

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: P645624

Luminaire Tested: LCR615WW9FSE020-17W-3000K

Issue Date: 3/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P645624
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: LCR615WW9FSE020-17W-3000K
Description: LCR 6 Wall Wash
Light Source: 3000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

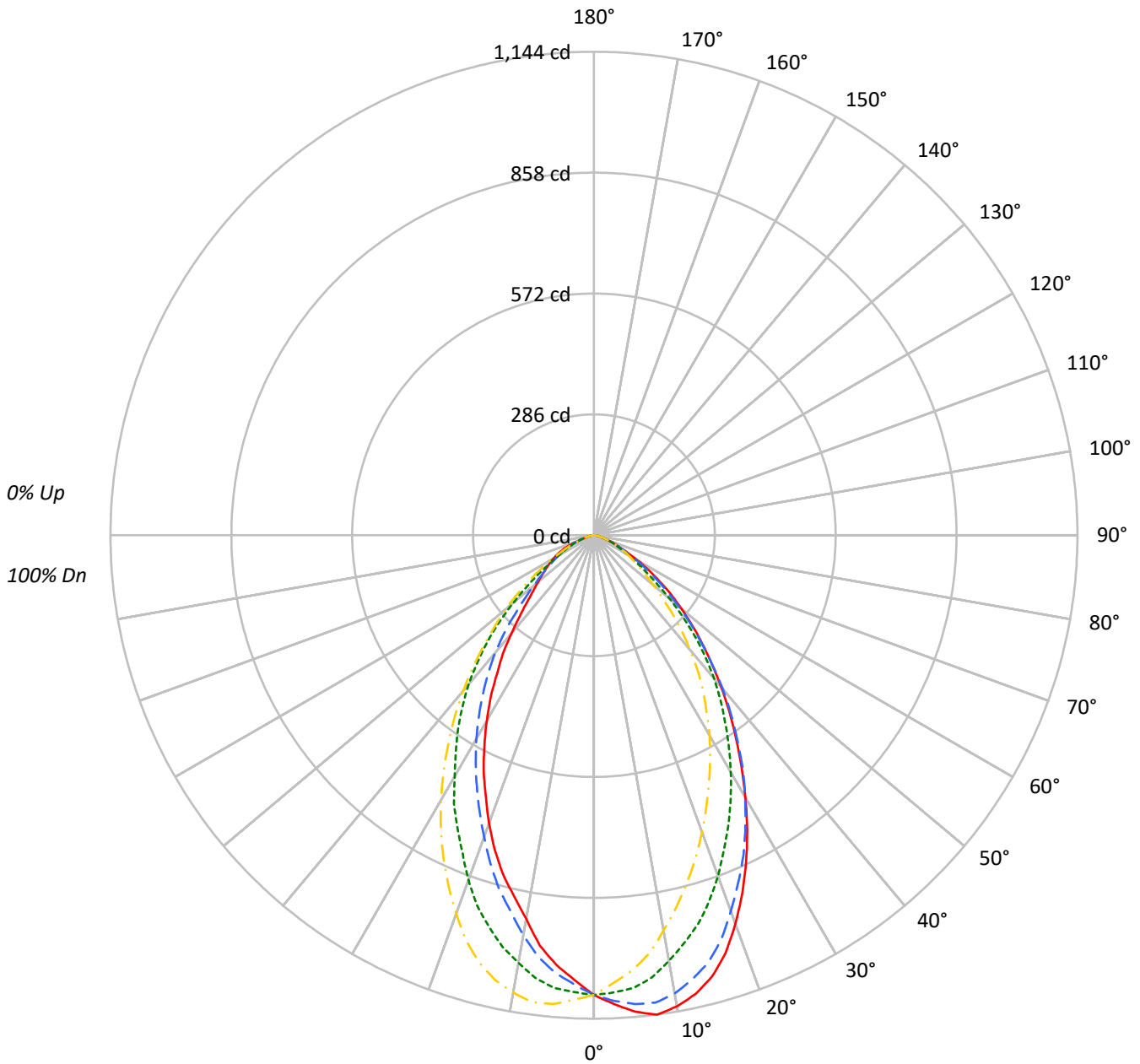
Lumens per Lamp: N/A
Luminaire Lumens: 1520.0 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.96 / 1.02
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 16.5
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	84	87	84	82	82	82	82	80
3	97	89	82	77	95	87	82	77	85	80	75	82	78	74	80	76	73	73	73	73	71
4	91	81	74	69	89	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	58
6	79	68	61	55	77	67	60	55	66	59	55	64	59	54	63	58	54	54	54	54	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	50	58	53	49	49	49	49	48
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	45	45	45	44
9	66	54	47	42	65	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	48	42	39	39	39	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	59628	59628	59628	59628
5°	62282	59173	56163	59173
10°	63003	56918	51318	57186
15°	61351	54064	47157	54444
20°	57084	50037	42325	50655
25°	51535	45565	37333	46200
30°	45317	41006	32094	41677
35°	39183	36239	26742	37517
40°	33470	31616	21741	33055
45°	28088	26150	17234	27639
50°	22967	19940	14712	21253
55°	18045	14107	13285	15206
60°	13245	9977	12192	10723
65°	8704	7705	10689	8328
70°	5995	5995	6459	6459
75°	3664	4067	3855	4257
80°	3315	3631	3315	3946
85°	3019	3019	3019	3648

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 292.5°

Vertical Angle: 45°

Luminance: 28677 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	6.7
10°-20°	266.5	17.5
20°-30°	341.6	22.5
30°-40°	326.3	21.5
40°-50°	244.7	16.1
50°-60°	143.5	9.4
60°-70°	68.0	4.5
70°-80°	22.5	1.5
80°-90°	5.6	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°	709.2	46.7
0°-40°	1035.6	68.1
0°-60°	1423.8	93.7
0°-90°	1520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1520.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1088	1088	1088	1088	1088	
5°	1132	1075	1021	1075	1132	108
15°	1081	953	831	959	1081	301
25°	852	753	617	764	852	390
35°	586	542	400	561	586	367
45°	362	337	222	356	362	280
55°	189	148	139	159	189	170
65°	67	59	82	64	67	71
75°	17	19	18	20	17	22
85°	5	5	5	6	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°	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7
2.5°	1110.7	1107.8	1103.0	1093.5	1082.9	1070.5	1059.9	1055.1	1053.2	1055.1	1063.8
5°	1131.8	1127.0	1113.6	1095.4	1075.3	1052.3	1034.0	1025.4	1020.6	1025.4	1039.8
7.5°	1144.3	1136.6	1115.5	1084.8	1055.1	1021.6	998.6	987.1	979.4	987.1	1006.3
10°	1131.8	1125.1	1101.1	1062.8	1022.5	979.4	949.7	929.6	921.9	934.4	961.2
12.5°	1111.7	1103.0	1076.2	1034.0	988.0	938.2	900.8	879.8	874.0	884.5	911.4
15°	1081.0	1073.3	1046.5	1005.3	952.6	895.1	851.0	829.9	830.9	837.6	866.3
17.5°	1036.0	1027.3	1002.4	966.0	907.5	852.0	800.2	782.0	780.1	787.8	814.6
20°	978.5	971.8	946.8	917.1	857.7	792.5	747.5	726.4	725.5	732.2	760.0
22.5°	917.1	912.3	891.3	861.5	804.0	744.6	694.8	672.8	668.0	677.5	707.3
25°	852.0	844.3	836.6	812.7	753.3	686.2	644.0	622.0	617.2	623.9	655.5
27.5°	784.9	780.1	776.3	755.2	700.5	642.1	595.1	567.3	560.6	571.2	605.7
30°	715.9	714.9	714.9	696.7	647.8	592.3	547.2	514.6	507.0	517.5	555.8
32.5°	649.8	650.7	655.5	638.3	594.2	543.4	495.5	464.8	454.3	465.8	506.0
35°	585.5	584.6	591.3	576.9	541.5	490.7	450.4	414.0	399.6	415.0	457.1
37.5°	526.1	528.0	531.9	521.3	491.6	444.7	402.5	368.0	353.6	368.0	410.2
40°	467.7	467.7	473.4	464.8	441.8	397.7	353.6	321.0	303.8	319.1	363.2
42.5°	413.0	408.3	413.0	406.3	389.1	348.8	307.6	274.1	259.7	272.2	314.3
45°	362.3	361.3	359.4	353.6	337.3	300.0	262.6	234.8	222.3	233.8	264.5
47.5°	315.3	311.5	309.5	300.9	283.7	253.0	218.5	200.3	194.5	199.3	221.4
50°	269.3	264.5	261.6	252.0	233.8	208.0	185.0	172.5	172.5	173.5	186.9
52.5°	229.0	227.1	216.6	204.1	185.9	168.7	154.3	150.5	154.3	153.3	157.2
55°	188.8	185.9	178.3	163.9	147.6	136.1	130.3	132.3	139.0	136.1	135.1
57.5°	152.4	151.4	141.8	129.4	116.0	110.2	110.2	116.0	124.6	119.8	115.0
60°	120.8	118.8	111.2	100.6	91.0	91.0	92.0	100.6	111.2	105.4	97.8
62.5°	90.1	90.1	85.3	77.6	73.8	75.7	76.7	86.3	97.8	91.0	80.5
65°	67.1	68.0	65.2	61.3	59.4	61.3	62.3	70.9	82.4	75.7	66.1
67.5°	50.8	50.8	49.8	48.9	47.9	49.8	48.9	53.7	63.3	57.5	51.8
70°	37.4	37.4	36.4	37.4	37.4	37.4	37.4	39.3	40.3	40.3	39.3
72.5°	26.8	25.9	26.8	26.8	26.8	26.8	25.9	26.8	27.8	27.8	28.8
75°	17.3	17.3	18.2	18.2	19.2	18.2	18.2	18.2	18.2	18.2	19.2
77.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.3
80°	10.5	10.5	11.5	11.5	11.5	10.5	10.5	10.5	10.5	10.5	11.5
82.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	8.6
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°	1087.7	1087.7	1087.7	1087.7	1087.7	1087.7
2.5°	1072.4	1082.0	1091.5	1100.2	1108.8	1110.7
5°	1055.1	1075.3	1095.4	1113.6	1127.0	1131.8
7.5°	1030.2	1057.0	1085.8	1114.5	1135.6	1144.3
10°	992.8	1027.3	1061.8	1099.2	1122.2	1131.8
12.5°	954.5	997.6	1037.9	1078.1	1102.1	1111.7
15°	914.3	959.3	1006.3	1047.5	1071.4	1081.0
17.5°	861.5	919.0	967.0	1005.3	1025.4	1036.0
20°	806.9	868.3	919.0	952.6	967.9	978.5
22.5°	752.3	812.7	864.4	898.9	910.4	917.1
25°	701.5	763.8	812.7	842.4	848.1	852.0
27.5°	650.7	716.8	760.9	783.9	785.8	784.9
30°	599.9	658.4	704.4	723.5	720.7	715.9
32.5°	552.0	607.6	641.1	661.3	655.5	649.8
35°	502.2	560.6	588.4	599.9	592.3	585.5
37.5°	459.0	510.8	533.8	540.5	531.9	526.1
40°	411.1	461.9	480.1	482.0	473.4	467.7
42.5°	359.4	408.3	423.6	422.6	415.9	413.0
45°	307.6	356.5	369.9	368.0	364.2	362.3
47.5°	263.5	302.8	318.2	317.2	316.3	315.3
50°	212.8	249.2	267.4	271.2	273.1	269.3
52.5°	176.3	200.3	218.5	228.1	230.0	229.0
55°	140.9	159.1	175.4	185.9	189.8	188.8
57.5°	115.0	123.6	139.0	150.5	153.3	152.4
60°	95.8	97.8	108.3	118.8	122.7	120.8
62.5°	78.6	78.6	83.4	92.0	93.0	90.1
65°	65.2	64.2	66.1	70.9	70.0	67.1
67.5°	52.7	51.8	51.8	52.7	51.8	50.8
70°	41.2	40.3	40.3	39.3	37.4	37.4
72.5°	29.7	29.7	28.8	27.8	26.8	26.8
75°	19.2	20.1	20.1	19.2	18.2	17.3
77.5°	15.3	15.3	15.3	15.3	14.4	14.4
80°	11.5	12.5	12.5	11.5	10.5	10.5
82.5°	8.6	8.6	8.6	8.6	7.7	7.7
85°	5.8	5.8	5.8	4.8	4.8	4.8
87.5°	2.9	2.9	2.9	2.9	2.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)