

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: P645638

Luminaire Tested: LCR630WW9FSE010-30W-4000K

Issue Date: 3/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P645638  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-109)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: LCR630WW9FSE010-30W-4000K  
Description: LCR 6 Wall Wash  
Light Source: 4000K CCT, 93 CRI LEDS  
Ballast/Driver: -

**Summary**

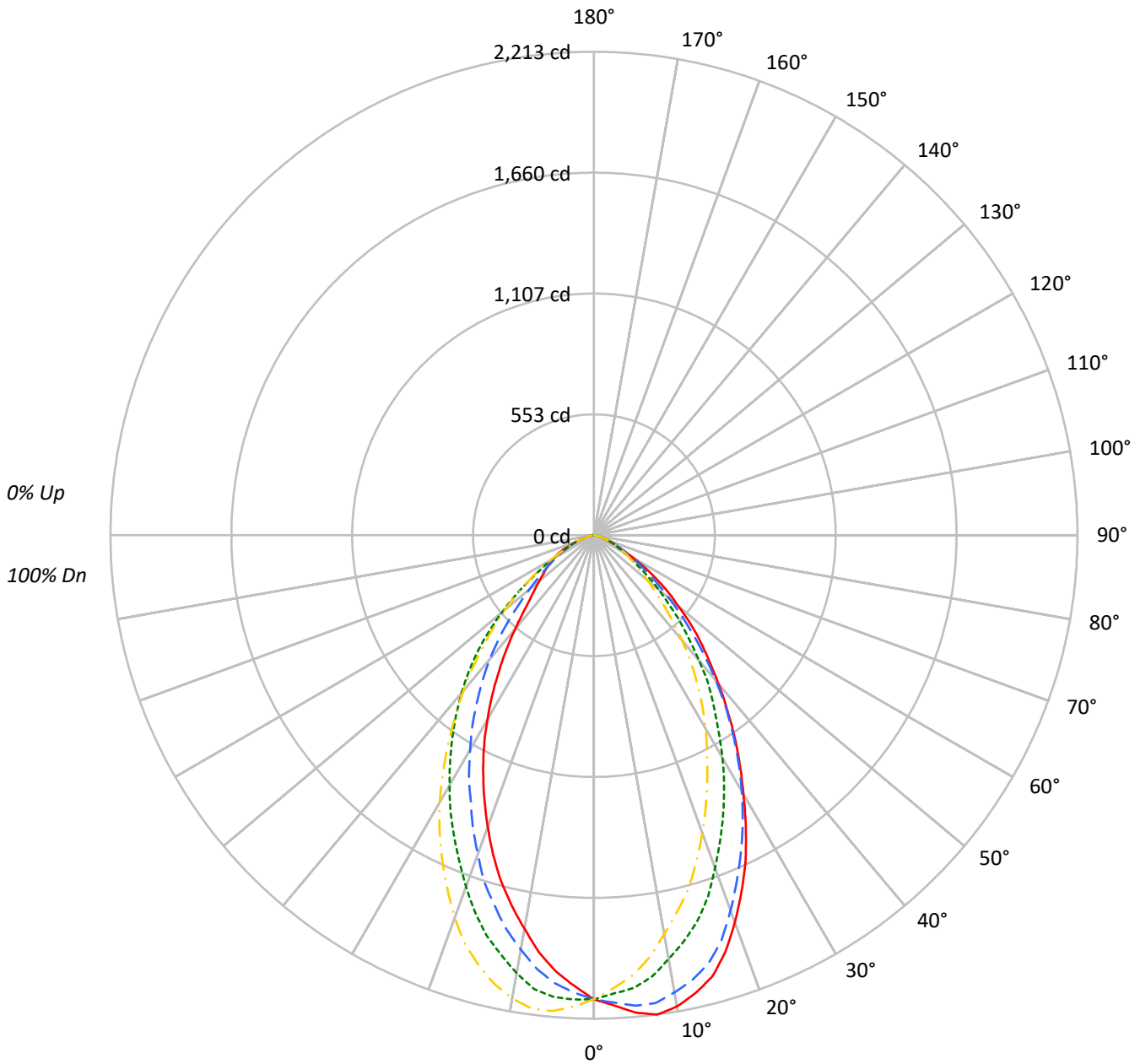
Lumens per Lamp: N/A  
Luminaire Lumens: 2915.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.95 / 1.02  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 30.2  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72
4	91	81	74	69	89	80	74	68	78	72	68	76	71	67	74	69	66	64
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	44
9	66	55	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	41
10	62	51	44	40	61	50	44	39	50	43	39	49	43	39	48	43	39	38

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

	0°	90°	180°	270°
0°	116438	116438	116438	116438
5°	120685	114495	110257	116723
10°	121919	109612	101807	113291
15°	118701	103741	93099	107662
20°	110038	94491	82858	99899
25°	99344	84719	72536	91699
30°	86596	74473	61788	83658
35°	74907	63938	50594	75563
40°	63426	53472	40118	67455
45°	53486	43004	32065	58308
50°	42932	33082	27863	46804
55°	33394	23588	25375	34522
60°	22937	17531	23375	24132
65°	15112	14087	20106	17032
70°	10595	10755	11396	12807
75°	7117	7307	7307	7943
80°	6535	6219	6535	7166
85°	5598	4969	5598	6227

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 270°

Vertical Angle: 45°

Luminance: 58308 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.8	6.8
10°-20°	521.4	17.9
20°-30°	663.0	22.7
30°-40°	623.5	21.4
40°-50°	459.8	15.8
50°-60°	271.3	9.3
60°-70°	126.2	4.3
70°-80°	41.6	1.4
80°-90°	10.3	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°	1382.3	47.4
0°-40°	2005.7	68.8
0°-60°	2736.9	93.9
0°-90°	2915.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2915.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2124	2124	2124	2124	2124	
5°	2193	2081	2004	2121	2193	209
15°	2092	1828	1640	1897	2092	582
25°	1642	1401	1199	1516	1642	750
35°	1119	955	756	1129	1119	699
45°	690	555	414	752	690	531
55°	349	247	266	361	349	314
65°	116	109	155	131	116	123
75°	34	34	34	38	34	40
85°	9	8	9	10	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°	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0
2.5°	2154.6	2147.7	2141.8	2123.0	2099.4	2085.5	2074.7	2065.8	2064.8	2077.6	2094.4
5°	2193.1	2183.2	2161.5	2124.0	2080.6	2049.0	2022.4	2007.6	2003.6	2030.3	2057.9
7.5°	2212.9	2194.1	2159.6	2100.3	2037.2	1987.8	1948.3	1928.6	1925.6	1965.1	2001.6
10°	2190.2	2172.4	2125.0	2047.0	1969.1	1900.0	1852.6	1831.9	1828.9	1875.3	1925.6
12.5°	2146.7	2135.9	2084.5	1993.7	1902.9	1819.0	1762.8	1736.1	1737.1	1788.4	1848.7
15°	2091.5	2081.6	2027.3	1929.6	1827.9	1736.1	1673.0	1640.4	1640.4	1699.6	1755.9
17.5°	1999.7	1988.8	1942.4	1848.7	1735.1	1629.5	1561.4	1530.8	1533.8	1597.0	1666.1
20°	1886.2	1878.3	1827.9	1752.9	1619.7	1512.1	1451.9	1415.4	1420.3	1482.5	1553.5
22.5°	1764.8	1750.0	1709.5	1649.3	1510.1	1400.6	1338.4	1302.8	1309.8	1370.9	1446.9
25°	1642.4	1636.4	1593.0	1537.7	1400.6	1291.0	1226.8	1195.3	1199.2	1260.4	1335.4
27.5°	1505.2	1507.2	1474.6	1424.2	1290.0	1181.4	1121.2	1088.7	1088.7	1151.8	1238.7
30°	1368.0	1376.9	1353.2	1302.8	1176.5	1077.8	1023.5	982.1	976.1	1034.4	1132.1
32.5°	1241.6	1240.7	1230.8	1178.5	1059.1	979.1	920.9	877.4	865.6	933.7	1035.4
35°	1119.3	1113.3	1108.4	1054.1	955.4	878.4	820.2	771.8	756.0	828.1	933.7
37.5°	998.8	997.9	989.0	936.7	862.6	781.7	726.4	676.1	657.3	727.4	838.0
40°	886.3	879.4	867.6	817.2	747.2	682.0	624.8	577.4	560.6	630.7	741.2
42.5°	779.7	769.9	750.1	704.7	644.5	583.3	532.0	487.6	477.7	536.9	645.5
45°	689.9	667.2	639.6	597.1	554.7	491.5	448.1	413.6	413.6	453.0	548.8
47.5°	598.1	571.5	539.9	494.5	460.9	412.6	376.0	357.3	366.2	389.9	461.9
50°	503.4	485.6	451.1	413.6	387.9	341.5	317.8	314.9	326.7	338.5	384.9
52.5°	428.4	402.7	371.1	337.6	313.9	279.3	268.5	279.3	293.1	298.1	319.8
55°	349.4	328.7	302.0	272.4	246.8	231.0	230.0	246.8	265.5	264.5	268.5
57.5°	276.4	261.6	241.8	215.2	198.4	192.5	194.4	216.2	240.8	233.9	227.0
60°	209.2	201.3	189.5	167.8	159.9	157.9	163.8	188.5	213.2	203.3	189.5
62.5°	155.9	154.0	148.1	134.2	132.3	134.2	136.2	159.9	186.5	175.7	157.9
65°	116.5	116.5	112.5	107.6	108.6	111.5	110.5	130.3	155.0	145.1	128.3
67.5°	87.8	87.8	87.8	85.9	86.9	87.8	86.9	96.7	110.5	109.6	100.7
70°	66.1	65.1	65.1	65.1	67.1	68.1	66.1	69.1	71.1	75.0	76.0
72.5°	47.4	46.4	46.4	46.4	47.4	48.4	47.4	47.4	48.4	50.3	53.3
75°	33.6	33.6	33.6	33.6	34.5	34.5	33.6	33.6	34.5	35.5	36.5
77.5°	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	27.6	28.6
80°	20.7	20.7	20.7	19.7	19.7	19.7	19.7	19.7	20.7	20.7	21.7
82.5°	14.8	14.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	14.8	14.8
85°	8.9	8.9	8.9	8.9	7.9	7.9	7.9	7.9	8.9	8.9	8.9
87.5°	3.9	3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.9
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°	2124.0	2124.0	2124.0	2124.0	2124.0	2124.0
2.5°	2102.3	2127.0	2140.8	2159.6	2152.7	2154.6
5°	2084.5	2121.1	2151.7	2186.2	2193.1	2193.1
7.5°	2040.1	2095.4	2139.8	2185.2	2206.9	2212.9
10°	1977.0	2035.2	2087.5	2152.7	2181.3	2190.2
12.5°	1902.9	1966.1	2028.3	2104.3	2140.8	2146.7
15°	1825.0	1897.0	1965.1	2038.2	2073.7	2091.5
17.5°	1738.1	1809.2	1886.2	1961.2	1990.8	1999.7
20°	1629.5	1712.4	1789.4	1862.5	1876.3	1886.2
22.5°	1529.9	1611.8	1689.7	1752.9	1762.8	1764.8
25°	1438.1	1516.0	1587.1	1642.4	1635.5	1642.4
27.5°	1341.3	1421.3	1480.5	1529.9	1522.9	1505.2
30°	1237.7	1321.6	1370.9	1411.4	1388.7	1368.0
32.5°	1147.9	1223.9	1259.4	1284.1	1261.4	1241.6
35°	1052.1	1129.1	1149.9	1162.7	1138.0	1119.3
37.5°	952.5	1035.4	1045.2	1040.3	1019.6	998.8
40°	867.6	942.6	934.7	928.8	906.1	886.3
42.5°	760.0	848.8	834.0	818.2	799.5	779.7
45°	670.2	752.1	735.3	712.6	695.8	689.9
47.5°	573.4	651.4	640.6	618.9	604.0	598.1
50°	480.7	548.8	540.9	528.0	520.2	503.4
52.5°	394.8	454.0	458.0	445.1	436.3	428.4
55°	317.8	361.2	372.1	369.1	359.3	349.4
57.5°	254.6	283.3	293.1	297.1	287.2	276.4
60°	202.3	220.1	234.9	231.9	222.1	209.2
62.5°	163.8	167.8	178.6	175.7	163.8	155.9
65°	132.3	131.3	134.2	134.2	120.4	116.5
67.5°	105.6	101.7	101.7	98.7	89.8	87.8
70°	81.9	79.9	77.0	73.0	66.1	66.1
72.5°	58.2	57.2	54.3	51.3	47.4	47.4
75°	37.5	37.5	36.5	35.5	33.6	33.6
77.5°	29.6	29.6	29.6	28.6	26.6	26.6
80°	22.7	22.7	22.7	21.7	20.7	20.7
82.5°	15.8	16.8	15.8	15.8	14.8	14.8
85°	9.9	9.9	9.9	9.9	8.9	8.9
87.5°	4.9	4.9	4.9	4.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)