

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: P645626

Luminaire Tested: LCR615WW9FSE020-17W-4000K

Issue Date: 3/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P645626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-759-61)
Test Lab: INNOVATION CENTER
Issue Date: 3/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: LCR615WW9FSE020-17W-4000K
Description: LCR 6 Wall Wash
Light Source: 4000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

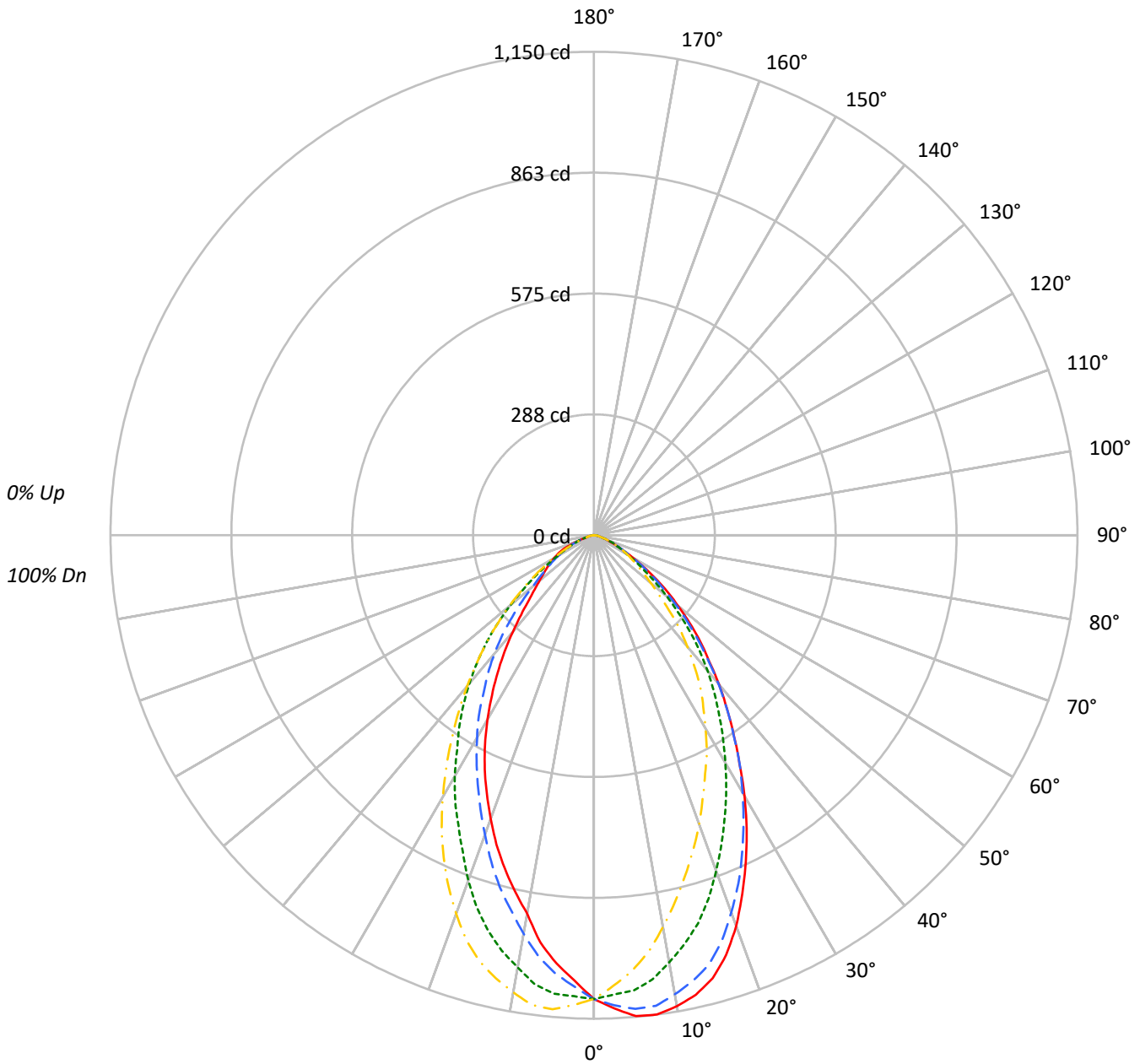
Lumens per Lamp: N/A
Luminaire Lumens: 1505.0 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.94 / 1.01
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 16.7
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	95	95	93	92	92	92	92	90
2	104	98	93	88	102	96	91	87	93	89	86	90	87	84	87	84	82	82	82	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	73	73	73	71
4	91	81	74	69	89	80	73	68	78	72	67	75	71	67	73	69	66	66	66	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	60	60	60	60	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	55	63	58	54	54	54	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	49	49	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	45	45	45	44
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	42	42	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	39	39	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	60472	60472	60472	60472
5°	63179	59812	56279	60230
10°	63325	57414	50862	58104
15°	61902	54245	46533	55222
20°	57714	49564	41864	50959
25°	51735	44561	37151	46122
30°	45361	39544	32037	41912
35°	38802	34639	26702	37390
40°	33069	30056	21497	32998
45°	27739	24925	16909	28034
50°	22191	19334	14439	22114
55°	16821	14078	13075	16277
60°	11753	10065	12170	11435
65°	7822	7822	10792	8315
70°	5369	5979	6283	6283
75°	3643	3855	3855	4046
80°	3315	3631	3315	3631
85°	3019	3019	3019	3019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 292.5°

Vertical Angle: 45°

Luminance: 28189 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	6.8
10°-20°	266.7	17.7
20°-30°	339.5	22.6
30°-40°	321.7	21.4
40°-50°	240.6	16.0
50°-60°	140.9	9.4
60°-70°	66.3	4.4
70°-80°	21.9	1.5
80°-90°	5.4	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°	708.1	47.1
0°-40°	1029.8	68.4
0°-60°	1411.3	93.8
0°-90°	1505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1505.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1103	1103	1103	1103	1103	
5°	1148	1087	1023	1094	1148	109
15°	1091	956	820	973	1091	304
25°	855	737	614	762	855	392
35°	580	518	399	559	580	363
45°	358	322	218	362	358	275
55°	176	147	137	170	176	160
65°	60	60	83	64	60	63
75°	17	18	18	19	17	20
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°	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1
2.5°	1127.0	1125.1	1119.4	1107.9	1093.5	1082.1	1072.5	1062.9	1060.1	1064.8	1074.4
5°	1148.1	1144.3	1130.9	1111.7	1086.9	1059.1	1040.0	1027.5	1022.7	1031.4	1046.7
7.5°	1150.0	1144.3	1128.9	1100.2	1065.8	1024.7	998.8	976.8	976.8	986.4	1010.3
10°	1137.6	1130.9	1108.9	1075.4	1031.4	977.8	946.2	922.3	913.7	930.9	962.5
12.5°	1119.4	1112.7	1085.9	1046.7	996.0	930.9	892.6	866.8	867.8	879.2	912.7
15°	1090.7	1079.2	1057.2	1014.1	955.8	881.2	838.1	821.8	819.9	832.4	865.8
17.5°	1046.7	1036.1	1011.3	969.2	906.0	827.6	784.5	769.2	771.1	783.6	813.2
20°	989.3	981.6	954.8	915.6	849.6	771.1	731.9	715.6	717.6	730.0	757.7
22.5°	922.3	914.6	897.4	856.3	793.1	715.6	676.4	660.1	665.9	677.4	705.1
25°	855.3	848.6	834.3	798.9	736.7	664.9	625.7	613.3	614.2	625.7	653.4
27.5°	786.4	786.4	770.2	740.5	681.2	615.2	581.7	562.6	561.6	575.0	604.7
30°	716.6	718.5	707.0	681.2	624.7	565.4	530.0	511.9	506.1	523.3	555.9
32.5°	643.9	646.8	644.8	620.9	571.2	518.6	484.1	462.1	451.6	471.7	509.9
35°	579.8	585.5	578.8	562.6	517.6	470.7	441.1	410.4	399.0	420.0	457.3
37.5°	519.5	525.2	518.6	505.2	468.8	425.7	392.3	362.6	349.2	372.2	414.3
40°	462.1	461.1	460.2	447.8	420.0	381.7	345.4	313.8	300.4	322.4	368.3
42.5°	404.7	408.5	400.9	393.2	371.2	332.9	301.4	266.9	256.4	275.5	322.4
45°	357.8	351.1	348.3	338.7	321.5	286.1	252.6	227.7	218.1	235.4	274.6
47.5°	308.1	306.2	297.5	288.0	271.7	240.1	209.5	193.3	191.3	200.0	231.5
50°	260.2	259.3	250.7	239.2	226.7	200.0	176.0	167.4	169.3	173.2	189.4
52.5°	220.0	216.2	206.7	195.2	183.7	162.6	148.3	147.3	152.1	152.1	161.7
55°	176.0	177.0	168.4	157.9	147.3	133.0	125.3	130.1	136.8	133.9	133.9
57.5°	140.6	140.6	134.9	125.3	117.7	109.1	108.1	114.8	123.4	117.7	115.8
60°	107.2	110.0	106.2	98.5	91.8	89.9	91.8	100.5	111.0	104.3	97.6
62.5°	80.4	83.2	81.3	76.5	74.6	74.6	76.5	86.1	97.6	89.9	81.3
65°	60.3	62.2	62.2	60.3	60.3	61.2	61.2	70.8	83.2	74.6	66.0
67.5°	45.9	46.9	47.8	47.8	48.8	48.8	48.8	54.5	63.1	58.4	51.7
70°	33.5	34.4	35.4	36.4	37.3	38.3	37.3	38.3	39.2	41.1	39.2
72.5°	24.9	24.9	24.9	25.8	26.8	26.8	26.8	26.8	26.8	27.7	27.7
75°	17.2	17.2	17.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	19.1
77.5°	13.4	13.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
80°	10.5	10.5	10.5	11.5	11.5	11.5	10.5	10.5	10.5	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	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°	1103.1	1103.1	1103.1	1103.1	1103.1	1103.1
2.5°	1084.9	1097.4	1108.9	1118.4	1126.1	1127.0
5°	1068.7	1094.5	1117.5	1131.8	1142.3	1148.1
7.5°	1040.0	1077.3	1105.0	1127.0	1142.3	1150.0
10°	999.8	1043.8	1079.2	1104.1	1124.2	1137.6
12.5°	960.6	1012.2	1049.5	1079.2	1102.2	1119.4
15°	917.5	973.0	1014.1	1049.5	1072.5	1090.7
17.5°	867.8	927.1	968.2	1009.4	1029.4	1046.7
20°	815.1	873.5	912.7	957.7	976.8	989.3
22.5°	758.7	815.1	855.3	904.1	914.6	922.3
25°	707.0	762.5	799.8	845.8	851.5	855.3
27.5°	653.4	714.7	744.3	784.5	785.5	786.4
30°	602.7	662.1	686.0	718.5	718.5	716.6
32.5°	554.9	605.6	627.6	653.4	650.6	643.9
35°	505.2	558.7	571.2	588.4	587.4	579.8
37.5°	459.2	509.9	518.6	528.1	527.2	519.5
40°	412.4	461.1	465.9	469.8	465.9	462.1
42.5°	364.5	411.4	415.2	413.3	412.4	404.7
45°	316.7	361.6	363.6	360.7	357.8	357.8
47.5°	268.8	310.9	313.8	310.0	309.0	308.1
50°	222.9	259.3	264.1	264.1	266.0	260.2
52.5°	183.7	212.4	217.2	220.0	220.0	220.0
55°	148.3	170.3	177.0	181.8	180.8	176.0
57.5°	119.6	133.9	140.6	144.5	145.4	140.6
60°	97.6	104.3	110.0	115.8	112.9	107.2
62.5°	81.3	80.4	84.2	88.0	85.1	80.4
65°	66.0	64.1	65.1	66.0	63.1	60.3
67.5°	51.7	50.7	49.8	49.8	46.9	45.9
70°	41.1	39.2	38.3	36.4	34.4	33.5
72.5°	28.7	27.7	26.8	25.8	24.9	24.9
75°	19.1	19.1	18.2	18.2	17.2	17.2
77.5°	15.3	15.3	14.4	14.4	13.4	13.4
80°	11.5	11.5	11.5	10.5	10.5	10.5
82.5°	8.6	7.7	7.7	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)