

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: P775648

Luminaire Tested: HCDJBL510CSD-HCD42TRH-1000lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B050)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD42TRH-1000lm-4000K
Description: 4 INCH ROUND NARROW HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

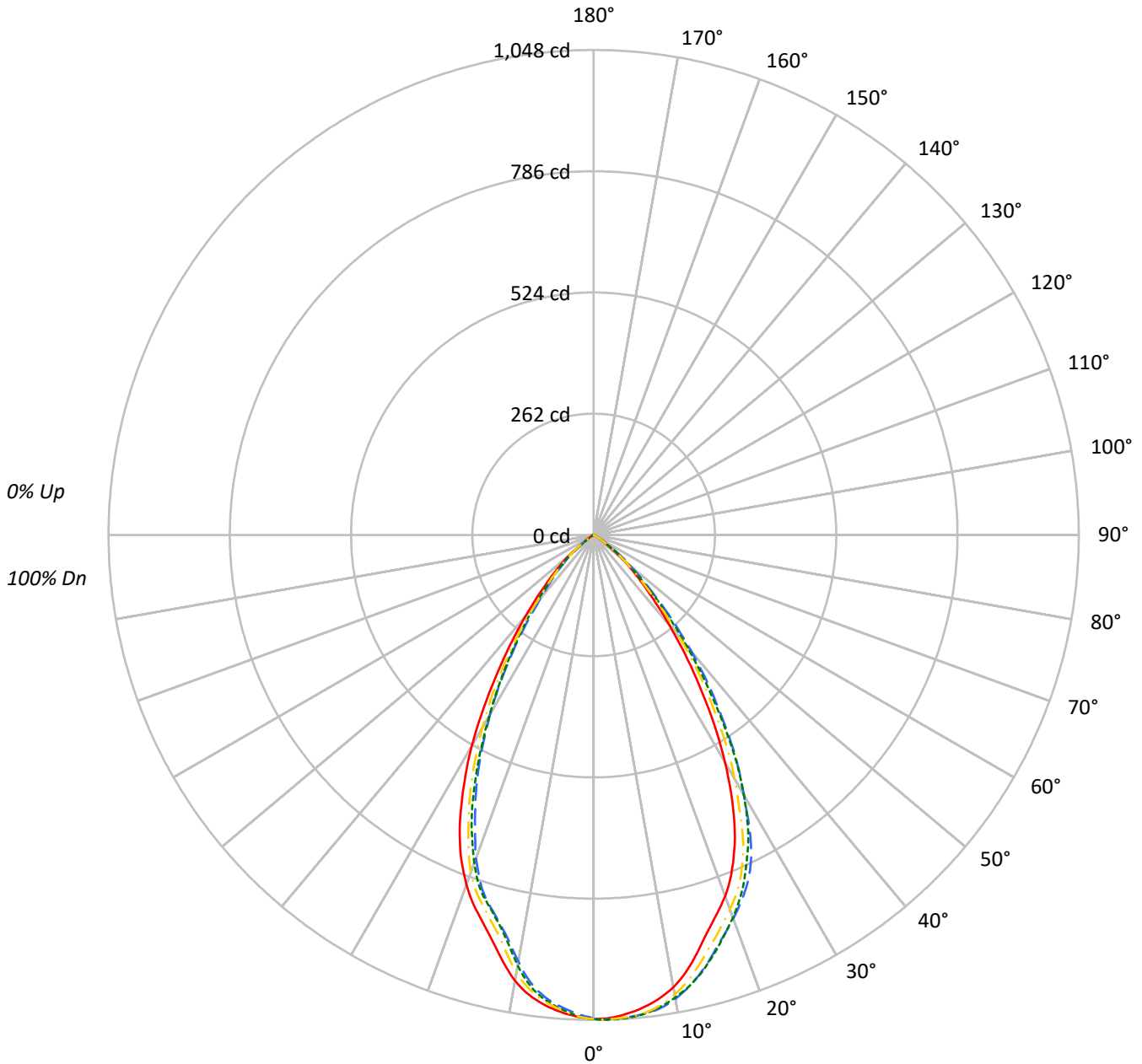
Lumens per Lamp: N/A
Luminaire Lumens: 1055.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.92
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	84	90	86	83	88	85	82	86	83	80	79					79			
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	80	77	74	73					73			
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	76	72	69	67					67			
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62					62			
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58					58			
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54					54			
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50					50			
10	69	59	53	49	68	58	53	49	58	52	48	57	52	48	56	51	48	47					47			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	131576	131576	131576	131576
5°	130436	131889	129817	128693
10°	126794	129721	124993	120737
15°	118537	124674	115514	109990
20°	111226	117842	107677	100954
25°	100257	108561	94814	85093
30°	82497	94283	76467	65466
35°	61346	73176	55539	47212
40°	41909	51027	37441	32101
45°	26910	31894	23867	20432
50°	16211	18463	13901	11238
55°	6165	7306	4388	3401
60°	2089	2467	1737	1410
65°	1012	1072	804	655
70°	478	552	405	331
75°	243	292	194	194
80°	145	145	72	72
85°	0	144	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 35471 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	9.2
10°-20°	252.5	23.9
20°-30°	316.8	30.0
30°-40°	241.9	22.9
40°-50°	115.3	10.9
50°-60°	27.6	2.6
60°-70°	3.4	0.3
70°-80°	0.6	0.1
80°-90°	0.1	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°	666.1	63.1
0°-40°	908.0	86.1
0°-60°	1050.9	99.6
0°-90°	1055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1055.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1046	1046	1046	1046	1046	
5°	1032	1044	1028	1019	1032	97
15°	910	957	887	844	910	256
25°	722	782	683	613	722	326
35°	399	476	362	307	399	250
45°	151	179	134	115	151	120
55°	28	33	20	16	28	30
65°	3	4	3	2	3	4
75°	0	1	0	0	0	1
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°	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5
0.5°	1045.8	1045.6	1045.5	1045.3	1047.5	1047.3	1046.9	1046.2	1045.0	1043.2	1042.4
1°	1045.7	1046.3	1046.6	1046.4	1048.0	1047.9	1047.1	1045.9	1044.1	1041.5	1040.5
1.5°	1045.1	1046.3	1046.9	1047.1	1048.3	1048.0	1047.0	1045.5	1043.1	1039.3	1037.8
2°	1044.1	1046.2	1047.1	1047.5	1048.2	1048.0	1046.8	1044.9	1041.4	1037.0	1034.9
2.5°	1042.8	1045.5	1046.9	1047.5	1047.8	1047.7	1046.4	1044.1	1039.8	1034.4	1032.1
3°	1041.1	1044.6	1046.4	1047.4	1047.5	1047.4	1045.7	1043.0	1037.8	1031.7	1028.9
3.5°	1039.2	1043.8	1045.7	1047.0	1046.9	1046.9	1045.1	1041.9	1035.7	1028.6	1025.6
4°	1037.1	1042.6	1044.9	1046.6	1046.2	1046.4	1044.5	1040.5	1033.1	1025.6	1022.0
4.5°	1034.8	1041.1	1044.2	1045.7	1045.3	1045.5	1043.5	1038.9	1030.6	1022.1	1018.3
5°	1032.5	1039.5	1043.3	1045.0	1044.0	1044.5	1042.4	1036.9	1027.6	1018.4	1014.0
5.5°	1029.8	1038.0	1042.2	1044.2	1042.7	1043.2	1040.9	1034.6	1024.5	1014.5	1009.4
6°	1026.7	1036.1	1041.0	1043.1	1040.7	1041.5	1039.0	1032.2	1021.1	1010.2	1004.5
6.5°	1023.5	1034.0	1039.5	1041.5	1038.7	1039.3	1036.7	1029.3	1017.3	1005.4	998.6
7°	1020.1	1031.7	1037.8	1039.9	1036.3	1036.9	1034.1	1026.0	1013.1	1000.1	992.2
7.5°	1016.5	1028.8	1035.7	1037.9	1033.3	1033.9	1030.6	1022.1	1008.6	993.9	985.0
8°	1012.3	1025.6	1033.0	1035.4	1030.2	1030.5	1027.0	1018.0	1003.6	987.2	976.7
8.5°	1007.9	1021.9	1029.8	1032.5	1026.6	1026.8	1022.8	1013.6	998.0	979.8	968.0
9°	1003.0	1017.9	1026.2	1029.1	1023.2	1022.5	1018.4	1008.8	992.0	971.6	958.1
9.5°	997.9	1013.6	1022.2	1025.6	1019.1	1018.4	1013.5	1003.6	985.3	962.5	947.7
10°	992.2	1008.8	1017.8	1021.6	1015.1	1013.6	1008.4	997.7	978.1	952.6	936.0
10.5°	985.9	1003.5	1013.1	1017.5	1010.7	1008.8	1002.8	991.6	970.2	942.0	925.0
11°	979.3	998.2	1007.8	1013.0	1006.0	1003.5	996.8	984.6	961.3	931.4	913.5
11.5°	972.0	992.3	1002.7	1008.2	1001.3	998.0	990.2	977.5	952.1	920.6	902.2
12°	964.2	986.0	996.9	1003.5	996.0	992.2	983.5	969.9	942.4	909.7	892.0
12.5°	956.0	979.1	990.7	998.1	990.4	985.7	976.4	961.7	932.6	900.0	882.5
13°	946.9	971.8	984.2	992.6	984.7	979.3	968.8	953.1	922.7	890.6	873.7
13.5°	937.6	964.1	977.3	986.6	978.5	972.1	961.0	944.4	913.1	881.5	865.6
14°	928.4	956.4	970.2	980.5	971.9	964.9	953.0	935.4	903.7	872.9	857.6
14.5°	919.3	948.2	963.0	974.1	964.5	957.2	944.8	926.2	895.0	864.9	849.6
15°	909.8	939.5	955.5	967.0	956.9	949.5	936.5	917.6	886.6	856.7	841.7
15.5°	901.0	931.2	947.9	960.2	949.7	941.8	928.3	909.2	878.6	849.0	834.3
16°	892.4	922.8	939.5	952.5	942.0	934.2	920.9	901.0	870.4	841.3	826.8
16.5°	884.6	914.6	931.7	945.1	934.7	926.4	913.4	893.0	862.6	833.7	819.0
17°	876.6	906.4	924.4	937.6	927.0	919.1	906.1	885.0	854.8	826.0	810.8
17.5°	868.7	898.8	917.2	930.2	919.2	911.5	898.4	877.2	847.2	817.8	802.1
18°	860.9	891.4	910.0	922.9	911.4	903.8	890.7	869.6	839.6	808.9	790.6
18.5°	853.5	883.8	903.0	915.4	903.2	896.3	883.3	862.1	831.4	797.8	779.0
19°	846.1	876.7	896.1	908.1	895.5	888.6	875.9	854.7	822.7	786.8	767.4
19.5°	838.4	869.2	888.7	900.3	887.5	881.4	868.6	847.2	813.4	775.6	755.9
20°	830.5	862.1	881.6	892.8	879.9	873.7	861.1	839.3	804.0	764.5	743.5
20.5°	822.0	854.9	874.6	885.5	871.9	865.8	853.4	831.0	793.3	753.4	729.3
21°	812.6	847.7	867.4	877.8	863.1	858.0	845.6	822.1	782.6	739.5	713.7



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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°	781.7	823.1	844.6	854.0	835.6	830.8	819.5	792.0	750.4	696.0	670.3
23°	770.6	814.2	836.3	844.8	825.4	821.5	810.4	780.9	738.1	682.6	655.6
23.5°	758.8	804.7	828.0	835.8	814.7	810.8	798.7	769.8	725.0	669.4	641.7
24°	746.9	794.3	819.0	826.3	804.1	799.5	787.0	758.6	711.5	655.8	627.9
24.5°	734.8	783.4	809.5	815.7	793.0	788.0	775.3	748.1	697.6	642.9	613.9
25°	722.0	771.9	799.3	805.3	781.8	776.7	763.7	735.2	682.8	629.5	599.5
25.5°	708.4	759.8	787.8	793.7	770.6	765.2	751.9	722.0	667.6	615.2	584.7
26°	694.1	747.1	776.1	781.9	759.5	753.9	736.5	708.0	652.0	600.5	569.6
26.5°	679.2	733.6	762.5	770.1	748.2	740.5	720.6	693.0	636.7	585.0	554.3
27°	664.1	719.8	748.4	758.0	735.7	726.6	703.6	676.9	621.7	568.7	538.3
27.5°	648.7	705.1	732.8	745.9	722.5	712.4	687.1	661.1	605.8	552.4	522.8
28°	632.6	689.6	716.0	732.3	708.7	697.7	670.7	644.3	590.5	536.0	507.2
28.5°	616.5	672.9	699.3	718.6	693.7	682.3	655.0	626.6	574.9	519.8	492.1
29°	600.0	655.7	682.0	704.4	679.7	665.8	639.5	609.3	559.2	503.5	476.6
29.5°	584.2	638.2	665.2	689.6	663.9	649.6	624.2	592.5	542.9	488.1	461.4
30°	567.7	620.7	648.9	673.9	648.8	632.5	608.8	575.1	526.2	473.0	446.7
30.5°	550.8	603.3	633.3	657.5	633.0	615.2	593.3	558.2	509.7	457.7	431.9
31°	534.1	586.5	618.1	641.1	617.7	598.8	577.6	540.9	493.0	442.7	416.7
31.5°	517.1	569.6	602.8	623.4	600.9	582.1	561.1	524.3	476.0	427.4	401.5
32°	500.1	553.1	587.2	606.6	584.5	566.2	544.5	507.5	458.7	411.7	386.1
32.5°	483.2	536.4	571.2	589.2	566.6	549.9	527.6	490.9	441.3	395.8	371.0
33°	466.2	519.9	555.0	572.3	548.9	533.5	510.4	474.6	424.8	379.9	355.9
33.5°	449.7	503.1	537.7	555.6	530.5	517.4	493.4	458.3	408.0	364.0	340.7
34°	432.5	486.2	520.7	539.0	512.7	501.0	476.7	442.0	391.9	347.8	326.1
34.5°	415.9	469.1	503.4	522.3	494.5	484.2	460.2	425.9	376.4	332.7	311.8
35°	399.3	452.4	486.0	505.8	476.3	467.3	444.2	410.6	361.5	317.6	298.0
35.5°	382.9	435.9	469.3	489.1	458.7	450.3	428.6	395.3	346.1	303.2	284.1
36°	368.0	419.8	453.3	472.3	441.3	433.6	412.9	380.0	331.6	288.8	270.4
36.5°	353.0	404.3	437.7	454.9	423.2	416.8	397.0	365.3	317.1	275.2	257.3
37°	337.9	388.9	421.6	438.9	406.1	400.0	381.2	350.6	303.3	262.2	244.1
37.5°	323.0	372.0	406.2	421.6	389.3	383.8	364.8	336.5	289.5	249.4	231.8
38°	308.0	358.1	390.4	405.1	373.4	368.1	349.0	321.8	276.8	236.9	219.5
38.5°	293.8	344.1	374.1	388.0	356.4	352.1	333.5	307.4	263.4	224.6	207.9
39°	280.5	330.3	358.6	372.7	341.2	336.5	318.4	293.2	251.2	213.1	197.2
39.5°	267.6	316.4	343.2	356.7	326.0	320.5	303.7	279.7	239.2	202.2	187.6
40°	255.1	302.1	327.6	340.9	310.6	304.9	289.1	265.8	227.9	192.0	178.2
40.5°	242.5	288.4	312.2	325.0	295.3	289.6	275.3	252.5	216.3	182.3	169.3
41°	230.6	274.2	297.2	309.2	281.1	274.8	262.2	239.9	205.6	173.5	161.3
41.5°	219.3	260.9	283.3	294.3	266.6	260.0	249.1	227.9	195.4	164.9	154.1
42°	208.2	247.4	269.6	279.5	253.4	245.6	235.9	215.9	185.7	157.3	146.7
42.5°	197.7	234.7	256.1	265.3	239.9	232.1	223.2	204.8	176.0	149.5	139.7
43°	187.9	222.6	243.2	251.0	226.9	219.0	210.7	193.9	166.9	142.3	132.9
43.5°	177.9	210.9	230.2	237.3	214.3	206.7	198.5	183.5	158.3	135.3	126.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	151.2	178.2	192.8	199.3	179.2	172.6	164.8	154.7	134.1	115.5	107.6
45.5°	143.0	168.2	181.2	188.0	168.4	162.6	155.1	145.9	126.8	109.3	101.8
46°	134.9	158.6	170.0	176.8	157.8	153.0	145.8	137.6	119.6	103.2	96.5
46.5°	127.4	149.9	160.4	166.7	148.2	143.9	137.1	129.6	112.8	97.5	91.3
47°	120.1	141.2	151.0	156.7	138.7	135.0	129.0	121.8	106.0	92.0	85.9
47.5°	113.2	133.1	142.0	147.3	130.2	126.9	121.4	114.5	99.9	86.6	80.7
48°	106.5	125.2	133.6	138.5	122.0	119.1	114.0	107.5	94.1	81.2	75.4
48.5°	99.9	117.7	125.8	129.9	114.2	111.6	107.1	100.9	88.4	75.8	69.5
49°	93.8	110.5	118.2	122.2	107.0	104.6	100.5	95.0	82.6	69.6	63.0
49.5°	88.4	103.6	111.1	114.4	100.1	98.7	94.7	89.2	76.9	62.9	56.4
50°	82.8	97.2	104.2	107.4	94.3	92.8	88.9	83.4	71.0	56.3	49.8
50.5°	77.4	91.3	97.7	100.2	88.5	86.8	83.1	77.5	64.1	49.7	43.9
51°	71.7	85.4	91.6	94.0	82.6	81.0	77.3	71.6	57.1	43.5	38.2
51.5°	65.4	79.8	85.8	88.0	76.9	75.1	71.4	64.9	50.4	37.9	33.2
52°	58.7	74.0	79.9	82.2	71.0	69.1	64.6	58.0	44.1	33.2	29.1
52.5°	52.2	67.7	74.0	76.8	64.6	62.5	57.5	51.0	38.4	29.0	25.5
53°	45.7	60.8	67.6	70.7	57.7	55.4	50.6	44.6	33.5	25.5	22.5
53.5°	39.8	54.0	60.6	64.3	51.0	48.6	44.3	38.8	29.3	22.5	19.8
54°	35.9	47.3	53.3	57.1	44.4	42.4	38.3	33.8	25.7	20.0	17.6
54.5°	32.0	41.3	46.6	50.4	38.4	36.8	33.2	29.5	22.7	17.6	15.8
55°	28.1	35.7	40.6	43.6	33.3	31.8	28.9	25.8	20.0	15.8	14.1
55.5°	24.3	32.1	35.6	38.0	28.8	27.6	25.3	22.6	17.7	14.1	12.6
56°	20.5	28.5	31.8	34.2	25.0	23.9	22.2	20.0	15.8	12.6	11.3
56.5°	18.1	24.8	28.1	30.5	21.8	21.1	19.5	17.6	14.1	11.3	10.2
57°	16.0	21.2	24.5	26.7	19.2	18.6	17.2	15.6	12.6	10.3	9.3
57.5°	14.3	18.8	20.8	23.0	16.9	16.4	15.3	14.0	11.3	9.5	8.6
58°	12.7	16.7	18.4	19.2	15.0	14.6	13.7	12.5	10.2	8.6	7.8
58.5°	11.4	14.8	16.3	16.9	13.3	13.0	12.2	11.1	9.3	7.8	7.0
59°	10.3	13.2	14.5	15.0	11.9	11.6	10.9	10.1	8.6	7.0	6.2
59.5°	9.2	11.9	12.9	13.3	10.6	10.4	10.1	9.2	7.8	6.2	5.7
60°	8.3	10.6	11.6	11.9	9.8	9.6	9.2	8.5	6.9	5.7	5.1
60.5°	7.6	9.6	10.4	10.6	8.9	8.7	8.4	7.7	6.2	5.1	4.6
61°	6.8	8.6	9.3	9.6	8.1	7.9	7.6	6.8	5.6	4.6	4.3
61.5°	6.2	7.8	8.4	8.6	7.2	7.0	6.7	6.1	5.0	4.3	3.9
62°	5.6	7.0	7.6	7.8	6.3	6.2	5.9	5.5	4.6	3.9	3.6
62.5°	5.1	6.4	6.9	7.0	5.8	5.7	5.4	5.0	4.2	3.6	3.3
63°	4.6	5.8	6.3	6.4	5.3	5.1	4.8	4.5	3.9	3.3	2.9
63.5°	4.2	5.3	5.7	5.8	4.7	4.6	4.4	4.1	3.5	2.9	2.7
64°	3.9	4.8	5.1	5.3	4.3	4.2	4.0	3.8	3.3	2.7	2.5
64.5°	3.6	4.4	4.7	4.7	3.9	3.9	3.7	3.5	2.9	2.5	2.3
65°	3.4	4.0	4.3	4.3	3.6	3.6	3.4	3.2	2.7	2.3	2.1
65.5°	3.0	3.7	3.9	4.0	3.3	3.3	3.0	2.8	2.5	2.1	1.9
66°	2.7	3.4	3.6	3.7	3.0	2.9	2.8	2.6	2.2	1.9	1.8



TEST NUMBER: P775648

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	2.1	2.5	2.7	2.7	2.3	2.3	2.1	2.0	1.7	1.5	1.4
68°	1.9	2.3	2.5	2.5	2.1	2.1	2.0	1.9	1.6	1.4	1.3
68.5°	1.7	2.1	2.3	2.3	1.9	1.9	1.8	1.7	1.5	1.3	1.2
69°	1.6	2.0	2.1	2.1	1.8	1.8	1.7	1.6	1.4	1.2	1.1
69.5°	1.5	1.8	1.9	2.0	1.7	1.6	1.5	1.5	1.2	1.1	0.9
70°	1.3	1.7	1.8	1.8	1.5	1.5	1.4	1.3	1.1	0.9	0.8
70.5°	1.2	1.5	1.6	1.7	1.4	1.4	1.3	1.2	1.1	0.8	0.8
71°	1.1	1.4	1.5	1.5	1.3	1.3	1.2	1.1	0.9	0.8	0.7
71.5°	0.9	1.3	1.4	1.4	1.2	1.2	1.1	1.1	0.8	0.7	0.7
72°	0.9	1.2	1.3	1.3	1.1	1.1	0.9	0.9	0.7	0.6	0.6
72.5°	0.8	1.1	1.2	1.2	0.9	0.9	0.9	0.8	0.7	0.6	0.5
73°	0.7	0.9	1.1	1.1	0.9	0.8	0.8	0.7	0.6	0.5	0.5
73.5°	0.7	0.8	0.9	0.9	0.8	0.8	0.7	0.7	0.5	0.5	0.5
74°	0.6	0.8	0.8	0.9	0.7	0.7	0.7	0.6	0.5	0.4	0.4
74.5°	0.5	0.7	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.4	0.4
75°	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.3	0.3
75.5°	0.4	0.6	0.6	0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.3
76°	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3
76.5°	0.4	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2
77°	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2
77.5°	0.3	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2
78°	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2
78.5°	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2
79°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1
79.5°	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1
80°	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1
80.5°	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1
81°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
81.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
82°	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1
82.5°	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
83°	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
83.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
84°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
84.5°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.1	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: P775648
CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

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: P775648

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1045.5	1045.5	1045.5	1045.5	1045.5	1045.5
0.5°	1041.7	1045.4	1045.5	1045.4	1045.3	1045.8
1°	1039.3	1043.8	1044.1	1044.2	1044.3	1045.7
1.5°	1036.6	1041.9	1042.0	1042.4	1043.0	1045.1
2°	1033.7	1039.3	1039.8	1040.2	1041.1	1044.1
2.5°	1030.4	1036.6	1036.9	1037.7	1038.8	1042.8
3°	1026.8	1033.5	1034.0	1034.8	1036.4	1041.1
3.5°	1023.3	1030.2	1030.7	1031.8	1033.8	1039.2
4°	1019.3	1026.6	1027.2	1028.5	1030.8	1037.1
4.5°	1015.3	1022.8	1023.3	1024.9	1027.7	1034.8
5°	1010.5	1018.7	1019.5	1021.3	1024.5	1032.5
5.5°	1005.3	1014.3	1015.2	1017.4	1021.1	1029.8
6°	999.7	1009.6	1010.7	1013.2	1017.3	1026.7
6.5°	992.8	1004.3	1005.3	1008.6	1013.2	1023.5
7°	985.8	998.2	999.7	1003.6	1008.9	1020.1
7.5°	977.1	991.7	993.3	998.3	1004.4	1016.5
8°	968.4	983.8	986.5	992.2	999.1	1012.3
8.5°	958.2	975.4	978.6	985.4	993.3	1007.9
9°	947.5	966.0	969.9	977.9	987.2	1003.0
9.5°	935.9	955.8	960.2	969.6	980.5	997.9
10°	924.2	944.8	949.9	960.4	973.2	992.2
10.5°	912.6	933.1	938.8	950.4	964.7	985.9
11°	901.2	921.2	927.5	939.9	955.7	979.3
11.5°	889.9	909.2	915.3	928.8	946.3	972.0
12°	880.9	897.9	904.3	917.5	936.0	964.2
12.5°	871.9	887.4	893.2	906.3	925.3	956.0
13°	863.5	877.6	883.6	896.3	915.1	946.9
13.5°	855.6	868.6	874.7	886.4	905.1	937.6
14°	847.4	860.1	866.2	877.7	895.5	928.4
14.5°	840.4	852.3	858.4	869.5	886.4	919.3
15°	832.6	844.2	850.5	861.3	877.8	909.8
15.5°	825.6	836.8	843.0	853.4	869.6	901.0
16°	818.6	829.7	835.3	845.5	861.3	892.4
16.5°	810.6	822.5	828.1	838.0	853.2	884.6
17°	802.1	815.7	820.8	830.4	846.0	876.6
17.5°	791.0	808.0	813.4	822.8	838.2	868.7
18°	779.9	799.1	804.8	815.2	830.7	860.9
18.5°	768.9	789.1	795.5	806.5	822.7	853.5
19°	757.9	778.3	785.7	797.5	814.4	846.1
19.5°	746.8	766.4	774.7	786.9	805.3	838.4
20°	733.3	753.8	762.7	775.9	795.6	830.5
20.5°	718.8	740.8	750.4	763.8	785.0	822.0
21°	704.5	727.9	737.0	750.6	773.5	812.6

TEST NUMBER: P775648

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	660.5	688.8	694.1	707.3	734.6	781.7
23°	645.1	674.9	678.9	692.3	720.8	770.6
23.5°	630.8	660.5	663.8	677.9	706.5	758.8
24°	614.7	645.0	649.0	663.3	692.6	746.9
24.5°	600.0	629.7	633.3	648.6	678.2	734.8
25°	584.4	612.8	618.2	634.5	664.6	722.0
25.5°	569.2	596.9	603.1	619.8	650.7	708.4
26°	553.7	580.8	587.6	605.3	636.9	694.1
26.5°	538.7	564.8	572.6	590.1	622.7	679.2
27°	523.1	547.8	556.7	574.7	607.8	664.1
27.5°	508.0	531.5	541.0	559.2	592.8	648.7
28°	492.3	515.0	525.3	542.3	577.3	632.6
28.5°	476.8	498.3	509.8	527.2	561.3	616.5
29°	460.4	482.2	493.9	511.1	545.2	600.0
29.5°	444.1	466.1	478.4	495.6	528.2	584.2
30°	428.6	450.5	462.8	480.4	512.1	567.7
30.5°	412.4	435.2	446.6	464.9	495.3	550.8
31°	397.4	420.4	430.8	449.7	478.7	534.1
31.5°	382.4	405.6	414.8	434.4	462.2	517.1
32°	367.9	391.2	399.5	419.2	446.3	500.1
32.5°	353.8	376.2	384.2	404.0	430.7	483.2
33°	339.4	362.3	370.1	388.3	414.8	466.2
33.5°	325.9	348.4	355.8	371.6	399.1	449.7
34°	312.0	334.6	341.5	357.3	383.3	432.5
34.5°	298.9	320.7	327.2	342.9	367.8	415.9
35°	286.0	307.3	313.0	328.5	352.2	399.3
35.5°	273.1	294.9	299.5	314.1	336.7	382.9
36°	260.9	282.5	286.5	299.9	321.1	368.0
36.5°	249.2	271.0	273.6	286.0	305.7	353.0
37°	237.8	259.0	261.3	272.0	291.0	337.9
37.5°	226.9	247.5	249.1	258.2	277.0	323.0
38°	216.2	236.3	237.5	244.9	263.4	308.0
38.5°	205.8	225.4	226.3	231.9	250.8	293.8
39°	196.2	215.4	215.4	219.1	238.5	280.5
39.5°	186.2	204.9	205.2	207.3	226.4	267.6
40°	177.2	195.4	194.9	196.0	214.7	255.1
40.5°	168.1	185.8	185.2	185.7	203.3	242.5
41°	159.6	176.8	175.8	175.9	192.8	230.6
41.5°	151.7	167.8	166.8	167.2	182.7	219.3
42°	144.0	159.5	158.4	158.9	173.5	208.2
42.5°	136.7	151.3	150.3	151.2	164.3	197.7
43°	129.3	143.5	142.5	143.9	155.9	187.9
43.5°	122.6	135.9	135.2	137.0	148.0	177.9



TEST NUMBER: P775648

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	103.3	114.8	114.7	117.4	126.5	151.2
45.5°	97.7	108.2	108.3	111.4	119.9	143.0
46°	92.4	101.9	102.2	105.3	113.5	134.9
46.5°	87.2	96.0	96.4	99.6	107.3	127.4
47°	81.9	90.5	91.0	94.1	101.3	120.1
47.5°	76.6	85.4	85.8	88.8	95.5	113.2
48°	71.5	80.1	80.8	83.8	90.0	106.5
48.5°	65.3	75.2	75.9	78.9	84.9	99.9
49°	58.8	69.7	70.7	73.9	79.7	93.8
49.5°	52.2	63.8	65.0	68.7	74.6	88.4
50°	45.9	57.4	58.8	62.8	69.2	82.8
50.5°	40.1	50.8	52.5	56.5	63.0	77.4
51°	34.7	44.4	46.1	50.3	56.6	71.7
51.5°	30.2	38.8	40.2	44.1	50.3	65.4
52°	26.4	34.9	36.3	38.4	44.0	58.7
52.5°	23.2	31.1	32.3	34.7	38.3	52.2
53°	20.4	27.4	28.4	30.9	34.7	45.7
53.5°	18.1	23.6	24.5	27.2	30.9	39.8
54°	16.1	19.8	20.5	23.4	27.1	35.9
54.5°	14.4	17.4	18.1	19.6	23.3	32.0
55°	12.8	15.5	16.1	17.4	19.6	28.1
55.5°	11.6	13.9	14.3	15.4	17.3	24.3
56°	10.4	12.4	12.8	13.8	15.4	20.5
56.5°	9.6	11.1	11.4	12.3	13.8	18.1
57°	8.7	10.1	10.3	11.0	12.3	16.0
57.5°	7.9	9.0	9.2	9.9	11.0	14.3
58°	7.0	8.2	8.4	8.9	9.9	12.7
58.5°	6.3	7.4	7.6	8.1	8.9	11.4
59°	5.7	6.7	6.8	7.4	8.1	10.3
59.5°	5.1	6.1	6.2	6.6	7.2	9.2
60°	4.7	5.6	5.7	6.0	6.6	8.3
60.5°	4.3	5.0	5.1	5.5	6.0	7.6
61°	3.9	4.5	4.6	4.9	5.5	6.8
61.5°	3.6	4.2	4.3	4.5	4.9	6.2
62°	3.3	3.9	4.0	4.1	4.5	5.6
62.5°	2.9	3.6	3.7	3.8	4.1	5.1
63°	2.7	3.3	3.4	3.5	3.8	4.6
63.5°	2.5	2.9	3.0	3.2	3.5	4.2
64°	2.3	2.6	2.7	2.8	3.2	3.9
64.5°	2.1	2.4	2.5	2.6	2.8	3.6
65°	1.9	2.2	2.3	2.4	2.6	3.4
65.5°	1.8	2.1	2.1	2.2	2.4	3.0
66°	1.6	1.9	1.9	2.0	2.2	2.7



TEST NUMBER: P775648

CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.3	1.5	1.5	1.6	1.7	2.1
68°	1.2	1.4	1.4	1.5	1.6	1.9
68.5°	1.1	1.3	1.3	1.4	1.5	1.7
69°	0.9	1.2	1.2	1.2	1.3	1.6
69.5°	0.8	1.1	1.1	1.2	1.2	1.5
70°	0.8	0.9	0.9	1.1	1.1	1.3
70.5°	0.7	0.8	0.8	0.9	0.9	1.2
71°	0.7	0.8	0.8	0.8	0.9	1.1
71.5°	0.6	0.7	0.7	0.7	0.8	0.9
72°	0.5	0.6	0.6	0.7	0.7	0.9
72.5°	0.5	0.6	0.6	0.6	0.7	0.8
73°	0.5	0.5	0.5	0.6	0.6	0.7
73.5°	0.4	0.5	0.5	0.5	0.5	0.7
74°	0.4	0.4	0.4	0.5	0.5	0.6
74.5°	0.3	0.4	0.4	0.4	0.4	0.5
75°	0.3	0.4	0.4	0.4	0.4	0.5
75.5°	0.3	0.3	0.3	0.4	0.4	0.4
76°	0.3	0.3	0.3	0.3	0.3	0.4
76.5°	0.2	0.3	0.3	0.3	0.3	0.4
77°	0.2	0.2	0.3	0.3	0.3	0.3
77.5°	0.2	0.2	0.2	0.2	0.2	0.3
78°	0.2	0.2	0.2	0.2	0.2	0.3
78.5°	0.2	0.2	0.2	0.2	0.2	0.2
79°	0.1	0.2	0.2	0.2	0.2	0.2
79.5°	0.1	0.1	0.1	0.1	0.1	0.2
80°	0.1	0.1	0.1	0.1	0.1	0.2
80.5°	0.1	0.1	0.1	0.1	0.1	0.1
81°	0.1	0.1	0.1	0.1	0.1	0.1
81.5°	0.1	0.1	0.1	0.1	0.1	0.1
82°	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.0	0.1	0.1	0.1	0.1	0.1
83°	0.0	0.1	0.1	0.1	0.0	0.1
83.5°	0.0	0.0	0.0	0.0	0.0	0.1
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: P775648
CATALOG NUMBER: HCDJBL510CSD-HCD42TRH-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





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

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21.5°	802.7	839.9	860.2	870.2	854.5	849.2	837.3	812.5	771.9	724.9	698.9
22°	792.5	831.7	852.4	862.3	845.1	840.4	828.7	803.2	761.1	710.1	684.6



44°	168.5	199.3	217.2	224.3	202.5	194.8	186.5	173.3	150.0	128.6	119.9
44.5°	159.7	188.5	204.9	211.6	190.7	183.4	175.5	163.9	141.9	121.9	113.7



66.5°	2.4	3.0	3.4	3.4	2.7	2.7	2.5	2.4	2.1	1.8	1.6
67°	2.2	2.7	3.0	3.0	2.5	2.4	2.3	2.2	1.9	1.6	1.5



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°	690.1	714.9	723.1	736.5	761.3	802.7
22°	675.8	701.8	708.7	721.7	748.1	792.5



44°	116.0	128.5	128.0	130.1	140.4	168.5
44.5°	109.6	121.5	121.2	123.8	133.5	159.7

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66.5°	1.5	1.7	1.8	1.9	2.0	2.4
67°	1.4	1.6	1.6	1.7	1.9	2.2

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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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Scaled Data Report



(END OF REPORT)