

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: P599636

Luminaire Tested: **RL56069WZRGBWWH 2700K**

Issue Date: 5/31/2022

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

Test Information

Test Method: LM-79-08
 Report Number: P599636
 Test Lab: ETA TESTING TECHNOLOGY CO., LTD.
 Issue Date: 5/31/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: RL56069WZRGBWWH 2700K
 Description: 6 INCH RL WIZ SELECTABLE CCT
 Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

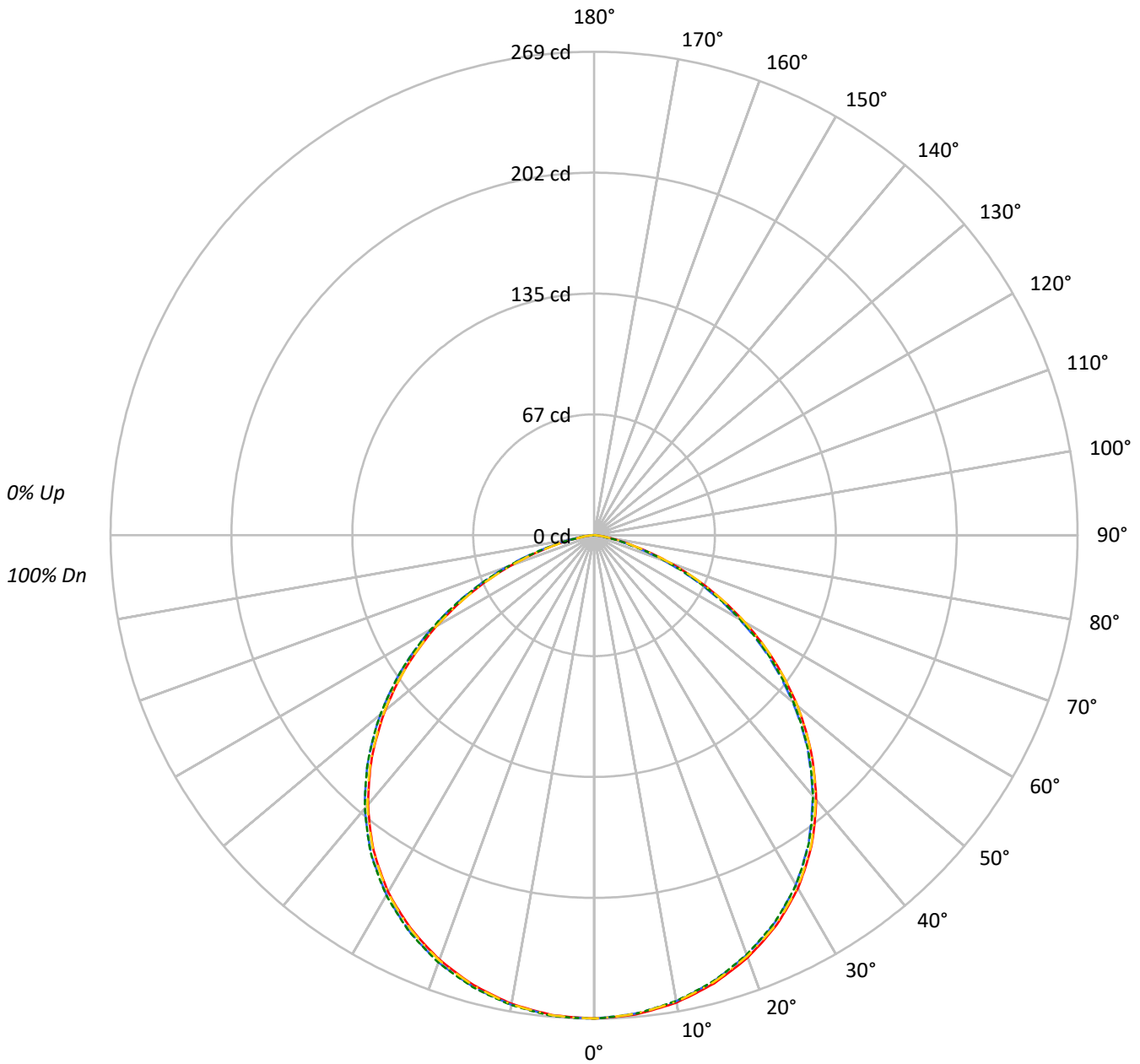
Lumens per Lamp: 707.58 (1 lamp)
 Luminaire Lumens: 689.8 lumens
 Efficiency: 97.5%
 Efficacy: 86.2 lumens/watt
 Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.35
 Luminous Opening: Circular (Dia: 0.5' x H: 0')
 CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P599636
CATALOG NUMBER: RL56069WZRGBWWH 2700K

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°

TEST NUMBER: P599636
 CATALOG NUMBER: RL56069WZRGBWWH 2700K

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	116	116	116	116	113	113	113	113	108	108	108	104	104	104	99	99	99	99	99	99	97	
1	107	103	99	96	105	101	97	94	97	94	91	93	91	89	89	88	86	89	88	86	84	
2	98	91	85	79	96	89	83	79	86	81	77	82	78	75	79	76	73	79	76	73	71	
3	90	80	73	67	88	79	72	66	76	70	65	73	68	64	71	67	63	71	67	63	61	
4	83	71	63	57	80	70	63	57	68	61	56	66	60	55	63	59	54	63	59	54	52	
5	76	64	56	49	74	63	55	49	61	54	49	59	53	48	57	52	48	57	52	48	46	
6	70	58	49	43	68	57	49	43	55	48	43	53	47	42	52	46	42	52	46	42	40	
7	65	52	44	38	64	52	44	38	50	43	38	49	42	38	47	42	37	47	42	37	36	
8	61	48	40	34	59	47	40	34	46	39	34	45	38	34	44	38	34	44	38	34	32	
9	57	44	36	31	55	43	36	31	42	35	31	41	35	30	40	35	30	40	35	30	29	
10	53	41	33	28	52	40	33	28	39	32	28	38	32	28	37	32	28	37	32	28	26	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14741	14741	14741	14741
5°	14726	14704	14742	14770
10°	14696	14646	14735	14774
15°	14648	14574	14705	14773
20°	14585	14480	14660	14760
25°	14499	14378	14602	14717
30°	14357	14224	14509	14635
35°	14121	13953	14315	14482
40°	13754	13561	13998	14191
45°	13249	13040	13552	13792
50°	12597	12358	12946	13236
55°	11737	11479	12157	12473
60°	10624	10339	11107	11468
65°	9132	8808	9716	10066
70°	7165	6844	7822	8190
75°	4702	4342	5401	5761
80°	2462	2273	2999	3220
85°	1572	1447	2201	2390

TEST NUMBER: P599636
 CATALOG NUMBER: RL56069WZRGBWWH 2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.4	3.7	3.6
10°-20°	73.0	10.6	10.3
20°-30°	110.8	16.1	15.7
30°-40°	132.6	19.2	18.7
40°-50°	133.1	19.3	18.8
50°-60°	111.6	16.2	15.8
60°-70°	72.0	10.4	10.2
70°-80°	27.2	3.9	3.8
80°-90°	4.0	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°	209.2	30.3	29.6
0°-40°	341.8	49.5	48.3
0°-60°	586.6	85.0	82.9
0°-90°	689.8	100.0	97.5
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	689.8	100.0	97.5

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	269	269	269	269	269	
5°	268	267	268	268	268	25
15°	258	257	259	260	258	73
25°	240	238	241	243	240	110
35°	211	208	214	216	211	132
45°	171	168	175	178	171	132
55°	123	120	127	130	123	110
65°	70	68	75	78	70	70
75°	22	20	26	27	22	26
85°	2	2	4	4	2	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: P599636
 CATALOG NUMBER: RL56069WZRGBWWH 2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9	268.9
5°	267.6	267.3	267.1	267.2	267.2	267.0	267.2	267.6	267.9	268.1	268.2
10°	264.0	263.5	263.3	263.2	263.1	263.1	263.5	264.0	264.7	265.0	265.2
15°	258.1	257.5	256.9	256.7	256.8	256.9	257.4	258.0	259.1	259.6	260.1
20°	250.0	249.5	248.4	248.4	248.2	248.5	249.2	250.1	251.3	252.0	252.9
25°	239.7	238.8	237.9	237.9	237.7	238.0	239.1	239.7	241.4	242.0	243.1
30°	226.8	225.8	224.5	224.6	224.7	224.9	226.3	227.4	229.2	229.8	231.0
35°	211.0	209.8	208.2	208.4	208.5	208.9	210.6	211.7	213.9	214.7	216.2
40°	192.2	191.0	189.1	189.2	189.5	189.9	191.8	193.2	195.6	196.6	198.4
45°	170.9	169.6	167.8	167.7	168.2	168.7	170.7	172.0	174.8	175.8	177.9
50°	147.7	146.2	144.1	144.2	144.9	145.4	147.7	149.0	151.8	153.0	155.2
55°	122.8	121.3	119.1	119.3	120.1	120.7	122.9	124.4	127.2	128.5	130.8
60°	96.9	95.4	93.2	93.3	94.3	94.7	97.0	98.4	101.3	102.6	104.8
65°	70.4	69.0	66.8	66.9	67.9	68.5	70.7	72.0	74.9	76.0	78.2
70°	44.7	43.6	41.4	41.7	42.7	42.9	44.9	46.1	48.8	49.9	51.8
75°	22.2	21.2	19.8	19.8	20.5	20.9	22.4	23.5	25.5	26.5	27.9
80°	7.8	7.5	7.0	7.0	7.2	7.3	8.0	8.5	9.5	10.0	10.8
85°	2.5	2.3	2.0	2.1	2.3	2.4	2.8	3.0	3.5	3.7	4.1
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

TEST NUMBER: P599636
 CATALOG NUMBER: RL56069WZRGBWWH 2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	268.9	268.9	268.9	268.9	268.9	268.9
5°	268.3	268.4	268.3	268.1	267.9	267.6
10°	265.4	265.4	265.4	265.0	264.5	264.0
15°	260.3	260.3	260.2	259.4	259.0	258.1
20°	252.8	253.0	252.8	251.7	251.1	250.0
25°	243.1	243.3	242.9	241.8	241.0	239.7
30°	231.1	231.2	230.9	229.5	228.6	226.8
35°	216.2	216.4	216.0	214.2	213.2	211.0
40°	198.6	198.3	198.1	196.1	194.7	192.2
45°	178.1	177.9	177.5	175.3	173.7	170.9
50°	155.4	155.2	154.6	152.2	150.7	147.7
55°	130.9	130.5	130.0	127.3	125.9	122.8
60°	105.2	104.6	104.0	101.4	99.9	96.9
65°	78.4	77.6	77.2	74.7	73.3	70.4
70°	52.0	51.1	50.8	48.3	47.3	44.7
75°	28.0	27.2	26.8	25.1	24.1	22.2
80°	10.8	10.2	10.1	9.2	8.8	7.8
85°	4.1	3.8	3.8	3.3	3.1	2.5
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	0.0	0.0	0.0
105°	0.1	0.0	0.1	0.0	0.0	0.0
110°	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
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)