

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: P645636

Luminaire Tested: LCR630WW9FSE010-30W-3000K

Issue Date: 3/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P645636
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-101)
Test Lab: INNOVATION CENTER
Issue Date: 3/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: LCR630WW9FSE010-30W-3000K
Description: LCR 6 Wall Wash
Light Source: 3000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

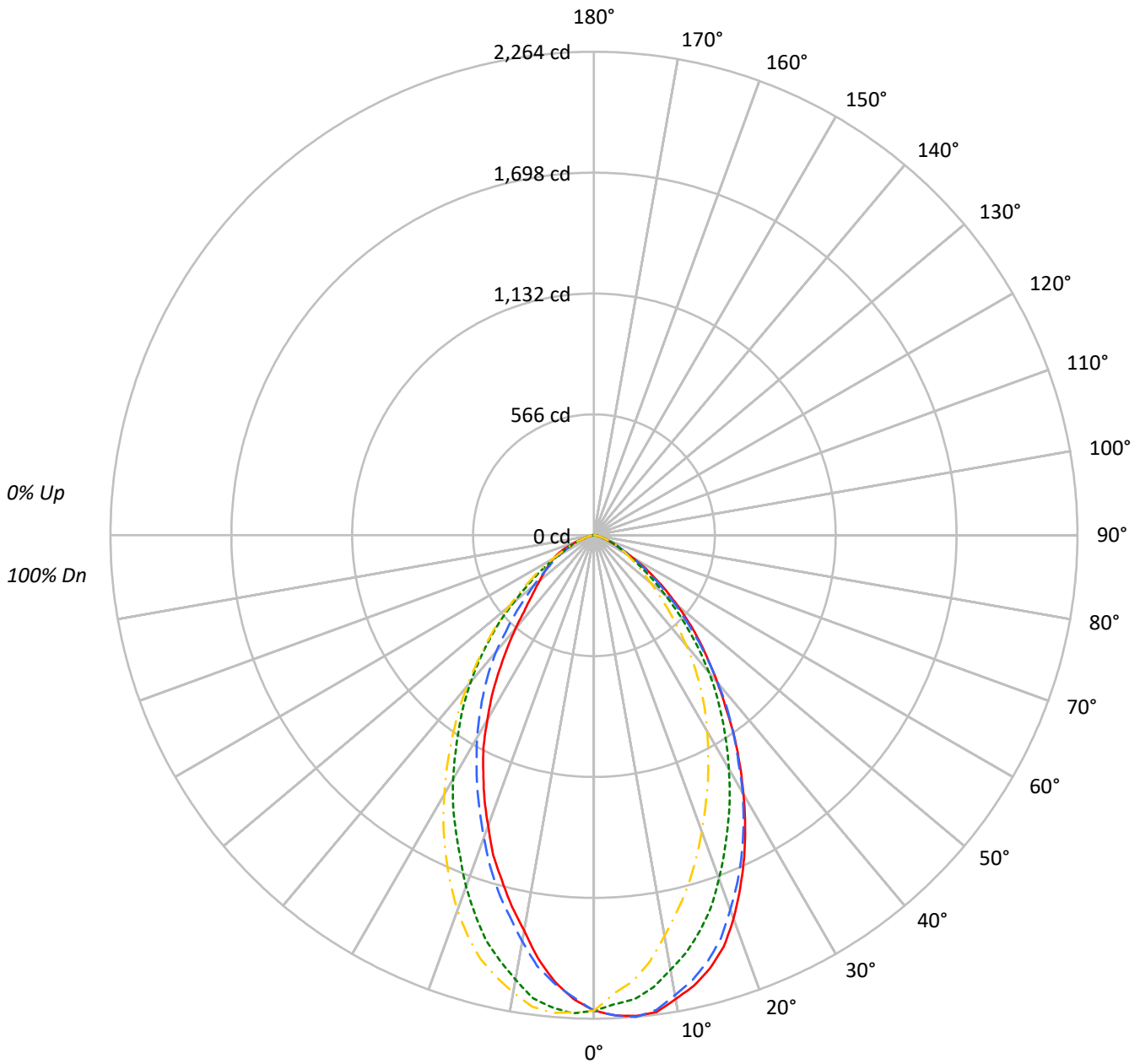
Lumens per Lamp: N/A
Luminaire Lumens: 2970.0 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.94 / 1
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 29.9
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	69	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	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	122030	122030	122030	122030
5°	124345	120003	115546	122171
10°	122760	115017	104635	117600
15°	119166	108809	94751	111215
20°	111502	99875	84445	102174
25°	100687	89945	74127	92509
30°	88634	80012	63086	83450
35°	76533	69995	51638	73696
40°	64256	59876	40812	64185
45°	54006	48501	32585	53703
50°	43419	37193	28357	41909
55°	33194	27344	25844	31683
60°	22827	19472	23913	21961
65°	15099	14969	20482	15877
70°	10595	11236	11380	12342
75°	6905	7519	7307	7943
80°	6535	6535	6219	7166
85°	5598	4969	4969	6227

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 337.5°

Vertical Angle: 45°

Luminance: 54928 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.8	6.9
10°-20°	531.1	17.9
20°-30°	673.9	22.7
30°-40°	635.6	21.4
40°-50°	468.9	15.8
50°-60°	275.8	9.3
60°-70°	127.8	4.3
70°-80°	42.0	1.4
80°-90°	10.2	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°	1409.7	47.5
0°-40°	2045.3	68.9
0°-60°	2789.9	93.9
0°-90°	2970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2970.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2226	2226	2226	2226	2226	
5°	2260	2181	2100	2220	2260	214
15°	2100	1917	1670	1960	2100	587
25°	1665	1487	1226	1529	1665	762
35°	1144	1046	772	1101	1144	712
45°	697	626	420	693	697	536
55°	347	286	270	332	347	314
65°	116	115	158	122	116	122
75°	33	36	34	38	33	39
85°	9	8	8	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°	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0
2.5°	2250.7	2252.7	2250.7	2215.2	2198.4	2189.5	2148.1	2140.2	2173.7	2188.5	2166.8
5°	2259.6	2264.5	2264.5	2217.2	2180.7	2155.0	2095.8	2071.1	2099.7	2109.6	2108.6
7.5°	2251.7	2247.7	2241.8	2193.5	2134.3	2084.0	2011.9	1972.5	2000.1	2014.9	2034.6
10°	2205.3	2206.3	2186.6	2137.2	2066.2	1997.1	1903.4	1858.0	1879.7	1909.3	1931.0
12.5°	2160.9	2154.0	2133.3	2078.0	2000.1	1903.4	1801.8	1754.4	1779.1	1790.9	1826.4
15°	2099.7	2096.8	2063.2	2011.9	1917.2	1809.6	1700.1	1653.7	1669.5	1689.3	1728.7
17.5°	2020.8	2014.9	1977.4	1921.1	1825.4	1700.1	1588.6	1539.3	1568.9	1589.6	1621.2
20°	1911.3	1909.3	1865.9	1812.6	1712.0	1584.7	1476.1	1428.8	1447.5	1459.4	1505.7
22.5°	1788.9	1795.8	1757.3	1693.2	1598.5	1467.3	1365.6	1323.2	1339.0	1359.7	1397.2
25°	1664.6	1676.4	1638.9	1587.6	1487.0	1358.7	1263.0	1214.7	1225.5	1249.2	1293.6
27.5°	1533.4	1552.1	1516.6	1470.2	1376.5	1252.1	1157.4	1105.1	1119.9	1140.6	1190.0
30°	1400.2	1413.0	1393.2	1354.8	1264.0	1146.6	1060.7	997.6	996.6	1033.1	1093.3
32.5°	1269.9	1283.7	1259.1	1239.3	1154.5	1043.9	967.0	903.8	887.1	926.5	995.6
35°	1143.6	1155.4	1140.6	1118.0	1045.9	946.3	867.3	790.4	771.6	822.9	899.9
37.5°	1011.4	1033.1	1025.2	1007.4	942.3	849.6	771.6	701.6	668.0	724.3	808.1
40°	897.9	915.7	901.9	895.0	836.7	752.9	672.9	598.9	570.3	622.6	712.4
42.5°	790.4	800.2	786.4	779.5	729.2	645.3	576.2	509.1	484.5	528.9	609.8
45°	696.6	695.6	678.9	671.0	625.6	553.5	488.4	433.2	420.3	449.0	523.0
47.5°	599.9	599.9	577.2	568.4	527.9	462.8	411.5	372.0	372.0	384.8	436.1
50°	509.1	510.1	486.5	473.6	436.1	387.8	344.4	327.6	332.5	335.5	370.0
52.5°	424.3	426.3	402.6	390.7	358.2	317.7	291.1	290.1	299.0	297.0	309.8
55°	347.3	347.3	328.6	316.7	286.1	256.5	246.7	256.5	270.4	258.5	258.5
57.5°	279.2	275.3	262.5	251.6	226.9	212.1	211.2	227.9	244.7	228.9	222.0
60°	208.2	214.1	207.2	196.4	177.6	174.6	176.6	199.3	218.1	201.3	186.5
62.5°	152.9	159.8	157.9	152.0	144.1	144.1	147.0	167.7	191.4	170.7	154.9
65°	116.4	119.4	120.4	118.4	115.4	118.4	118.4	137.2	157.9	141.1	125.3
67.5°	86.8	89.8	91.8	92.8	92.8	95.7	92.8	103.6	111.5	104.6	99.7
70°	66.1	66.1	67.1	71.0	70.1	72.0	70.1	73.0	71.0	75.0	75.0
72.5°	46.4	48.3	47.4	50.3	49.3	50.3	49.3	49.3	48.3	50.3	53.3
75°	32.6	33.5	34.5	35.5	35.5	35.5	35.5	34.5	34.5	34.5	36.5
77.5°	26.6	27.6	27.6	28.6	27.6	27.6	27.6	27.6	26.6	27.6	28.6
80°	20.7	20.7	20.7	21.7	20.7	20.7	19.7	20.7	19.7	20.7	21.7
82.5°	14.8	14.8	13.8	14.8	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	7.9	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°	2226.0	2226.0	2226.0	2226.0	2226.0	2226.0
2.5°	2204.3	2240.8	2243.8	2235.9	2272.4	2250.7
5°	2167.8	2220.1	2238.9	2244.8	2284.3	2259.6
7.5°	2114.5	2186.6	2212.2	2226.0	2274.4	2251.7
10°	2031.7	2112.6	2157.0	2174.7	2227.0	2205.3
12.5°	1939.9	2038.6	2077.0	2117.5	2173.7	2160.9
15°	1852.1	1959.6	2010.9	2053.4	2112.6	2099.7
17.5°	1748.5	1856.0	1915.2	1966.5	2030.7	2020.8
20°	1638.0	1751.4	1804.7	1867.9	1922.1	1911.3
22.5°	1529.4	1634.0	1694.2	1758.3	1805.7	1788.9
25°	1425.8	1529.4	1579.7	1642.9	1684.3	1664.6
27.5°	1316.3	1427.8	1465.3	1526.5	1556.1	1533.4
30°	1218.6	1318.3	1353.8	1402.1	1427.8	1400.2
32.5°	1121.9	1206.8	1244.3	1278.8	1293.6	1269.9
35°	1018.3	1101.2	1130.8	1155.4	1166.3	1143.6
37.5°	921.6	1002.5	1023.2	1041.0	1045.9	1011.4
40°	823.9	896.9	918.6	923.6	927.5	897.9
42.5°	722.3	795.3	810.1	812.1	818.0	790.4
45°	622.6	692.7	707.5	706.5	708.5	696.6
47.5°	528.9	597.0	606.8	609.8	615.7	599.9
50°	440.1	491.4	509.1	519.0	523.0	509.1
52.5°	363.1	404.6	420.3	434.2	438.1	424.3
55°	293.1	331.5	343.4	356.2	360.2	347.3
57.5°	236.8	262.5	275.3	286.1	283.2	279.2
60°	192.4	200.3	216.1	225.0	220.0	208.2
62.5°	154.9	157.9	164.8	167.7	163.8	152.9
65°	126.3	122.4	126.3	128.3	120.4	116.4
67.5°	101.6	97.7	97.7	97.7	90.8	86.8
70°	77.0	77.0	75.0	71.0	67.1	66.1
72.5°	54.3	55.3	53.3	50.3	47.4	46.4
75°	36.5	37.5	36.5	36.5	34.5	32.6
77.5°	28.6	29.6	29.6	28.6	27.6	26.6
80°	21.7	22.7	22.7	21.7	20.7	20.7
82.5°	14.8	15.8	15.8	15.8	14.8	14.8
85°	8.9	9.9	9.9	9.9	8.9	8.9
87.5°	3.9	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)