

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: P775843

Luminaire Tested: HCDJBL510CSD-HCD82TRC-1000lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B062-HCD82TRC)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD82TRC-1000lm-4000K
Description: 8 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

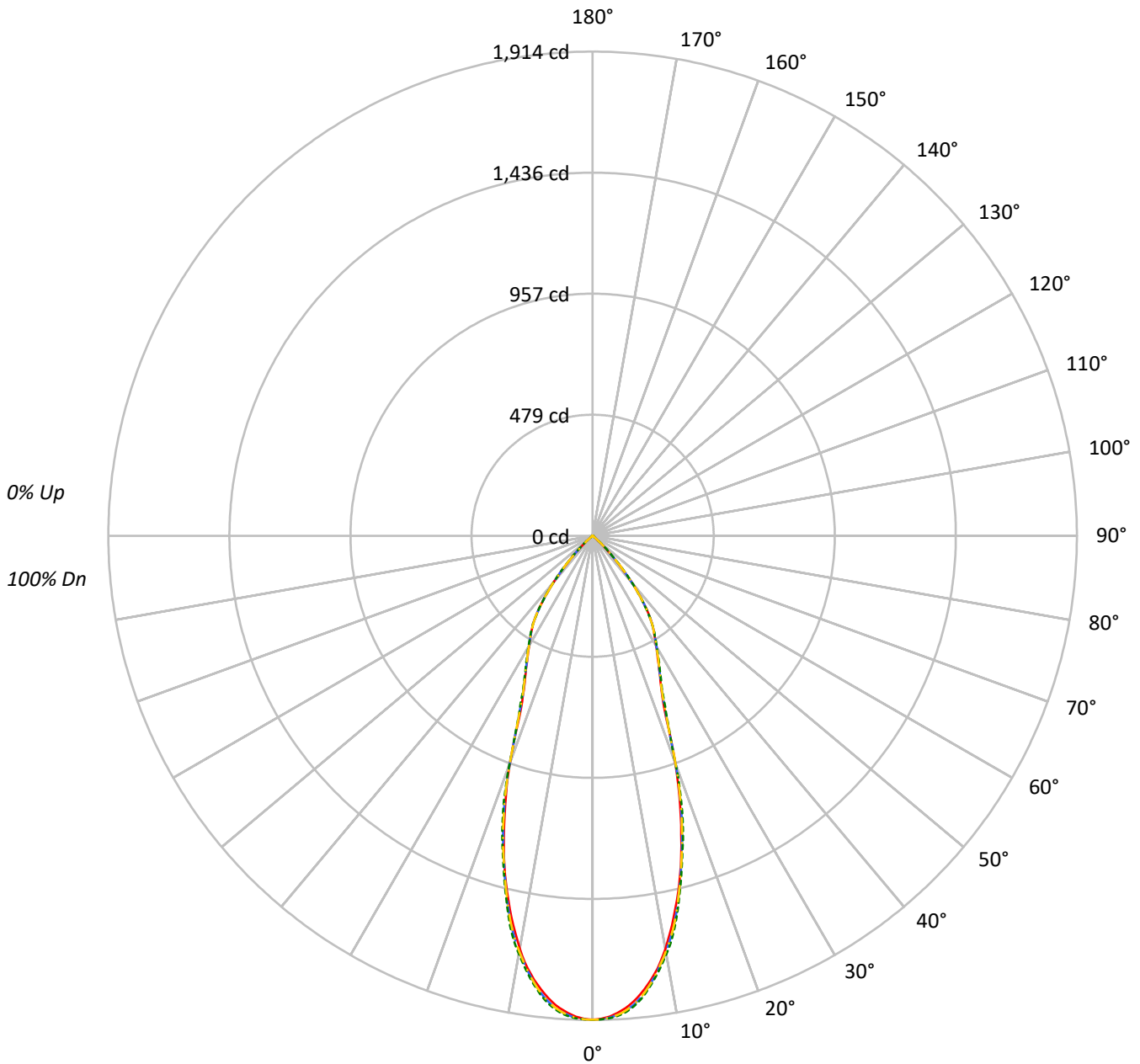
Lumens per Lamp: N/A
Luminaire Lumens: 1168.3 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.66 / 0.66
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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



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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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94					94			
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88					88			
3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84	82					82			
4	98	91	86	82	97	90	85	81	88	84	80	86	82	80	84	81	79	77					77			
5	94	86	80	76	92	85	80	76	83	79	75	81	78	74	80	77	74	72					72			
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68					68			
7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64					64			
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61					61			
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57					57			
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54					54			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	58401	58401	58401	58401
5°	56660	57233	56660	57233
10°	51372	52064	51372	52064
15°	42597	42967	42597	42967
20°	31018	31148	31018	31148
25°	21371	21667	21371	21667
30°	17704	17891	17704	17891
35°	14778	14707	14778	14707
40°	9457	9589	9457	9589
45°	3830	4205	3830	4205
50°	717	798	717	798
55°	218	213	218	213
60°	140	140	140	140
65°	101	101	101	101
70°	62	71	62	71
75°	47	47	47	47
80°	35	35	35	35
85°	0	35	0	35

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4205 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.4	14.7
10°-20°	369.8	31.6
20°-30°	303.3	26.0
30°-40°	238.7	20.4
40°-50°	78.5	6.7
50°-60°	4.6	0.4
60°-70°	1.4	0.1
70°-80°	0.5	0.0
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°	844.5	72.3
0°-40°	1083.3	92.7
0°-60°	1166.4	99.8
0°-90°	1168.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1168.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1913	1913	1913	1913	1913	
5°	1849	1868	1849	1868	1849	170
15°	1348	1359	1348	1359	1348	367
25°	634	643	634	643	634	301
35°	396	395	396	395	396	239
45°	89	97	89	97	89	76
55°	4	4	4	4	4	4
65°	1	1	1	1	1	1
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°	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9
0.5°	1912.1	1912.3	1913.3	1911.4	1913.5	1911.4	1913.3	1912.3	1912.1	1912.3	1913.3
1°	1910.1	1910.5	1912.0	1910.2	1912.4	1910.2	1912.0	1910.5	1910.1	1910.5	1912.0
1.5°	1906.5	1907.5	1909.7	1908.3	1910.6	1908.3	1909.7	1907.5	1906.5	1907.5	1909.7
2°	1901.8	1903.1	1906.4	1905.5	1908.7	1905.5	1906.4	1903.1	1901.8	1903.1	1906.4
2.5°	1895.7	1897.7	1901.9	1901.7	1905.3	1901.7	1901.9	1897.7	1895.7	1897.7	1901.9
3°	1888.7	1891.3	1896.5	1896.6	1900.7	1896.6	1896.5	1891.3	1888.7	1891.3	1896.5
3.5°	1880.5	1884.0	1889.7	1890.0	1894.7	1890.0	1889.7	1884.0	1880.5	1884.0	1889.7
4°	1871.3	1876.0	1881.7	1882.2	1887.2	1882.2	1881.7	1876.0	1871.3	1876.0	1881.7
4.5°	1860.7	1866.5	1872.2	1873.1	1878.2	1873.1	1872.2	1866.5	1860.7	1866.5	1872.2
5°	1848.8	1856.0	1861.3	1862.6	1867.5	1862.6	1861.3	1856.0	1848.8	1856.0	1861.3
5.5°	1835.4	1844.0	1848.2	1850.9	1855.1	1850.9	1848.2	1844.0	1835.4	1844.0	1848.2
6°	1820.8	1830.5	1833.8	1837.8	1840.5	1837.8	1833.8	1830.5	1820.8	1830.5	1833.8
6.5°	1804.8	1815.2	1817.4	1823.2	1824.2	1823.2	1817.4	1815.2	1804.8	1815.2	1817.4
7°	1788.0	1798.2	1799.7	1807.6	1806.1	1807.6	1799.7	1798.2	1788.0	1798.2	1799.7
7.5°	1770.2	1779.5	1780.1	1790.4	1787.2	1790.4	1780.1	1779.5	1770.2	1779.5	1780.1
8°	1751.0	1759.3	1759.8	1771.8	1766.8	1771.8	1759.8	1759.3	1751.0	1759.3	1759.8
8.5°	1730.1	1737.0	1738.0	1751.5	1746.0	1751.5	1738.0	1737.0	1730.1	1737.0	1738.0
9°	1707.9	1713.1	1715.5	1729.2	1723.9	1729.2	1715.5	1713.1	1707.9	1713.1	1715.5
9.5°	1683.3	1687.1	1692.6	1705.0	1702.2	1705.0	1692.6	1687.1	1683.3	1687.1	1692.6
10°	1657.1	1659.9	1668.7	1678.5	1679.4	1678.5	1668.7	1659.9	1657.1	1659.9	1668.7
10.5°	1629.4	1631.2	1644.0	1650.5	1656.0	1650.5	1644.0	1631.2	1629.4	1631.2	1644.0
11°	1601.1	1601.8	1618.3	1621.2	1630.3	1621.2	1618.3	1601.8	1601.1	1601.8	1618.3
11.5°	1571.6	1572.1	1590.7	1590.9	1602.2	1590.9	1590.7	1572.1	1571.6	1572.1	1590.7
12°	1541.9	1542.3	1560.3	1560.9	1571.9	1560.9	1560.3	1542.3	1541.9	1542.3	1560.3
12.5°	1510.5	1513.1	1527.5	1530.3	1538.2	1530.3	1527.5	1513.1	1510.5	1513.1	1527.5
13°	1479.8	1483.4	1493.5	1499.2	1504.3	1499.2	1493.5	1483.4	1479.8	1483.4	1493.5
13.5°	1447.8	1452.9	1458.1	1466.2	1468.1	1466.2	1458.1	1452.9	1447.8	1452.9	1458.1
14°	1415.7	1420.7	1422.8	1431.7	1431.6	1431.7	1422.8	1420.7	1415.7	1420.7	1422.8
14.5°	1382.3	1386.2	1387.8	1396.9	1395.6	1396.9	1387.8	1386.2	1382.3	1386.2	1387.8
15°	1347.7	1350.2	1352.7	1360.9	1359.4	1360.9	1352.7	1350.2	1347.7	1350.2	1352.7
15.5°	1310.7	1312.2	1317.7	1325.1	1325.4	1325.1	1317.7	1312.2	1310.7	1312.2	1317.7
16°	1273.1	1274.0	1282.4	1289.0	1290.5	1289.0	1282.4	1274.0	1273.1	1274.0	1282.4
16.5°	1233.5	1236.3	1246.3	1253.1	1256.9	1253.1	1246.3	1236.3	1233.5	1236.3	1246.3
17°	1195.1	1198.5	1209.5	1217.6	1222.5	1217.6	1209.5	1198.5	1195.1	1198.5	1209.5
17.5°	1156.4	1161.0	1171.0	1180.8	1185.6	1180.8	1171.0	1161.0	1156.4	1161.0	1171.0
18°	1119.1	1122.4	1131.6	1142.3	1146.4	1142.3	1131.6	1122.4	1119.1	1122.4	1131.6
18.5°	1080.2	1083.3	1090.4	1101.1	1104.3	1101.1	1090.4	1083.3	1080.2	1083.3	1090.4
19°	1040.4	1042.5	1047.9	1055.9	1059.2	1055.9	1047.9	1042.5	1040.4	1042.5	1047.9
19.5°	998.8	999.0	1003.1	1009.2	1012.2	1009.2	1003.1	999.0	998.8	999.0	1003.1
20°	954.7	954.7	956.9	960.3	958.7	960.3	956.9	954.7	954.7	954.7	956.9
20.5°	911.5	909.9	910.8	910.7	906.1	910.7	910.8	909.9	911.5	909.9	910.8
21°	866.9	865.9	862.0	865.9	864.4	865.9	862.0	865.9	866.9	865.9	862.0



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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°	742.3	747.2	754.0	762.0	758.5	762.0	754.0	747.2	742.3	747.2	754.0
23°	713.2	716.6	723.5	734.5	734.6	734.5	723.5	716.6	713.2	716.6	723.5
23.5°	691.8	691.2	695.6	706.3	707.6	706.3	695.6	691.2	691.8	691.2	695.6
24°	668.7	671.1	673.8	682.4	683.0	682.4	673.8	671.1	668.7	671.1	673.8
24.5°	651.1	652.3	654.7	660.1	660.1	660.1	654.7	652.3	651.1	652.3	654.7
25°	634.4	635.9	638.4	643.4	643.2	643.4	638.4	635.9	634.4	635.9	638.4
25.5°	618.8	619.6	622.2	626.9	627.2	626.9	622.2	619.6	618.8	619.6	622.2
26°	603.8	604.4	606.3	609.9	610.4	609.9	606.3	604.4	603.8	604.4	606.3
26.5°	589.6	589.8	592.1	595.3	595.6	595.3	592.1	589.8	589.6	589.8	592.1
27°	575.2	575.9	578.2	582.3	583.3	582.3	578.2	575.9	575.2	575.9	578.2
27.5°	561.7	562.5	564.7	568.7	570.2	568.7	564.7	562.5	561.7	562.5	564.7
28°	548.9	549.7	551.8	554.8	556.1	554.8	551.8	549.7	548.9	549.7	551.8
28.5°	537.0	537.4	539.4	541.7	542.9	541.7	539.4	537.4	537.0	537.4	539.4
29°	525.2	525.5	527.4	529.4	530.7	529.4	527.4	525.5	525.2	525.5	527.4
29.5°	513.6	514.2	515.8	518.0	519.0	518.0	515.8	514.2	513.6	514.2	515.8
30°	502.2	502.8	504.3	506.4	507.5	506.4	504.3	502.8	502.2	502.8	504.3
30.5°	491.2	491.7	493.2	495.2	495.9	495.2	493.2	491.7	491.2	491.7	493.2
31°	480.4	480.9	482.3	484.4	485.4	484.4	482.3	480.9	480.4	480.9	482.3
31.5°	470.0	470.5	472.0	473.9	474.6	473.9	472.0	470.5	470.0	470.5	472.0
32°	460.0	460.4	461.8	463.7	464.4	463.7	461.8	460.4	460.0	460.4	461.8
32.5°	450.4	450.8	451.8	453.6	454.2	453.6	451.8	450.8	450.4	450.8	451.8
33°	441.2	441.4	441.9	442.8	443.4	442.8	441.9	441.4	441.2	441.4	441.9
33.5°	431.6	431.6	431.4	431.0	431.9	431.0	431.4	431.6	431.6	431.6	431.4
34°	420.8	420.4	420.2	418.8	420.9	418.8	420.2	420.4	420.8	420.4	420.2
34.5°	409.1	408.2	408.1	406.3	407.9	406.3	408.1	408.2	409.1	408.2	408.1
35°	396.5	395.3	395.3	393.6	394.6	393.6	395.3	395.3	396.5	395.3	395.3
35.5°	382.8	382.2	381.6	380.1	380.8	380.1	381.6	382.2	382.8	382.2	381.6
36°	368.5	368.3	367.1	366.3	366.4	366.3	367.1	368.3	368.5	368.3	367.1
36.5°	353.3	353.8	352.1	351.6	350.9	351.6	352.1	353.8	353.3	353.8	352.1
37°	337.1	338.3	336.8	336.5	335.7	336.5	336.8	338.3	337.1	338.3	336.8
37.5°	320.9	321.8	321.4	320.9	320.6	320.9	321.4	321.8	320.9	321.8	321.4
38°	304.7	305.4	304.9	305.3	305.0	305.3	304.9	305.4	304.7	305.4	304.9
38.5°	288.5	288.1	288.3	288.4	289.2	288.4	288.3	288.1	288.5	288.1	288.3
39°	272.0	271.1	271.6	271.6	273.3	271.6	271.6	271.1	272.0	271.1	271.6
39.5°	254.7	254.2	254.9	255.5	256.8	255.5	254.9	254.2	254.7	254.2	254.9
40°	237.3	237.8	238.7	239.7	240.6	239.7	238.7	237.8	237.3	237.8	238.7
40.5°	220.1	221.2	222.1	224.4	224.3	224.4	222.1	221.2	220.1	221.2	222.1
41°	203.4	204.6	205.9	208.7	208.2	208.7	205.9	204.6	203.4	204.6	205.9
41.5°	186.6	188.1	189.9	193.1	192.4	193.1	189.9	188.1	186.6	188.1	189.9
42°	170.6	172.1	174.5	177.8	177.2	177.8	174.5	172.1	170.6	172.1	174.5
42.5°	155.2	156.5	159.7	163.1	162.7	163.1	159.7	156.5	155.2	156.5	159.7
43°	140.3	142.1	145.3	149.1	148.8	149.1	145.3	142.1	140.3	142.1	145.3
43.5°	126.9	127.9	131.1	134.8	135.1	134.8	131.1	127.9	126.9	127.9	131.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	88.7	89.1	92.7	96.0	97.4	96.0	92.7	89.1	88.7	89.1	92.7
45.5°	76.5	77.4	81.4	84.4	86.2	84.4	81.4	77.4	76.5	77.4	81.4
46°	65.8	66.5	70.8	74.2	76.1	74.2	70.8	66.5	65.8	66.5	70.8
46.5°	56.1	57.4	60.7	64.9	67.1	64.9	60.7	57.4	56.1	57.4	60.7
47°	47.3	48.8	51.4	56.1	58.2	56.1	51.4	48.8	47.3	48.8	51.4
47.5°	39.7	41.2	43.6	47.7	49.3	47.7	43.6	41.2	39.7	41.2	43.6
48°	32.9	34.7	36.4	40.0	40.3	40.0	36.4	34.7	32.9	34.7	36.4
48.5°	27.1	28.7	30.0	33.2	32.7	33.2	30.0	28.7	27.1	28.7	30.0
49°	22.5	23.4	24.4	27.3	26.5	27.3	24.4	23.4	22.5	23.4	24.4
49.5°	18.8	19.1	20.2	22.0	21.0	22.0	20.2	19.1	18.8	19.1	20.2
50°	15.1	15.0	16.2	17.9	16.8	17.9	16.2	15.0	15.1	15.0	16.2
50.5°	11.5	11.9	12.5	14.2	13.2	14.2	12.5	11.9	11.5	11.9	12.5
51°	8.8	9.0	10.2	11.3	10.5	11.3	10.2	9.0	8.8	9.0	10.2
51.5°	6.6	7.5	8.1	9.5	9.4	9.5	8.1	7.5	6.6	7.5	8.1
52°	5.8	6.2	6.8	7.5	8.2	7.5	6.8	6.2	5.8	6.2	6.8
52.5°	5.3	5.4	5.9	6.3	6.9	6.3	5.9	5.4	5.3	5.4	5.9
53°	4.9	5.0	5.0	5.5	5.8	5.5	5.0	5.0	4.9	5.0	5.0
53.5°	4.7	4.7	4.8	4.7	4.6	4.7	4.8	4.7	4.7	4.7	4.8
54°	4.5	4.5	4.5	4.5	4.4	4.5	4.5	4.5	4.5	4.5	4.5
54.5°	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3	4.3
55°	4.1	4.1	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.1
55.5°	3.9	3.9	3.9	3.9	3.8	3.9	3.9	3.9	3.9	3.9	3.9
56°	3.7	3.7	3.7	3.7	3.6	3.7	3.7	3.7	3.7	3.7	3.7
56.5°	3.5	3.5	3.6	3.5	3.4	3.5	3.6	3.5	3.5	3.5	3.6
57°	3.3	3.3	3.4	3.3	3.3	3.3	3.4	3.3	3.3	3.3	3.4
57.5°	3.0	3.2	3.2	3.0	3.0	3.0	3.2	3.2	3.0	3.2	3.2
58°	2.9	2.9	2.9	2.9	2.8	2.9	2.9	2.9	2.9	2.9	2.9
58.5°	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.8	2.7	2.8	2.8
59°	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6
59.5°	2.4	2.5	2.5	2.5	2.4	2.5	2.5	2.5	2.4	2.5	2.5
60°	2.3	2.3	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.4
60.5°	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3
61°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
61.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
62°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
62.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
63°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
63.5°	1.6	1.6	1.7	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.7
64°	1.5	1.5	1.6	1.6	1.5	1.6	1.6	1.5	1.5	1.5	1.6
64.5°	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.4	1.5	1.5
65°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
65.5°	1.3	1.3	1.4	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.4
66°	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3



TEST NUMBER: P775843

CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
68°	0.9	0.9	1.1	1.1	0.9	1.1	1.1	0.9	0.9	0.9	1.1
68.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
69°	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0.9
69.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8
70.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
71°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
71.5°	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.7
72°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
73°	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76.5°	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
77°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
78°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
78.5°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
79°	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2
79.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81.5°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
82°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
83°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
83.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
85.5°	0.0	0.0	0.0	0.1	0.1	0.1	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: P775843
CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-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: P775843

CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9
0.5°	1911.4	1913.5	1911.4	1913.3	1912.3	1912.1
1°	1910.2	1912.4	1910.2	1912.0	1910.5	1910.1
1.5°	1908.3	1910.6	1908.3	1909.7	1907.5	1906.5
2°	1905.5	1908.7	1905.5	1906.4	1903.1	1901.8
2.5°	1901.7	1905.3	1901.7	1901.9	1897.7	1895.7
3°	1896.6	1900.7	1896.6	1896.5	1891.3	1888.7
3.5°	1890.0	1894.7	1890.0	1889.7	1884.0	1880.5
4°	1882.2	1887.2	1882.2	1881.7	1876.0	1871.3
4.5°	1873.1	1878.2	1873.1	1872.2	1866.5	1860.7
5°	1862.6	1867.5	1862.6	1861.3	1856.0	1848.8
5.5°	1850.9	1855.1	1850.9	1848.2	1844.0	1835.4
6°	1837.8	1840.5	1837.8	1833.8	1830.5	1820.8
6.5°	1823.2	1824.2	1823.2	1817.4	1815.2	1804.8
7°	1807.6	1806.1	1807.6	1799.7	1798.2	1788.0
7.5°	1790.4	1787.2	1790.4	1780.1	1779.5	1770.2
8°	1771.8	1766.8	1771.8	1759.8	1759.3	1751.0
8.5°	1751.5	1746.0	1751.5	1738.0	1737.0	1730.1
9°	1729.2	1723.9	1729.2	1715.5	1713.1	1707.9
9.5°	1705.0	1702.2	1705.0	1692.6	1687.1	1683.3
10°	1678.5	1679.4	1678.5	1668.7	1659.9	1657.1
10.5°	1650.5	1656.0	1650.5	1644.0	1631.2	1629.4
11°	1621.2	1630.3	1621.2	1618.3	1601.8	1601.1
11.5°	1590.9	1602.2	1590.9	1590.7	1572.1	1571.6
12°	1560.9	1571.9	1560.9	1560.3	1542.3	1541.9
12.5°	1530.3	1538.2	1530.3	1527.5	1513.1	1510.5
13°	1499.2	1504.3	1499.2	1493.5	1483.4	1479.8
13.5°	1466.2	1468.1	1466.2	1458.1	1452.9	1447.8
14°	1431.7	1431.6	1431.7	1422.8	1420.7	1415.7
14.5°	1396.9	1395.6	1396.9	1387.8	1386.2	1382.3
15°	1360.9	1359.4	1360.9	1352.7	1350.2	1347.7
15.5°	1325.1	1325.4	1325.1	1317.7	1312.2	1310.7
16°	1289.0	1290.5	1289.0	1282.4	1274.0	1273.1
16.5°	1253.1	1256.9	1253.1	1246.3	1236.3	1233.5
17°	1217.6	1222.5	1217.6	1209.5	1198.5	1195.1
17.5°	1180.8	1185.6	1180.8	1171.0	1161.0	1156.4
18°	1142.3	1146.4	1142.3	1131.6	1122.4	1119.1
18.5°	1101.1	1104.3	1101.1	1090.4	1083.3	1080.2
19°	1055.9	1059.2	1055.9	1047.9	1042.5	1040.4
19.5°	1009.2	1012.2	1009.2	1003.1	999.0	998.8
20°	960.3	958.7	960.3	956.9	954.7	954.7
20.5°	910.7	906.1	910.7	910.8	909.9	911.5
21°	865.9	864.4	865.9	862.0	865.9	866.9



TEST NUMBER: P775843

CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	762.0	758.5	762.0	754.0	747.2	742.3
23°	734.5	734.6	734.5	723.5	716.6	713.2
23.5°	706.3	707.6	706.3	695.6	691.2	691.8
24°	682.4	683.0	682.4	673.8	671.1	668.7
24.5°	660.1	660.1	660.1	654.7	652.3	651.1
25°	643.4	643.2	643.4	638.4	635.9	634.4
25.5°	626.9	627.2	626.9	622.2	619.6	618.8
26°	609.9	610.4	609.9	606.3	604.4	603.8
26.5°	595.3	595.6	595.3	592.1	589.8	589.6
27°	582.3	583.3	582.3	578.2	575.9	575.2
27.5°	568.7	570.2	568.7	564.7	562.5	561.7
28°	554.8	556.1	554.8	551.8	549.7	548.9
28.5°	541.7	542.9	541.7	539.4	537.4	537.0
29°	529.4	530.7	529.4	527.4	525.5	525.2
29.5°	518.0	519.0	518.0	515.8	514.2	513.6
30°	506.4	507.5	506.4	504.3	502.8	502.2
30.5°	495.2	495.9	495.2	493.2	491.7	491.2
31°	484.4	485.4	484.4	482.3	480.9	480.4
31.5°	473.9	474.6	473.9	472.0	470.5	470.0
32°	463.7	464.4	463.7	461.8	460.4	460.0
32.5°	453.6	454.2	453.6	451.8	450.8	450.4
33°	442.8	443.4	442.8	441.9	441.4	441.2
33.5°	431.0	431.9	431.0	431.4	431.6	431.6
34°	418.8	420.9	418.8	420.2	420.4	420.8
34.5°	406.3	407.9	406.3	408.1	408.2	409.1
35°	393.6	394.6	393.6	395.3	395.3	396.5
35.5°	380.1	380.8	380.1	381.6	382.2	382.8
36°	366.3	366.4	366.3	367.1	368.3	368.5
36.5°	351.6	350.9	351.6	352.1	353.8	353.3
37°	336.5	335.7	336.5	336.8	338.3	337.1
37.5°	320.9	320.6	320.9	321.4	321.8	320.9
38°	305.3	305.0	305.3	304.9	305.4	304.7
38.5°	288.4	289.2	288.4	288.3	288.1	288.5
39°	271.6	273.3	271.6	271.6	271.1	272.0
39.5°	255.5	256.8	255.5	254.9	254.2	254.7
40°	239.7	240.6	239.7	238.7	237.8	237.3
40.5°	224.4	224.3	224.4	222.1	221.2	220.1
41°	208.7	208.2	208.7	205.9	204.6	203.4
41.5°	193.1	192.4	193.1	189.9	188.1	186.6
42°	177.8	177.2	177.8	174.5	172.1	170.6
42.5°	163.1	162.7	163.1	159.7	156.5	155.2
43°	149.1	148.8	149.1	145.3	142.1	140.3
43.5°	134.8	135.1	134.8	131.1	127.9	126.9



TEST NUMBER: P775843

CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	96.0	97.4	96.0	92.7	89.1	88.7
45.5°	84.4	86.2	84.4	81.4	77.4	76.5
46°	74.2	76.1	74.2	70.8	66.5	65.8
46.5°	64.9	67.1	64.9	60.7	57.4	56.1
47°	56.1	58.2	56.1	51.4	48.8	47.3
47.5°	47.7	49.3	47.7	43.6	41.2	39.7
48°	40.0	40.3	40.0	36.4	34.7	32.9
48.5°	33.2	32.7	33.2	30.0	28.7	27.1
49°	27.3	26.5	27.3	24.4	23.4	22.5
49.5°	22.0	21.0	22.0	20.2	19.1	18.8
50°	17.9	16.8	17.9	16.2	15.0	15.1
50.5°	14.2	13.2	14.2	12.5	11.9	11.5
51°	11.3	10.5	11.3	10.2	9.0	8.8
51.5°	9.5	9.4	9.5	8.1	7.5	6.6
52°	7.5	8.2	7.5	6.8	6.2	5.8
52.5°	6.3	6.9	6.3	5.9	5.4	5.3
53°	5.5	5.8	5.5	5.0	5.0	4.9
53.5°	4.7	4.6	4.7	4.8	4.7	4.7
54°	4.5	4.4	4.5	4.5	4.5	4.5
54.5°	4.3	4.2	4.3	4.3	4.3	4.3
55°	4.1	4.0	4.1	4.1	4.1	4.1
55.5°	3.9	3.8	3.9	3.9	3.9	3.9
56°	3.7	3.6	3.7	3.7	3.7	3.7
56.5°	3.5	3.4	3.5	3.6	3.5	3.5
57°	3.3	3.3	3.3	3.4	3.3	3.3
57.5°	3.0	3.0	3.0	3.2	3.2	3.0
58°	2.9	2.8	2.9	2.9	2.9	2.9
58.5°	2.7	2.7	2.7	2.8	2.8	2.7
59°	2.6	2.5	2.6	2.6	2.6	2.6
59.5°	2.5	2.4	2.5	2.5	2.5	2.4
60°	2.3	2.3	2.3	2.4	2.3	2.3
60.5°	2.2	2.2	2.2	2.3	2.2	2.2
61°	2.1	2.1	2.1	2.1	2.1	2.1
61.5°	2.0	2.0	2.0	2.0	2.0	2.0
62°	1.9	1.9	1.9	1.9	1.9	1.9
62.5°	1.8	1.8	1.8	1.8	1.8	1.8
63°	1.7	1.7	1.7	1.7	1.7	1.7
63.5°	1.6	1.6	1.6	1.7	1.6	1.6
64°	1.6	1.5	1.6	1.6	1.5	1.5
64.5°	1.5	1.4	1.5	1.5	1.5	1.4
65°	1.4	1.4	1.4	1.4	1.4	1.4
65.5°	1.3	1.3	1.3	1.4	1.3	1.3
66°	1.3	1.3	1.3	1.3	1.3	1.2



TEST NUMBER: P775843

CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.1	1.1	1.1	1.1	1.1	1.1
68°	1.1	0.9	1.1	1.1	0.9	0.9
68.5°	0.9	0.9	0.9	0.9	0.9	0.9
69°	0.9	0.8	0.9	0.9	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.7	0.7
70.5°	0.7	0.7	0.7	0.7	0.7	0.7
71°	0.7	0.7	0.7	0.7	0.7	0.7
71.5°	0.7	0.6	0.7	0.7	0.6	0.6
72°	0.6	0.6	0.6	0.6	0.6	0.6
72.5°	0.6	0.6	0.6	0.6	0.6	0.6
73°	0.6	0.5	0.6	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.4	0.4	0.4	0.4	0.4	0.4
76°	0.4	0.4	0.4	0.4	0.4	0.4
76.5°	0.4	0.4	0.4	0.3	0.3	0.3
77°	0.3	0.3	0.3	0.3	0.3	0.3
77.5°	0.3	0.3	0.3	0.3	0.3	0.3
78°	0.3	0.3	0.3	0.3	0.3	0.3
78.5°	0.3	0.3	0.3	0.3	0.2	0.2
79°	0.3	0.2	0.3	0.2	0.2	0.2
79.5°	0.2	0.2	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2
80.5°	0.2	0.2	0.2	0.2	0.2	0.2
81°	0.2	0.2	0.2	0.2	0.2	0.2
81.5°	0.2	0.2	0.2	0.2	0.1	0.1
82°	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1
83°	0.1	0.1	0.1	0.1	0.1	0.1
83.5°	0.1	0.1	0.1	0.1	0.1	0.1
84°	0.1	0.1	0.1	0.1	0.1	0.1
84.5°	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0
85.5°	0.1	0.1	0.1	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: P775843

CATALOG NUMBER: HCDJBL510CSD-HCD82TRC-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

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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Scaled Data Report





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

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Scaled Data Report





21.5°	821.5	821.0	822.5	827.1	826.5	827.1	822.5	821.0	821.5	821.0	822.5
22°	775.4	782.7	786.2	792.3	791.6	792.3	786.2	782.7	775.4	782.7	786.2



44°	113.8	114.6	117.6	121.2	121.7	121.2	117.6	114.6	113.8	114.6	117.6
44.5°	101.1	101.6	104.4	108.2	109.3	108.2	104.4	101.6	101.1	101.6	104.4



66.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
67°	1.1	1.1	1.2	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.2



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°	827.1	826.5	827.1	822.5	821.0	821.5
22°	792.3	791.6	792.3	786.2	782.7	775.4



44°	121.2	121.7	121.2	117.6	114.6	113.8
44.5°	108.2	109.3	108.2	104.4	101.6	101.1

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66.5°	1.2	1.2	1.2	1.2	1.2	1.2
67°	1.2	1.1	1.2	1.2	1.1	1.1

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Scaled Data Report



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)