

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: P645279

Luminaire Tested: **RLNL4079FSD2W1EWHDM-5000K**

Issue Date: 02/28/2023

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: P645279
 Test Lab: ETA Testing Technology
 Issue Date: 02/28/2023
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: RLNL4079FSD2W1EWHDM-5000K
 Description: 4" 90 CRI COLOR TUNING RECESSED DOWNLIGHT DIRECT MOUNT FIXTURE w/
 NIGHTLIGHT
 Light Source: 90 CRI 5000K LEDS
 Ballast/Driver: ELECTRICAL DRIVER

Summary

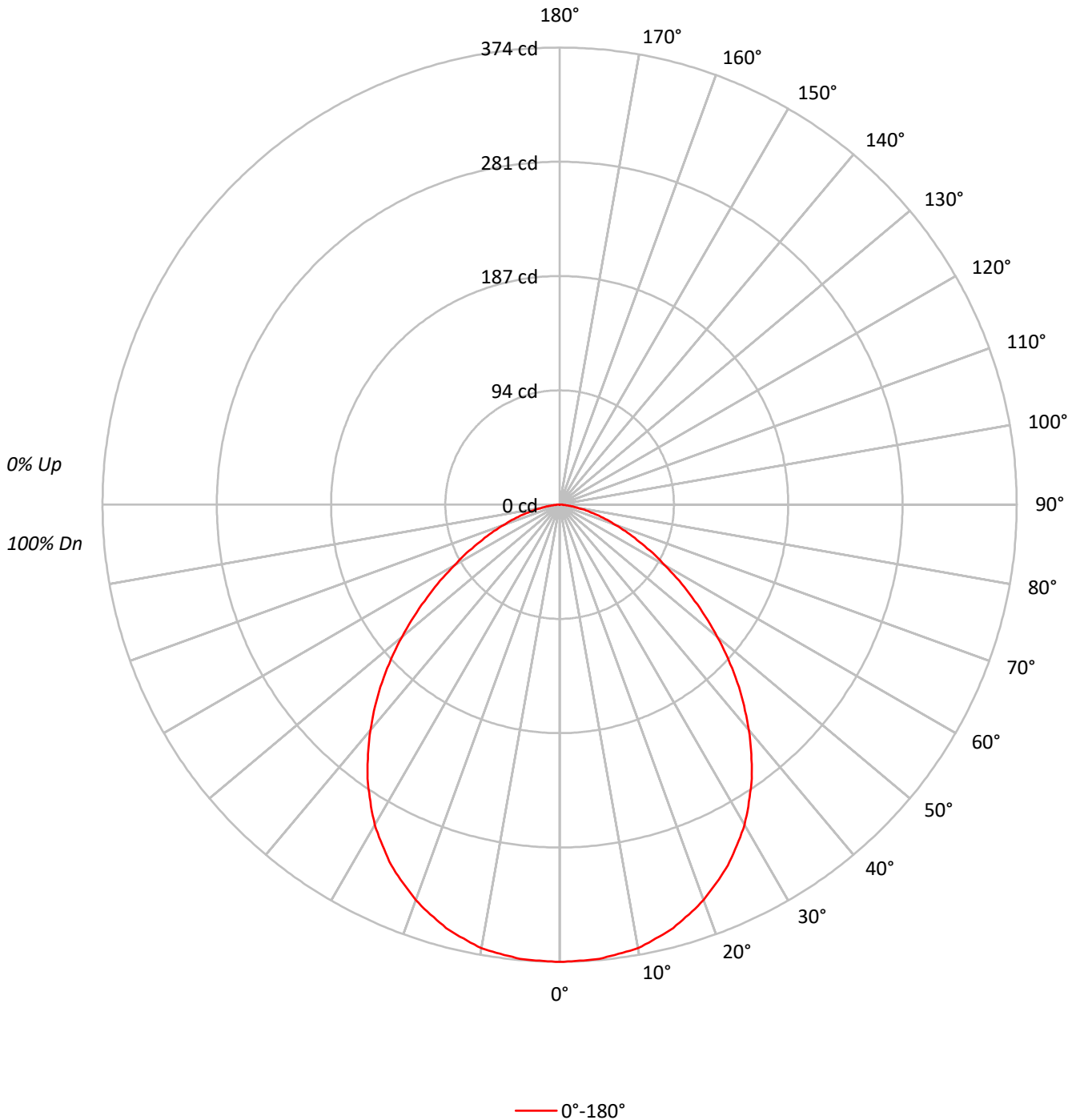
Lumens per Lamp: N/A
 Luminaire Lumens: 845.4 lumens
 Efficiency: N/A
 Efficacy: 89.9 lumens/watt
 Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.27
 Luminous Opening: Circular (Dia: 0.35' x H: 0')
 CIE Type: Direct

Input Watts (W): 9.4
 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

TEST NUMBER: P645279
CATALOG NUMBER: RLNL4079FSD2W1EWHDM-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P645279
 CATALOG NUMBER: RLNL4079FSD2W1EWHDM-5000K

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	110	106	102	99	108	104	100	97	100	97	94		96	94	91		92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80		86	82	78		83	79	76	74
3	93	84	76	70	91	82	75	70	79	73	69		77	72	67		74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	60		69	63	59		67	62	58	56
5	79	68	59	53	77	66	59	53	64	57	52		62	56	52		61	55	51	49
6	74	61	53	47	72	60	52	47	59	52	46		57	51	46		55	50	45	44
7	69	56	48	42	67	55	47	42	54	46	41		52	46	41		51	45	41	39
8	64	51	43	38	62	50	43	37	49	42	37		48	42	37		47	41	37	35
9	60	47	39	34	59	47	39	34	45	39	34		44	38	34		43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31		41	35	31		40	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	40873
5°	40909
10°	40894
15°	40572
20°	40042
25°	39263
30°	38173
35°	36542
40°	34368
45°	31792
50°	28614
55°	25150
60°	21782
65°	18576
70°	15570
75°	12496
80°	9205
85°	5905

TEST NUMBER: P645279
 CATALOG NUMBER: RLNL4079FSD2W1EWHDM-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	4.2
10°-20°	101.1	12.0
20°-30°	149.8	17.7
30°-40°	170.8	20.2
40°-50°	158.3	18.7
50°-60°	118.9	14.1
60°-70°	72.2	8.5
70°-80°	32.3	3.8
80°-90°	6.6	0.8
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°	286.3	33.9
0°-40°	457.1	54.1
0°-60°	734.3	86.9
0°-90°	845.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	845.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	374	
5°	373	35
15°	359	101
25°	326	150
35°	274	171
45°	206	158
55°	132	119
65°	72	72
75°	30	32
85°	5	7
90°	0	

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



TEST NUMBER: P645279
CATALOG NUMBER: RLNL4079FSD2W1EWHDM-5000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	374.1
5°	373.0
10°	368.6
15°	358.7
20°	344.4
25°	325.7
30°	302.6
35°	274.0
40°	241.0
45°	205.8
50°	168.3
55°	132.0
60°	99.7
65°	71.9
70°	48.7
75°	29.6
80°	14.6
85°	4.7
90°	0.0

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


NVLAP Lab Code: 200050-0



Report Generated By 670245763 / DESKTOP-DVLU35A

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


NVLAP Lab Code: 200050-0



Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021
------------------	--------------	-----------	-----------

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



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



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



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


NVLAP Lab Code: 200050-0



(END OF REPORT)