

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: P645637

Luminaire Tested: LCR630WW9FSE010-30W-3500K

Issue Date: 3/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P645637  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-105)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: LCR630WW9FSE010-30W-3500K  
Description: LCR 6 Wall Wash  
Light Source: 3500K CCT, 93 CRI LEDS  
Ballast/Driver: -

**Summary**

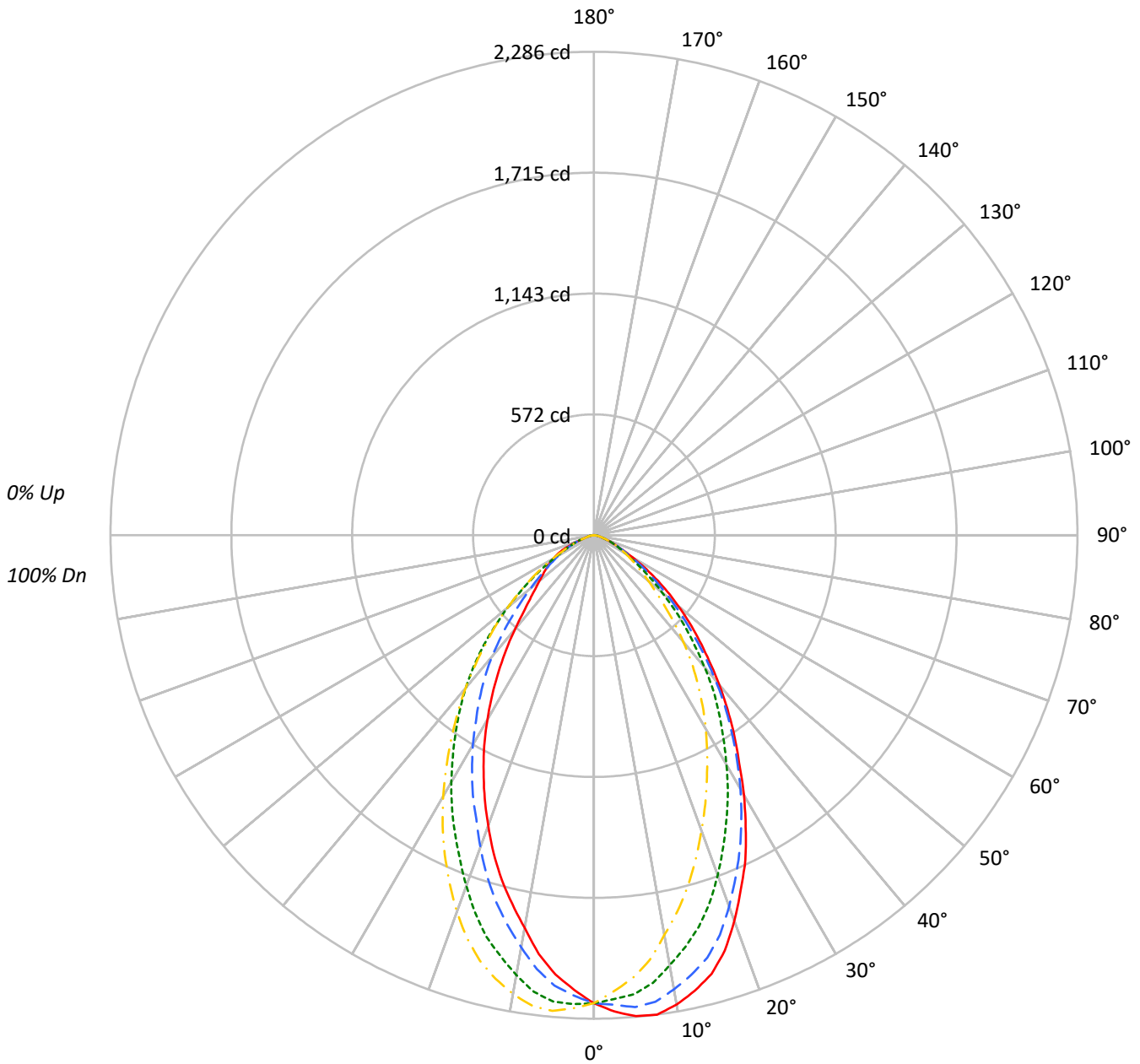
Lumens per Lamp: N/A  
Luminaire Lumens: 2995.0 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 0.92 / 0.95 / 1  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 30  
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



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### Luminous Intensity Polar Plot



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



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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	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	62	56	51	61	55	50	60	54	50	59	53	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	42	52	46	42	51	46	42	42	42	42	41
10	62	51	44	40	61	51	44	39	50	44	39	49	43	39	48	43	39	39	39	39	38

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

	0°	90°	180°	270°
0°	121312	121312	121312	121312
5°	125599	119860	114726	121775
10°	125393	114894	104947	117544
15°	121868	108741	95670	111505
20°	113229	99788	85197	102915
25°	102502	89715	74702	94040
30°	89742	79310	63788	85342
35°	77403	69031	52421	76272
40°	65931	58116	41349	67419
45°	54649	47028	33096	57262
50°	44451	35564	28698	45380
55°	33968	26283	26283	33872
60°	23299	18825	24384	23617
65°	15190	14943	20729	16876
70°	10659	11300	11941	12727
75°	7159	7562	7562	8197
80°	6566	6566	6566	7514
85°	5598	4969	4969	6856

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 292.5°

Vertical Angle: 45°

Luminance: 57804 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.0	6.8
10°-20°	535.6	17.9
20°-30°	680.2	22.7
30°-40°	640.8	21.4
40°-50°	472.8	15.8
50°-60°	278.3	9.3
60°-70°	129.1	4.3
70°-80°	42.7	1.4
80°-90°	10.5	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°	1420.7	47.4
0°-40°	2061.5	68.8
0°-60°	2812.7	93.9
0°-90°	2995.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2995.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2213	2213	2213	2213	2213	
5°	2282	2178	2085	2213	2282	217
15°	2147	1916	1686	1965	2147	599
25°	1695	1483	1235	1555	1695	773
35°	1157	1032	783	1140	1157	723
45°	705	607	427	739	705	547
55°	355	275	275	354	355	321
65°	117	115	160	130	117	124
75°	34	36	36	39	34	40
85°	9	8	8	11	9	10
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°	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9
2.5°	2254.6	2243.6	2221.8	2202.0	2195.0	2164.2	2158.3	2148.3	2151.3	2162.2	2178.1
5°	2282.4	2265.5	2239.7	2203.9	2178.1	2128.5	2101.7	2084.8	2084.8	2102.7	2137.4
7.5°	2286.3	2263.5	2224.8	2180.1	2134.4	2064.0	2025.2	1996.4	1996.4	2023.3	2068.9
10°	2252.6	2226.8	2180.1	2124.5	2064.0	1976.6	1919.0	1888.2	1885.3	1921.0	1978.6
12.5°	2205.9	2181.1	2128.5	2064.0	1994.5	1888.2	1822.7	1784.0	1785.0	1821.7	1887.2
15°	2147.3	2118.6	2068.9	1994.5	1916.0	1796.9	1716.5	1681.7	1685.7	1725.4	1791.9
17.5°	2059.0	2028.2	1980.6	1910.1	1820.7	1690.7	1602.3	1571.5	1576.5	1616.2	1685.7
20°	1940.9	1918.0	1867.4	1804.8	1710.5	1566.6	1485.2	1452.4	1460.4	1500.1	1568.6
22.5°	1813.8	1800.9	1750.2	1694.6	1596.4	1447.5	1375.0	1338.2	1348.2	1385.9	1453.4
25°	1694.6	1673.8	1633.1	1581.5	1483.2	1345.2	1263.8	1228.0	1235.0	1275.7	1355.1
27.5°	1553.7	1542.8	1510.0	1466.3	1371.0	1235.0	1158.6	1120.8	1122.8	1164.5	1246.9
30°	1417.7	1410.7	1385.9	1344.2	1252.9	1129.8	1057.3	1011.6	1007.7	1055.3	1143.7
32.5°	1276.7	1274.7	1258.8	1221.1	1139.7	1021.6	956.0	906.4	894.5	948.1	1037.4
35°	1156.6	1142.7	1134.7	1099.0	1031.5	928.2	852.8	800.2	783.3	842.9	942.1
37.5°	1036.4	1022.5	1015.6	982.8	928.2	831.9	758.5	700.9	681.0	744.6	846.8
40°	921.3	903.4	892.5	863.7	812.1	731.7	657.2	598.6	577.8	638.3	750.5
42.5°	807.1	788.3	775.3	749.5	702.9	628.4	558.9	506.3	491.4	539.1	648.3
45°	704.9	685.0	664.2	639.3	606.6	535.1	472.6	429.9	426.9	461.6	554.0
47.5°	612.5	587.7	563.9	537.1	508.3	449.7	397.1	372.3	377.3	396.1	467.6
50°	521.2	498.4	472.6	446.7	417.0	370.3	333.6	326.6	336.5	346.5	388.2
52.5°	437.8	416.0	390.2	367.3	344.5	304.8	281.9	288.9	303.8	304.8	325.6
55°	355.4	337.5	317.7	297.8	275.0	250.2	240.2	256.1	275.0	269.0	273.0
57.5°	281.0	269.0	254.1	237.3	212.5	203.5	203.5	227.3	249.2	239.3	231.3
60°	212.5	206.5	197.6	182.7	171.7	169.8	171.7	195.6	222.4	207.5	193.6
62.5°	157.8	156.9	153.9	144.9	141.0	140.0	142.0	165.8	194.6	178.7	160.8
65°	117.1	118.1	118.1	114.2	115.2	115.2	115.2	134.0	159.8	146.9	130.1
67.5°	89.3	88.4	90.3	90.3	92.3	92.3	90.3	101.3	114.2	111.2	103.2
70°	66.5	65.5	66.5	68.5	70.5	70.5	68.5	71.5	74.5	77.4	77.4
72.5°	47.7	46.7	46.7	48.6	49.6	49.6	49.6	48.6	49.6	51.6	54.6
75°	33.8	33.8	34.7	35.7	35.7	34.7	34.7	34.7	35.7	36.7	36.7
77.5°	26.8	26.8	27.8	27.8	27.8	26.8	27.8	27.8	27.8	28.8	28.8
80°	20.8	20.8	20.8	20.8	20.8	19.9	20.8	20.8	20.8	20.8	21.8
82.5°	14.9	13.9	14.9	14.9	14.9	13.9	13.9	13.9	13.9	14.9	15.9
85°	8.9	8.9	8.9	8.9	7.9	7.9	7.9	7.9	7.9	8.9	8.9
87.5°	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	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



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2212.9	2212.9	2212.9	2212.9	2212.9	2212.9
2.5°	2190.0	2218.8	2229.7	2238.7	2243.6	2254.6
5°	2164.2	2212.9	2236.7	2257.5	2271.4	2282.4
7.5°	2111.6	2177.1	2215.9	2243.6	2270.5	2286.3
10°	2037.2	2111.6	2158.3	2202.9	2232.7	2252.6
12.5°	1948.8	2039.1	2092.7	2148.3	2184.1	2205.9
15°	1870.4	1964.7	2027.2	2082.8	2120.5	2147.3
17.5°	1767.1	1870.4	1935.9	1996.4	2033.2	2059.0
20°	1659.9	1764.1	1831.7	1895.2	1928.9	1940.9
22.5°	1556.7	1656.9	1721.5	1782.0	1808.8	1813.8
25°	1450.4	1554.7	1612.2	1667.8	1685.7	1694.6
27.5°	1348.2	1453.4	1512.0	1548.7	1565.6	1553.7
30°	1249.9	1348.2	1397.8	1424.6	1422.6	1417.7
32.5°	1148.6	1241.9	1282.7	1299.5	1295.6	1276.7
35°	1047.4	1139.7	1170.5	1175.4	1163.5	1156.6
37.5°	954.0	1041.4	1062.3	1057.3	1042.4	1036.4
40°	856.8	942.1	955.0	945.1	929.2	921.3
42.5°	753.5	840.9	848.8	829.0	814.1	807.1
45°	653.2	738.6	745.6	718.8	710.8	704.9
47.5°	556.9	633.4	643.3	628.4	617.5	612.5
50°	464.6	532.1	545.0	532.1	527.2	521.2
52.5°	383.2	438.8	452.7	444.8	443.8	437.8
55°	309.7	354.4	362.4	366.3	363.4	355.4
57.5°	248.2	280.0	291.9	295.8	295.8	281.0
60°	198.6	215.4	231.3	236.3	223.4	212.5
62.5°	161.8	165.8	174.7	175.7	164.8	157.8
65°	131.0	130.1	134.0	131.0	125.1	117.1
67.5°	105.2	103.2	103.2	97.3	94.3	89.3
70°	83.4	79.4	76.4	72.5	69.5	66.5
72.5°	58.6	56.6	55.6	52.6	49.6	47.7
75°	38.7	38.7	36.7	36.7	34.7	33.8
77.5°	30.8	29.8	29.8	29.8	27.8	26.8
80°	22.8	23.8	22.8	22.8	21.8	20.8
82.5°	16.9	16.9	16.9	15.9	14.9	14.9
85°	9.9	10.9	10.9	9.9	9.9	8.9
87.5°	5.0	5.0	5.0	5.0	5.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)