

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: P645282

Luminaire Tested: **RLNL6109FSD2W1EWHDM-3500K**

Issue Date: 02/28/2023

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P645282  
 Test Lab: ETA Testing Technology  
 Issue Date: 02/28/2023  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: RLNL6109FSD2W1EWHDM-3500K  
 Description: 6" 90 CRI COLOR TUNING RECESSED DOWNLIGHT DIRECT MOUNT FIXTURE w/  
 NIGHTLIGHT  
 Light Source: 90 CRI 3500K LEDS  
 Ballast/Driver: ELECTRICAL DRIVER

**Summary**

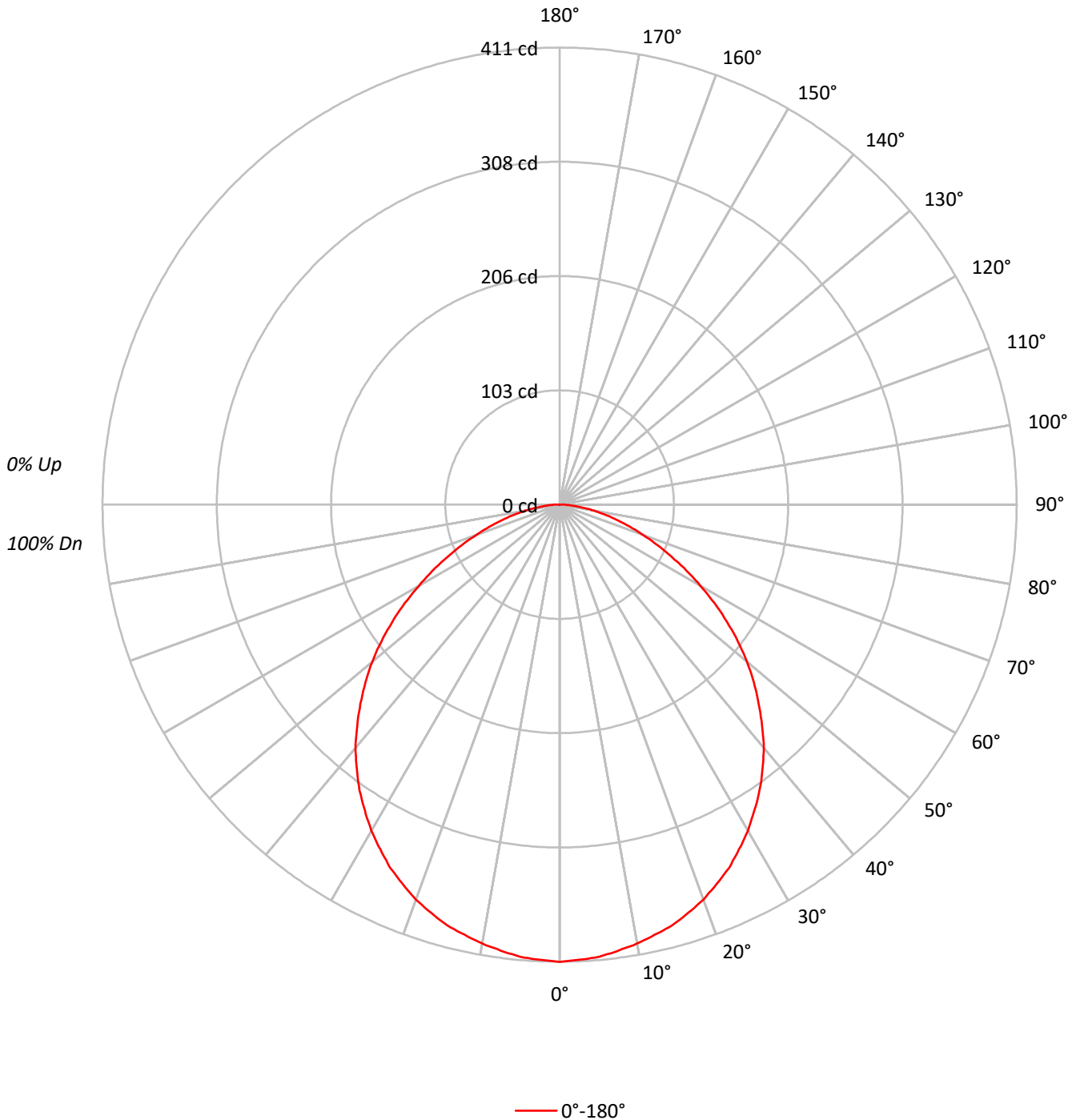
Lumens per Lamp: N/A  
 Luminaire Lumens: 1054.8 lumens  
 Efficiency: N/A  
 Efficacy: 91.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.33  
 Luminous Opening: Circular (Dia: 0.35' x H: 0')  
 CIE Type: Direct

Input Watts (W): 11.5  
 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: 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

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### Luminous Intensity Polar Plot





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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	109	105	101	97	107	103	99	96	98	95	92		94	92	90		91	89	87	85
2	100	92	85	80	97	90	84	79	87	82	77		83	79	75		80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65		74	69	64		71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56		66	60	55		64	59	55	52
5	77	65	56	50	75	64	55	49	62	54	49		60	53	48		58	52	48	46
6	71	58	50	43	70	58	49	43	56	48	43		54	48	43		52	47	42	40
7	66	53	45	39	65	52	44	38	51	43	38		49	43	38		48	42	38	36
8	62	49	40	34	60	48	40	34	47	39	34		45	39	34		44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31		42	35	31		41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28		39	32	28		38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	44928
5°	44760
10°	44467
15°	44285
20°	43940
25°	43436
30°	42706
35°	41829
40°	40735
45°	39139
50°	37413
55°	35012
60°	31992
65°	28723
70°	25397
75°	22416
80°	19568
85°	16673

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	3.7
10°-20°	110.4	10.5
20°-30°	165.9	15.7
30°-40°	196.0	18.6
40°-50°	195.4	18.5
50°-60°	164.1	15.6
60°-70°	110.9	10.5
70°-80°	57.2	5.4
80°-90°	16.2	1.5
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°	315.0	29.9
0°-40°	511.0	48.4
0°-60°	870.6	82.5
0°-90°	1054.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1054.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	411	
5°	408	39
15°	392	110
25°	360	166
35°	314	196
45°	253	195
55°	184	164
65°	111	111
75°	53	57
85°	13	16
90°	2	

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

  
NVLAP Lab Code: 200050-0



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	411.2
5°	408.1
10°	400.8
15°	391.5
20°	377.9
25°	360.3
30°	338.5
35°	313.6
40°	285.6
45°	253.3
50°	220.1
55°	183.8
60°	146.4
65°	111.1
70°	79.5
75°	53.1
80°	31.1
85°	13.3
90°	1.7

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Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021
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(END OF REPORT)