

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: P775732

Luminaire Tested: HCDJBS510CSD-HCD61TRMB-1000lm-3500K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775732  
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-3500K  
Description: 6 INCH ROUND SHALLOW-WIDE MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1058.0 lumens  
Efficiency: N/A  
Efficacy: 105.8 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

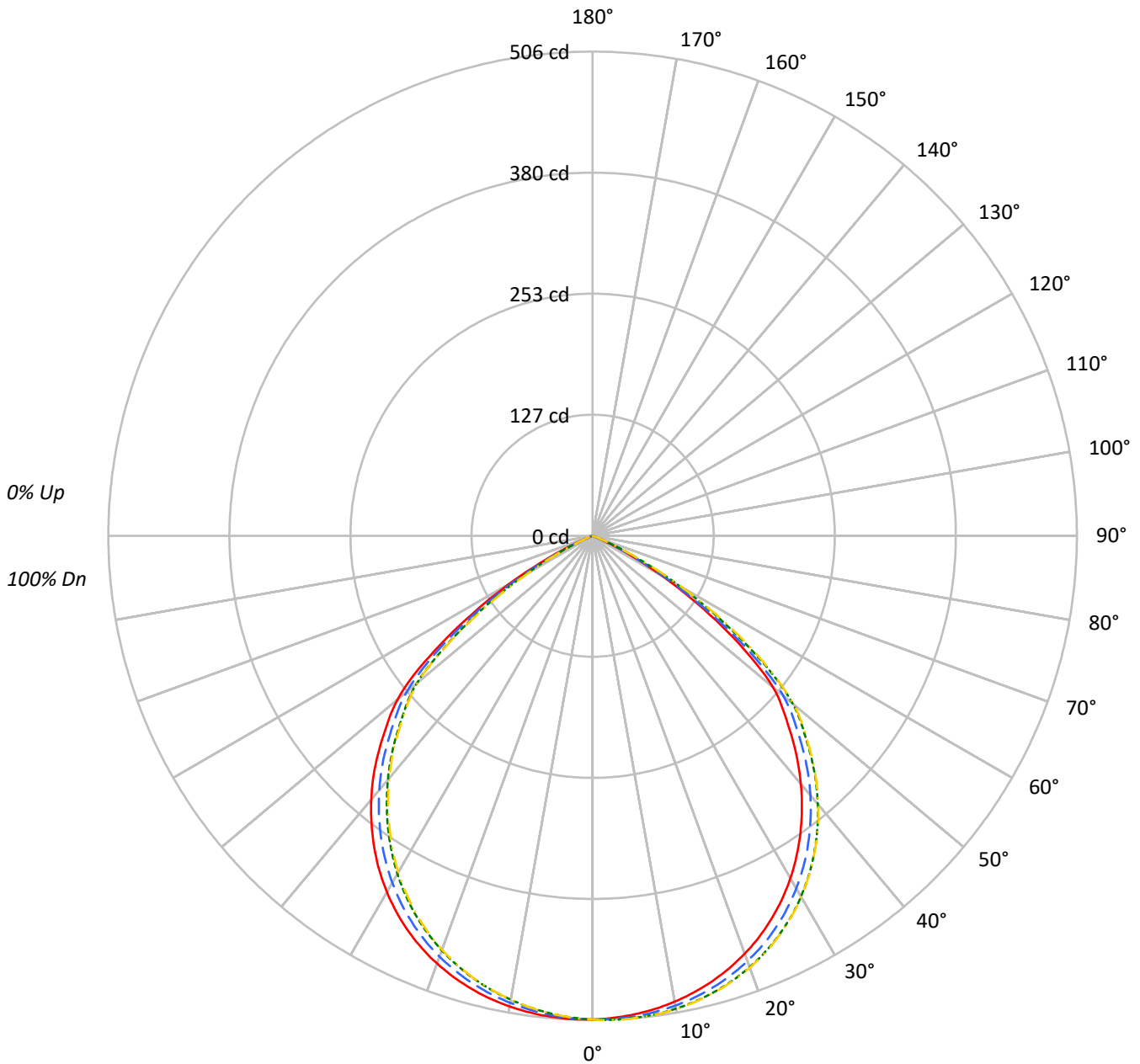
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-3500K

### 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	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	95	93	92	90	90	90	90	90	90		
	2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79	79	79	79	79	79		
	3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	71	69	69	69	69	69	69		
	4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61	61	61	61	61	61		
	5	82	71	64	58	81	70	63	58	68	62	57	66	61	56	65	60	56	54	54	54	54	54	54		
	6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48	48	48	48	48	48		
	7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43	43	43	43	43	43		
	8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39	39	39	39	39	39		
	9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35	35	35		
	10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32	32	32		

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

	0°	90°	180°	270°
0°	27717	27717	27717	27717
5°	27630	27834	27762	27581
10°	27516	27939	27800	27410
15°	27355	27997	27809	27197
20°	27110	27985	27746	26900
25°	26729	27860	27570	26457
30°	26156	27561	27213	25820
35°	25330	27024	26629	24942
40°	24217	26199	25748	23809
45°	22731	24933	24421	22305
50°	20946	23266	22686	20460
55°	15827	18351	17739	15350
60°	9177	11468	11030	8991
65°	2828	4358	3995	3048
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: 25018 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.9	4.5
10°-20°	137.2	13.0
20°-30°	206.6	19.5
30°-40°	242.4	22.9
40°-50°	234.7	22.2
50°-60°	156.1	14.8
60°-70°	32.9	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°	391.7	37.0
0°-40°	634.0	59.9
0°-60°	1024.9	96.9
0°-90°	1058.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	506	506	506	506	506	
5°	502	506	504	501	502	48
15°	482	493	490	479	482	136
25°	442	461	456	437	442	203
35°	378	404	398	373	378	236
45°	293	322	315	288	293	226
55°	166	192	186	161	166	147
65°	22	34	31	24	22	28
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°	505.6	505.6	505.6	505.6	505.6	505.6	505.6	505.6	505.6	505.6	505.6
0.5°	505.3	505.3	505.6	505.9	505.8	505.9	505.9	505.8	505.5	505.4	505.5
1°	505.1	505.3	505.6	506.0	506.0	506.2	506.2	505.9	505.6	505.3	505.3
1.5°	504.9	505.1	505.6	505.9	506.2	506.3	506.3	506.0	505.6	505.3	505.2
2°	504.6	504.9	505.5	505.9	506.3	506.5	506.5	506.0	505.6	505.1	505.0
2.5°	504.3	504.7	505.3	505.9	506.3	506.5	506.5	506.0	505.5	505.0	504.7
3°	503.9	504.5	505.2	505.8	506.3	506.5	506.5	506.0	505.4	504.8	504.4
3.5°	503.6	504.2	505.0	505.7	506.2	506.5	506.5	506.0	505.2	504.5	504.0
4°	503.0	503.8	504.8	505.5	506.2	506.4	506.4	505.8	505.0	504.3	503.7
4.5°	502.6	503.5	504.5	505.3	505.9	506.3	506.3	505.7	504.8	504.0	503.3
5°	502.1	503.0	504.1	505.1	505.8	506.2	506.0	505.5	504.5	503.6	502.7
5.5°	501.6	502.5	503.8	504.9	505.6	505.9	505.8	505.2	504.2	503.1	502.2
6°	500.9	502.0	503.5	504.6	505.3	505.7	505.6	504.9	503.9	502.6	501.6
6.5°	500.2	501.5	502.9	504.2	505.1	505.4	505.3	504.6	503.5	502.2	501.0
7°	499.5	500.9	502.4	503.8	504.7	505.1	505.0	504.2	503.0	501.6	500.4
7.5°	498.8	500.2	501.9	503.4	504.4	504.8	504.7	503.8	502.4	501.1	499.7
8°	498.1	499.6	501.3	502.8	504.0	504.4	504.3	503.4	502.0	500.5	499.0
8.5°	497.1	498.9	500.7	502.3	503.5	504.0	503.9	502.8	501.4	499.7	498.2
9°	496.3	498.1	499.9	501.7	503.0	503.5	503.4	502.3	500.8	499.1	497.5
9.5°	495.4	497.2	499.2	501.1	502.4	502.9	502.8	501.7	500.1	498.3	496.5
10°	494.3	496.4	498.5	500.4	501.9	502.3	502.2	501.2	499.4	497.5	495.7
10.5°	493.4	495.5	497.7	499.6	501.2	501.7	501.6	500.5	498.7	496.6	494.8
11°	492.3	494.6	496.8	498.9	500.6	501.1	500.9	499.7	498.0	495.8	493.7
11.5°	491.2	493.5	495.9	498.0	499.8	500.4	500.1	498.9	497.0	494.9	492.8
12°	490.0	492.5	495.0	497.1	499.0	499.6	499.4	498.2	496.2	493.9	491.7
12.5°	488.9	491.3	493.9	496.2	498.2	498.8	498.6	497.3	495.4	492.9	490.6
13°	487.5	490.2	492.9	495.3	497.2	498.0	497.7	496.4	494.3	491.9	489.4
13.5°	486.3	489.0	491.9	494.2	496.4	497.0	496.8	495.5	493.3	490.7	488.1
14°	484.9	487.7	490.6	493.2	495.4	496.1	495.8	494.4	492.3	489.6	486.9
14.5°	483.5	486.5	489.5	492.2	494.3	495.1	494.8	493.4	491.1	488.3	485.6
15°	482.0	485.0	488.2	490.9	493.3	494.0	493.7	492.3	490.0	487.1	484.3
15.5°	480.5	483.7	487.0	489.8	492.2	492.9	492.7	491.2	488.7	485.8	482.9
16°	479.0	482.2	485.6	488.5	491.0	491.8	491.4	490.0	487.5	484.5	481.4
16.5°	477.4	480.7	484.2	487.3	489.8	490.5	490.2	488.7	486.3	483.1	479.8
17°	475.7	479.1	482.7	485.8	488.5	489.3	489.0	487.4	484.9	481.6	478.3
17.5°	474.0	477.6	481.3	484.4	487.2	488.0	487.7	486.2	483.5	480.0	476.6
18°	472.3	476.0	479.7	482.9	485.7	486.6	486.3	484.6	482.0	478.5	475.0
18.5°	470.4	474.2	478.2	481.5	484.4	485.1	484.8	483.2	480.5	476.9	473.3
19°	468.5	472.4	476.4	479.9	482.8	483.7	483.4	481.6	478.9	475.3	471.6
19.5°	466.7	470.6	474.8	478.3	481.4	482.2	481.8	480.0	477.3	473.6	469.8
20°	464.7	468.9	473.0	476.6	479.7	480.6	480.3	478.5	475.6	471.9	468.0
20.5°	462.6	466.9	471.1	475.0	478.1	478.9	478.6	476.7	473.9	470.0	466.0
21°	460.7	464.8	469.4	473.2	476.3	477.3	476.8	475.1	472.2	468.1	464.1



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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°	454.0	458.7	463.4	467.4	470.9	471.8	471.3	469.5	466.4	462.2	457.8
23°	451.8	456.5	461.3	465.4	469.0	469.9	469.4	467.5	464.4	460.1	455.5
23.5°	449.4	454.3	459.2	463.4	467.0	467.9	467.5	465.5	462.4	457.9	453.3
24°	447.0	452.0	456.9	461.3	464.9	465.9	465.3	463.4	460.3	455.7	451.0
24.5°	444.4	449.5	454.7	459.0	462.9	463.8	463.3	461.3	458.1	453.4	448.7
25°	441.9	447.0	452.3	456.7	460.6	461.5	461.0	459.1	455.8	451.1	446.2
25.5°	439.3	444.6	449.9	454.5	458.4	459.3	458.8	456.8	453.5	448.7	443.7
26°	436.7	442.0	447.5	452.1	456.1	456.9	456.5	454.5	451.1	446.2	441.2
26.5°	433.9	439.4	444.9	449.7	453.7	454.7	454.1	452.1	448.8	443.7	438.5
27°	431.3	436.7	442.3	447.2	451.2	452.3	451.7	449.7	446.2	441.1	435.9
27.5°	428.4	433.9	439.6	444.6	448.9	449.8	449.3	447.2	443.7	438.5	433.2
28°	425.5	431.2	437.0	441.9	446.3	447.1	446.7	444.6	441.0	435.7	430.4
28.5°	422.5	428.4	434.3	439.3	443.6	444.6	444.1	442.0	438.3	433.0	427.6
29°	419.4	425.4	431.4	436.6	440.9	441.8	441.4	439.3	435.7	430.2	424.7
29.5°	416.4	422.5	428.5	433.8	438.3	439.1	438.6	436.5	432.8	427.4	421.7
30°	413.2	419.3	425.6	430.9	435.4	436.3	435.8	433.7	429.9	424.3	418.7
30.5°	410.0	416.3	422.6	427.9	432.5	433.4	433.0	430.9	427.0	421.3	415.7
31°	406.8	413.1	419.4	424.9	429.6	430.4	430.0	427.9	424.0	418.3	412.5
31.5°	403.4	409.9	416.3	421.9	426.6	427.4	426.9	424.9	420.9	415.2	409.4
32°	400.1	406.6	413.1	418.9	423.5	424.4	423.9	421.8	417.8	412.0	406.1
32.5°	396.6	403.3	409.8	415.6	420.4	421.2	420.9	418.8	414.7	408.8	402.8
33°	393.1	399.9	406.6	412.4	417.3	418.1	417.7	415.5	411.5	405.5	399.5
33.5°	389.6	396.4	403.2	409.1	414.0	414.8	414.4	412.2	408.2	402.1	396.0
34°	386.0	392.9	399.8	405.8	410.6	411.6	411.1	409.0	404.7	398.7	392.5
34.5°	382.3	389.4	396.2	402.2	407.2	408.2	407.7	405.6	401.3	395.2	389.0
35°	378.5	385.8	392.6	398.8	403.8	404.6	404.2	402.1	397.9	391.6	385.4
35.5°	374.8	382.0	389.1	395.2	400.3	401.2	400.7	398.6	394.3	388.1	381.7
36°	370.9	378.2	385.4	391.7	396.8	397.6	397.2	395.1	390.6	384.5	378.0
36.5°	367.1	374.5	381.6	388.0	393.1	394.1	393.7	391.5	387.0	380.8	374.3
37°	363.1	370.7	377.8	384.1	389.5	390.3	389.9	387.9	383.3	377.0	370.4
37.5°	359.1	366.7	374.0	380.4	385.7	386.6	386.1	384.1	379.5	373.2	366.7
38°	354.9	362.8	370.0	376.5	381.9	382.8	382.4	380.2	375.7	369.2	362.8
38.5°	351.0	358.7	366.2	372.5	378.1	378.9	378.6	376.4	371.8	365.5	358.7
39°	346.9	354.8	362.2	368.7	374.2	375.0	374.7	372.5	367.8	361.4	354.8
39.5°	342.7	350.7	358.0	364.5	370.1	371.1	370.7	368.5	363.8	357.4	350.7
40°	338.4	346.4	354.0	360.4	366.1	367.0	366.6	364.5	359.8	353.3	346.6
40.5°	334.2	342.3	349.7	356.3	362.0	363.0	362.6	360.3	355.6	349.2	342.5
41°	329.8	337.9	345.5	351.9	357.8	358.8	358.4	356.2	351.5	345.0	338.2
41.5°	325.4	333.6	341.1	347.8	353.5	354.6	354.3	351.9	347.1	340.7	334.0
42°	321.0	329.1	336.8	343.3	349.2	350.4	349.9	347.7	342.9	336.4	329.6
42.5°	316.6	324.9	332.3	338.9	344.9	346.0	345.7	343.2	338.4	332.1	325.3
43°	311.9	320.3	327.8	334.3	340.4	341.4	341.2	338.7	334.0	327.5	320.8
43.5°	307.4	315.5	323.2	329.6	335.7	337.0	336.7	334.2	329.4	322.9	316.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	293.2	301.4	308.8	315.2	321.6	322.7	322.6	319.9	315.0	308.6	302.0
45.5°	288.4	296.5	304.0	310.4	316.7	318.0	317.8	315.0	310.2	303.7	297.1
46°	283.7	291.8	299.3	305.6	311.9	313.4	313.1	310.4	305.4	298.9	292.4
46.5°	279.2	287.3	294.6	300.9	307.3	308.9	308.6	305.7	300.5	294.2	287.7
47°	274.7	282.7	290.1	296.3	302.6	304.3	304.0	301.0	295.9	289.4	283.0
47.5°	270.3	278.2	285.5	291.7	298.0	299.7	299.5	296.5	291.3	284.9	278.6
48°	265.8	273.7	280.8	287.1	293.5	295.2	295.0	292.0	286.7	280.3	274.1
48.5°	261.5	269.1	276.4	282.5	288.9	291.0	290.6	287.5	282.1	275.9	269.7
49°	256.7	264.3	271.2	277.3	283.8	285.9	285.6	282.5	277.1	270.8	264.6
49.5°	251.5	259.1	265.8	271.7	278.5	280.4	280.1	277.0	271.6	265.3	259.3
50°	245.6	253.4	259.9	265.5	272.8	274.7	274.5	271.3	266.0	259.7	253.5
50.5°	239.1	246.3	253.4	259.2	266.4	268.2	267.7	264.9	259.8	253.2	247.0
51°	231.9	239.1	246.1	252.1	259.5	261.2	260.7	258.2	253.0	246.1	239.8
51.5°	224.3	231.4	238.4	244.7	252.1	253.7	253.5	250.6	245.8	238.9	232.3
52°	216.1	223.6	230.4	236.6	244.2	246.1	245.9	242.9	238.0	231.1	224.7
52.5°	208.1	215.5	222.1	227.8	236.0	238.5	238.3	234.9	229.6	223.0	216.8
53°	199.8	207.0	213.5	218.9	227.5	230.2	230.2	226.8	221.0	214.7	208.7
53.5°	191.4	198.5	204.8	209.9	218.7	222.1	222.2	218.2	212.1	206.3	200.5
54°	182.8	189.9	195.7	200.7	209.8	213.7	213.8	209.6	203.2	197.7	191.9
54.5°	174.3	181.3	186.6	191.4	200.8	205.1	205.3	200.7	194.2	188.5	183.5
55°	165.6	172.5	177.4	182.1	192.0	196.7	196.9	191.9	185.6	179.8	175.0
55.5°	156.9	163.5	168.1	172.9	182.9	187.6	188.1	182.7	176.6	170.7	166.2
56°	148.4	154.8	158.8	163.5	173.7	178.7	179.2	173.9	167.9	161.6	157.7
56.5°	140.0	146.0	149.6	154.8	164.7	169.7	170.2	164.9	158.8	152.7	149.0
57°	131.3	137.2	140.4	145.7	155.8	160.7	161.3	156.2	150.3	143.7	140.4
57.5°	123.0	128.4	131.5	136.7	147.0	151.6	152.3	147.4	141.5	135.1	131.8
58°	114.8	119.8	122.6	128.1	138.2	142.5	143.3	138.7	133.1	126.3	123.3
58.5°	106.8	111.2	113.7	119.6	129.6	133.6	134.4	130.2	124.8	117.9	115.0
59°	98.9	102.8	105.5	111.4	121.1	124.7	125.5	121.9	116.5	109.6	106.9
59.5°	91.1	94.3	97.3	103.2	112.8	116.1	116.4	113.5	108.3	101.6	99.0
60°	83.7	86.3	89.5	95.1	104.6	107.6	107.7	105.4	100.6	94.2	91.3
60.5°	76.2	78.4	81.6	87.2	97.0	99.6	99.8	97.6	92.9	86.7	83.5
61°	69.0	70.9	74.2	79.7	89.3	91.6	91.7	89.8	85.4	79.2	75.8
61.5°	61.9	63.6	67.1	72.4	81.6	83.5	83.6	82.0	77.7	71.8	68.1
62°	55.2	56.8	60.1	65.3	74.0	75.5	75.5	74.3	70.0	65.0	61.3
62.5°	48.8	50.2	53.6	58.4	66.3	67.5	67.4	66.5	63.0	58.2	54.6
63°	42.7	43.9	47.1	52.1	59.0	60.1	60.0	59.3	56.3	51.9	48.3
63.5°	36.7	38.1	41.2	45.8	52.2	53.1	53.0	52.4	49.8	45.8	42.4
64°	31.7	33.5	35.5	39.9	45.7	46.4	46.4	45.8	43.3	40.0	36.9
64.5°	26.7	28.9	31.0	34.7	39.5	40.1	40.0	39.4	37.0	34.6	31.6
65°	21.8	24.2	26.3	29.8	33.6	34.1	34.1	33.5	30.8	29.3	26.8
65.5°	16.9	19.7	21.7	24.9	27.9	28.6	28.6	27.8	24.9	24.4	22.4
66°	11.9	15.0	17.1	20.0	22.7	23.3	23.3	22.5	19.4	19.9	18.2





TEST NUMBER: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	3.8	6.4	7.5	8.2	11.8	12.2	12.2	11.6	8.7	10.5	9.6
68°	2.9	4.5	5.2	5.5	8.7	9.0	9.0	8.6	5.2	7.9	6.7
68.5°	2.1	3.6	3.2	3.4	5.6	5.8	5.8	5.5	1.7	5.2	3.9
69°	1.1	2.8	2.5	2.6	2.6	2.7	2.6	2.6	0.5	2.5	2.3
69.5°	0.3	2.0	1.8	1.9	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: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-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: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	505.6	505.6	505.6	505.6	505.6	505.6
0.5°	505.5	505.4	505.4	505.5	505.4	505.3
1°	505.3	505.1	505.1	505.2	505.2	505.1
1.5°	505.1	504.8	504.7	504.9	504.9	504.9
2°	504.8	504.4	504.3	504.5	504.5	504.6
2.5°	504.5	503.9	503.9	504.0	504.1	504.3
3°	504.1	503.5	503.4	503.6	503.7	503.9
3.5°	503.7	502.9	502.8	503.0	503.3	503.6
4°	503.1	502.4	502.2	502.4	502.7	503.0
4.5°	502.6	501.8	501.6	501.8	502.1	502.6
5°	502.1	501.2	501.0	501.2	501.5	502.1
5.5°	501.5	500.5	500.2	500.5	500.9	501.6
6°	500.9	499.7	499.5	499.7	500.1	500.9
6.5°	500.1	499.0	498.7	498.9	499.5	500.2
7°	499.4	498.2	497.9	498.2	498.7	499.5
7.5°	498.7	497.2	497.0	497.2	497.9	498.8
8°	497.9	496.4	496.0	496.3	497.0	498.1
8.5°	496.9	495.5	495.1	495.4	496.1	497.1
9°	496.1	494.4	494.0	494.3	495.1	496.3
9.5°	495.1	493.5	493.1	493.3	494.1	495.4
10°	494.1	492.4	492.0	492.3	493.1	494.3
10.5°	493.1	491.2	490.8	491.1	492.0	493.4
11°	492.1	490.1	489.6	490.0	490.8	492.3
11.5°	490.9	489.0	488.3	488.6	489.7	491.2
12°	489.8	487.6	487.1	487.4	488.4	490.0
12.5°	488.5	486.4	485.7	486.1	487.2	488.9
13°	487.3	485.0	484.4	484.7	485.8	487.5
13.5°	486.0	483.7	482.9	483.3	484.4	486.3
14°	484.7	482.2	481.5	481.8	483.1	484.9
14.5°	483.3	480.7	480.0	480.4	481.5	483.5
15°	481.8	479.2	478.4	478.8	480.0	482.0
15.5°	480.4	477.6	476.7	477.1	478.4	480.5
16°	478.7	476.0	475.1	475.5	476.8	479.0
16.5°	477.3	474.2	473.4	473.8	475.2	477.4
17°	475.6	472.5	471.7	472.0	473.4	475.7
17.5°	473.8	470.7	469.8	470.2	471.7	474.0
18°	472.2	468.9	467.9	468.3	469.8	472.3
18.5°	470.3	467.0	466.0	466.4	467.9	470.4
19°	468.4	465.1	464.0	464.4	466.0	468.5
19.5°	466.6	463.2	461.9	462.3	464.1	466.7
20°	464.6	461.1	459.8	460.3	462.0	464.7
20.5°	462.6	458.9	457.7	458.1	459.8	462.6
21°	460.6	456.7	455.5	455.8	457.7	460.7



TEST NUMBER: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	453.9	449.9	448.5	448.9	450.8	454.0
23°	451.8	447.5	446.0	446.4	448.5	451.8
23.5°	449.4	445.1	443.6	443.9	446.1	449.4
24°	447.0	442.7	441.0	441.3	443.5	447.0
24.5°	444.5	440.0	438.4	438.7	440.9	444.4
25°	442.0	437.4	435.7	436.0	438.3	441.9
25.5°	439.4	434.8	432.9	433.3	435.6	439.3
26°	436.8	432.0	430.1	430.5	432.9	436.7
26.5°	434.1	429.1	427.2	427.6	430.0	433.9
27°	431.3	426.2	424.4	424.7	427.2	431.3
27.5°	428.6	423.4	421.5	421.7	424.3	428.4
28°	425.7	420.4	418.4	418.7	421.3	425.5
28.5°	422.7	417.3	415.3	415.6	418.2	422.5
29°	419.8	414.3	412.2	412.6	415.2	419.4
29.5°	416.8	411.1	409.0	409.3	412.1	416.4
30°	413.5	407.9	405.8	406.1	408.8	413.2
30.5°	410.4	404.6	402.4	402.7	405.6	410.0
31°	407.2	401.2	399.0	399.3	402.1	406.8
31.5°	403.9	397.9	395.5	395.8	398.7	403.4
32°	400.5	394.5	392.1	392.4	395.3	400.1
32.5°	397.2	391.0	388.6	388.8	391.9	396.6
33°	393.7	387.4	385.0	385.3	388.3	393.1
33.5°	390.2	383.9	381.3	381.7	384.6	389.6
34°	386.6	380.3	377.7	377.9	381.0	386.0
34.5°	383.1	376.5	373.9	374.2	377.3	382.3
35°	379.3	372.7	370.0	370.4	373.5	378.5
35.5°	375.6	368.9	366.3	366.6	369.6	374.8
36°	371.9	365.2	362.5	362.8	365.9	370.9
36.5°	368.2	361.2	358.6	358.8	362.1	367.1
37°	364.2	357.3	354.7	354.9	358.0	363.1
37.5°	360.3	353.4	350.6	351.0	354.1	359.1
38°	356.4	349.3	346.6	346.9	349.9	354.9
38.5°	352.2	345.3	342.6	342.9	345.9	351.0
39°	348.3	341.1	338.5	338.7	341.9	346.9
39.5°	344.1	337.1	334.4	334.7	337.7	342.7
40°	340.0	332.7	330.3	330.5	333.4	338.4
40.5°	335.8	328.6	326.0	326.3	329.1	334.2
41°	331.5	324.2	321.8	322.1	324.9	329.8
41.5°	327.2	319.9	317.3	317.7	320.5	325.4
42°	322.9	315.5	313.1	313.4	316.2	321.0
42.5°	318.5	311.1	308.7	308.9	311.7	316.6
43°	314.1	306.5	304.0	304.5	307.0	311.9
43.5°	309.4	301.9	299.5	299.8	302.4	307.4



TEST NUMBER: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	295.3	287.7	285.5	285.7	288.2	293.2
45.5°	290.6	283.0	280.7	281.0	283.4	288.4
46°	285.9	278.4	276.1	276.4	278.9	283.7
46.5°	281.2	273.9	271.6	271.8	274.3	279.2
47°	276.7	269.4	267.3	267.5	269.8	274.7
47.5°	272.2	265.0	262.8	263.1	265.3	270.3
48°	267.9	260.6	258.4	258.8	260.9	265.8
48.5°	263.4	256.2	254.0	254.2	256.5	261.5
49°	258.7	251.3	249.1	249.5	251.8	256.7
49.5°	253.5	246.0	244.1	244.4	246.7	251.5
50°	247.8	239.9	238.1	238.7	241.1	245.6
50.5°	241.1	233.1	231.4	232.2	234.3	239.1
51°	233.9	225.7	224.2	224.8	227.3	231.9
51.5°	226.3	218.3	216.5	217.0	219.8	224.3
52°	218.8	210.3	208.5	209.0	211.7	216.1
52.5°	210.8	202.2	200.5	200.8	203.4	208.1
53°	202.8	193.8	191.9	192.2	195.0	199.8
53.5°	194.5	185.6	183.3	183.7	186.5	191.4
54°	186.6	177.4	174.7	175.0	177.8	182.8
54.5°	178.1	169.0	166.3	166.4	169.3	174.3
55°	169.9	160.6	157.6	157.7	160.6	165.6
55.5°	161.3	152.5	149.1	148.9	152.0	156.9
56°	153.1	144.3	140.6	140.1	143.6	148.4
56.5°	144.6	136.2	132.3	131.7	135.3	140.0
57°	136.3	127.9	124.0	123.2	126.9	131.3
57.5°	128.1	120.1	115.8	115.0	118.7	123.0
58°	120.1	112.2	107.9	107.1	110.7	114.8
58.5°	112.0	104.5	100.2	99.1	102.7	106.8
59°	104.0	96.9	92.6	91.6	95.2	98.9
59.5°	96.4	89.3	85.4	84.2	87.7	91.1
60°	88.8	82.0	78.0	77.2	80.4	83.7
60.5°	81.2	74.9	71.2	70.3	73.3	76.2
61°	73.7	67.9	64.5	63.8	66.5	69.0
61.5°	66.7	61.3	58.3	57.6	59.9	61.9
62°	59.9	54.8	52.3	51.9	53.6	55.2
62.5°	53.2	48.5	46.6	46.2	47.4	48.8
63°	46.8	42.7	41.2	40.9	41.5	42.7
63.5°	40.8	37.1	35.9	35.7	36.1	36.7
64°	35.1	32.5	31.7	31.5	31.6	31.7
64.5°	29.8	28.0	27.5	27.3	27.1	26.7
65°	25.0	23.5	23.2	23.1	22.7	21.8
65.5°	20.5	19.0	19.0	19.0	18.2	16.9
66°	16.3	14.5	15.3	15.5	14.5	11.9



TEST NUMBER: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-1000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	8.5	6.0	6.8	7.0	6.1	3.8
68°	5.9	4.1	4.8	4.9	4.2	2.9
68.5°	3.4	3.2	3.0	3.1	3.2	2.1
69°	2.1	2.3	2.3	2.4	2.3	1.1
69.5°	1.0	1.2	1.7	1.7	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: P775732

CATALOG NUMBER: HCDJBL510CSD-HCD61TRMB-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

Signify Classified - Internal  
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°	458.4	462.9	467.4	471.3	474.7	475.5	475.1	473.3	470.3	466.2	462.0
22°	456.3	460.8	465.4	469.5	472.8	473.7	473.2	471.3	468.4	464.2	460.0



44°	302.6	310.8	318.2	325.0	331.0	332.2	332.0	329.4	324.6	318.2	311.5
44.5°	297.8	306.1	313.6	320.1	326.3	327.8	327.1	324.8	319.8	313.5	306.7



66.5°	8.6	11.7	13.5	15.1	18.0	18.6	18.6	17.7	15.8	15.8	15.3
67°	5.9	8.8	10.3	11.4	14.9	15.4	15.4	14.6	12.3	13.2	12.5



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°	458.4	454.6	453.2	453.5	455.5	458.4
22°	456.2	452.3	450.9	451.2	453.2	456.3



44°	304.8	297.1	294.8	295.0	297.7	302.6
44.5°	300.1	292.4	290.2	290.4	293.0	297.8



66.5°	13.7	11.1	12.2	12.2	11.3	8.6
67°	11.1	8.3	9.3	9.4	8.5	5.9

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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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Scaled Data Report



(END OF REPORT)