

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: P645623

Luminaire Tested: LCR615WW9FSE020-17W-2700K

Issue Date: 3/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P645623  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-49)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: LCR615WW9FSE020-17W-2700K  
Description: LCR 6 Wall Wash  
Light Source: 2700K CCT, 93 CRI LEDS  
Ballast/Driver: -

**Summary**

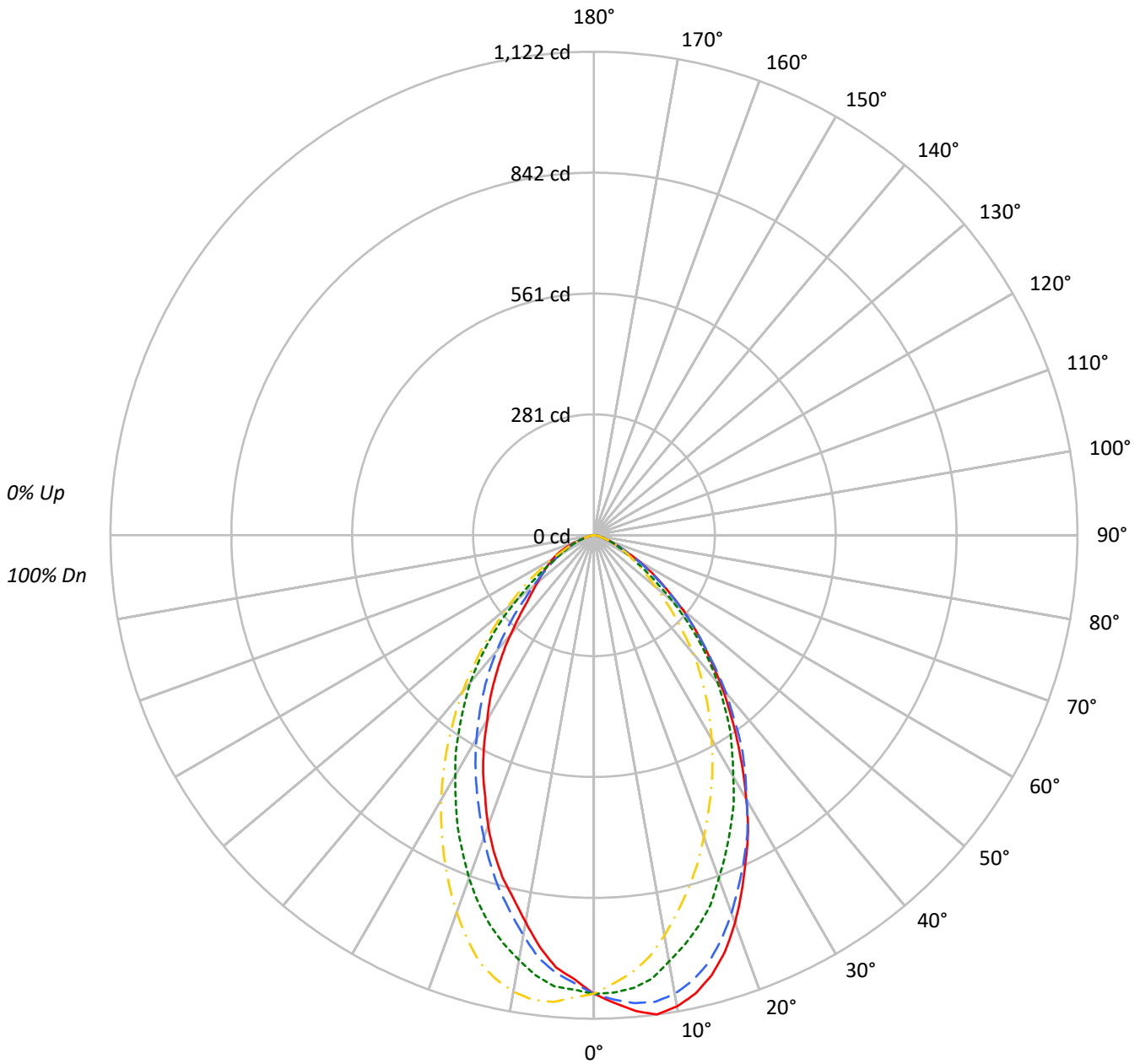
Lumens per Lamp: N/A  
Luminaire Lumens: 1500.0 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.97 / 1.03  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.3  
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



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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	97	98	96	94	95	93	92	92	92	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	82	82	82	80
3	97	89	82	77	95	87	81	77	85	80	75	82	78	74	80	76	73	73	73	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	66	66	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	59	59	59	57
6	79	68	61	55	77	67	60	55	66	59	55	64	58	54	63	58	54	54	54	54	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	49	49	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	49	45	54	49	45	45	45	45	43
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	42	42	42	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	39	39	39	37

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

	0°	90°	180°	270°
0°	58340	58340	58340	58340
5°	60989	58034	55398	57825
10°	61800	55883	50762	55722
15°	59961	53275	46589	53059
20°	55824	49401	41858	49401
25°	50410	45311	36794	45251
30°	44747	40930	31290	40747
35°	38722	36794	26542	36346
40°	33112	32010	21526	31946
45°	27770	26584	17079	26359
50°	23035	20264	14626	19931
55°	17854	14279	13180	14097
60°	13343	9977	12082	9868
65°	8950	7822	10559	7822
70°	6139	5995	6443	6139
75°	3643	4067	3855	4067
80°	3315	3631	3315	3631
85°	3019	3019	3019	3019

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 28073 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.2	6.6
10°-20°	261.9	17.5
20°-30°	336.8	22.5
30°-40°	322.6	21.5
40°-50°	242.2	16.1
50°-60°	142.0	9.5
60°-70°	67.5	4.5
70°-80°	22.5	1.5
80°-90°	5.5	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°	697.8	46.5
0°-40°	1020.4	68.0
0°-60°	1404.6	93.6
0°-90°	1500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1500.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1064	1064	1064	1064	1064	
5°	1108	1055	1007	1051	1108	106
15°	1056	939	821	935	1056	295
25°	833	749	608	748	833	383
35°	579	550	397	543	579	362
45°	358	343	220	340	358	278
55°	187	149	138	148	187	169
65°	69	60	81	60	69	71
75°	17	19	18	19	17	22
85°	5	5	5	5	5	5
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°	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2
2.5°	1086.2	1084.3	1078.6	1070.9	1062.3	1050.8	1041.2	1033.6	1031.6	1032.6	1040.3
5°	1108.3	1103.5	1090.1	1072.8	1054.6	1034.5	1018.2	1006.7	1006.7	1007.7	1019.2
7.5°	1121.7	1114.0	1092.0	1063.3	1037.4	1008.7	986.6	970.3	963.6	971.3	988.5
10°	1110.2	1103.5	1080.5	1041.2	1003.9	969.4	942.6	918.6	911.9	918.6	942.6
12.5°	1089.1	1081.4	1058.5	1016.3	973.2	930.1	895.6	869.8	863.1	872.6	895.6
15°	1056.5	1050.8	1026.9	987.6	938.7	891.8	847.7	823.8	820.9	824.7	849.6
17.5°	1012.5	1003.9	983.7	953.1	899.5	845.8	798.9	774.0	771.1	777.8	799.8
20°	956.9	948.3	933.0	905.2	846.8	794.1	745.2	721.3	717.5	720.3	747.1
22.5°	895.6	889.9	878.4	857.3	798.9	740.4	693.5	665.7	659.0	667.6	694.5
25°	833.4	831.4	825.7	806.5	749.1	690.6	644.7	614.0	608.3	613.0	644.7
27.5°	774.9	775.9	772.1	751.9	702.1	640.8	595.8	562.3	552.7	564.2	595.8
30°	706.9	705.0	708.8	694.5	646.6	591.0	546.0	506.7	494.3	506.7	545.0
32.5°	641.8	640.8	652.3	635.1	596.8	542.2	498.1	458.8	448.3	456.0	495.2
35°	578.6	578.6	596.8	576.6	549.8	496.2	451.2	409.0	396.6	410.9	447.3
37.5°	519.2	518.2	531.6	522.0	496.2	450.2	405.2	364.0	349.6	360.2	400.4
40°	462.7	462.7	476.1	466.5	447.3	404.2	359.2	319.0	300.8	313.2	351.5
42.5°	408.1	407.1	415.7	414.8	394.6	355.4	307.5	273.0	257.7	267.2	304.6
45°	358.2	358.2	362.1	355.4	342.9	306.5	264.4	234.7	220.3	229.9	259.6
47.5°	312.3	308.4	313.2	304.6	288.3	258.6	224.1	200.2	193.5	195.4	216.5
50°	270.1	266.3	265.3	259.6	237.6	211.7	185.8	172.4	171.5	170.5	182.0
52.5°	223.2	228.0	221.3	210.7	188.7	172.4	158.1	151.3	153.3	150.4	154.2
55°	186.8	186.8	181.0	169.5	149.4	140.8	132.2	133.1	137.9	133.1	129.3
57.5°	153.3	151.3	148.5	133.1	115.9	113.0	113.0	115.9	123.6	116.9	111.1
60°	121.7	118.8	114.0	103.5	91.0	92.9	94.8	101.5	110.2	102.5	93.9
62.5°	90.0	91.0	90.0	79.5	75.7	76.6	79.5	87.2	96.7	88.1	78.5
65°	69.0	68.0	69.0	63.2	60.3	63.2	64.2	70.9	81.4	72.8	63.2
67.5°	49.8	50.8	50.8	49.8	49.8	50.8	50.8	54.6	62.3	54.6	49.8
70°	38.3	37.4	39.3	38.3	37.4	39.3	39.3	39.3	40.2	40.2	38.3
72.5°	26.8	26.8	26.8	27.8	27.8	27.8	27.8	27.8	26.8	26.8	27.8
75°	17.2	17.2	18.2	19.2	19.2	19.2	18.2	18.2	18.2	18.2	18.2
77.5°	14.4	14.4	14.4	15.3	15.3	14.4	14.4	14.4	14.4	14.4	14.4
80°	10.5	10.5	11.5	11.5	11.5	11.5	10.5	10.5	10.5	10.5	11.5
82.5°	7.7	7.7	7.7	7.7	8.6	7.7	7.7	7.7	7.7	7.7	7.7
85°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	1064.2	1064.2	1064.2	1064.2	1064.2	1064.2
2.5°	1046.0	1055.6	1065.2	1073.8	1080.5	1086.2
5°	1031.6	1050.8	1068.0	1087.2	1100.6	1108.3
7.5°	1003.9	1030.7	1057.5	1087.2	1111.1	1121.7
10°	966.5	1001.0	1036.4	1075.7	1101.6	1110.2
12.5°	930.1	970.3	1011.5	1054.6	1081.4	1089.1
15°	890.8	934.9	984.7	1025.9	1051.8	1056.5
17.5°	842.0	893.7	945.4	980.9	1004.8	1012.5
20°	789.3	846.8	900.4	931.1	948.3	956.9
22.5°	735.7	796.0	849.6	878.4	889.9	895.6
25°	685.8	748.1	802.7	822.8	831.4	833.4
27.5°	636.0	694.5	748.1	766.3	771.1	774.9
30°	585.3	643.7	686.8	708.8	707.9	706.9
32.5°	536.4	596.8	634.1	650.4	643.7	641.8
35°	490.4	543.1	577.6	590.1	582.4	578.6
37.5°	443.5	493.3	522.0	531.6	521.1	519.2
40°	397.5	446.4	467.4	474.2	464.6	462.7
42.5°	347.7	393.7	410.0	415.7	408.1	408.1
45°	298.9	340.0	357.3	361.1	357.3	358.2
47.5°	248.1	288.3	305.6	311.3	310.4	312.3
50°	202.1	233.7	254.8	265.3	267.2	270.1
52.5°	163.8	186.8	206.9	221.3	227.0	223.2
55°	134.1	147.5	165.7	182.0	188.7	186.8
57.5°	109.2	114.0	129.3	146.6	152.3	153.3
60°	90.0	90.0	100.6	114.9	121.7	121.7
62.5°	74.7	73.8	78.5	89.1	93.9	90.0
65°	62.3	60.3	62.3	68.0	69.9	69.0
67.5°	49.8	48.9	49.8	51.7	51.7	49.8
70°	38.3	38.3	38.3	38.3	38.3	38.3
72.5°	27.8	27.8	27.8	26.8	26.8	26.8
75°	19.2	19.2	19.2	18.2	18.2	17.2
77.5°	14.4	15.3	15.3	14.4	14.4	14.4
80°	11.5	11.5	11.5	11.5	10.5	10.5
82.5°	7.7	8.6	8.6	7.7	7.7	7.7
85°	4.8	4.8	4.8	4.8	4.8	4.8
87.5°	1.9	1.9	1.9	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)