.9	388.7	389.0	391.8	396.1
31°	393.4	387.6	385.5	385.8	388.5	393.0
31.5°	390.2	384.4	382.1	382.4	385.2	389.7
32°	386.9	381.1	378.8	379.1	381.9	386.5
32.5°	383.7	377.7	375.4	375.6	378.6	383.1
33°	380.3	374.3	371.8	372.1	375.1	379.8
33.5°	377.0	370.8	368.3	368.7	371.5	376.4
34°	373.4	367.3	364.8	365.0	368.0	372.8
34.5°	370.0	363.6	361.1	361.4	364.4	369.2
35°	366.3	360.0	357.4	357.8	360.7	365.6
35.5°	362.8	356.3	353.8	354.1	357.0	362.0
36°	359.2	352.7	350.1	350.4	353.4	358.2
36.5°	355.6	348.9	346.4	346.6	349.7	354.6
37°	351.8	345.1	342.6	342.8	345.8	350.7
37.5°	348.0	341.3	338.6	339.0	342.0	346.8
38°	344.2	337.4	334.8	335.1	338.0	342.8
38.5°	340.2	333.5	330.9	331.2	334.1	339.0
39°	336.4	329.5	327.0	327.2	330.2	335.1
39.5°	332.4	325.6	323.0	323.3	326.2	331.0
40°	328.4	321.4	319.0	319.2	322.0	326.9
40.5°	324.4	317.4	314.9	315.2	317.9	322.8
41°	320.2	313.2	310.8	311.1	313.8	318.6
41.5°	316.1	309.0	306.5	306.9	309.6	314.3
42°	311.9	304.8	302.4	302.7	305.4	310.1
42.5°	307.7	300.5	298.2	298.4	301.1	305.8
43°	303.4	296.1	293.7	294.1	296.6	301.3
43.5°	298.9	291.6	289.3	289.6	292.1	296.9



TEST NUMBER: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	285.3	277.9	275.8	276.0	278.4	283.2
45.5°	280.7	273.4	271.2	271.5	273.8	278.6
46°	276.2	268.9	266.7	267.0	269.4	274.1
46.5°	271.6	264.6	262.4	262.6	265.0	269.7
47°	267.3	260.3	258.2	258.4	260.6	265.4
47.5°	263.0	256.0	253.9	254.2	256.3	261.1
48°	258.8	251.8	249.6	250.0	252.1	256.8
48.5°	254.5	247.5	245.4	245.6	247.8	252.6
49°	249.9	242.8	240.7	241.0	243.3	248.0
49.5°	244.9	237.7	235.8	236.1	238.3	243.0
50°	239.4	231.8	230.0	230.6	232.9	237.3
50.5°	232.9	225.2	223.5	224.2	226.4	231.0
51°	226.0	218.0	216.5	217.1	219.5	224.0
51.5°	218.6	210.8	209.1	209.6	212.3	216.6
52°	211.3	203.1	201.4	201.9	204.5	208.7
52.5°	203.6	195.3	193.6	193.9	196.4	201.0
53°	195.9	187.2	185.3	185.6	188.3	193.0
53.5°	187.9	179.3	177.0	177.4	180.1	184.9
54°	180.2	171.3	168.7	169.0	171.7	176.6
54.5°	172.0	163.2	160.6	160.7	163.5	168.4
55°	164.1	155.1	152.2	152.3	155.1	160.0
55.5°	155.8	147.3	144.0	143.8	146.8	151.6
56°	147.9	139.4	135.8	135.3	138.7	143.4
56.5°	139.7	131.6	127.8	127.2	130.7	135.2
57°	131.7	123.6	119.8	119.0	122.6	126.8
57.5°	123.8	116.0	111.9	111.1	114.7	118.8
58°	116.0	108.4	104.3	103.5	107.0	110.9
58.5°	108.2	101.0	96.8	95.8	99.2	103.2
59°	100.5	93.6	89.5	88.5	92.0	95.6
59.5°	93.2	86.3	82.5	81.4	84.8	88.0
60°	85.8	79.3	75.4	74.5	77.7	80.9
60.5°	78.5	72.3	68.7	67.9	70.8	73.6
61°	71.1	65.5	62.3	61.6	64.2	66.6
61.5°	64.4	59.2	56.3	55.6	57.8	59.8
62°	57.8	52.9	50.5	50.1	51.7	53.3
62.5°	51.4	46.8	45.0	44.6	45.8	47.1
63°	45.2	41.2	39.8	39.5	40.1	41.2
63.5°	39.4	35.8	34.7	34.5	34.8	35.4
64°	33.9	31.4	30.6	30.4	30.5	30.6
64.5°	28.8	27.0	26.5	26.4	26.2	25.8
65°	24.1	22.7	22.4	22.3	21.9	21.0
65.5°	19.8	18.3	18.3	18.3	17.6	16.3
66°	15.7	14.0	14.8	15.0	14.0	11.5



TEST NUMBER: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	8.2	5.8	6.6	6.8	5.9	3.7
68°	5.7	4.0	4.6	4.7	4.1	2.8
68.5°	3.3	3.1	2.9	3.0	3.1	2.0
69°	2.0	2.2	2.2	2.3	2.2	1.1
69.5°	1.0	1.2	1.6	1.6	1.2	0.3
70°	0.5	0.3	0.9	0.9	0.3	0.3
70.5°	0.3	0.3	0.3	0.3	0.3	0.3
71°	0.2	0.2	0.2	0.2	0.2	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	0.2
73.5°	0.2	0.2	0.2	0.2	0.2	0.2
74°	0.2	0.2	0.2	0.2	0.2	0.2
74.5°	0.2	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	0.1	0.1
80.5°	0.1	0.1	0.1	0.1	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: P775730

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-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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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°	442.8	447.1	451.5	455.3	458.5	459.3	458.9	457.2	454.3	450.3	446.3
22°	440.8	445.1	449.6	453.5	456.7	457.6	457.1	455.3	452.5	448.4	444.3



44°	292.3	300.2	307.4	313.9	319.7	320.9	320.7	318.2	313.5	307.4	300.9
44.5°	287.7	295.7	302.9	309.2	315.2	316.6	316.0	313.7	308.9	302.8	296.3



66.5°	8.3	11.3	13.0	14.6	17.4	18.0	18.0	17.1	15.3	15.3	14.8
67°	5.7	8.5	9.9	11.0	14.4	14.9	14.9	14.1	11.9	12.7	12.1



89°	0.0	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	0.0



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21.5°	442.8	439.1	437.8	438.1	440.0	442.8
22°	440.7	436.9	435.6	435.9	437.8	440.8



44°	294.4	287.0	284.8	285.0	287.6	292.3
44.5°	289.9	282.5	280.3	280.5	283.0	287.7



66.5°	13.2	10.7	11.8	11.8	10.9	8.3
67°	10.7	8.0	9.0	9.1	8.2	5.7

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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)