

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: P775652

Luminaire Tested: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775652
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B054)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K
Description: 4 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

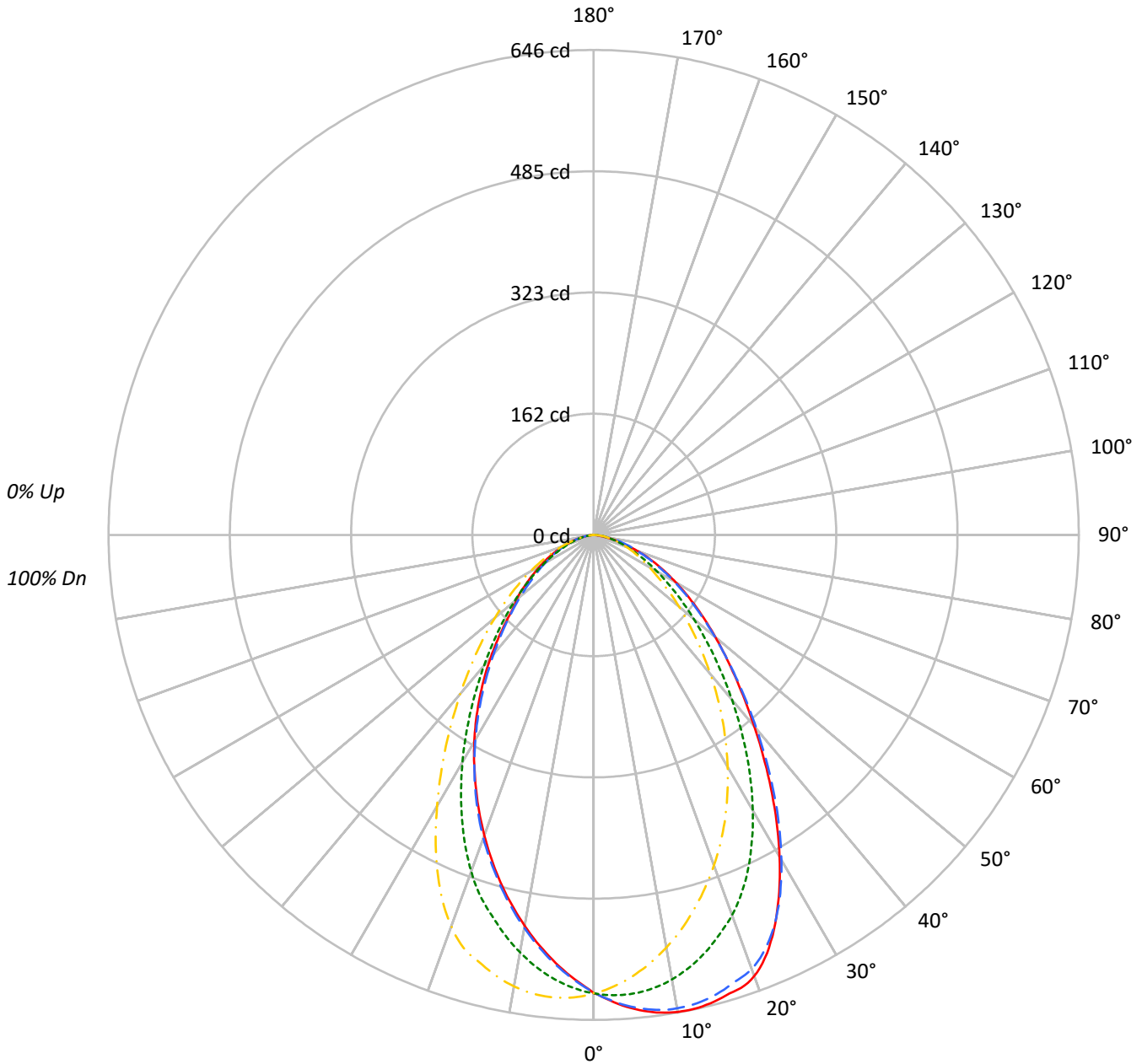
Lumens per Lamp: N/A
Luminaire Lumens: 1013.5 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.01 / 1.07
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P775652
CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

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			
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	38	49	43	38	48	42	38	36					36			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	76806	76806	76806	76806
5°	80106	77466	72387	75066
10°	82451	76841	67576	72164
15°	83515	74955	62422	68363
20°	83744	72200	56999	63856
25°	79372	67736	51559	57669
30°	71947	61572	46168	50774
35°	63220	54463	40667	43786
40°	54625	47051	35058	37276
45°	47324	40099	29616	31716
50°	41409	34047	26157	26980
55°	36379	28940	23236	22841
60°	31815	24616	20488	19129
65°	27575	20905	18046	15902
70°	22519	17625	15234	13099
75°	16873	14976	12351	10892
80°	10146	13045	8769	8624
85°	3899	12129	3177	5054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 48588 cd/sqm



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	5.6
10°-20°	156.0	15.4
20°-30°	211.4	20.9
30°-40°	205.4	20.3
40°-50°	162.6	16.0
50°-60°	113.9	11.2
60°-70°	69.0	6.8
70°-80°	31.7	3.1
80°-90°	6.4	0.6
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°	424.4	41.9
0°-40°	629.9	62.1
0°-60°	906.4	89.4
0°-90°	1013.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1013.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	610	610	610	610	610	
5°	634	613	573	594	634	61
15°	641	575	479	525	641	181
25°	572	488	371	415	572	261
35°	412	354	265	285	412	257
45°	266	225	166	178	266	206
55°	166	132	106	104	166	149
65°	93	70	61	53	93	92
75°	35	31	25	22	35	38
85°	3	8	2	4	3	4
90°	0	1	0	0	0	



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3
0.5°	612.1	612.5	612.2	611.9	611.6	610.5	609.7	609.3	605.9	605.8	606.4
1°	615.0	615.5	615.1	613.9	612.3	610.0	608.0	606.7	602.6	602.6	603.4
1.5°	617.8	618.4	617.5	615.6	613.0	609.4	606.2	604.1	599.2	599.0	600.2
2°	620.5	621.3	619.9	617.3	613.4	608.6	604.4	601.2	595.8	595.4	596.8
2.5°	623.1	624.1	622.3	618.9	613.8	607.8	602.3	598.4	592.2	591.7	593.4
3°	625.6	626.5	624.6	620.2	613.9	606.7	600.1	595.2	588.4	588.0	590.0
3.5°	628.0	629.0	626.5	621.5	614.0	605.5	597.8	592.2	584.7	584.1	586.4
4°	630.2	631.3	628.5	622.5	613.8	604.2	595.5	588.8	581.0	580.1	582.7
4.5°	632.2	633.5	630.3	623.4	613.6	602.8	593.0	585.4	576.9	576.1	578.9
5°	634.1	635.6	631.9	624.3	613.2	601.2	590.3	582.0	573.0	572.0	575.2
5.5°	635.9	637.6	633.5	624.9	612.7	599.5	587.6	578.5	568.7	567.7	571.0
6°	637.5	639.4	634.8	625.5	611.9	597.5	584.6	574.8	564.7	563.4	567.1
6.5°	639.0	641.0	636.1	625.9	611.1	595.7	581.7	571.0	560.5	559.1	562.8
7°	640.3	642.5	637.1	626.1	610.2	593.5	578.6	567.3	556.1	554.7	558.5
7.5°	641.6	643.8	638.0	626.1	608.9	591.3	575.5	563.4	551.8	550.1	554.3
8°	642.5	645.0	638.9	626.1	607.7	588.9	572.2	559.3	547.3	545.4	549.9
8.5°	643.4	646.0	639.5	625.9	606.3	586.6	568.7	555.2	542.8	541.0	545.6
9°	644.1	646.9	640.0	625.5	604.8	583.9	565.2	551.1	538.2	536.2	541.0
9.5°	644.8	647.7	640.2	624.9	603.1	581.2	561.7	546.9	533.4	531.5	536.3
10°	645.2	648.2	640.4	624.2	601.3	578.3	558.1	542.8	528.8	526.7	531.7
10.5°	645.4	648.6	640.3	623.3	599.3	575.4	554.3	538.3	524.0	521.8	527.0
11°	645.5	648.8	640.2	622.4	597.1	572.3	550.3	533.8	519.2	517.0	522.3
11.5°	645.5	648.9	639.9	621.2	594.8	569.2	546.5	529.4	514.4	512.0	517.4
12°	645.3	648.9	639.4	619.9	592.5	565.8	542.4	524.9	509.5	507.0	512.4
12.5°	645.0	648.7	638.8	618.5	589.9	562.3	538.3	520.3	504.5	501.8	507.5
13°	644.5	648.3	637.9	616.9	587.3	558.9	534.2	515.6	499.6	496.9	502.7
13.5°	643.7	647.9	637.1	615.1	584.5	555.4	529.9	510.9	494.5	491.7	497.6
14°	643.0	647.0	636.0	613.1	581.6	551.6	525.5	506.1	489.4	486.4	492.5
14.5°	642.1	646.2	634.7	611.0	578.5	547.7	521.0	501.2	484.2	481.3	487.4
15°	641.0	645.3	633.3	608.8	575.3	543.7	516.6	496.4	479.1	476.0	482.2
15.5°	639.7	644.0	631.7	606.5	572.1	539.8	512.0	491.4	473.9	470.8	476.9
16°	638.2	642.8	630.0	604.1	568.5	535.6	507.2	486.4	468.7	465.5	471.7
16.5°	637.1	641.3	628.1	601.5	565.0	531.5	502.6	481.3	463.4	460.2	466.4
17°	636.2	640.0	626.2	598.8	561.3	527.1	497.9	476.4	458.1	454.6	461.3
17.5°	635.3	639.1	624.3	595.8	557.7	522.8	493.0	471.2	452.8	449.2	456.0
18°	634.5	638.2	622.7	593.1	553.9	518.3	488.1	466.0	447.4	443.9	450.6
18.5°	633.0	637.3	621.3	590.4	550.3	514.0	483.2	460.8	442.0	438.5	445.3
19°	631.0	636.0	619.8	587.9	546.7	509.5	478.2	455.7	436.6	433.1	440.2
19.5°	628.3	633.9	617.9	585.3	543.1	505.2	473.5	450.5	431.1	427.7	435.0
20°	625.3	631.4	615.5	582.4	539.1	500.5	468.3	445.3	425.6	422.2	429.6
20.5°	621.9	628.4	612.5	579.0	534.8	495.9	463.4	439.9	420.1	416.7	424.1
21°	617.8	625.1	608.9	575.5	530.1	490.9	458.1	434.5	414.9	411.3	418.5



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	603.1	612.5	596.9	562.2	515.6	475.4	442.5	418.5	398.4	395.0	401.8
23°	597.3	607.4	592.4	557.6	510.2	470.1	437.0	413.0	392.9	389.6	396.1
23.5°	591.3	602.1	587.4	552.6	505.0	464.7	431.6	407.6	387.6	384.1	390.3
24°	585.1	596.4	582.3	547.3	499.4	458.9	426.0	402.2	382.1	378.7	384.6
24.5°	578.5	590.3	576.7	541.7	493.7	453.2	420.5	396.6	376.6	373.2	378.9
25°	571.6	583.9	570.9	536.0	487.8	447.4	414.7	391.1	371.3	367.8	373.2
25.5°	564.7	577.1	564.7	530.2	481.9	441.5	409.1	385.7	365.9	362.3	367.3
26°	557.6	570.3	558.4	524.1	475.9	435.6	403.5	380.2	360.6	356.7	361.5
26.5°	550.1	563.4	551.9	518.0	469.6	429.5	397.7	374.6	355.1	351.3	355.7
27°	542.8	556.0	545.0	511.6	463.2	423.4	391.9	369.0	349.8	345.8	349.9
27.5°	535.2	548.6	538.0	505.1	456.9	417.3	386.0	363.5	344.3	340.3	344.0
28°	527.2	540.8	530.5	498.2	450.4	411.3	380.2	358.0	339.1	334.8	338.1
28.5°	519.4	532.9	522.9	491.4	444.0	405.0	374.4	352.3	333.8	329.3	332.3
29°	511.4	525.0	515.4	484.5	437.2	398.7	368.5	346.7	328.5	323.8	326.5
29.5°	503.2	517.1	507.9	477.2	430.5	392.6	362.7	341.2	323.1	318.4	320.7
30°	495.1	508.8	500.0	470.2	423.7	386.3	356.7	335.7	317.7	313.0	314.8
30.5°	486.8	500.6	491.9	462.8	416.8	379.9	350.8	330.1	312.3	307.6	309.1
31°	478.4	492.2	483.8	455.2	410.2	373.6	345.0	324.6	307.1	302.1	303.4
31.5°	470.3	483.7	475.8	447.8	403.2	367.2	339.1	319.1	301.8	296.6	297.8
32°	461.8	475.1	467.5	440.0	396.2	361.0	333.3	313.6	296.5	291.3	292.1
32.5°	453.3	466.5	459.2	432.4	389.3	354.7	327.2	308.1	291.1	285.9	286.3
33°	444.9	458.0	451.0	424.7	382.2	348.3	321.4	302.7	285.8	280.5	280.6
33.5°	436.4	449.6	443.0	416.9	375.4	342.0	315.6	297.0	280.5	275.2	275.3
34°	428.1	441.0	434.6	409.1	368.4	335.4	309.9	291.6	275.3	269.8	269.6
34.5°	419.8	432.3	426.3	401.3	361.3	329.1	304.1	286.2	269.9	264.5	264.1
35°	411.5	423.8	417.9	393.5	354.5	322.9	298.1	280.9	264.7	259.3	258.5
35.5°	403.3	415.4	409.6	385.9	347.4	316.6	292.6	275.4	259.5	254.1	253.2
36°	394.9	407.0	401.4	378.2	340.5	310.3	286.9	270.1	254.2	249.0	247.8
36.5°	386.9	398.7	393.2	370.4	333.5	303.9	281.1	264.8	249.1	243.8	242.5
37°	378.7	390.2	385.0	363.0	326.8	297.9	275.3	259.5	243.8	238.6	237.3
37.5°	370.8	381.9	377.1	355.4	319.8	291.6	269.6	254.2	238.8	233.6	232.1
38°	362.9	373.9	368.8	347.6	313.2	285.5	264.1	249.2	233.6	228.6	226.9
38.5°	355.2	365.8	360.9	340.4	306.4	279.4	258.3	243.9	228.6	223.5	222.0
39°	347.5	357.8	352.9	332.8	299.8	273.5	252.7	238.8	223.6	218.5	217.0
39.5°	340.1	350.0	345.5	325.8	293.0	267.4	247.1	233.6	218.5	213.6	212.0
40°	332.5	342.4	337.7	318.2	286.4	261.4	241.7	228.6	213.4	208.7	207.1
40.5°	325.4	334.9	330.1	311.4	280.0	255.3	236.2	223.3	208.6	203.8	202.5
41°	318.2	327.2	322.7	304.3	273.5	249.7	230.9	218.3	203.7	199.0	197.7
41.5°	311.1	320.2	315.4	297.2	267.1	243.7	225.7	213.2	198.8	194.3	193.1
42°	304.3	313.0	308.2	290.2	261.0	238.0	220.5	208.5	194.0	189.7	188.8
42.5°	297.6	305.9	301.3	283.8	254.9	232.5	215.3	203.5	189.3	185.3	184.4
43°	291.0	299.2	294.4	277.1	248.8	227.0	210.3	198.7	184.5	180.8	180.0
43.5°	284.6	292.5	287.5	270.6	242.7	221.5	205.3	193.9	179.9	176.6	175.6



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	265.9	273.0	267.9	251.5	225.3	205.9	190.8	180.3	166.4	164.5	163.3
45.5°	259.9	266.9	261.6	245.4	219.8	200.8	186.2	176.1	162.1	160.6	159.4
46°	254.1	260.9	255.5	239.5	214.3	195.9	181.6	171.8	157.9	156.7	155.4
46.5°	248.4	254.9	249.4	233.6	208.9	191.0	177.3	167.6	153.9	152.9	151.5
47°	242.8	249.0	243.6	227.8	203.5	186.1	172.8	163.4	150.1	149.2	147.7
47.5°	237.5	243.3	237.7	222.2	198.3	181.4	168.5	159.4	146.4	145.7	143.9
48°	232.0	237.6	231.9	216.4	193.1	176.7	164.2	155.4	143.2	142.2	140.4
48.5°	226.6	232.2	226.4	211.2	188.2	172.2	160.0	151.5	140.4	138.8	136.8
49°	221.5	226.8	220.9	205.9	183.3	167.8	156.0	147.8	137.9	135.5	133.4
49.5°	216.4	221.5	215.6	200.7	178.5	163.4	151.8	144.1	135.7	132.3	130.0
50°	211.5	216.4	210.4	195.5	173.9	159.2	147.9	140.4	133.6	129.4	126.7
50.5°	206.6	211.3	205.2	190.4	169.2	154.9	144.1	136.9	131.5	126.5	123.2
51°	201.7	206.3	200.1	185.6	164.7	150.9	140.2	133.5	129.1	124.0	120.1
51.5°	197.0	201.4	195.2	180.8	160.4	147.0	136.6	130.2	126.3	121.6	117.1
52°	192.3	196.6	190.3	175.9	156.1	143.0	132.9	127.0	123.2	118.8	114.0
52.5°	187.8	191.8	185.6	171.4	151.8	139.2	129.3	123.9	120.2	116.0	111.0
53°	183.3	187.2	180.8	166.9	147.7	135.4	125.8	121.0	117.3	113.2	108.1
53.5°	178.7	182.6	176.3	162.4	143.6	131.6	122.4	118.0	114.3	110.4	105.2
54°	174.4	178.1	171.7	158.0	139.7	128.0	119.1	115.3	111.4	107.7	102.4
54.5°	170.0	173.6	167.1	153.8	135.7	124.5	115.8	112.8	108.7	105.0	99.7
55°	165.8	169.3	163.0	149.5	131.9	121.1	112.7	110.2	105.9	102.5	97.1
55.5°	161.6	165.0	158.7	145.5	128.2	117.5	109.6	107.6	103.4	99.7	94.5
56°	157.4	160.7	154.4	141.4	124.6	114.1	106.5	104.9	100.7	97.1	92.1
56.5°	153.4	156.6	150.3	137.4	121.1	110.9	103.5	102.3	98.1	94.8	89.8
57°	149.4	152.5	146.2	133.6	117.4	107.6	100.6	99.7	95.5	92.4	87.5
57.5°	145.3	148.4	142.3	129.8	114.0	104.5	97.8	97.2	93.1	89.9	85.3
58°	141.5	144.4	138.3	126.0	110.6	101.4	95.1	94.8	90.6	87.6	83.1
58.5°	137.6	140.4	134.4	122.3	107.5	98.4	92.4	92.3	88.3	85.3	80.9
59°	133.8	136.7	130.7	118.7	104.2	95.4	89.8	89.9	86.0	83.1	78.6
59.5°	130.1	132.7	126.9	115.2	101.0	92.5	87.4	87.6	83.7	80.8	76.5
60°	126.4	129.1	123.2	111.7	97.8	89.7	85.0	85.3	81.4	78.5	74.5
60.5°	122.8	125.4	119.6	108.2	94.9	87.1	82.6	83.1	79.1	76.3	72.4
61°	119.2	121.8	116.1	105.0	91.9	84.4	80.3	80.8	76.9	74.3	70.3
61.5°	115.7	118.1	112.5	101.7	89.1	81.7	77.9	78.5	74.8	72.1	68.3
62°	112.3	114.7	109.2	98.5	86.3	79.0	75.8	76.3	72.7	70.0	66.4
62.5°	108.9	111.2	105.8	95.4	83.5	76.4	73.6	74.3	70.5	67.9	64.4
63°	105.5	107.8	102.4	92.3	80.7	73.9	71.6	72.1	68.6	66.1	62.4
63.5°	102.2	104.4	99.2	89.3	77.9	71.6	69.5	70.0	66.5	64.0	60.6
64°	99.0	101.1	96.0	86.3	75.2	69.2	67.6	67.9	64.5	62.1	58.7
64.5°	95.8	97.9	92.9	83.4	72.7	66.9	65.7	66.0	62.5	60.2	57.0
65°	92.6	94.8	89.8	80.5	70.2	64.6	63.8	64.1	60.6	58.3	55.1
65.5°	89.4	91.4	86.7	77.8	67.7	62.4	61.8	62.1	58.5	56.4	53.3
66°	86.1	88.4	83.8	75.1	65.3	60.3	60.1	60.2	56.5	54.6	51.7



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	76.5	79.2	75.1	67.1	58.5	54.3	54.6	54.6	50.6	49.1	46.6
68°	73.4	76.2	72.3	64.6	56.3	52.3	52.9	52.7	48.8	47.3	44.9
68.5°	70.2	73.2	69.6	62.2	54.2	50.4	51.2	50.8	46.9	45.5	43.4
69°	67.2	70.2	67.0	59.8	52.1	48.6	49.5	49.1	45.0	43.8	41.8
69.5°	64.2	67.3	64.4	57.5	50.0	46.9	47.7	47.2	43.2	42.0	40.3
70°	61.2	64.4	61.8	55.1	47.9	45.2	46.2	45.5	41.4	40.4	38.7
70.5°	58.4	61.6	59.3	52.8	46.0	43.5	44.5	43.8	39.8	38.7	37.3
71°	55.5	58.9	56.9	50.6	44.1	41.9	43.0	42.0	38.0	37.0	35.7
71.5°	52.7	56.1	54.5	48.5	42.3	40.4	41.4	40.4	36.3	35.4	34.3
72°	49.9	53.5	52.2	46.4	40.5	38.8	39.9	38.7	34.7	33.9	32.8
72.5°	47.3	51.1	49.8	44.4	38.7	37.4	38.4	37.1	33.0	32.2	31.4
73°	44.7	48.5	47.5	42.5	37.1	35.8	36.9	35.5	31.4	30.8	30.0
73.5°	42.0	46.1	45.4	40.4	35.4	34.5	35.4	33.9	29.8	29.2	28.7
74°	39.6	43.6	43.1	38.5	33.9	33.1	34.0	32.4	28.3	27.7	27.3
74.5°	37.0	41.2	41.0	37.2	32.3	31.8	32.6	30.9	26.8	26.2	25.9
75°	34.7	38.9	38.9	35.4	30.8	30.4	31.2	29.4	25.4	24.8	24.6
75.5°	32.4	36.7	36.8	33.7	29.3	29.2	29.8	28.0	23.9	23.4	23.3
76°	30.1	34.7	34.9	31.8	28.0	28.0	28.5	26.5	22.5	22.0	22.1
76.5°	27.9	32.6	33.0	30.0	26.5	26.7	27.1	25.1	21.0	20.6	20.8
77°	25.7	30.6	31.3	28.4	25.3	25.5	25.8	23.7	19.7	19.3	19.6
77.5°	23.5	28.5	29.4	26.8	23.9	24.3	24.4	22.4	18.3	18.0	18.4
78°	21.4	26.5	27.5	25.4	22.7	23.2	23.3	21.0	17.1	16.7	17.3
78.5°	19.5	24.8	25.8	23.9	21.4	22.0	22.0	19.7	15.7	15.4	16.1
79°	17.5	22.9	24.1	22.5	20.2	20.8	20.8	18.3	14.5	14.2	14.9
79.5°	15.7	21.1	22.5	21.0	19.1	19.8	19.6	17.1	13.3	13.0	13.9
80°	14.0	19.4	20.8	19.7	18.0	18.6	18.4	15.8	12.1	11.8	12.7
80.5°	12.4	17.8	19.3	18.4	16.9	17.6	17.3	14.7	10.9	10.7	11.7
81°	10.9	16.3	17.8	17.2	15.8	16.6	16.2	13.5	9.8	9.6	10.7
81.5°	9.4	14.8	16.4	15.9	14.8	15.5	15.0	12.3	8.7	8.6	9.7
82°	8.0	13.4	14.9	14.8	13.8	14.5	14.0	11.2	7.7	7.6	8.8
82.5°	6.6	11.9	13.6	13.7	12.8	13.5	12.8	10.1	6.5	6.5	7.9
83°	5.5	10.6	12.3	12.5	11.9	12.5	11.8	9.1	5.4	5.5	6.9
83.5°	4.5	9.3	11.1	11.5	11.0	11.6	10.9	8.1	4.5	4.7	6.0
84°	3.6	8.0	9.9	10.5	10.0	10.6	9.9	7.0	3.5	3.9	5.2
84.5°	3.1	6.8	8.8	9.5	9.2	9.7	9.0	6.0	2.7	3.3	4.5
85°	2.7	5.7	7.8	8.6	8.4	8.8	8.2	5.2	2.2	2.8	3.6
85.5°	2.2	4.7	6.8	7.7	7.6	8.0	7.2	4.5	1.9	2.3	2.9
86°	1.8	3.7	5.9	6.8	6.7	7.0	6.3	3.8	1.6	1.9	2.1
86.5°	1.4	3.1	5.1	5.9	5.9	6.1	5.5	3.3	1.2	1.3	1.4
87°	1.2	2.5	4.2	5.2	5.2	5.3	4.7	2.7	0.9	0.9	0.8
87.5°	0.9	1.9	3.6	4.5	4.5	4.5	3.8	2.2	0.6	0.5	0.3
88°	0.7	1.2	3.0	3.7	3.6	3.7	3.1	1.7	0.4	0.2	0.1
88.5°	0.5	0.8	2.3	3.0	2.9	2.9	2.4	1.1	0.1	0.1	0.0



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.2	0.6	1.1	0.9	0.8	0.4	0.1	0.0	0.1	0.0



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	610.3	610.3	610.3	610.3	610.3	610.3
0.5°	607.5	609.8	610.9	612.6	614.1	612.1
1°	605.2	608.5	611.0	613.7	616.3	615.0
1.5°	602.7	607.2	610.9	614.8	618.4	617.8
2°	600.2	605.8	610.6	615.8	620.3	620.5
2.5°	597.5	604.2	610.3	616.6	622.2	623.1
3°	594.7	602.5	609.7	617.2	623.8	625.6
3.5°	591.7	600.6	609.0	617.8	625.4	628.0
4°	588.7	598.7	608.1	618.1	626.6	630.2
4.5°	585.6	596.5	607.2	618.4	627.9	632.2
5°	582.3	594.2	606.0	618.5	629.1	634.1
5.5°	578.9	591.9	604.7	618.4	630.1	635.9
6°	575.5	589.4	603.3	618.1	630.8	637.5
6.5°	572.0	586.7	601.8	617.7	631.4	639.0
7°	568.1	583.9	600.0	617.1	631.9	640.3
7.5°	564.4	581.0	598.2	616.4	632.3	641.6
8°	560.6	578.1	596.2	615.6	632.4	642.5
8.5°	556.5	574.9	594.0	614.6	632.4	643.4
9°	552.5	571.5	591.7	613.5	632.3	644.1
9.5°	548.2	568.1	589.4	612.1	632.1	644.8
10°	544.0	564.7	586.9	610.7	631.7	645.2
10.5°	539.6	561.1	584.3	609.1	631.2	645.4
11°	535.3	557.5	581.4	607.4	630.5	645.5
11.5°	530.8	553.6	578.4	605.5	629.5	645.5
12°	526.3	549.6	575.5	603.5	628.5	645.3
12.5°	521.7	545.7	572.4	601.4	627.4	645.0
13°	517.1	541.6	569.1	599.1	626.1	644.5
13.5°	512.2	537.5	565.6	596.8	624.7	643.7
14°	507.3	533.1	562.1	594.1	623.0	643.0
14.5°	502.5	529.0	558.8	591.5	621.5	642.1
15°	497.8	524.7	555.3	589.0	619.5	641.0
15.5°	492.9	520.6	552.1	586.9	617.9	639.7
16°	488.2	516.3	548.9	584.9	616.7	638.2
16.5°	483.3	512.2	545.7	582.6	615.5	637.1
17°	478.4	508.0	541.9	579.9	614.0	636.2
17.5°	473.5	503.4	537.7	576.5	612.0	635.3
18°	468.5	498.5	533.1	572.9	609.2	634.5
18.5°	463.3	493.5	528.3	568.7	605.9	633.0
19°	457.9	488.0	523.2	564.4	602.2	631.0
19.5°	452.5	482.5	518.0	559.6	598.4	628.3
20°	446.9	476.8	512.7	554.7	593.9	625.3
20.5°	441.1	471.2	507.0	549.5	589.4	621.9
21°	435.4	465.2	501.2	543.9	584.3	617.8

TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	417.6	447.1	483.3	526.2	567.3	603.1
23°	411.5	440.9	477.0	520.0	561.0	597.3
23.5°	405.3	434.5	470.5	513.3	554.5	591.3
24°	399.2	428.1	464.1	506.7	547.5	585.1
24.5°	393.0	421.7	457.3	499.7	540.6	578.5
25°	386.9	415.3	450.6	492.6	533.2	571.6
25.5°	380.7	408.9	443.6	485.5	526.0	564.7
26°	374.5	402.3	436.7	478.1	518.4	557.6
26.5°	368.4	395.7	430.0	470.8	511.0	550.1
27°	362.1	389.1	422.8	463.2	503.3	542.8
27.5°	355.9	382.4	415.8	455.7	495.3	535.2
28°	349.7	375.8	408.4	447.9	487.4	527.2
28.5°	343.6	369.1	401.4	440.2	479.6	519.4
29°	337.4	362.7	394.4	432.6	471.7	511.4
29.5°	331.2	356.0	387.1	424.7	463.6	503.2
30°	325.1	349.4	379.9	417.3	455.6	495.1
30.5°	319.0	342.8	372.6	409.6	447.5	486.8
31°	312.9	336.4	365.5	401.8	439.6	478.4
31.5°	306.8	329.7	358.4	394.3	431.6	470.3
32°	300.6	323.2	351.3	386.7	423.5	461.8
32.5°	294.8	316.8	344.2	379.0	415.5	453.3
33°	288.8	310.3	337.2	371.9	407.5	444.9
33.5°	282.8	303.8	330.4	364.4	399.5	436.4
34°	277.0	297.5	323.4	357.1	392.0	428.1
34.5°	271.2	291.2	316.7	349.8	384.0	419.8
35°	265.4	285.0	310.0	342.7	376.3	411.5
35.5°	259.7	278.7	303.2	335.5	368.7	403.3
36°	254.1	272.8	296.9	328.8	361.2	394.9
36.5°	248.5	266.7	290.4	321.6	353.9	386.9
37°	243.0	260.8	284.3	314.9	346.3	378.7
37.5°	237.7	254.8	277.9	308.2	339.1	370.8
38°	232.3	249.1	271.7	301.7	331.8	362.9
38.5°	227.1	243.4	265.6	294.9	324.7	355.2
39°	222.0	237.8	259.7	288.7	317.9	347.5
39.5°	216.8	232.2	253.9	282.4	311.0	340.1
40°	211.7	226.9	248.0	276.2	304.2	332.5
40.5°	206.8	221.5	242.4	269.9	297.5	325.4
41°	201.9	216.4	236.8	264.0	291.0	318.2
41.5°	197.1	211.3	231.5	258.0	284.6	311.1
42°	192.5	206.3	226.1	252.3	278.3	304.3
42.5°	187.9	201.3	220.7	246.6	272.1	297.6
43°	183.4	196.7	215.5	241.0	265.9	291.0
43.5°	179.0	191.8	210.3	235.4	260.0	284.6



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	166.3	178.2	195.5	219.4	242.8	265.9
45.5°	162.3	173.8	190.9	214.3	237.4	259.9
46°	158.2	169.5	186.1	209.2	232.0	254.1
46.5°	154.3	165.3	181.6	204.2	226.6	248.4
47°	150.4	161.1	177.0	199.2	221.4	242.8
47.5°	146.6	157.1	172.6	194.5	216.2	237.5
48°	142.9	153.2	168.3	189.7	211.3	232.0
48.5°	139.3	149.2	163.9	185.1	206.3	226.6
49°	135.6	145.4	159.8	180.6	201.5	221.5
49.5°	132.0	141.6	155.7	176.2	196.8	216.4
50°	128.6	137.8	151.5	171.6	192.0	211.5
50.5°	125.2	134.2	147.6	167.2	187.4	206.6
51°	121.9	130.6	143.6	163.1	182.9	201.7
51.5°	118.6	127.0	139.8	158.9	178.5	197.0
52°	115.3	123.7	136.0	154.8	174.0	192.3
52.5°	112.1	120.2	132.3	150.8	169.7	187.8
53°	108.9	116.9	128.6	146.7	165.5	183.3
53.5°	105.8	113.6	125.1	142.9	161.2	178.7
54°	102.8	110.3	121.6	139.0	157.1	174.4
54.5°	99.9	107.2	118.2	135.1	153.2	170.0
55°	97.0	104.1	114.7	131.4	149.0	165.8
55.5°	94.1	101.1	111.4	127.8	145.2	161.6
56°	91.4	98.1	108.0	124.2	141.3	157.4
56.5°	88.9	95.2	104.9	120.6	137.4	153.4
57°	86.3	92.2	101.7	117.1	133.6	149.4
57.5°	83.7	89.5	98.6	113.7	129.9	145.3
58°	81.1	86.6	95.6	110.3	126.1	141.5
58.5°	78.5	83.9	92.7	107.1	122.6	137.6
59°	76.1	81.2	89.7	103.8	119.0	133.8
59.5°	73.7	78.6	86.9	100.6	115.6	130.1
60°	71.6	76.0	84.0	97.4	112.1	126.4
60.5°	69.3	73.5	81.3	94.3	108.7	122.8
61°	67.1	71.1	78.5	91.3	105.2	119.2
61.5°	64.9	68.7	75.9	88.3	102.1	115.7
62°	62.9	66.3	73.3	85.3	98.9	112.3
62.5°	60.8	64.0	70.7	82.5	95.7	108.9
63°	58.8	61.8	68.2	79.6	92.5	105.5
63.5°	56.9	59.7	65.9	76.9	89.5	102.2
64°	55.0	57.5	63.4	74.1	86.5	99.0
64.5°	53.2	55.4	61.1	71.5	83.5	95.8
65°	51.5	53.4	58.8	68.9	80.6	92.6
65.5°	49.8	51.4	56.6	66.3	77.8	89.4
66°	48.2	49.4	54.4	63.7	75.0	86.1



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	43.4	43.9	48.1	56.4	66.5	76.5
68°	41.9	42.1	46.1	54.2	63.8	73.4
68.5°	40.4	40.5	44.2	51.9	61.1	70.2
69°	38.9	38.8	42.4	49.6	58.4	67.2
69.5°	37.5	37.1	40.4	47.5	55.8	64.2
70°	36.0	35.6	38.6	45.5	53.3	61.2
70.5°	34.7	34.3	37.0	43.4	50.8	58.4
71°	33.3	32.8	35.4	41.3	48.4	55.5
71.5°	31.9	31.4	33.8	39.4	46.0	52.7
72°	30.7	30.0	32.1	37.5	43.6	49.9
72.5°	29.4	28.7	30.4	35.6	41.3	47.3
73°	28.0	27.3	29.0	33.9	39.1	44.7
73.5°	26.7	26.1	27.4	32.0	36.8	42.0
74°	25.5	24.9	26.0	30.2	34.8	39.6
74.5°	24.3	23.6	24.6	28.5	32.8	37.0
75°	23.1	22.4	23.3	26.8	30.9	34.7
75.5°	22.0	21.2	22.0	25.2	28.9	32.4
76°	20.8	20.1	20.7	23.5	27.0	30.1
76.5°	19.7	19.0	19.4	22.1	25.2	27.9
77°	18.5	17.9	18.2	20.5	23.4	25.7
77.5°	17.5	16.9	17.0	19.1	21.6	23.5
78°	16.4	15.8	15.8	17.7	20.0	21.4
78.5°	15.3	14.8	14.8	16.3	18.3	19.5
79°	14.3	13.9	13.8	15.0	16.8	17.5
79.5°	13.3	12.8	12.6	13.7	15.2	15.7
80°	12.2	11.9	11.7	12.5	13.8	14.0
80.5°	11.3	11.1	10.7	11.4	12.3	12.4
81°	10.4	10.1	9.8	10.3	11.0	10.9
81.5°	9.4	9.2	8.9	9.1	9.6	9.4
82°	8.5	8.4	8.0	8.2	8.4	8.0
82.5°	7.6	7.6	7.1	7.2	7.1	6.6
83°	6.7	6.7	6.3	6.3	6.0	5.5
83.5°	5.8	5.8	5.5	5.5	5.1	4.5
84°	5.0	5.1	4.8	4.7	4.1	3.6
84.5°	4.1	4.2	4.0	3.9	3.5	3.1
85°	3.3	3.5	3.4	3.3	2.8	2.7
85.5°	2.5	2.9	2.7	2.7	2.2	2.2
86°	1.8	2.2	2.1	2.1	1.6	1.8
86.5°	1.0	1.4	1.3	1.4	1.1	1.4
87°	0.5	0.7	0.8	1.0	0.8	1.2
87.5°	0.1	0.2	0.3	0.5	0.5	0.9
88°	0.0	0.0	0.0	0.1	0.3	0.7
88.5°	0.0	0.0	0.0	0.0	0.1	0.5



TEST NUMBER: P775652

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-HCD42TRLWW-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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	613.2	621.3	605.3	571.3	525.5	485.8	453.1	429.3	409.4	405.7	413.1
22°	608.2	617.1	601.3	566.9	520.6	480.7	447.8	423.9	403.9	400.4	407.4



44°	278.2	285.7	280.8	263.8	236.9	216.2	200.4	189.3	175.3	172.5	171.6
44.5°	271.9	279.3	274.4	257.8	231.1	211.0	195.5	184.6	171.0	168.6	167.5



66.5°	82.8	85.4	80.8	72.3	63.0	58.2	58.2	58.4	54.6	52.7	49.9
67°	79.6	82.2	78.0	69.7	60.7	56.2	56.3	56.4	52.6	51.0	48.3



89°	0.3	0.6	1.7	2.4	2.2	2.2	1.7	0.7	0.0	0.1	0.0
89.5°	0.1	0.4	1.0	1.8	1.6	1.4	0.9	0.3	0.0	0.1	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	429.6	459.2	495.4	538.3	579.0	613.2
22°	423.7	453.3	489.4	532.4	573.2	608.2



44°	174.7	187.1	205.4	229.9	254.1	278.2
44.5°	170.5	182.6	200.5	224.6	248.4	271.9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



66.5°	46.5	47.5	52.2	61.2	72.1	82.8
67°	44.9	45.7	50.1	58.8	69.3	79.6

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.1	0.3
89.5°	0.0	0.0	0.0	0.0	0.0	0.1

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)