

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: P645625

Luminaire Tested: LCR615WW9FSE020-17W-3500K

Issue Date: 3/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P645625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-57)
Test Lab: INNOVATION CENTER
Issue Date: 3/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: LCR615WW9FSE020-17W-3500K
Description: LCR 6 Wall Wash
Light Source: 3500K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

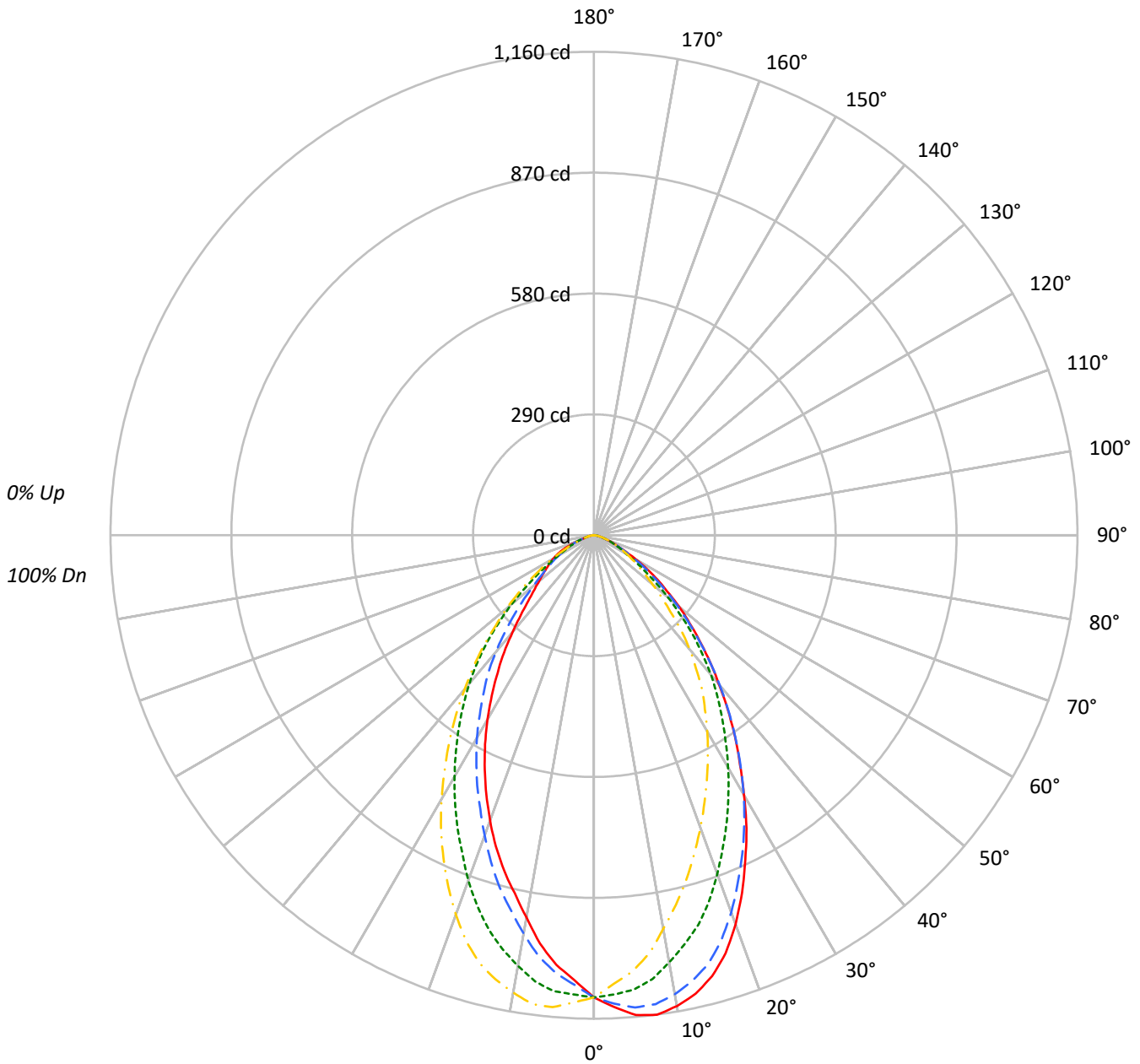
Lumens per Lamp: N/A
Luminaire Lumens: 1530.0 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.95 / 1.02
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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	97	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	87	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	50	73	62	55	50	61	55	50	59	54	50	58	53	49	48
8	70	58	51	46	68	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	60779	60779	60779	60779
5°	63598	60219	56939	60428
10°	63849	57920	51830	58399
15°	62157	54915	47287	55511
20°	57959	50451	42500	51408
25°	51965	45638	37508	46854
30°	45570	40772	32328	42348
35°	39505	35844	26977	37838
40°	33384	31251	21705	33312
45°	27832	25824	17188	28057
50°	22754	19812	14652	21935
55°	17796	14040	13304	15875
60°	12729	9999	12313	11150
65°	8470	7718	10702	8470
70°	5850	5850	6459	6459
75°	3664	3855	3855	4279
80°	3346	3631	3346	3946
85°	3019	3019	3019	3648

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 292.5°

Vertical Angle: 45°

Luminance: 28949 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	6.7
10°-20°	269.8	17.6
20°-30°	344.5	22.5
30°-40°	327.8	21.4
40°-50°	245.2	16.0
50°-60°	143.9	9.4
60°-70°	67.9	4.4
70°-80°	22.4	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°	717.2	46.9
0°-40°	1045.0	68.3
0°-60°	1434.1	93.7
0°-90°	1530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1109	1109	1109	1109	1109	
5°	1156	1094	1035	1098	1156	110
15°	1095	968	833	978	1095	306
25°	859	754	620	775	859	394
35°	590	536	403	565	590	368
45°	359	333	222	362	359	278
55°	186	147	139	166	186	167
65°	65	60	82	65	65	68
75°	17	18	18	20	17	21
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°	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7
2.5°	1133.6	1130.7	1125.0	1113.5	1102.9	1089.5	1077.9	1073.1	1068.3	1073.1	1079.9
5°	1155.7	1149.0	1137.4	1116.3	1094.3	1071.2	1051.1	1036.7	1034.7	1042.4	1053.9
7.5°	1160.5	1154.7	1134.6	1106.7	1074.1	1039.5	1012.7	993.5	988.7	1001.1	1018.4
10°	1147.0	1141.3	1118.3	1083.7	1040.5	994.4	958.9	940.7	931.1	945.5	970.4
12.5°	1126.9	1120.2	1094.3	1054.9	1005.0	949.3	908.0	886.0	879.2	894.6	921.5
15°	1095.2	1089.5	1063.5	1023.2	967.6	903.2	856.2	837.0	833.2	846.6	874.4
17.5°	1051.1	1043.4	1017.5	981.0	919.6	852.4	800.5	783.3	782.3	796.7	821.7
20°	993.5	986.7	962.8	930.1	864.8	792.9	746.8	729.5	728.5	742.9	766.9
22.5°	928.2	923.4	902.3	873.5	809.2	737.2	693.0	673.8	673.8	688.2	712.2
25°	859.1	858.1	842.8	816.9	754.5	687.3	642.2	623.0	620.1	634.5	662.3
27.5°	792.9	790.9	781.3	758.3	698.8	633.5	592.2	570.2	565.4	581.7	610.5
30°	719.9	723.7	718.0	698.8	644.1	587.4	544.2	518.3	510.7	528.9	561.5
32.5°	651.8	654.6	654.6	637.4	588.4	535.6	495.3	467.5	455.9	476.1	509.7
35°	590.3	589.4	591.3	578.8	535.6	485.7	452.1	417.5	403.1	425.2	461.7
37.5°	527.0	527.9	529.8	519.3	485.7	444.4	402.2	369.6	354.2	372.4	416.6
40°	466.5	468.4	469.4	462.7	436.7	394.5	358.0	321.6	303.3	323.5	366.7
42.5°	411.8	409.9	410.8	405.1	383.0	347.5	309.1	274.5	259.2	274.5	316.8
45°	359.0	358.0	356.1	350.4	333.1	298.5	259.2	234.2	221.7	235.2	271.6
47.5°	311.0	309.1	305.2	298.5	278.4	250.5	219.8	198.7	193.9	202.5	228.4
50°	266.8	264.0	259.2	249.6	232.3	206.4	184.3	171.8	171.8	174.7	189.1
52.5°	221.7	219.8	214.1	202.5	186.2	168.0	154.5	150.7	154.5	155.5	160.3
55°	186.2	180.5	174.7	160.3	146.9	136.3	130.5	132.5	139.2	137.3	136.3
57.5°	149.7	144.9	140.1	127.7	116.1	111.3	110.4	116.1	125.7	120.9	117.1
60°	116.1	113.3	109.4	98.9	91.2	91.2	93.1	100.8	112.3	107.5	97.9
62.5°	87.3	85.4	84.5	78.7	73.9	74.9	76.8	86.4	98.9	93.1	82.5
65°	65.3	64.3	64.3	61.4	59.5	61.4	62.4	70.1	82.5	77.7	66.2
67.5°	49.0	48.0	49.0	48.0	48.0	49.9	49.0	53.8	63.4	59.5	52.8
70°	36.5	35.5	36.5	35.5	36.5	37.4	37.4	39.4	40.3	41.3	40.3
72.5°	25.9	25.0	25.0	25.9	25.9	26.9	26.9	26.9	26.9	28.8	28.8
75°	17.3	17.3	17.3	18.2	18.2	18.2	18.2	18.2	18.2	19.2	19.2
77.5°	14.4	13.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.4
80°	10.6	10.6	10.6	10.6	11.5	10.6	10.6	10.6	10.6	11.5	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	2.9
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°	1108.7	1108.7	1108.7	1108.7	1108.7	1108.7
2.5°	1090.4	1102.9	1113.5	1122.1	1129.8	1133.6
5°	1076.0	1098.1	1120.2	1136.5	1149.9	1155.7
7.5°	1046.3	1079.9	1109.6	1134.6	1152.8	1160.5
10°	1008.8	1049.1	1085.6	1114.4	1136.5	1147.0
12.5°	968.5	1016.5	1056.8	1091.4	1114.4	1126.9
15°	926.3	978.1	1024.2	1062.6	1083.7	1095.2
17.5°	874.4	932.0	980.0	1020.3	1039.5	1051.1
20°	821.7	881.2	928.2	968.5	984.8	993.5
22.5°	766.0	825.5	872.5	912.8	923.4	928.2
25°	711.3	774.6	817.8	854.3	863.9	859.1
27.5°	659.4	721.8	762.1	794.8	796.7	792.9
30°	609.5	669.0	703.6	731.4	727.6	719.9
32.5°	557.7	616.2	646.0	666.2	665.2	651.8
35°	509.7	565.4	589.4	604.7	597.0	590.3
37.5°	463.6	514.5	534.6	544.2	535.6	527.0
40°	415.6	465.5	481.9	481.9	479.9	466.5
42.5°	365.7	413.7	427.1	427.1	417.5	411.8
45°	315.8	361.9	373.4	371.5	364.8	359.0
47.5°	267.8	309.1	322.5	318.7	318.7	311.0
50°	220.8	257.2	271.6	273.6	273.6	266.8
52.5°	181.4	208.3	222.7	229.4	231.3	221.7
55°	146.9	166.1	180.5	187.2	190.1	186.2
57.5°	120.0	130.5	142.1	151.7	153.6	149.7
60°	97.9	101.7	109.4	119.0	120.9	116.1
62.5°	80.6	80.6	86.4	92.1	91.2	87.3
65°	66.2	65.3	67.2	70.1	68.2	65.3
67.5°	53.8	52.8	51.8	52.8	50.9	49.0
70°	41.3	40.3	40.3	38.4	37.4	36.5
72.5°	29.8	29.8	28.8	26.9	25.9	25.9
75°	19.2	20.2	20.2	18.2	18.2	17.3
77.5°	15.4	15.4	15.4	14.4	14.4	14.4
80°	11.5	12.5	12.5	11.5	10.6	10.6
82.5°	8.6	8.6	8.6	7.7	7.7	7.7
85°	4.8	5.8	5.8	4.8	4.8	4.8
87.5°	2.9	2.9	2.9	2.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)