

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

Report Number: P645639

Luminaire Tested: LCR630WW9FSE010-30W-5000K

Issue Date: 3/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P645639
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-113)
Test Lab: INNOVATION CENTER
Issue Date: 3/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: LCR630WW9FSE010-30W-5000K
Description: LCR 6 Wall Wash
Light Source: 5000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

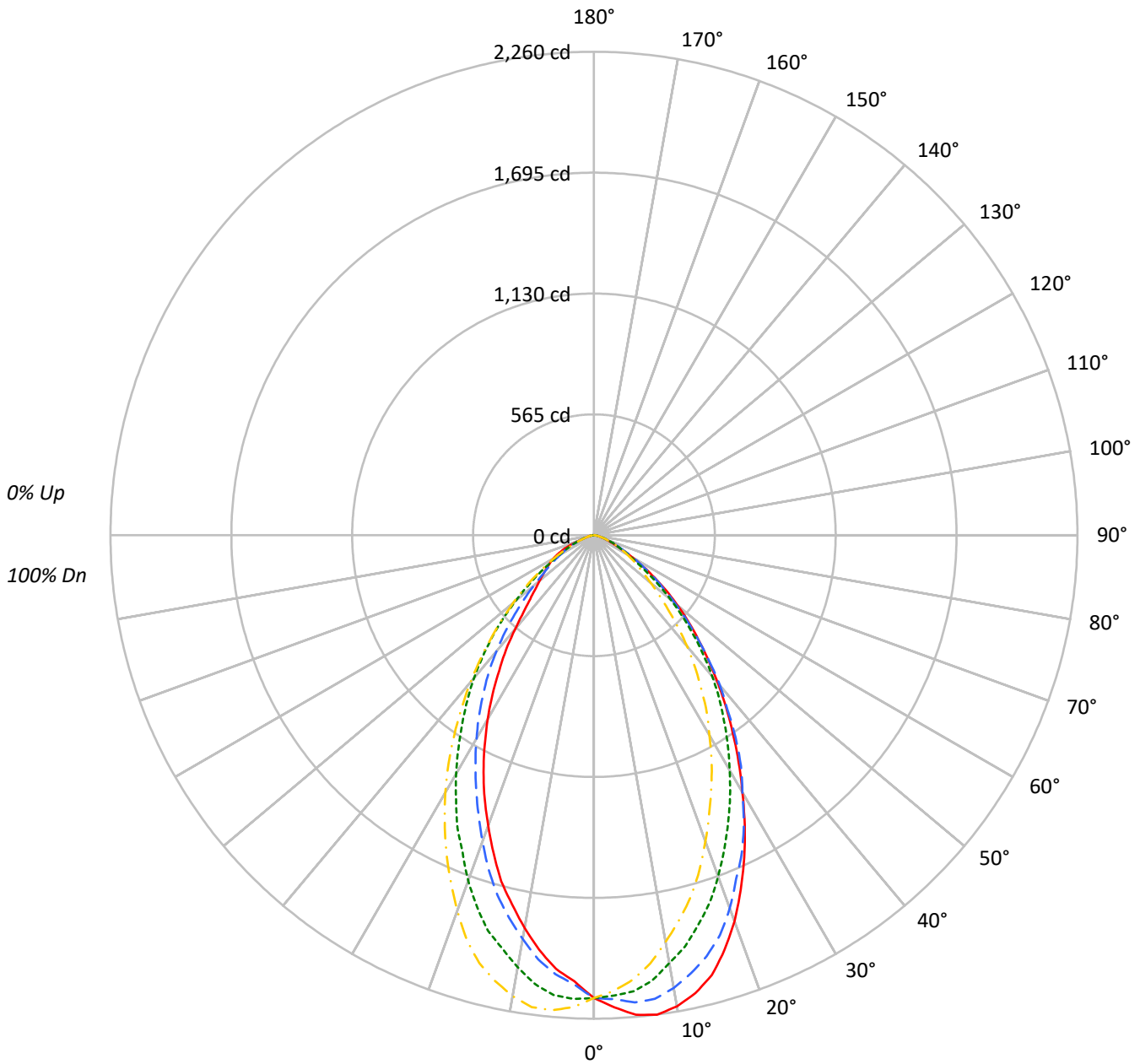
Lumens per Lamp: N/A
Luminaire Lumens: 2955.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.96 / 1.01
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 30.3
Input Voltage (V): 120
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



TEST NUMBER: P645639
CATALOG NUMBER: LCR630WW9FSE010-30W-5000K

Luminous Intensity Polar Plot



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



TEST NUMBER: P645639

CATALOG NUMBER: LCR630WW9FSE010-30W-5000K

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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	92	92	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	82	82	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	73	73	73	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	66	66	66	64
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	60	60	60	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	54	54	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	50	50	50	48
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	46	46	46	44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	42	42	42	41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	39	39	39	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	118603	118603	118603	118603
5°	123850	117747	111974	118726
10°	124452	112996	103795	114148
15°	120818	106947	95040	108633
20°	112068	99018	84293	100290
25°	100572	89793	73873	91294
30°	87893	80316	62839	81570
35°	75837	70999	51665	71728
40°	64378	61479	41005	62467
45°	53556	50873	32608	52021
50°	43385	39837	28272	40766
55°	33012	28663	25825	30173
60°	23003	20612	24088	21380
65°	14891	15540	20547	15540
70°	10306	11893	11733	11572
75°	6926	7540	7329	7752
80°	6251	6566	6566	6882
85°	5598	4969	4969	5598

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 53556 cd/sqm



TEST NUMBER: P645639
 CATALOG NUMBER: LCR630WW9FSE010-30W-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.3	6.8
10°-20°	529.6	17.9
20°-30°	672.6	22.8
30°-40°	632.3	21.4
40°-50°	466.2	15.8
50°-60°	274.0	9.3
60°-70°	127.2	4.3
70°-80°	41.6	1.4
80°-90°	10.1	0.3
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°	1403.5	47.5
0°-40°	2035.8	68.9
0°-60°	2776.1	93.9
0°-90°	2955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2955.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2164	2164	2164	2164	2164	
5°	2251	2140	2035	2158	2251	214
15°	2129	1884	1675	1914	2129	593
25°	1663	1484	1221	1509	1663	761
35°	1133	1061	772	1072	1133	709
45°	691	656	421	671	691	535
55°	345	300	270	316	345	313
65°	115	120	158	120	115	121
75°	33	36	35	37	33	39
85°	9	8	8	9	9	10
90°	0	0	0	0	0	



TEST NUMBER: P645639

CATALOG NUMBER: LCR630WW9FSE010-30W-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5
2.5°	2209.0	2205.0	2170.4	2173.4	2153.6	2150.6	2131.8	2115.0	2087.3	2094.2	2102.1
5°	2250.6	2242.6	2192.2	2177.3	2139.7	2119.9	2085.3	2054.6	2034.8	2044.7	2059.5
7.5°	2260.5	2248.6	2185.2	2156.5	2098.1	2064.5	2019.0	1981.4	1955.6	1974.4	1999.2
10°	2235.7	2219.9	2148.6	2099.1	2029.9	1986.3	1929.9	1890.3	1864.6	1886.3	1917.0
12.5°	2192.2	2173.4	2097.2	2046.7	1968.5	1908.1	1841.8	1792.3	1766.6	1793.3	1831.9
15°	2128.8	2114.0	2036.8	1976.4	1884.4	1822.0	1749.8	1693.4	1674.6	1700.3	1741.9
17.5°	2031.8	2017.0	1959.6	1889.3	1801.2	1720.1	1640.9	1589.4	1558.8	1588.5	1636.9
20°	1921.0	1905.2	1855.7	1792.3	1697.3	1608.2	1523.1	1470.7	1444.9	1471.7	1523.1
22.5°	1793.3	1784.4	1737.9	1693.4	1590.4	1499.4	1408.3	1346.0	1334.1	1354.9	1410.3
25°	1662.7	1666.6	1636.9	1586.5	1484.5	1392.5	1297.5	1232.2	1221.3	1245.0	1303.4
27.5°	1526.1	1540.0	1517.2	1471.7	1377.6	1288.6	1191.6	1129.2	1105.5	1137.2	1199.5
30°	1388.5	1413.3	1388.5	1355.9	1268.8	1180.7	1078.8	1008.5	992.7	1029.3	1097.6
32.5°	1258.9	1274.7	1278.7	1234.1	1163.9	1079.8	981.8	900.6	881.8	924.4	999.6
35°	1133.2	1143.1	1154.0	1116.4	1060.9	976.8	872.9	801.6	772.0	821.4	899.6
37.5°	1014.4	1019.4	1024.3	1007.5	962.0	880.8	773.9	694.8	674.0	724.5	807.6
40°	899.6	907.5	916.5	892.7	859.1	776.9	676.0	592.8	573.0	624.5	710.6
42.5°	790.8	795.7	796.7	782.8	756.1	676.0	579.0	508.7	485.9	531.5	614.6
45°	690.8	687.8	687.8	676.9	656.2	580.0	487.9	426.6	420.6	450.3	523.5
47.5°	600.7	595.8	587.9	575.0	559.2	482.0	412.7	376.1	371.1	384.0	442.4
50°	508.7	505.7	495.8	483.0	467.1	403.8	346.4	329.6	331.5	333.5	366.2
52.5°	429.5	422.6	411.7	396.9	382.0	333.5	292.0	292.9	298.9	292.0	302.8
55°	345.4	347.4	337.5	319.7	299.9	269.2	250.4	261.3	270.2	258.3	256.3
57.5°	273.2	276.1	271.2	254.4	237.5	221.7	212.8	232.6	244.5	226.6	217.7
60°	209.8	213.8	212.8	198.9	188.0	181.1	178.1	204.9	219.7	197.9	179.1
62.5°	153.4	161.3	163.3	153.4	148.5	148.5	149.4	175.2	190.0	166.3	150.4
65°	114.8	119.8	124.7	119.8	119.8	121.7	120.7	143.5	158.4	136.6	122.7
67.5°	87.1	89.1	94.0	93.0	96.0	97.0	94.0	108.9	114.8	104.9	97.0
70°	64.3	66.3	69.3	70.3	74.2	74.2	71.3	74.2	73.2	73.2	73.2
72.5°	46.5	46.5	48.5	49.5	51.5	52.5	49.5	49.5	49.5	50.5	52.5
75°	32.7	33.6	34.6	34.6	35.6	35.6	34.6	34.6	34.6	35.6	36.6
77.5°	26.7	26.7	27.7	27.7	27.7	27.7	26.7	27.7	27.7	27.7	28.7
80°	19.8	20.8	20.8	20.8	20.8	20.8	19.8	19.8	20.8	20.8	21.8
82.5°	13.9	14.8	14.8	13.9	14.8	13.9	13.9	13.9	13.9	13.9	14.8
85°	8.9	8.9	8.9	8.9	7.9	8.9	7.9	7.9	7.9	8.9	8.9
87.5°	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0
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: P645639

CATALOG NUMBER: LCR630WW9FSE010-30W-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2163.5	2163.5	2163.5	2163.5	2163.5	2163.5
2.5°	2122.9	2169.4	2155.5	2207.0	2182.3	2209.0
5°	2095.2	2157.5	2165.4	2228.8	2215.9	2250.6
7.5°	2044.7	2116.0	2145.6	2224.8	2225.8	2260.5
10°	1967.5	2050.6	2090.2	2187.2	2194.1	2235.7
12.5°	1889.3	1978.4	2036.8	2133.8	2152.6	2192.2
15°	1809.2	1914.1	1980.4	2070.4	2088.2	2128.8
17.5°	1711.2	1820.0	1895.3	1980.4	1994.2	2031.8
20°	1603.3	1719.1	1800.2	1867.5	1882.4	1921.0
22.5°	1493.4	1604.3	1688.4	1749.8	1762.6	1793.3
25°	1390.5	1509.3	1579.5	1633.0	1638.9	1662.7
27.5°	1285.6	1396.5	1476.6	1510.3	1509.3	1526.1
30°	1188.6	1288.6	1363.8	1389.5	1375.7	1388.5
32.5°	1085.7	1178.7	1245.0	1263.8	1246.0	1258.9
35°	983.8	1071.8	1124.3	1137.2	1121.3	1133.2
37.5°	897.6	971.9	1010.5	1015.4	1004.5	1014.4
40°	796.7	872.9	897.6	898.6	891.7	899.6
42.5°	697.7	769.0	786.8	784.8	782.8	790.8
45°	599.8	671.0	682.9	678.9	683.9	690.8
47.5°	512.7	574.0	580.0	580.9	592.8	600.7
50°	425.6	478.0	490.9	492.9	502.8	508.7
52.5°	347.4	390.9	406.8	410.7	424.6	429.5
55°	284.0	315.7	331.5	337.5	343.4	345.4
57.5°	226.6	247.4	265.2	271.2	274.1	273.2
60°	182.1	195.0	207.8	212.8	212.8	209.8
62.5°	149.4	151.4	159.3	161.3	156.4	153.4
65°	121.7	119.8	122.7	121.7	117.8	114.8
67.5°	97.0	95.0	95.0	92.0	88.1	87.1
70°	75.2	72.2	71.3	66.3	65.3	64.3
72.5°	52.5	51.5	50.5	47.5	46.5	46.5
75°	35.6	36.6	35.6	34.6	33.6	32.7
77.5°	28.7	28.7	28.7	27.7	26.7	26.7
80°	21.8	21.8	21.8	20.8	20.8	19.8
82.5°	15.8	14.8	15.8	14.8	13.9	13.9
85°	9.9	8.9	9.9	8.9	8.9	8.9
87.5°	4.0	4.0	4.0	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)