

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: P645281

Luminaire Tested: **RLNL6109FSD2W1EWHDM-3000K**

Issue Date: 02/28/2023

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P645281
 Test Lab: ETA Testing Technology
 Issue Date: 02/28/2023
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: RLNL6109FSD2W1EWHDM-3000K
 Description: 6" 90 CRI COLOR TUNING RECESSED DOWNLIGHT DIRECT MOUNT FIXTURE w/
 NIGHTLIGHT
 Light Source: 90 CRI 3000K LEDS
 Ballast/Driver: ELECTRICAL DRIVER

Summary

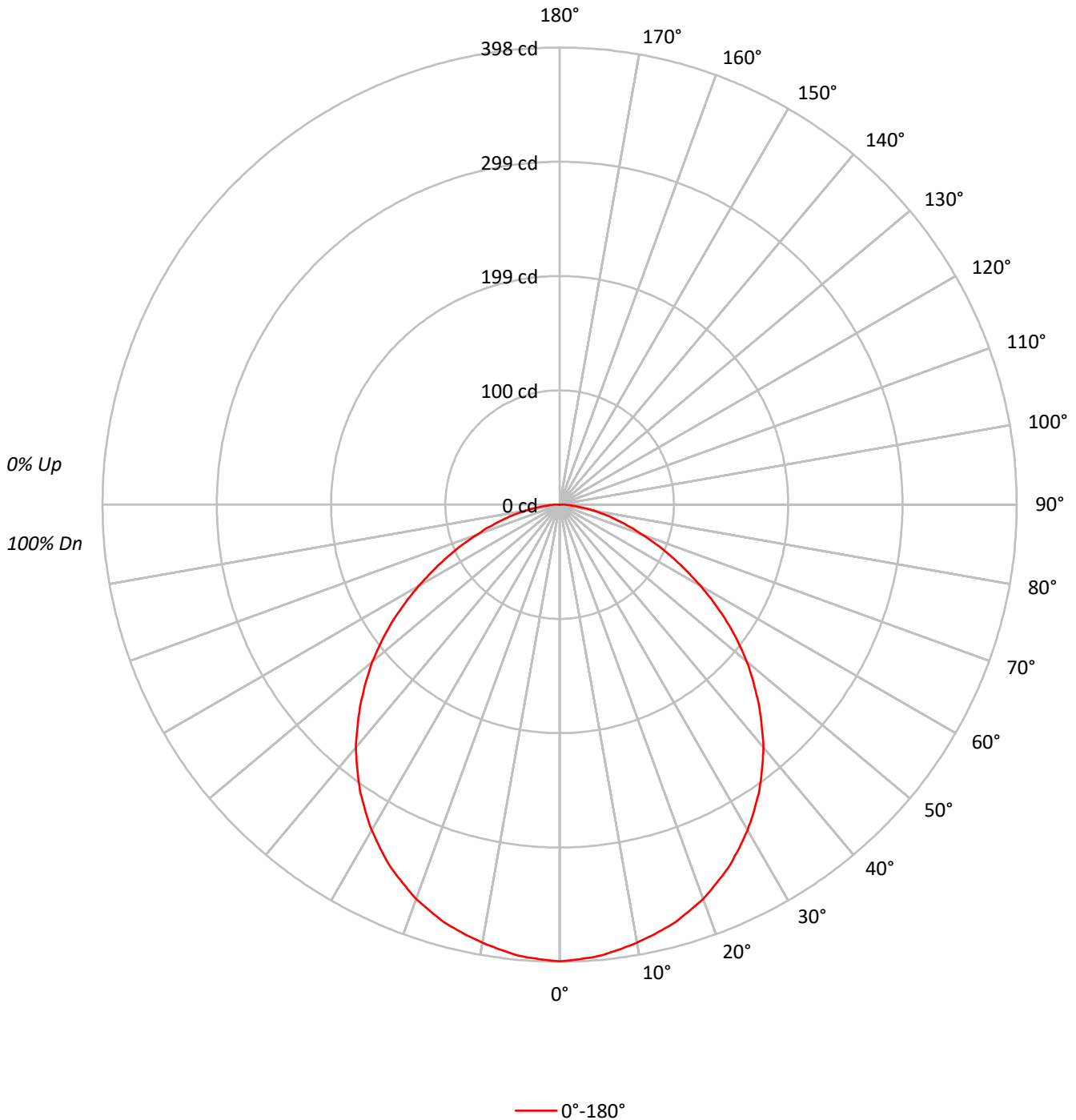
Lumens per Lamp: N/A
 Luminaire Lumens: 1019.7 lumens
 Efficiency: N/A
 Efficacy: 88.7 lumens/watt
 Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.33
 Luminous Opening: Circular (Dia: 0.35' x H: 0')
 CIE Type: Direct

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°	43442
5°	43279
10°	42981
15°	42803
20°	42486
25°	41990
30°	41293
35°	40442
40°	39366
45°	37841
50°	36172
55°	33850
60°	30921
65°	27766
70°	24534
75°	21699
80°	18939
85°	16046

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	3.7
10°-20°	106.7	10.5
20°-30°	160.4	15.7
30°-40°	189.5	18.6
40°-50°	188.9	18.5
50°-60°	158.7	15.6
60°-70°	107.1	10.5
70°-80°	55.3	5.4
80°-90°	15.6	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°	304.5	29.9
0°-40°	494.0	48.4
0°-60°	841.6	82.5
0°-90°	1019.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1019.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	398	
5°	395	37
15°	378	107
25°	348	160
35°	303	189
45°	245	189
55°	178	159
65°	107	107
75°	51	55
85°	13	16
90°	2	

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



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CANDELA DISTRIBUTION (FULL):

	0°
0°	397.6
5°	394.6
10°	387.4
15°	378.4
20°	365.4
25°	348.3
30°	327.3
35°	303.2
40°	276.0
45°	244.9
50°	212.8
55°	177.7
60°	141.5
65°	107.4
70°	76.8
75°	51.4
80°	30.1
85°	12.8
90°	1.7

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NVLAP Lab Code: 200050-0



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