

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: P775859

Luminaire Tested: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775859
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B065-HCD82TRMB)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD82TRMB-1000lm-5000K
Description: 8 INCH ROUND NARROW MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 704.1 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.06 / 1.08
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

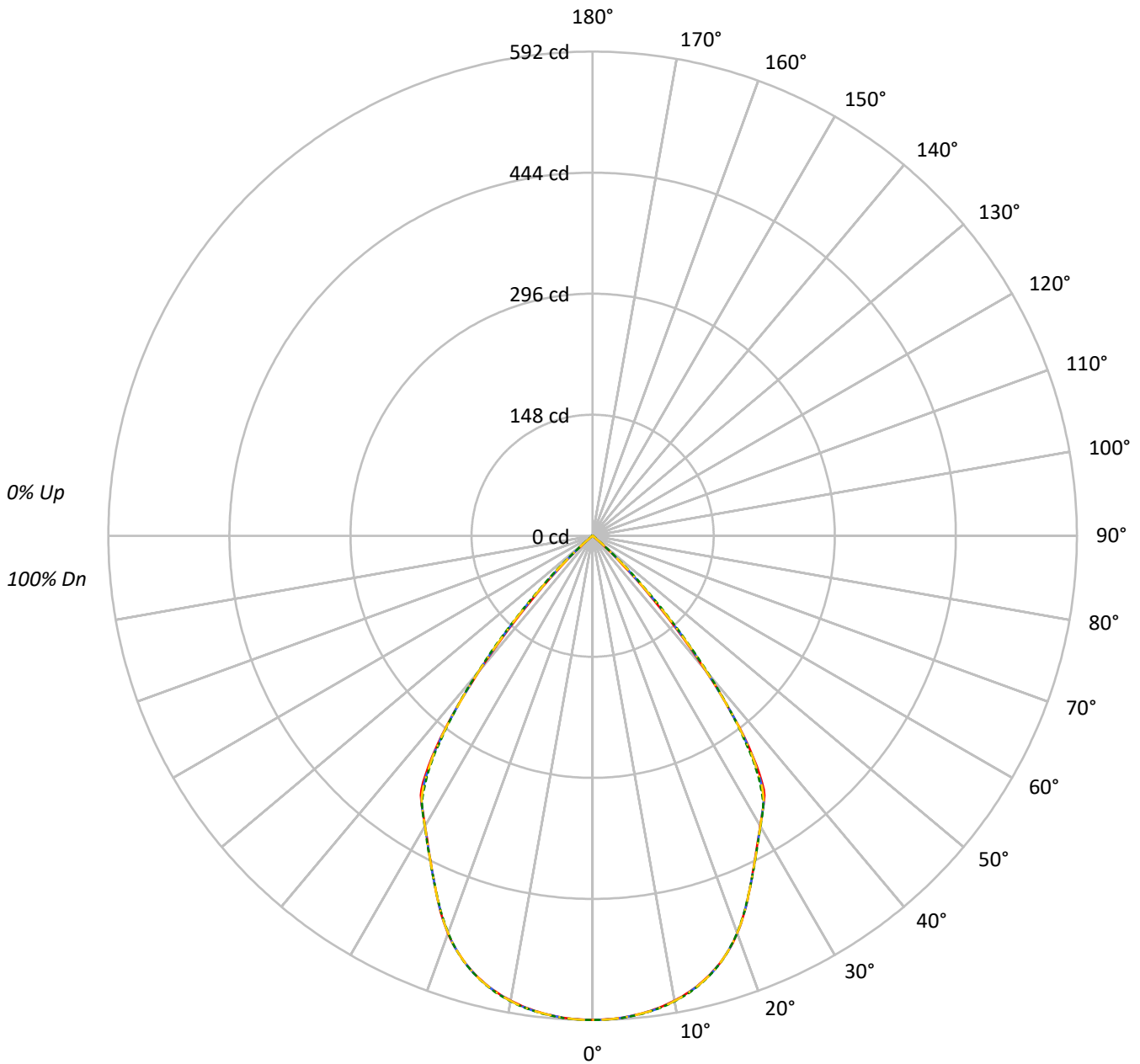
Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

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			
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93					93			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	85	91	86	83	88	85	82	86	83	81	79					79			
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	81	77	74	73					73			
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67					67			
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62					62			
7	81	71	64	60	79	70	64	60	69	63	59	68	63	59	66	62	59	57					57			
8	76	66	60	55	75	66	60	55	64	59	55	63	58	55	62	58	55	53					53			
9	72	62	56	51	71	61	55	51	60	55	51	60	55	51	59	54	51	49					49			
10	69	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46					46			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	18074	18074	18074	18074
5°	18033	18051	18033	18051
10°	17891	17919	17891	17919
15°	17545	17564	17545	17564
20°	16804	16784	16804	16784
25°	15519	15536	15519	15536
30°	14447	14471	14447	14471
35°	13265	12993	13265	12993
40°	8557	8796	8557	8796
45°	3143	3778	3143	3778
50°	361	579	361	579
55°	59	59	59	59
60°	31	31	31	31
65°	22	22	22	22
70°	18	18	18	18
75°	12	12	12	12
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3778 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.8	7.9
10°-20°	155.7	22.1
20°-30°	212.3	30.1
30°-40°	209.6	29.8
40°-50°	68.6	9.7
50°-60°	1.6	0.2
60°-70°	0.3	0.0
70°-80°	0.1	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°	423.9	60.2
0°-40°	633.5	90.0
0°-60°	703.7	99.9
0°-90°	704.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	704.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	592	592	592	592	592	
5°	588	589	588	589	588	56
15°	555	556	555	556	555	156
25°	461	461	461	461	461	212
35°	356	349	356	349	356	210
45°	73	88	73	88	73	64
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
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°	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
0.5°	591.9	591.9	592.0	591.9	592.0	591.9	592.0	591.9	591.9	591.9	592.0
1°	591.8	591.8	591.9	591.8	592.0	591.8	591.9	591.8	591.8	591.8	591.9
1.5°	591.6	591.7	591.7	591.7	591.8	591.7	591.7	591.7	591.6	591.7	591.7
2°	591.4	591.4	591.5	591.5	591.6	591.5	591.5	591.4	591.4	591.4	591.5
2.5°	591.1	591.2	591.2	591.2	591.3	591.2	591.2	591.2	591.1	591.2	591.2
3°	590.8	590.8	590.9	590.9	591.0	590.9	590.9	590.8	590.8	590.8	590.9
3.5°	590.3	590.3	590.4	590.4	590.6	590.4	590.4	590.3	590.3	590.3	590.4
4°	589.8	589.8	589.9	589.9	590.1	589.9	589.9	589.8	589.8	589.8	589.9
4.5°	589.2	589.2	589.3	589.4	589.5	589.4	589.3	589.2	589.2	589.2	589.3
5°	588.4	588.5	588.6	588.7	589.0	588.7	588.6	588.5	588.4	588.5	588.6
5.5°	587.8	587.8	587.9	588.0	588.2	588.0	587.9	587.8	587.8	587.8	587.9
6°	586.9	586.9	587.1	587.2	587.5	587.2	587.1	586.9	586.9	586.9	587.1
6.5°	586.0	586.1	586.3	586.4	586.6	586.4	586.3	586.1	586.0	586.1	586.3
7°	585.0	585.0	585.3	585.4	585.6	585.4	585.3	585.0	585.0	585.0	585.3
7.5°	583.9	583.9	584.3	584.4	584.6	584.4	584.3	583.9	583.9	583.9	584.3
8°	582.8	582.9	583.1	583.3	583.5	583.3	583.1	582.9	582.8	582.9	583.1
8.5°	581.5	581.6	581.8	582.0	582.2	582.0	581.8	581.6	581.5	581.6	581.8
9°	580.1	580.2	580.5	580.7	581.0	580.7	580.5	580.2	580.1	580.2	580.5
9.5°	578.6	578.7	579.0	579.4	579.6	579.4	579.0	578.7	578.6	578.7	579.0
10°	577.1	577.2	577.4	577.8	578.0	577.8	577.4	577.2	577.1	577.2	577.4
10.5°	575.4	575.5	575.8	576.2	576.4	576.2	575.8	575.5	575.4	575.5	575.8
11°	573.7	573.8	574.1	574.3	574.6	574.3	574.1	573.8	573.7	573.8	574.1
11.5°	571.8	571.9	572.2	572.4	572.7	572.4	572.2	571.9	571.8	571.9	572.2
12°	569.9	569.9	570.2	570.5	570.7	570.5	570.2	569.9	569.9	569.9	570.2
12.5°	567.7	567.7	568.0	568.4	568.6	568.4	568.0	567.7	567.7	567.7	568.0
13°	565.5	565.6	565.8	566.1	566.2	566.1	565.8	565.6	565.5	565.6	565.8
13.5°	563.0	563.1	563.5	563.7	563.9	563.7	563.5	563.1	563.0	563.1	563.5
14°	560.6	560.7	560.9	561.1	561.3	561.1	560.9	560.7	560.6	560.7	560.9
14.5°	557.9	558.0	558.2	558.4	558.7	558.4	558.2	558.0	557.9	558.0	558.2
15°	555.1	555.1	555.4	555.6	555.7	555.6	555.4	555.1	555.1	555.1	555.4
15.5°	552.2	552.2	552.4	552.6	552.7	552.6	552.4	552.2	552.2	552.2	552.4
16°	549.0	549.1	549.2	549.3	549.5	549.3	549.2	549.1	549.0	549.1	549.2
16.5°	545.8	545.8	545.9	546.0	546.1	546.0	545.9	545.8	545.8	545.8	545.9
17°	542.2	542.2	542.3	542.4	542.6	542.4	542.3	542.2	542.2	542.2	542.3
17.5°	538.5	538.5	538.6	538.6	538.7	538.6	538.6	538.5	538.5	538.5	538.6
18°	534.8	534.7	534.7	534.7	534.8	534.7	534.7	534.7	534.8	534.7	534.7
18.5°	530.6	530.6	530.5	530.5	530.5	530.5	530.5	530.6	530.6	530.6	530.5
19°	526.3	526.3	526.2	526.1	526.1	526.1	526.2	526.3	526.3	526.3	526.2
19.5°	521.9	521.7	521.6	521.5	521.5	521.5	521.6	521.7	521.9	521.7	521.6
20°	517.2	517.1	516.9	516.7	516.6	516.7	516.9	517.1	517.2	517.1	516.9
20.5°	512.1	512.0	511.8	511.6	511.5	511.6	511.8	512.0	512.1	512.0	511.8
21°	506.9	506.9	506.7	506.3	506.1	506.3	506.7	506.9	506.9	506.9	506.7



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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°	490.2	490.2	490.0	489.6	489.6	489.6	490.0	490.2	490.2	490.2	490.0
23°	484.3	484.3	484.2	483.9	483.9	483.9	484.2	484.3	484.3	484.3	484.2
23.5°	478.3	478.4	478.3	478.1	478.1	478.1	478.3	478.4	478.3	478.4	478.3
24°	472.4	472.5	472.5	472.4	472.5	472.4	472.5	472.5	472.4	472.5	472.5
24.5°	466.6	466.6	466.7	466.6	466.8	466.6	466.7	466.6	466.6	466.6	466.7
25°	460.7	460.8	460.9	460.9	461.2	460.9	460.9	460.8	460.7	460.8	460.9
25.5°	455.2	455.2	455.3	455.4	455.6	455.4	455.3	455.2	455.2	455.2	455.3
26°	449.6	449.7	449.8	450.0	450.2	450.0	449.8	449.7	449.6	449.7	449.8
26.5°	444.2	444.3	444.4	444.5	444.8	444.5	444.4	444.3	444.2	444.3	444.4
27°	439.0	439.0	439.2	439.2	439.5	439.2	439.2	439.0	439.0	439.0	439.2
27.5°	433.7	433.8	434.0	434.2	434.4	434.2	434.0	433.8	433.7	433.8	434.0
28°	428.6	428.7	428.9	429.0	429.4	429.0	428.9	428.7	428.6	428.7	428.9
28.5°	423.7	423.9	424.0	424.1	424.5	424.1	424.0	423.9	423.7	423.9	424.0
29°	419.0	419.1	419.2	419.3	419.7	419.3	419.2	419.1	419.0	419.1	419.2
29.5°	414.3	414.4	414.6	414.8	415.0	414.8	414.6	414.4	414.3	414.4	414.6
30°	409.8	409.8	410.1	410.2	410.5	410.2	410.1	409.8	409.8	409.8	410.1
30.5°	405.4	405.5	405.6	405.8	406.0	405.8	405.6	405.5	405.4	405.5	405.6
31°	401.1	401.2	401.4	401.5	401.8	401.5	401.4	401.2	401.1	401.2	401.4
31.5°	397.0	397.2	397.2	397.3	397.5	397.3	397.2	397.2	397.0	397.2	397.2
32°	393.1	393.1	393.1	393.0	393.2	393.0	393.1	393.1	393.1	393.1	393.1
32.5°	389.3	389.2	388.9	388.5	388.1	388.5	388.9	389.2	389.3	389.2	388.9
33°	385.1	384.9	383.8	382.8	381.6	382.8	383.8	384.9	385.1	384.9	383.8
33.5°	380.6	379.6	377.5	375.7	374.2	375.7	377.5	379.6	380.6	379.6	377.5
34°	374.2	372.8	370.1	367.7	366.1	367.7	370.1	372.8	374.2	372.8	370.1
34.5°	365.8	364.6	361.5	359.3	357.7	359.3	361.5	364.6	365.8	364.6	361.5
35°	355.9	354.7	351.9	350.1	348.6	350.1	351.9	354.7	355.9	354.7	351.9
35.5°	345.0	344.3	341.8	339.9	338.4	339.9	341.8	344.3	345.0	344.3	341.8
36°	333.4	332.8	330.7	328.8	327.2	328.8	330.7	332.8	333.4	332.8	330.7
36.5°	321.0	320.6	318.7	316.7	315.0	316.7	318.7	320.6	321.0	320.6	318.7
37°	307.1	306.8	305.7	304.2	302.5	304.2	305.7	306.8	307.1	306.8	305.7
37.5°	292.8	292.4	292.0	291.0	289.6	291.0	292.0	292.4	292.8	292.4	292.0
38°	277.7	277.0	277.2	277.1	276.5	277.1	277.2	277.0	277.7	277.0	277.2
38.5°	263.0	262.0	262.2	262.7	263.3	262.7	262.2	262.0	263.0	262.0	262.2
39°	247.1	246.7	247.0	248.2	249.6	248.2	247.0	246.7	247.1	246.7	247.0
39.5°	231.3	231.5	231.9	233.5	235.4	233.5	231.9	231.5	231.3	231.5	231.9
40°	214.7	215.8	216.8	218.9	220.7	218.9	216.8	215.8	214.7	215.8	216.8
40.5°	198.8	200.3	202.1	204.5	206.1	204.5	202.1	200.3	198.8	200.3	202.1
41°	182.5	184.5	187.5	190.2	191.8	190.2	187.5	184.5	182.5	184.5	187.5
41.5°	167.1	169.2	172.8	176.0	177.5	176.0	172.8	169.2	167.1	169.2	172.8
42°	151.9	153.8	158.1	161.9	163.3	161.9	158.1	153.8	151.9	153.8	158.1
42.5°	137.2	139.5	144.3	148.2	149.5	148.2	144.3	139.5	137.2	139.5	144.3
43°	123.0	125.7	130.5	134.5	135.9	134.5	130.5	125.7	123.0	125.7	130.5
43.5°	109.8	112.3	117.0	121.2	123.1	121.2	117.0	112.3	109.8	112.3	117.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	72.8	75.0	79.9	84.8	87.5	84.8	79.9	75.0	72.8	75.0	79.9
45.5°	61.6	64.2	69.2	74.4	76.8	74.4	69.2	64.2	61.6	64.2	69.2
46°	51.7	54.0	59.6	64.6	67.6	64.6	59.6	54.0	51.7	54.0	59.6
46.5°	42.9	45.2	50.6	55.4	58.6	55.4	50.6	45.2	42.9	45.2	50.6
47°	35.9	37.3	41.8	46.6	49.4	46.6	41.8	37.3	35.9	37.3	41.8
47.5°	29.3	30.2	34.2	38.4	40.2	38.4	34.2	30.2	29.3	30.2	34.2
48°	23.4	24.2	27.3	31.0	33.0	31.0	27.3	24.2	23.4	24.2	27.3
48.5°	18.8	19.2	21.9	24.6	26.3	24.6	21.9	19.2	18.8	19.2	21.9
49°	14.1	14.6	16.9	19.5	20.5	19.5	16.9	14.6	14.1	14.6	16.9
49.5°	10.7	10.9	12.4	14.7	16.0	14.7	12.4	10.9	10.7	10.9	12.4
50°	7.6	7.4	9.4	11.5	12.2	11.5	9.4	7.4	7.6	7.4	9.4
50.5°	4.7	5.1	6.6	8.6	9.8	8.6	6.6	5.1	4.7	5.1	6.6
51°	2.6	3.4	4.6	5.8	7.5	5.8	4.6	3.4	2.6	3.4	4.6
51.5°	2.0	2.1	3.0	3.7	5.5	3.7	3.0	2.1	2.0	2.1	3.0
52°	1.7	1.8	1.9	2.3	3.6	2.3	1.9	1.8	1.7	1.8	1.9
52.5°	1.4	1.6	1.6	1.8	1.7	1.8	1.6	1.6	1.4	1.6	1.6
53°	1.4	1.4	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.5
53.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
54°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
54.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
55°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
55.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
56°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
56.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
57°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
57.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58.5°	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7
59°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
59.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
60°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
60.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
61°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
61.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
62°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
63°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
63.5°	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
64°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
64.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
66°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
68°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
68.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
71°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
71.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	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	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°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
78°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	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	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: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

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: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	592.0	592.0	592.0	592.0	592.0	592.0
0.5°	591.9	592.0	591.9	592.0	591.9	591.9
1°	591.8	592.0	591.8	591.9	591.8	591.8
1.5°	591.7	591.8	591.7	591.7	591.7	591.6
2°	591.5	591.6	591.5	591.5	591.4	591.4
2.5°	591.2	591.3	591.2	591.2	591.2	591.1
3°	590.9	591.0	590.9	590.9	590.8	590.8
3.5°	590.4	590.6	590.4	590.4	590.3	590.3
4°	589.9	590.1	589.9	589.9	589.8	589.8
4.5°	589.4	589.5	589.4	589.3	589.2	589.2
5°	588.7	589.0	588.7	588.6	588.5	588.4
5.5°	588.0	588.2	588.0	587.9	587.8	587.8
6°	587.2	587.5	587.2	587.1	586.9	586.9
6.5°	586.4	586.6	586.4	586.3	586.1	586.0
7°	585.4	585.6	585.4	585.3	585.0	585.0
7.5°	584.4	584.6	584.4	584.3	583.9	583.9
8°	583.3	583.5	583.3	583.1	582.9	582.8
8.5°	582.0	582.2	582.0	581.8	581.6	581.5
9°	580.7	581.0	580.7	580.5	580.2	580.1
9.5°	579.4	579.6	579.4	579.0	578.7	578.6
10°	577.8	578.0	577.8	577.4	577.2	577.1
10.5°	576.2	576.4	576.2	575.8	575.5	575.4
11°	574.3	574.6	574.3	574.1	573.8	573.7
11.5°	572.4	572.7	572.4	572.2	571.9	571.8
12°	570.5	570.7	570.5	570.2	569.9	569.9
12.5°	568.4	568.6	568.4	568.0	567.7	567.7
13°	566.1	566.2	566.1	565.8	565.6	565.5
13.5°	563.7	563.9	563.7	563.5	563.1	563.0
14°	561.1	561.3	561.1	560.9	560.7	560.6
14.5°	558.4	558.7	558.4	558.2	558.0	557.9
15°	555.6	555.7	555.6	555.4	555.1	555.1
15.5°	552.6	552.7	552.6	552.4	552.2	552.2
16°	549.3	549.5	549.3	549.2	549.1	549.0
16.5°	546.0	546.1	546.0	545.9	545.8	545.8
17°	542.4	542.6	542.4	542.3	542.2	542.2
17.5°	538.6	538.7	538.6	538.6	538.5	538.5
18°	534.7	534.8	534.7	534.7	534.7	534.8
18.5°	530.5	530.5	530.5	530.5	530.6	530.6
19°	526.1	526.1	526.1	526.2	526.3	526.3
19.5°	521.5	521.5	521.5	521.6	521.7	521.9
20°	516.7	516.6	516.7	516.9	517.1	517.2
20.5°	511.6	511.5	511.6	511.8	512.0	512.1
21°	506.3	506.1	506.3	506.7	506.9	506.9



TEST NUMBER: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	489.6	489.6	489.6	490.0	490.2	490.2
23°	483.9	483.9	483.9	484.2	484.3	484.3
23.5°	478.1	478.1	478.1	478.3	478.4	478.3
24°	472.4	472.5	472.4	472.5	472.5	472.4
24.5°	466.6	466.8	466.6	466.7	466.6	466.6
25°	460.9	461.2	460.9	460.9	460.8	460.7
25.5°	455.4	455.6	455.4	455.3	455.2	455.2
26°	450.0	450.2	450.0	449.8	449.7	449.6
26.5°	444.5	444.8	444.5	444.4	444.3	444.2
27°	439.2	439.5	439.2	439.2	439.0	439.0
27.5°	434.2	434.4	434.2	434.0	433.8	433.7
28°	429.0	429.4	429.0	428.9	428.7	428.6
28.5°	424.1	424.5	424.1	424.0	423.9	423.7
29°	419.3	419.7	419.3	419.2	419.1	419.0
29.5°	414.8	415.0	414.8	414.6	414.4	414.3
30°	410.2	410.5	410.2	410.1	409.8	409.8
30.5°	405.8	406.0	405.8	405.6	405.5	405.4
31°	401.5	401.8	401.5	401.4	401.2	401.1
31.5°	397.3	397.5	397.3	397.2	397.2	397.0
32°	393.0	393.2	393.0	393.1	393.1	393.1
32.5°	388.5	388.1	388.5	388.9	389.2	389.3
33°	382.8	381.6	382.8	383.8	384.9	385.1
33.5°	375.7	374.2	375.7	377.5	379.6	380.6
34°	367.7	366.1	367.7	370.1	372.8	374.2
34.5°	359.3	357.7	359.3	361.5	364.6	365.8
35°	350.1	348.6	350.1	351.9	354.7	355.9
35.5°	339.9	338.4	339.9	341.8	344.3	345.0
36°	328.8	327.2	328.8	330.7	332.8	333.4
36.5°	316.7	315.0	316.7	318.7	320.6	321.0
37°	304.2	302.5	304.2	305.7	306.8	307.1
37.5°	291.0	289.6	291.0	292.0	292.4	292.8
38°	277.1	276.5	277.1	277.2	277.0	277.7
38.5°	262.7	263.3	262.7	262.2	262.0	263.0
39°	248.2	249.6	248.2	247.0	246.7	247.1
39.5°	233.5	235.4	233.5	231.9	231.5	231.3
40°	218.9	220.7	218.9	216.8	215.8	214.7
40.5°	204.5	206.1	204.5	202.1	200.3	198.8
41°	190.2	191.8	190.2	187.5	184.5	182.5
41.5°	176.0	177.5	176.0	172.8	169.2	167.1
42°	161.9	163.3	161.9	158.1	153.8	151.9
42.5°	148.2	149.5	148.2	144.3	139.5	137.2
43°	134.5	135.9	134.5	130.5	125.7	123.0
43.5°	121.2	123.1	121.2	117.0	112.3	109.8



TEST NUMBER: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	84.8	87.5	84.8	79.9	75.0	72.8
45.5°	74.4	76.8	74.4	69.2	64.2	61.6
46°	64.6	67.6	64.6	59.6	54.0	51.7
46.5°	55.4	58.6	55.4	50.6	45.2	42.9
47°	46.6	49.4	46.6	41.8	37.3	35.9
47.5°	38.4	40.2	38.4	34.2	30.2	29.3
48°	31.0	33.0	31.0	27.3	24.2	23.4
48.5°	24.6	26.3	24.6	21.9	19.2	18.8
49°	19.5	20.5	19.5	16.9	14.6	14.1
49.5°	14.7	16.0	14.7	12.4	10.9	10.7
50°	11.5	12.2	11.5	9.4	7.4	7.6
50.5°	8.6	9.8	8.6	6.6	5.1	4.7
51°	5.8	7.5	5.8	4.6	3.4	2.6
51.5°	3.7	5.5	3.7	3.0	2.1	2.0
52°	2.3	3.6	2.3	1.9	1.8	1.7
52.5°	1.8	1.7	1.8	1.6	1.6	1.4
53°	1.5	1.4	1.5	1.5	1.4	1.4
53.5°	1.3	1.3	1.3	1.3	1.3	1.3
54°	1.2	1.2	1.2	1.2	1.2	1.2
54.5°	1.2	1.2	1.2	1.2	1.2	1.2
55°	1.1	1.1	1.1	1.1	1.1	1.1
55.5°	1.1	1.1	1.1	1.1	1.1	1.1
56°	1.0	1.0	1.0	1.0	1.0	1.0
56.5°	0.9	0.9	0.9	0.9	0.9	0.9
57°	0.9	0.9	0.9	0.9	0.9	0.9
57.5°	0.7	0.7	0.7	0.7	0.7	0.7
58°	0.7	0.7	0.7	0.7	0.7	0.7
58.5°	0.7	0.7	0.7	0.7	0.7	0.6
59°	0.6	0.6	0.6	0.6	0.6	0.6
59.5°	0.6	0.6	0.6	0.6	0.6	0.6
60°	0.5	0.5	0.5	0.5	0.5	0.5
60.5°	0.5	0.5	0.5	0.5	0.5	0.5
61°	0.5	0.5	0.5	0.5	0.5	0.5
61.5°	0.4	0.4	0.4	0.4	0.4	0.4
62°	0.4	0.4	0.4	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	0.4	0.4	0.4
63°	0.4	0.4	0.4	0.4	0.4	0.4
63.5°	0.4	0.4	0.4	0.4	0.4	0.3
64°	0.3	0.3	0.3	0.3	0.3	0.3
64.5°	0.3	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.3	0.3	0.3	0.3
65.5°	0.3	0.3	0.3	0.3	0.3	0.3
66°	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.2	0.2	0.2	0.2	0.2	0.2
68°	0.2	0.2	0.2	0.2	0.2	0.2
68.5°	0.2	0.2	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.2	0.2	0.2	0.2	0.2	0.1
71°	0.1	0.1	0.1	0.1	0.1	0.1
71.5°	0.1	0.1	0.1	0.1	0.1	0.1
72°	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	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	0.0
78°	0.1	0.1	0.1	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	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: P775859

CATALOG NUMBER: HCDJBL510CSD-HCD82TRMB-1000lm-5000K

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°	501.5	501.4	501.2	500.8	500.7	500.8	501.2	501.4	501.5	501.4	501.2
22°	495.9	495.8	495.6	495.3	495.2	495.3	495.6	495.8	495.9	495.8	495.6



44°	97.0	99.0	103.9	108.3	110.8	108.3	103.9	99.0	97.0	99.0	103.9
44.5°	84.7	86.6	91.5	96.3	98.9	96.3	91.5	86.6	84.7	86.6	91.5



66.5°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
67°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2



89°	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

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21.5°	500.8	500.7	500.8	501.2	501.4	501.5
22°	495.3	495.2	495.3	495.6	495.8	495.9



44°	108.3	110.8	108.3	103.9	99.0	97.0
44.5°	96.3	98.9	96.3	91.5	86.6	84.7

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66.5°	0.3	0.3	0.3	0.3	0.2	0.2
67°	0.2	0.2	0.2	0.2	0.2	0.2

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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)