

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: P599637

Luminaire Tested: **RL56069WZRGBWWH 3000K**

Issue Date: 5/31/2022

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P599637
 Test Lab: ETA TESTING TECHNOLOGY CO., LTD.
 Issue Date: 5/31/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: RL56069WZRGBWWH 3000K
 Description: 6 INCH RL WIZ SELECTABLE CCT
 Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

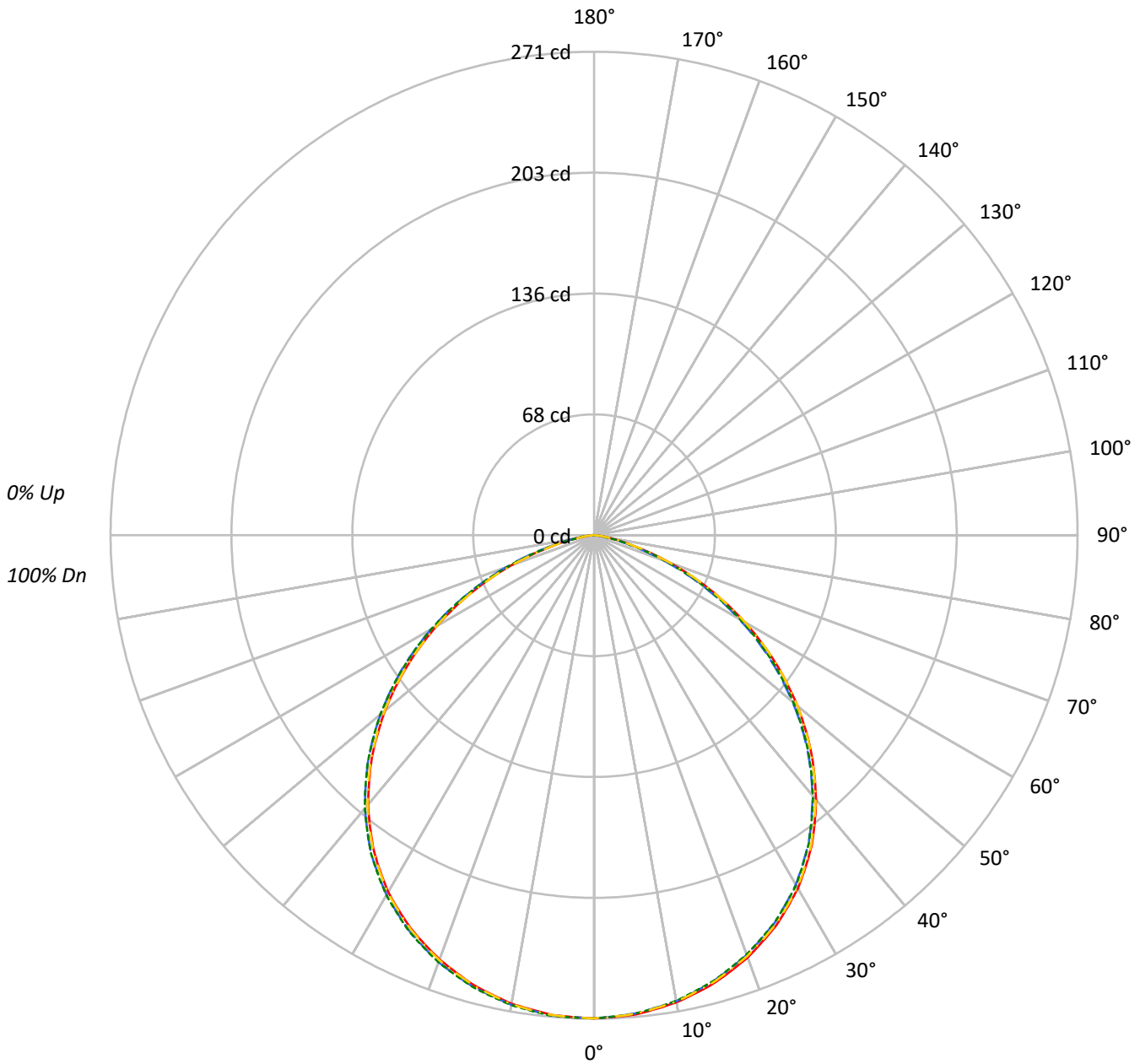
Lumens per Lamp: 707.58 (1 lamp)
 Luminaire Lumens: 694.8 lumens
 Efficiency: 98.2%
 Efficacy: 86.9 lumens/watt
 Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.35
 Luminous Opening: Circular (Dia: 0.5' x H: 0')
 CIE Type: Direct

Input Watts (W): 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	
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	117	117	117	117	114	114	114	114	109	109	109	104	104	104	100	100	100	98				
1	108	104	100	97	105	102	98	95	97	95	92	94	91	89	90	88	87	85				
2	99	91	85	80	96	90	84	79	86	81	77	83	79	76	80	77	74	72				
3	91	81	73	67	88	79	72	67	76	70	66	74	69	64	71	67	63	61				
4	83	72	64	58	81	71	63	57	68	62	56	66	60	56	64	59	55	53				
5	77	64	56	50	75	63	55	50	61	54	49	59	53	48	58	52	48	46				
6	71	58	50	44	69	57	49	43	56	48	43	54	48	43	52	47	42	40				
7	66	53	44	39	64	52	44	38	51	43	38	49	43	38	48	42	38	36				
8	61	48	40	35	60	48	40	34	46	39	34	45	39	34	44	38	34	32				
9	57	44	36	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29				
10	54	41	33	28	52	40	33	28	39	33	28	39	32	28	38	32	28	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14845	14845	14845	14845
5°	14836	14808	14852	14880
10°	14802	14751	14841	14885
15°	14756	14677	14813	14881
20°	14690	14585	14765	14865
25°	14602	14487	14711	14825
30°	14464	14331	14616	14743
35°	14228	14054	14415	14583
40°	13855	13654	14105	14298
45°	13350	13133	13653	13893
50°	12690	12443	13040	13339
55°	11823	11555	12243	12559
60°	10701	10405	11183	11545
65°	9197	8873	9781	10144
70°	7213	6908	7886	8255
75°	4723	4384	5443	5804
80°	2494	2305	3031	3252
85°	1572	1447	2201	2390

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.6	3.7	3.6
10°-20°	73.5	10.6	10.4
20°-30°	111.6	16.1	15.8
30°-40°	133.6	19.2	18.9
40°-50°	134.1	19.3	19.0
50°-60°	112.4	16.2	15.9
60°-70°	72.5	10.4	10.3
70°-80°	27.4	3.9	3.9
80°-90°	4.1	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°	210.7	30.3	29.8
0°-40°	344.3	49.6	48.7
0°-60°	590.8	85.0	83.5
0°-90°	694.8	100.0	98.2
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°	694.8	100.0	98.2

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	271	271	271	271	271	
5°	270	269	270	270	270	26
15°	260	259	261	262	260	73
25°	241	240	243	245	241	111
35°	213	210	215	218	213	133
45°	172	169	176	179	172	133
55°	124	121	128	131	124	110
65°	71	68	75	78	71	70
75°	22	21	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	270.8	270.8	270.8	270.8	270.8	270.8	270.8	270.8	270.8	270.8	270.8
5°	269.6	269.3	269.0	269.1	269.1	268.9	269.2	269.5	269.9	270.0	270.1
10°	265.9	265.4	265.2	265.1	265.0	265.0	265.4	265.9	266.6	267.0	267.2
15°	260.0	259.4	258.8	258.5	258.6	258.7	259.3	259.9	261.0	261.5	262.0
20°	251.8	251.3	250.2	250.2	250.0	250.3	251.0	251.9	253.1	253.8	254.7
25°	241.4	240.6	239.6	239.6	239.5	239.8	240.8	241.5	243.2	243.8	244.8
30°	228.5	227.5	226.1	226.3	226.4	226.6	228.0	229.0	230.9	231.5	232.7
35°	212.6	211.3	209.8	209.9	210.0	210.4	212.1	213.3	215.4	216.3	217.8
40°	193.6	192.4	190.5	190.6	190.8	191.3	193.2	194.6	197.1	198.0	199.8
45°	172.2	170.8	169.0	168.9	169.4	169.9	172.0	173.2	176.1	177.1	179.2
50°	148.8	147.3	145.2	145.3	145.9	146.4	148.8	150.1	152.9	154.1	156.3
55°	123.7	122.2	119.9	120.2	120.9	121.6	123.8	125.3	128.1	129.5	131.7
60°	97.6	96.1	93.9	94.0	94.9	95.4	97.7	99.1	102.0	103.3	105.6
65°	70.9	69.5	67.3	67.4	68.4	69.0	71.2	72.5	75.4	76.6	78.7
70°	45.0	43.9	41.7	42.0	43.1	43.2	45.2	46.5	49.2	50.2	52.2
75°	22.3	21.4	19.9	19.9	20.7	21.0	22.5	23.6	25.7	26.7	28.1
80°	7.9	7.6	7.1	7.0	7.3	7.4	8.0	8.5	9.6	10.1	10.9
85°	2.5	2.4	2.1	2.1	2.3	2.4	2.8	3.0	3.5	3.7	4.2
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°	270.8	270.8	270.8	270.8	270.8	270.8
5°	270.3	270.4	270.2	270.0	269.8	269.6
10°	267.3	267.4	267.3	266.9	266.4	265.9
15°	262.2	262.2	262.1	261.2	260.8	260.0
20°	254.7	254.8	254.6	253.5	252.9	251.8
25°	244.9	245.1	244.7	243.6	242.8	241.4
30°	232.8	232.9	232.6	231.2	230.3	228.5
35°	217.8	217.9	217.5	215.8	214.8	212.6
40°	200.0	199.8	199.5	197.5	196.1	193.6
45°	179.4	179.2	178.8	176.6	175.0	172.2
50°	156.5	156.4	155.7	153.3	151.8	148.8
55°	131.9	131.4	130.9	128.3	126.8	123.7
60°	105.9	105.3	104.7	102.2	100.6	97.6
65°	79.0	78.2	77.8	75.3	73.8	70.9
70°	52.4	51.5	51.1	48.7	47.6	45.0
75°	28.2	27.4	27.0	25.3	24.3	22.3
80°	10.8	10.3	10.1	9.3	8.8	7.9
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	0.1	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)