

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P599641

Luminaire Tested: **RL56069WZRGBWWH 6500K**

Issue Date: 5/31/2022

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P599641
 Test Lab: ETA TESTING TECHNOLOGY CO., LTD.
 Issue Date: 5/31/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: RL56069WZRGBWWH 6500K
 Description: 6 INCH RL WIZ SELECTABLE CCT
 Light Source: (1) HIGH LUMEN LED 90CRI / 6500K CCT
 Ballast/Driver: -

Summary

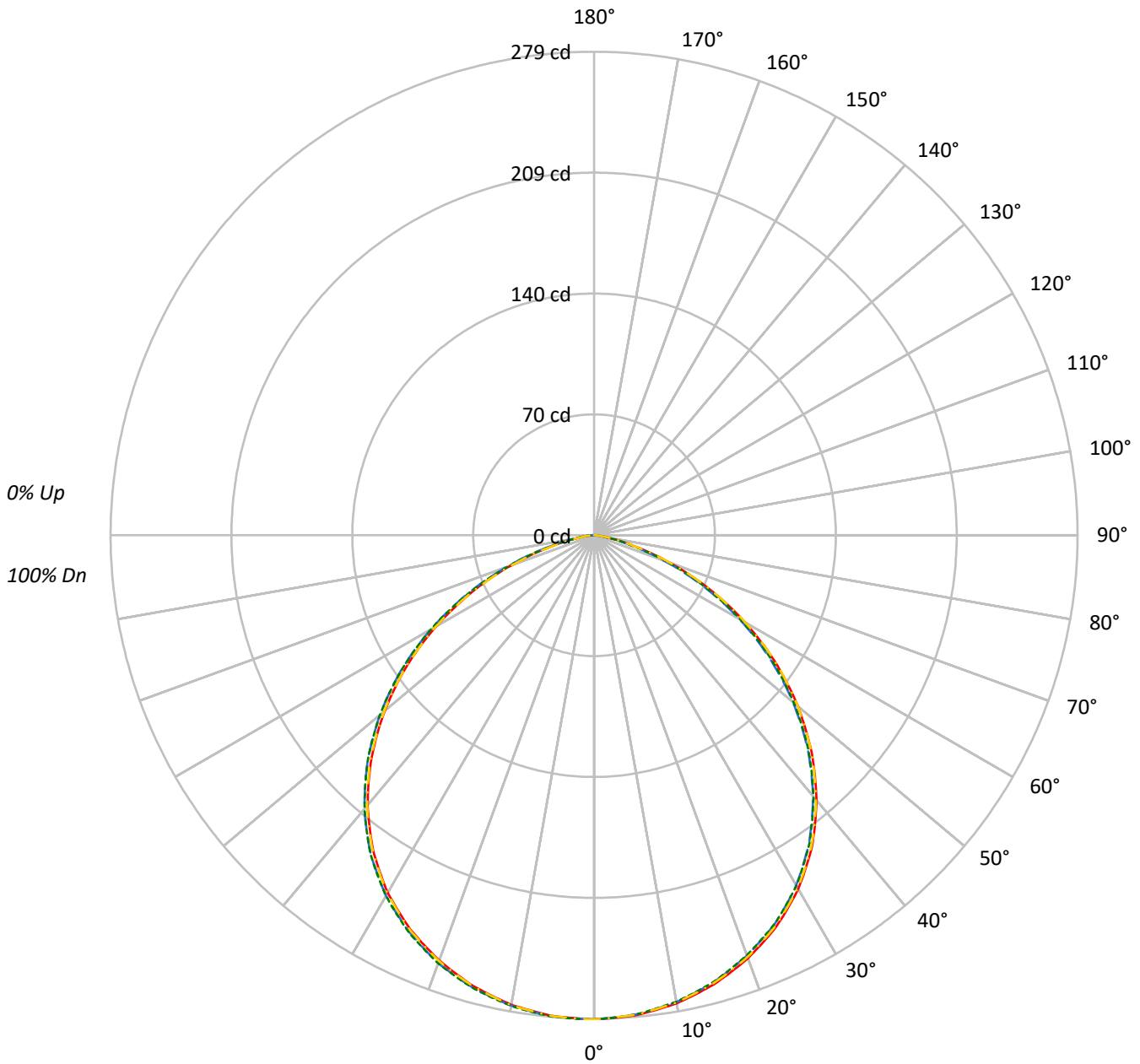
Lumens per Lamp: 707.58 (1 lamp)
 Luminaire Lumens: 716.8 lumens
 Efficiency: 101.3%
 Efficacy: 91.9 lumens/watt
 Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.35
 Luminous Opening: Circular (Dia: 0.5' x H: 0')
 CIE Type: Direct

Input Watts (W): 7.8
 Input Voltage (V): NR
 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: 25 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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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				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	121	121	121	121	118	118	118	118	113	113	113	108	108	108	103	103	103	103	103	103	101
1	111	107	103	100	109	105	101	98	101	98	95	97	94	92	93	91	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	76	76	76	76	74
3	93	83	76	69	91	82	75	69	79	73	68	76	71	66	74	69	65	65	65	65	63
4	86	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57	57	57	57	54
5	79	67	58	51	77	65	57	51	63	56	51	61	55	50	59	54	49	49	49	49	47
6	73	60	51	45	71	59	51	45	57	50	44	56	49	44	54	48	44	44	44	44	42
7	68	54	46	40	66	54	46	40	52	45	39	51	44	39	49	43	39	39	39	39	37
8	63	50	41	36	62	49	41	36	48	40	35	47	40	35	45	39	35	35	35	35	33
9	59	46	38	32	58	45	37	32	44	37	32	43	36	32	42	36	32	32	32	32	30
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15317	15317	15317	15317
5°	15304	15276	15320	15348
10°	15269	15219	15314	15353
15°	15221	15142	15284	15352
20°	15156	15045	15238	15337
25°	15067	14946	15176	15297
30°	14920	14781	15078	15211
35°	14676	14502	14870	15044
40°	14291	14091	14549	14749
45°	13769	13552	14079	14335
50°	13091	12835	13449	13756
55°	12196	11928	12635	12960
60°	11030	10734	11545	11918
65°	9495	9158	10092	10455
70°	7437	7117	8142	8511
75°	4872	4512	5613	5994
80°	2589	2368	3125	3346
85°	1635	1510	2264	2453

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	26.4	3.7	3.7
10°-20°	75.8	10.6	10.7
20°-30°	115.1	16.1	16.3
30°-40°	137.8	19.2	19.5
40°-50°	138.3	19.3	19.6
50°-60°	116.0	16.2	16.4
60°-70°	74.8	10.4	10.6
70°-80°	28.2	3.9	4.0
80°-90°	4.2	0.6	0.6
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	217.4	30.3	30.7
0°-40°	355.2	49.6	50.2
0°-60°	609.5	85.0	86.1
0°-90°	716.8	100.0	101.3
90°-120°	0.1	0.0	0.0
90°-150°	0.1	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	716.8	100.0	101.3

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	279	279	279	279	279	
5°	278	278	278	279	278	26
15°	268	267	269	270	268	76
25°	249	247	251	253	249	115
35°	219	217	222	225	219	137
45°	178	175	182	185	178	137
55°	128	125	132	136	128	114
65°	73	71	78	81	73	73
75°	23	21	26	28	23	26
85°	3	2	4	4	3	3
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P599641
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	279.4	279.4	279.4	279.4	279.4	279.4	279.4	279.4	279.4	279.4	279.4
5°	278.1	277.8	277.6	277.6	277.6	277.4	277.7	278.0	278.4	278.6	278.7
10°	274.3	273.9	273.6	273.5	273.4	273.4	273.8	274.4	275.1	275.4	275.6
15°	268.2	267.6	267.0	266.7	266.8	266.9	267.5	268.1	269.3	269.8	270.3
20°	259.8	259.2	258.1	258.1	257.9	258.2	259.0	259.9	261.2	261.8	262.8
25°	249.1	248.2	247.2	247.2	247.1	247.4	248.4	249.1	250.9	251.5	252.6
30°	235.7	234.7	233.3	233.4	233.5	233.7	235.2	236.3	238.2	238.8	240.1
35°	219.3	218.0	216.4	216.6	216.7	217.1	218.8	220.0	222.2	223.1	224.7
40°	199.7	198.5	196.5	196.6	196.9	197.4	199.3	200.7	203.3	204.3	206.1
45°	177.6	176.2	174.3	174.3	174.8	175.3	177.4	178.7	181.6	182.7	184.9
50°	153.5	151.9	149.8	149.9	150.5	151.1	153.5	154.8	157.7	159.0	161.3
55°	127.6	126.1	123.7	124.0	124.8	125.5	127.7	129.2	132.2	133.6	135.9
60°	100.6	99.2	96.9	97.0	97.9	98.4	100.8	102.3	105.3	106.6	108.9
65°	73.2	71.7	69.4	69.5	70.6	71.1	73.4	74.8	77.8	79.0	81.2
70°	46.4	45.3	43.0	43.3	44.4	44.6	46.7	47.9	50.8	51.8	53.8
75°	23.0	22.0	20.6	20.6	21.3	21.7	23.2	24.4	26.5	27.5	29.0
80°	8.2	7.8	7.3	7.3	7.5	7.6	8.3	8.8	9.9	10.4	11.2
85°	2.6	2.4	2.1	2.1	2.4	2.5	2.9	3.1	3.6	3.9	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	279.4	279.4	279.4	279.4	279.4	279.4
5°	278.8	278.9	278.7	278.5	278.4	278.1
10°	275.8	275.8	275.8	275.4	274.8	274.3
15°	270.5	270.5	270.4	269.5	269.1	268.2
20°	262.7	262.9	262.6	261.5	260.9	259.8
25°	252.6	252.9	252.4	251.3	250.5	249.1
30°	240.2	240.3	240.0	238.5	237.5	235.7
35°	224.7	224.8	224.4	222.6	221.6	219.3
40°	206.4	206.1	205.8	203.7	202.3	199.7
45°	185.0	184.9	184.5	182.2	180.5	177.6
50°	161.5	161.3	160.6	158.1	156.6	153.5
55°	136.1	135.6	135.1	132.3	130.8	127.6
60°	109.3	108.7	108.1	105.4	103.8	100.6
65°	81.5	80.6	80.2	77.6	76.1	73.2
70°	54.0	53.1	52.7	50.2	49.1	46.4
75°	29.1	28.3	27.9	26.1	25.1	23.0
80°	11.2	10.6	10.5	9.6	9.1	8.2
85°	4.3	3.9	3.9	3.4	3.2	2.6
90°	0.1	0.1	0.1	0.1	0.0	0.0
95°	0.1	0.1	0.1	0.1	0.0	0.0
100°	0.1	0.1	0.1	0.1	0.0	0.0
105°	0.1	0.1	0.1	0.0	0.0	0.0
110°	0.1	0.1	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)