

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: P775861

Luminaire Tested: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775861  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B064-HCD82TRMW)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL510CSD-HCD82TRMW-1000lm-3000K  
Description: 8 INCH ROUND NARROW MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

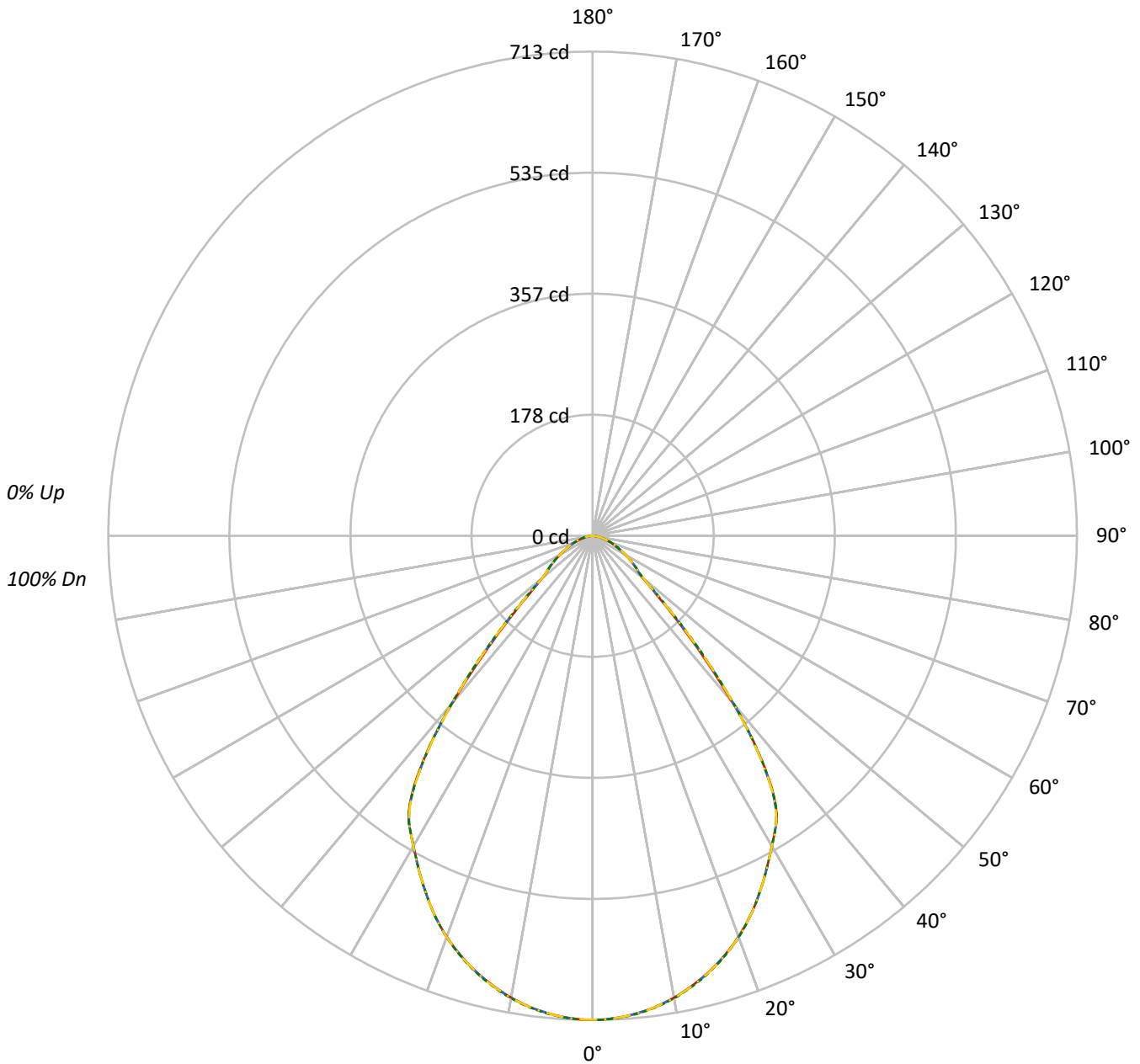
Lumens per Lamp: N/A  
Luminaire Lumens: 1074.7 lumens  
Efficiency: N/A  
Efficacy: 107.5 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.12  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

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									
RC	80									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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	105	99	93	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81																			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72																			
4	91	82	75	70	89	81	74	70	79	73	69	76	72	68	74	70	67	65																			
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59																			
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45																			
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42																			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38																			

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

	0°	90°	180°	270°
0°	21759	21759	21759	21759
5°	21670	21689	21670	21689
10°	21409	21440	21409	21440
15°	20987	21019	20987	21019
20°	20413	20433	20413	20433
25°	19565	19568	19565	19568
30°	18607	18607	18607	18607
35°	17286	17253	17286	17253
40°	12777	12925	12777	12925
45°	7513	7875	7513	7875
50°	4598	4655	4598	4655
55°	3939	3944	3939	3944
60°	3358	3389	3358	3389
65°	2854	2919	2854	2919
70°	2428	2535	2428	2535
75°	2029	2182	2029	2182
80°	1618	1828	1618	1828
85°	1016	1401	1016	1401

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 7940 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.0	6.2
10°-20°	187.0	17.4
20°-30°	267.0	24.8
30°-40°	278.8	25.9
40°-50°	144.8	13.5
50°-60°	66.4	6.2
60°-70°	40.3	3.7
70°-80°	19.3	1.8
80°-90°	4.3	0.4
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°	520.9	48.5
0°-40°	799.7	74.4
0°-60°	1010.9	94.1
0°-90°	1074.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1074.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	713	713	713	713	713	
5°	707	708	707	708	707	67
15°	664	665	664	665	664	187
25°	581	581	581	581	581	267
35°	464	463	464	463	464	279
45°	174	182	174	182	174	141
55°	74	74	74	74	74	66
65°	40	40	40	40	40	40
75°	17	18	17	18	17	18
85°	3	4	3	4	3	4
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°	712.7	712.7	712.7	712.7	712.7	712.7	712.7	712.7	712.7	712.7	712.7
0.5°	712.6	712.4	712.6	712.6	713.0	712.6	712.6	712.4	712.6	712.4	712.6
1°	712.5	712.3	712.5	712.5	712.8	712.5	712.5	712.3	712.5	712.3	712.5
1.5°	712.2	712.0	712.2	712.2	712.6	712.2	712.2	712.0	712.2	712.0	712.2
2°	711.8	711.6	711.8	711.8	712.2	711.8	711.8	711.6	711.8	711.6	711.8
2.5°	711.3	711.1	711.3	711.4	711.7	711.4	711.3	711.1	711.3	711.1	711.3
3°	710.7	710.5	710.7	710.8	711.2	710.8	710.7	710.5	710.7	710.5	710.7
3.5°	709.9	709.7	709.9	710.1	710.5	710.1	709.9	709.7	709.9	709.7	709.9
4°	709.0	708.9	709.1	709.2	709.6	709.2	709.1	708.9	709.0	708.9	709.1
4.5°	708.1	708.0	708.2	708.3	708.7	708.3	708.2	708.0	708.1	708.0	708.2
5°	707.1	706.9	707.1	707.3	707.7	707.3	707.1	706.9	707.1	706.9	707.1
5.5°	705.9	705.8	706.0	706.2	706.6	706.2	706.0	705.8	705.9	705.8	706.0
6°	704.6	704.4	704.7	704.9	705.3	704.9	704.7	704.4	704.6	704.4	704.7
6.5°	703.2	703.1	703.4	703.6	703.9	703.6	703.4	703.1	703.2	703.1	703.4
7°	701.8	701.6	701.9	702.1	702.5	702.1	701.9	701.6	701.8	701.6	701.9
7.5°	700.1	699.9	700.4	700.6	701.0	700.6	700.4	699.9	700.1	699.9	700.4
8°	698.4	698.3	698.6	698.8	699.3	698.8	698.6	698.3	698.4	698.3	698.6
8.5°	696.6	696.5	696.9	697.1	697.5	697.1	696.9	696.5	696.6	696.5	696.9
9°	694.7	694.6	694.9	695.2	695.7	695.2	694.9	694.6	694.7	694.6	694.9
9.5°	692.6	692.6	692.9	693.2	693.6	693.2	692.9	692.6	692.6	692.6	692.9
10°	690.6	690.5	690.9	691.2	691.6	691.2	690.9	690.5	690.6	690.5	690.9
10.5°	688.3	688.2	688.6	688.9	689.4	688.9	688.6	688.2	688.3	688.2	688.6
11°	686.0	686.0	686.3	686.7	687.1	686.7	686.3	686.0	686.0	686.0	686.3
11.5°	683.6	683.5	683.9	684.2	684.6	684.2	683.9	683.5	683.6	683.5	683.9
12°	681.1	681.1	681.4	681.8	682.2	681.8	681.4	681.1	681.1	681.1	681.4
12.5°	678.4	678.4	678.8	679.2	679.5	679.2	678.8	678.4	678.4	678.4	678.8
13°	675.7	675.7	676.2	676.5	676.9	676.5	676.2	675.7	675.7	675.7	676.2
13.5°	672.9	672.9	673.3	673.8	674.0	673.8	673.3	672.9	672.9	672.9	673.3
14°	670.1	670.0	670.4	670.8	671.2	670.8	670.4	670.0	670.1	670.0	670.4
14.5°	667.1	667.1	667.5	667.9	668.2	667.9	667.5	667.1	667.1	667.1	667.5
15°	664.0	664.1	664.5	664.8	665.0	664.8	664.5	664.1	664.0	664.1	664.5
15.5°	660.8	660.9	661.4	661.7	661.9	661.7	661.4	660.9	660.8	660.9	661.4
16°	657.7	657.7	658.1	658.4	658.6	658.4	658.1	657.7	657.7	657.7	658.1
16.5°	654.4	654.4	654.8	655.0	655.3	655.0	654.8	654.4	654.4	654.4	654.8
17°	650.9	650.9	651.3	651.7	651.9	651.7	651.3	650.9	650.9	650.9	651.3
17.5°	647.4	647.5	647.9	648.1	648.3	648.1	647.9	647.5	647.4	647.5	647.9
18°	643.8	643.8	644.2	644.4	644.6	644.4	644.2	643.8	643.8	643.8	644.2
18.5°	640.1	640.1	640.5	640.6	640.8	640.6	640.5	640.1	640.1	640.1	640.5
19°	636.2	636.2	636.6	636.9	637.0	636.9	636.6	636.2	636.2	636.2	636.6
19.5°	632.3	632.4	632.7	632.9	633.0	632.9	632.7	632.4	632.3	632.4	632.7
20°	628.3	628.3	628.6	628.7	628.9	628.7	628.6	628.3	628.3	628.3	628.6
20.5°	624.1	624.1	624.4	624.4	624.6	624.4	624.4	624.1	624.1	624.1	624.4
21°	619.8	619.8	620.1	620.1	620.2	620.1	620.1	619.8	619.8	619.8	620.1



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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°	606.0	606.0	606.2	606.1	606.3	606.1	606.2	606.0	606.0	606.0	606.2
23°	601.2	601.2	601.3	601.3	601.4	601.3	601.3	601.2	601.2	601.2	601.3
23.5°	596.3	596.3	596.4	596.3	596.4	596.3	596.4	596.3	596.3	596.3	596.4
24°	591.3	591.2	591.3	591.2	591.3	591.2	591.3	591.2	591.3	591.2	591.3
24.5°	586.0	586.0	586.2	586.1	586.1	586.1	586.2	586.0	586.0	586.0	586.2
25°	580.8	580.8	580.9	580.9	580.9	580.9	580.9	580.8	580.8	580.8	580.9
25.5°	575.6	575.5	575.7	575.6	575.6	575.6	575.7	575.5	575.6	575.5	575.7
26°	570.3	570.2	570.3	570.4	570.3	570.4	570.3	570.2	570.3	570.2	570.3
26.5°	564.9	565.0	565.0	565.0	565.0	565.0	565.0	565.0	564.9	565.0	565.0
27°	559.6	559.6	559.7	559.7	559.6	559.7	559.7	559.6	559.6	559.6	559.7
27.5°	554.2	554.2	554.4	554.4	554.2	554.4	554.4	554.2	554.2	554.2	554.4
28°	548.8	548.8	549.1	549.0	549.0	549.0	549.1	548.8	548.8	548.8	549.1
28.5°	543.5	543.5	543.7	543.6	543.5	543.6	543.7	543.5	543.5	543.5	543.7
29°	538.1	538.3	538.4	538.3	538.3	538.3	538.4	538.3	538.1	538.3	538.4
29.5°	532.9	533.0	533.2	533.2	533.0	533.2	533.2	533.0	532.9	533.0	533.2
30°	527.8	527.9	528.0	528.0	527.8	528.0	528.0	527.9	527.8	527.9	528.0
30.5°	522.7	522.9	523.0	522.9	522.6	522.9	523.0	522.9	522.7	522.9	523.0
31°	517.7	517.8	518.0	517.9	517.8	517.9	518.0	517.8	517.7	517.8	518.0
31.5°	512.9	512.9	513.0	512.9	512.7	512.9	513.0	512.9	512.9	512.9	513.0
32°	507.9	507.9	507.9	507.8	507.8	507.8	507.9	507.9	507.9	507.9	507.9
32.5°	502.9	502.5	502.4	502.3	502.8	502.3	502.4	502.5	502.9	502.5	502.4
33°	497.4	496.4	496.2	495.9	497.6	495.9	496.2	496.4	497.4	496.4	496.2
33.5°	490.7	489.1	489.2	488.6	490.9	488.6	489.2	489.1	490.7	489.1	489.2
34°	482.6	480.9	481.5	480.2	482.9	480.2	481.5	480.9	482.6	480.9	481.5
34.5°	473.9	471.5	472.5	471.3	473.7	471.3	472.5	471.5	473.9	471.5	472.5
35°	463.8	461.6	462.1	461.3	462.9	461.3	462.1	461.6	463.8	461.6	462.1
35.5°	452.5	451.2	450.6	449.9	451.0	449.9	450.6	451.2	452.5	451.2	450.6
36°	440.0	440.2	438.4	437.6	439.3	437.6	438.4	440.2	440.0	440.2	438.4
36.5°	426.9	427.9	425.4	424.5	426.3	424.5	425.4	427.9	426.9	427.9	425.4
37°	413.5	414.3	412.0	410.8	413.1	410.8	412.0	414.3	413.5	414.3	412.0
37.5°	399.5	399.5	398.0	396.8	398.9	396.8	398.0	399.5	399.5	399.5	398.0
38°	384.9	383.9	383.6	382.6	384.6	382.6	383.6	383.9	384.9	383.9	383.6
38.5°	369.7	367.8	368.7	367.9	369.9	367.9	368.7	367.8	369.7	367.8	368.7
39°	353.7	352.0	353.2	353.1	355.2	353.1	353.2	352.0	353.7	352.0	353.2
39.5°	337.5	336.3	337.7	338.1	340.0	338.1	337.7	336.3	337.5	336.3	337.7
40°	320.6	320.9	322.3	323.4	324.3	323.4	322.3	320.9	320.6	320.9	322.3
40.5°	303.6	305.2	306.7	308.6	308.7	308.6	306.7	305.2	303.6	305.2	306.7
41°	287.2	289.7	291.7	293.9	293.2	293.9	291.7	289.7	287.2	289.7	291.7
41.5°	271.0	273.9	276.7	279.3	277.8	279.3	276.7	273.9	271.0	273.9	276.7
42°	255.4	258.5	261.8	264.6	263.0	264.6	261.8	258.5	255.4	258.5	261.8
42.5°	240.4	243.4	247.0	250.3	248.4	250.3	247.0	243.4	240.4	243.4	247.0
43°	225.8	228.8	232.8	236.1	234.5	236.1	232.8	228.8	225.8	228.8	232.8
43.5°	211.9	214.6	218.9	222.6	220.8	222.6	218.9	214.6	211.9	214.6	218.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	174.0	175.8	180.5	183.9	182.4	183.9	180.5	175.8	174.0	175.8	180.5
45.5°	162.8	164.5	169.0	172.1	171.0	172.1	169.0	164.5	162.8	164.5	169.0
46°	152.3	154.2	158.0	161.0	160.1	161.0	158.0	154.2	152.3	154.2	158.0
46.5°	142.7	144.8	147.5	150.6	149.9	150.6	147.5	144.8	142.7	144.8	147.5
47°	133.7	136.1	138.0	141.0	140.3	141.0	138.0	136.1	133.7	136.1	138.0
47.5°	125.8	128.2	129.2	132.1	131.3	132.1	129.2	128.2	125.8	128.2	129.2
48°	118.6	120.8	121.4	124.2	123.1	124.2	121.4	120.8	118.6	120.8	121.4
48.5°	112.2	113.9	114.4	116.9	115.6	116.9	114.4	113.9	112.2	113.9	114.4
49°	106.4	107.7	108.2	110.3	109.0	110.3	108.2	107.7	106.4	107.7	108.2
49.5°	101.4	102.3	102.9	104.4	103.0	104.4	102.9	102.3	101.4	102.3	102.9
50°	96.8	97.6	98.3	99.3	98.0	99.3	98.3	97.6	96.8	97.6	98.3
50.5°	93.0	93.6	94.2	95.0	93.7	95.0	94.2	93.6	93.0	93.6	94.2
51°	89.8	90.5	90.8	91.4	90.2	91.4	90.8	90.5	89.8	90.5	90.8
51.5°	87.2	87.7	88.0	88.2	87.5	88.2	88.0	87.7	87.2	87.7	88.0
52°	85.1	85.3	85.6	85.7	85.2	85.7	85.6	85.3	85.1	85.3	85.6
52.5°	83.2	83.3	83.4	83.4	83.4	83.4	83.4	83.3	83.2	83.3	83.4
53°	81.4	81.5	81.5	81.5	81.6	81.5	81.5	81.5	81.4	81.5	81.5
53.5°	79.6	79.6	79.6	79.5	79.7	79.5	79.6	79.6	79.6	79.6	79.6
54°	77.8	77.8	77.8	77.7	77.9	77.7	77.8	77.8	77.8	77.8	77.8
54.5°	76.0	76.0	76.0	75.9	76.1	75.9	76.0	76.0	76.0	76.0	76.0
55°	74.0	74.0	74.0	74.0	74.1	74.0	74.0	74.0	74.0	74.0	74.0
55.5°	72.1	72.1	72.2	72.1	72.2	72.1	72.2	72.1	72.1	72.1	72.2
56°	70.1	70.1	70.2	70.2	70.2	70.2	70.2	70.1	70.1	70.1	70.2
56.5°	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.2	68.3	68.3
57°	66.3	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.3	66.4	66.4
57.5°	64.3	64.4	64.5	64.5	64.5	64.5	64.5	64.4	64.3	64.4	64.5
58°	62.4	62.6	62.6	62.7	62.7	62.7	62.6	62.6	62.4	62.6	62.6
58.5°	60.4	60.7	60.7	60.8	60.8	60.8	60.7	60.7	60.4	60.7	60.7
59°	58.6	58.9	59.0	59.0	59.0	59.0	59.0	58.9	58.6	58.9	59.0
59.5°	56.9	57.2	57.3	57.3	57.3	57.3	57.3	57.2	56.9	57.2	57.3
60°	55.0	55.4	55.5	55.6	55.5	55.6	55.5	55.4	55.0	55.4	55.5
60.5°	53.3	53.7	53.9	53.9	53.9	53.9	53.9	53.7	53.3	53.7	53.9
61°	51.7	52.1	52.3	52.3	52.3	52.3	52.3	52.1	51.7	52.1	52.3
61.5°	50.0	50.4	50.6	50.7	50.7	50.7	50.6	50.4	50.0	50.4	50.6
62°	48.4	48.8	49.1	49.1	49.1	49.1	49.1	48.8	48.4	48.8	49.1
62.5°	46.9	47.3	47.6	47.6	47.6	47.6	47.6	47.3	46.9	47.3	47.6
63°	45.2	45.7	46.1	46.1	46.1	46.1	46.1	45.7	45.2	45.7	46.1
63.5°	43.8	44.3	44.6	44.7	44.7	44.7	44.6	44.3	43.8	44.3	44.6
64°	42.4	42.8	43.2	43.3	43.3	43.3	43.2	42.8	42.4	42.8	43.2
64.5°	40.9	41.3	41.9	41.9	41.9	41.9	41.9	41.3	40.9	41.3	41.9
65°	39.5	39.9	40.4	40.5	40.4	40.5	40.4	39.9	39.5	39.9	40.4
65.5°	38.2	38.6	39.1	39.2	39.2	39.2	39.1	38.6	38.2	38.6	39.1
66°	36.9	37.3	37.8	37.9	37.9	37.9	37.8	37.3	36.9	37.3	37.8





TEST NUMBER: P775861

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	33.0	33.5	34.0	34.2	34.1	34.2	34.0	33.5	33.0	33.5	34.0
68°	31.8	32.3	32.9	33.0	33.0	33.0	32.9	32.3	31.8	32.3	32.9
68.5°	30.6	31.0	31.6	31.8	31.8	31.8	31.6	31.0	30.6	31.0	31.6
69°	29.4	29.9	30.5	30.6	30.6	30.6	30.5	29.9	29.4	29.9	30.5
69.5°	28.3	28.7	29.4	29.5	29.5	29.5	29.4	28.7	28.3	28.7	29.4
70°	27.2	27.6	28.3	28.4	28.4	28.4	28.3	27.6	27.2	27.6	28.3
70.5°	26.0	26.4	27.2	27.3	27.3	27.3	27.2	26.4	26.0	26.4	27.2
71°	25.0	25.4	26.0	26.2	26.2	26.2	26.0	25.4	25.0	25.4	26.0
71.5°	23.9	24.3	25.0	25.2	25.1	25.2	25.0	24.3	23.9	24.3	25.0
72°	22.9	23.3	24.0	24.2	24.1	24.2	24.0	23.3	22.9	23.3	24.0
72.5°	21.8	22.3	23.0	23.2	23.1	23.2	23.0	22.3	21.8	22.3	23.0
73°	20.8	21.2	21.9	22.2	22.2	22.2	21.9	21.2	20.8	21.2	21.9
73.5°	19.9	20.3	21.0	21.2	21.2	21.2	21.0	20.3	19.9	20.3	21.0
74°	19.0	19.4	20.0	20.3	20.2	20.3	20.0	19.4	19.0	19.4	20.0
74.5°	18.1	18.4	19.1	19.4	19.3	19.4	19.1	18.4	18.1	18.4	19.1
75°	17.2	17.5	18.2	18.5	18.5	18.5	18.2	17.5	17.2	17.5	18.2
75.5°	16.2	16.6	17.3	17.6	17.6	17.6	17.3	16.6	16.2	16.6	17.3
76°	15.4	15.7	16.4	16.7	16.6	16.7	16.4	15.7	15.4	15.7	16.4
76.5°	14.5	14.9	15.5	15.8	15.8	15.8	15.5	14.9	14.5	14.9	15.5
77°	13.7	14.1	14.7	15.0	15.0	15.0	14.7	14.1	13.7	14.1	14.7
77.5°	13.0	13.3	13.9	14.2	14.2	14.2	13.9	13.3	13.0	13.3	13.9
78°	12.1	12.5	13.1	13.5	13.4	13.5	13.1	12.5	12.1	12.5	13.1
78.5°	11.3	11.6	12.4	12.7	12.7	12.7	12.4	11.6	11.3	11.6	12.4
79°	10.6	10.9	11.5	11.9	11.8	11.9	11.5	10.9	10.6	10.9	11.5
79.5°	9.9	10.1	10.8	11.1	11.1	11.1	10.8	10.1	9.9	10.1	10.8
80°	9.2	9.4	10.1	10.4	10.4	10.4	10.1	9.4	9.2	9.4	10.1
80.5°	8.5	8.7	9.4	9.7	9.7	9.7	9.4	8.7	8.5	8.7	9.4
81°	7.8	8.0	8.7	9.0	9.0	9.0	8.7	8.0	7.8	8.0	8.7
81.5°	7.1	7.2	8.0	8.4	8.4	8.4	8.0	7.2	7.1	7.2	8.0
82°	6.4	6.6	7.2	7.7	7.7	7.7	7.2	6.6	6.4	6.6	7.2
82.5°	5.8	5.9	6.6	7.0	7.0	7.0	6.6	5.9	5.8	5.9	6.6
83°	5.2	5.3	6.0	6.4	6.3	6.4	6.0	5.3	5.2	5.3	6.0
83.5°	4.6	4.7	5.4	5.7	5.7	5.7	5.4	4.7	4.6	4.7	5.4
84°	4.0	4.1	4.8	5.1	5.1	5.1	4.8	4.1	4.0	4.1	4.8
84.5°	3.4	3.5	4.2	4.6	4.6	4.6	4.2	3.5	3.4	3.5	4.2
85°	2.9	3.0	3.7	4.0	4.0	4.0	3.7	3.0	2.9	3.0	3.7
85.5°	2.3	2.5	3.2	3.4	3.4	3.4	3.2	2.5	2.3	2.5	3.2
86°	1.8	2.0	2.7	2.9	2.9	2.9	2.7	2.0	1.8	2.0	2.7
86.5°	1.4	1.6	2.1	2.3	2.3	2.3	2.1	1.6	1.4	1.6	2.1
87°	1.1	1.2	1.6	1.8	1.8	1.8	1.6	1.2	1.1	1.2	1.6
87.5°	0.8	0.9	1.2	1.4	1.3	1.4	1.2	0.9	0.8	0.9	1.2
88°	0.5	0.6	0.9	1.0	0.8	1.0	0.9	0.6	0.5	0.6	0.9
88.5°	0.3	0.4	0.6	0.7	0.5	0.7	0.6	0.4	0.3	0.4	0.6



TEST NUMBER: P775861

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P775861

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	712.7	712.7	712.7	712.7	712.7	712.7
0.5°	712.6	713.0	712.6	712.6	712.4	712.6
1°	712.5	712.8	712.5	712.5	712.3	712.5
1.5°	712.2	712.6	712.2	712.2	712.0	712.2
2°	711.8	712.2	711.8	711.8	711.6	711.8
2.5°	711.4	711.7	711.4	711.3	711.1	711.3
3°	710.8	711.2	710.8	710.7	710.5	710.7
3.5°	710.1	710.5	710.1	709.9	709.7	709.9
4°	709.2	709.6	709.2	709.1	708.9	709.0
4.5°	708.3	708.7	708.3	708.2	708.0	708.1
5°	707.3	707.7	707.3	707.1	706.9	707.1
5.5°	706.2	706.6	706.2	706.0	705.8	705.9
6°	704.9	705.3	704.9	704.7	704.4	704.6
6.5°	703.6	703.9	703.6	703.4	703.1	703.2
7°	702.1	702.5	702.1	701.9	701.6	701.8
7.5°	700.6	701.0	700.6	700.4	699.9	700.1
8°	698.8	699.3	698.8	698.6	698.3	698.4
8.5°	697.1	697.5	697.1	696.9	696.5	696.6
9°	695.2	695.7	695.2	694.9	694.6	694.7
9.5°	693.2	693.6	693.2	692.9	692.6	692.6
10°	691.2	691.6	691.2	690.9	690.5	690.6
10.5°	688.9	689.4	688.9	688.6	688.2	688.3
11°	686.7	687.1	686.7	686.3	686.0	686.0
11.5°	684.2	684.6	684.2	683.9	683.5	683.6
12°	681.8	682.2	681.8	681.4	681.1	681.1
12.5°	679.2	679.5	679.2	678.8	678.4	678.4
13°	676.5	676.9	676.5	676.2	675.7	675.7
13.5°	673.8	674.0	673.8	673.3	672.9	672.9
14°	670.8	671.2	670.8	670.4	670.0	670.1
14.5°	667.9	668.2	667.9	667.5	667.1	667.1
15°	664.8	665.0	664.8	664.5	664.1	664.0
15.5°	661.7	661.9	661.7	661.4	660.9	660.8
16°	658.4	658.6	658.4	658.1	657.7	657.7
16.5°	655.0	655.3	655.0	654.8	654.4	654.4
17°	651.7	651.9	651.7	651.3	650.9	650.9
17.5°	648.1	648.3	648.1	647.9	647.5	647.4
18°	644.4	644.6	644.4	644.2	643.8	643.8
18.5°	640.6	640.8	640.6	640.5	640.1	640.1
19°	636.9	637.0	636.9	636.6	636.2	636.2
19.5°	632.9	633.0	632.9	632.7	632.4	632.3
20°	628.7	628.9	628.7	628.6	628.3	628.3
20.5°	624.4	624.6	624.4	624.4	624.1	624.1
21°	620.1	620.2	620.1	620.1	619.8	619.8



TEST NUMBER: P775861

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	606.1	606.3	606.1	606.2	606.0	606.0
23°	601.3	601.4	601.3	601.3	601.2	601.2
23.5°	596.3	596.4	596.3	596.4	596.3	596.3
24°	591.2	591.3	591.2	591.3	591.2	591.3
24.5°	586.1	586.1	586.1	586.2	586.0	586.0
25°	580.9	580.9	580.9	580.9	580.8	580.8
25.5°	575.6	575.6	575.6	575.7	575.5	575.6
26°	570.4	570.3	570.4	570.3	570.2	570.3
26.5°	565.0	565.0	565.0	565.0	565.0	564.9
27°	559.7	559.6	559.7	559.7	559.6	559.6
27.5°	554.4	554.2	554.4	554.4	554.2	554.2
28°	549.0	549.0	549.0	549.1	548.8	548.8
28.5°	543.6	543.5	543.6	543.7	543.5	543.5
29°	538.3	538.3	538.3	538.4	538.3	538.1
29.5°	533.2	533.0	533.2	533.2	533.0	532.9
30°	528.0	527.8	528.0	528.0	527.9	527.8
30.5°	522.9	522.6	522.9	523.0	522.9	522.7
31°	517.9	517.8	517.9	518.0	517.8	517.7
31.5°	512.9	512.7	512.9	513.0	512.9	512.9
32°	507.8	507.8	507.8	507.9	507.9	507.9
32.5°	502.3	502.8	502.3	502.4	502.5	502.9
33°	495.9	497.6	495.9	496.2	496.4	497.4
33.5°	488.6	490.9	488.6	489.2	489.1	490.7
34°	480.2	482.9	480.2	481.5	480.9	482.6
34.5°	471.3	473.7	471.3	472.5	471.5	473.9
35°	461.3	462.9	461.3	462.1	461.6	463.8
35.5°	449.9	451.0	449.9	450.6	451.2	452.5
36°	437.6	439.3	437.6	438.4	440.2	440.0
36.5°	424.5	426.3	424.5	425.4	427.9	426.9
37°	410.8	413.1	410.8	412.0	414.3	413.5
37.5°	396.8	398.9	396.8	398.0	399.5	399.5
38°	382.6	384.6	382.6	383.6	383.9	384.9
38.5°	367.9	369.9	367.9	368.7	367.8	369.7
39°	353.1	355.2	353.1	353.2	352.0	353.7
39.5°	338.1	340.0	338.1	337.7	336.3	337.5
40°	323.4	324.3	323.4	322.3	320.9	320.6
40.5°	308.6	308.7	308.6	306.7	305.2	303.6
41°	293.9	293.2	293.9	291.7	289.7	287.2
41.5°	279.3	277.8	279.3	276.7	273.9	271.0
42°	264.6	263.0	264.6	261.8	258.5	255.4
42.5°	250.3	248.4	250.3	247.0	243.4	240.4
43°	236.1	234.5	236.1	232.8	228.8	225.8
43.5°	222.6	220.8	222.6	218.9	214.6	211.9



TEST NUMBER: P775861

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	183.9	182.4	183.9	180.5	175.8	174.0
45.5°	172.1	171.0	172.1	169.0	164.5	162.8
46°	161.0	160.1	161.0	158.0	154.2	152.3
46.5°	150.6	149.9	150.6	147.5	144.8	142.7
47°	141.0	140.3	141.0	138.0	136.1	133.7
47.5°	132.1	131.3	132.1	129.2	128.2	125.8
48°	124.2	123.1	124.2	121.4	120.8	118.6
48.5°	116.9	115.6	116.9	114.4	113.9	112.2
49°	110.3	109.0	110.3	108.2	107.7	106.4
49.5°	104.4	103.0	104.4	102.9	102.3	101.4
50°	99.3	98.0	99.3	98.3	97.6	96.8
50.5°	95.0	93.7	95.0	94.2	93.6	93.0
51°	91.4	90.2	91.4	90.8	90.5	89.8
51.5°	88.2	87.5	88.2	88.0	87.7	87.2
52°	85.7	85.2	85.7	85.6	85.3	85.1
52.5°	83.4	83.4	83.4	83.4	83.3	83.2
53°	81.5	81.6	81.5	81.5	81.5	81.4
53.5°	79.5	79.7	79.5	79.6	79.6	79.6
54°	77.7	77.9	77.7	77.8	77.8	77.8
54.5°	75.9	76.1	75.9	76.0	76.0	76.0
55°	74.0	74.1	74.0	74.0	74.0	74.0
55.5°	72.1	72.2	72.1	72.2	72.1	72.1
56°	70.2	70.2	70.2	70.2	70.1	70.1
56.5°	68.3	68.3	68.3	68.3	68.3	68.2
57°	66.4	66.4	66.4	66.4	66.4	66.3
57.5°	64.5	64.5	64.5	64.5	64.4	64.3
58°	62.7	62.7	62.7	62.6	62.6	62.4
58.5°	60.8	60.8	60.8	60.7	60.7	60.4
59°	59.0	59.0	59.0	59.0	58.9	58.6
59.5°	57.3	57.3	57.3	57.3	57.2	56.9
60°	55.6	55.5	55.6	55.5	55.4	55.0
60.5°	53.9	53.9	53.9	53.9	53.7	53.3
61°	52.3	52.3	52.3	52.3	52.1	51.7
61.5°	50.7	50.7	50.7	50.6	50.4	50.0
62°	49.1	49.1	49.1	49.1	48.8	48.4
62.5°	47.6	47.6	47.6	47.6	47.3	46.9
63°	46.1	46.1	46.1	46.1	45.7	45.2
63.5°	44.7	44.7	44.7	44.6	44.3	43.8
64°	43.3	43.3	43.3	43.2	42.8	42.4
64.5°	41.9	41.9	41.9	41.9	41.3	40.9
65°	40.5	40.4	40.5	40.4	39.9	39.5
65.5°	39.2	39.2	39.2	39.1	38.6	38.2
66°	37.9	37.9	37.9	37.8	37.3	36.9



TEST NUMBER: P775861

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	34.2	34.1	34.2	34.0	33.5	33.0
68°	33.0	33.0	33.0	32.9	32.3	31.8
68.5°	31.8	31.8	31.8	31.6	31.0	30.6
69°	30.6	30.6	30.6	30.5	29.9	29.4
69.5°	29.5	29.5	29.5	29.4	28.7	28.3
70°	28.4	28.4	28.4	28.3	27.6	27.2
70.5°	27.3	27.3	27.3	27.2	26.4	26.0
71°	26.2	26.2	26.2	26.0	25.4	25.0
71.5°	25.2	25.1	25.2	25.0	24.3	23.9
72°	24.2	24.1	24.2	24.0	23.3	22.9
72.5°	23.2	23.1	23.2	23.0	22.3	21.8
73°	22.2	22.2	22.2	21.9	21.2	20.8
73.5°	21.2	21.2	21.2	21.0	20.3	19.9
74°	20.3	20.2	20.3	20.0	19.4	19.0
74.5°	19.4	19.3	19.4	19.1	18.4	18.1
75°	18.5	18.5	18.5	18.2	17.5	17.2
75.5°	17.6	17.6	17.6	17.3	16.6	16.2
76°	16.7	16.6	16.7	16.4	15.7	15.4
76.5°	15.8	15.8	15.8	15.5	14.9	14.5
77°	15.0	15.0	15.0	14.7	14.1	13.7
77.5°	14.2	14.2	14.2	13.9	13.3	13.0
78°	13.5	13.4	13.5	13.1	12.5	12.1
78.5°	12.7	12.7	12.7	12.4	11.6	11.3
79°	11.9	11.8	11.9	11.5	10.9	10.6
79.5°	11.1	11.1	11.1	10.8	10.1	9.9
80°	10.4	10.4	10.4	10.1	9.4	9.2
80.5°	9.7	9.7	9.7	9.4	8.7	8.5
81°	9.0	9.0	9.0	8.7	8.0	7.8
81.5°	8.4	8.4	8.4	8.0	7.2	7.1
82°	7.7	7.7	7.7	7.2	6.6	6.4
82.5°	7.0	7.0	7.0	6.6	5.9	5.8
83°	6.4	6.3	6.4	6.0	5.3	5.2
83.5°	5.7	5.7	5.7	5.4	4.7	4.6
84°	5.1	5.1	5.1	4.8	4.1	4.0
84.5°	4.6	4.6	4.6	4.2	3.5	3.4
85°	4.0	4.0	4.0	3.7	3.0	2.9
85.5°	3.4	3.4	3.4	3.2	2.5	2.3
86°	2.9	2.9	2.9	2.7	2.0	1.8
86.5°	2.3	2.3	2.3	2.1	1.6	1.4
87°	1.8	1.8	1.8	1.6	1.2	1.1
87.5°	1.4	1.3	1.4	1.2	0.9	0.8
88°	1.0	0.8	1.0	0.9	0.6	0.5
88.5°	0.7	0.5	0.7	0.6	0.4	0.3



TEST NUMBER: P775861  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRMW-1000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.0	0.1	0.1	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°	615.3	615.4	615.6	615.6	615.7	615.6	615.6	615.4	615.3	615.4	615.6
22°	610.8	610.8	610.9	610.9	611.1	610.9	610.9	610.8	610.8	610.8	610.9



44°	198.7	200.9	205.6	209.1	207.6	209.1	205.6	200.9	198.7	200.9	205.6
44.5°	186.1	188.0	192.8	196.3	194.7	196.3	192.8	188.0	186.1	188.0	192.8



66.5°	35.4	35.9	36.4	36.5	36.7	36.5	36.4	35.9	35.4	35.9	36.4
67°	34.2	34.6	35.2	35.4	35.4	35.4	35.2	34.6	34.2	34.6	35.2



89°	0.1	0.2	0.3	0.5	0.3	0.5	0.3	0.2	0.1	0.2	0.3
89.5°	0.0	0.1	0.2	0.3	0.1	0.3	0.2	0.1	0.0	0.1	0.2



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21.5°	615.6	615.7	615.6	615.6	615.4	615.3
22°	610.9	611.1	610.9	610.9	610.8	610.8



44°	209.1	207.6	209.1	205.6	200.9	198.7
44.5°	196.3	194.7	196.3	192.8	188.0	186.1

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66.5°	36.5	36.7	36.5	36.4	35.9	35.4
67°	35.4	35.4	35.4	35.2	34.6	34.2

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89°	0.5	0.3	0.5	0.3	0.2	0.1
89.5°	0.3	0.1	0.3	0.2	0.1	0.0

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(END OF REPORT)