

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: P645292

Luminaire Tested: **RLNL6109FSD2W1EWH-3500K**

Issue Date: 02/28/2023

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P645292
 Test Lab: ETA Testing Technology
 Issue Date: 02/28/2023
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: RLNL6109FSD2W1EWH-3500K
 Description: 6" 90 CRI COLOR TUNING RECESSED DOWNLIGHT RETROFIT DIM TO WARM
 FIXTURE w/ NIGHTLIGHT
 Light Source: 90 CRI 3500K LEDS
 Ballast/Driver: ELECTRICAL DRIVER

Summary

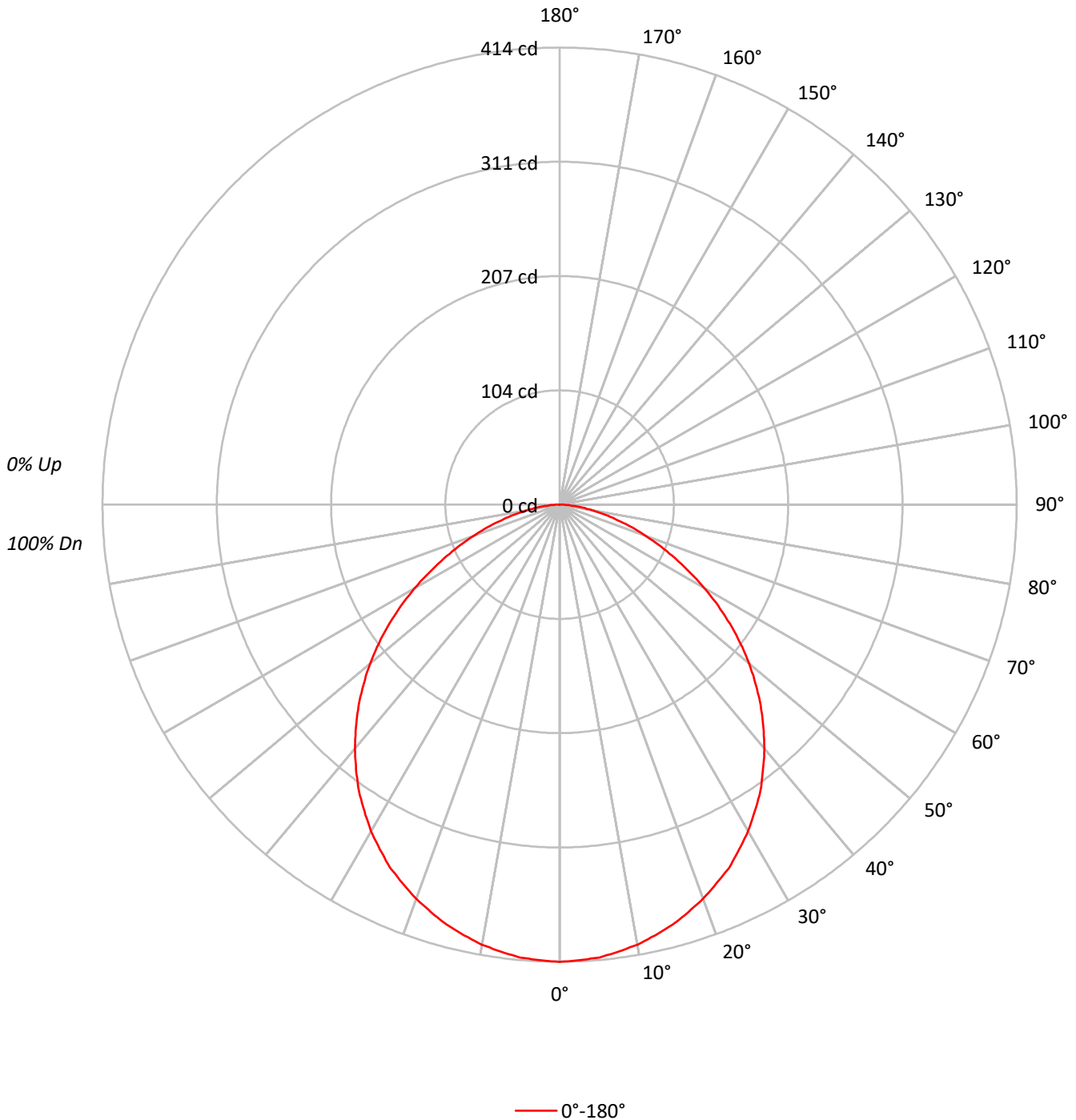
Lumens per Lamp: N/A
 Luminaire Lumens: 1070.4 lumens
 Efficiency: N/A
 Efficacy: 102.9 lumens/watt
 Spacing Criteria (0/90/45): 1.23 / 1.23 / 1.33
 Luminous Opening: Circular (Dia: 0.35' x H: 0')
 CIE Type: Direct

Input Watts (W): 10.4
 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

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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	93		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	61	56		66	60	55		64	59	54	52
5	77	65	56	49	75	64	55	49	61	54	49		59	53	48		58	52	48	45
6	71	58	50	43	69	57	49	43	56	48	43		54	47	42		52	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38		49	43	38		48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34		45	39	34		44	38	34	32
9	58	44	36	31	56	44	36	31	43	36	31		42	35	31		41	35	30	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°	45256
5°	45154
10°	44911
15°	44579
20°	44172
25°	43750
30°	43085
35°	42269
40°	41149
45°	39788
50°	38109
55°	35869
60°	33128
65°	29861
70°	26451
75°	23007
80°	19254
85°	14166

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.1	3.7
10°-20°	111.2	10.4
20°-30°	167.0	15.6
30°-40°	198.0	18.5
40°-50°	198.4	18.5
50°-60°	168.3	15.7
60°-70°	115.1	10.8
70°-80°	58.7	5.5
80°-90°	14.6	1.4
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°	317.3	29.6
0°-40°	515.3	48.1
0°-60°	882.0	82.4
0°-90°	1070.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1070.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	414	
5°	412	39
15°	394	111
25°	363	167
35°	317	198
45°	258	198
55°	188	168
65°	116	115
75°	54	59
85°	11	15
90°	1	

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°	414.2
5°	411.7
10°	404.8
15°	394.1
20°	379.9
25°	362.9
30°	341.5
35°	316.9
40°	288.5
45°	257.5
50°	224.2
55°	188.3
60°	151.6
65°	115.5
70°	82.8
75°	54.5
80°	30.6
85°	11.3
90°	0.6

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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)