

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: P990652

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-2700K**

Issue Date: 5/13/2025

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: P990652
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-2700K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

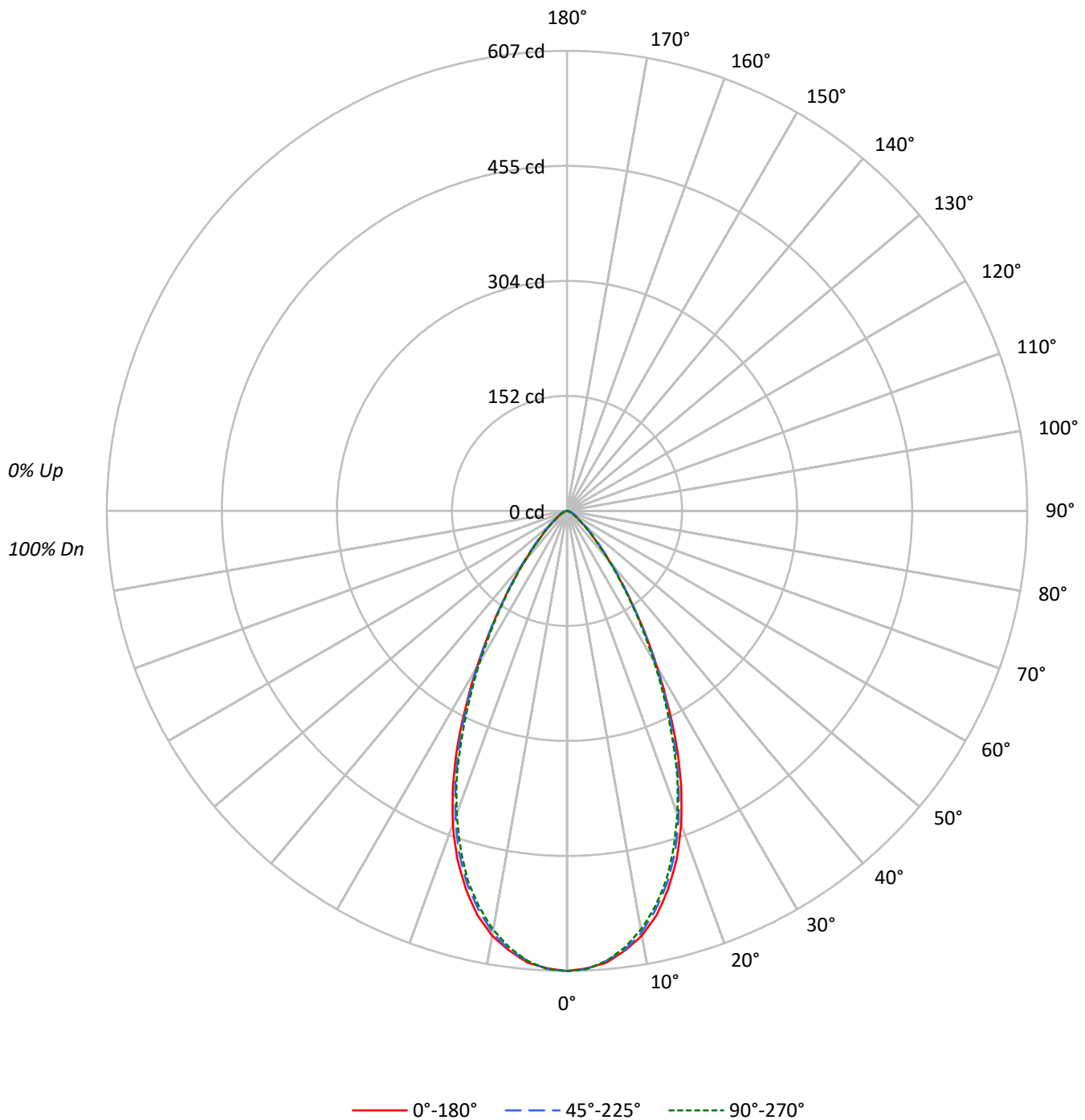
Lumens per Lamp: N/A
 Luminaire Lumens: 514.1 lumens
 Efficiency: N/A
 Efficacy: 67.6 lumens/watt
 Spacing Criteria (0/90/45): 0.84 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

Input Watts (W): 7.6
 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

TEST NUMBER: P990652
CATALOG NUMBER: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P990652

CATALOG NUMBER: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	113	110	108	105	111	108	106	104	104	102	100		100	99	97		97
2	107	102	98	94	105	100	96	93	97	94	91		94	91	89		91
3	101	95	89	85	99	93	88	85	91	87	83		88	85	82		86
4	96	88	82	78	94	87	82	77	85	80	77		83	79	76		81
5	91	82	76	72	89	81	76	71	80	75	71		78	74	70		76
6	86	77	71	66	85	76	70	66	75	70	66		73	69	65		72
7	82	72	66	62	81	72	66	62	70	65	61		69	64	61		68
8	78	68	62	58	77	68	62	58	66	61	57		65	61	57		64
9	74	64	58	54	73	64	58	54	63	58	54		62	57	54		61
10	71	61	55	51	70	60	55	51	60	54	51		59	54	51		58

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	235251	235251	235251
5°	232649	231871	231871
10°	223928	222354	220780
15°	207043	204235	202630
20°	181483	177360	175298
25°	146225	142804	139812
30°	106045	105150	102465
35°	70957	70957	69065
40°	44008	46032	44008
45°	26852	29044	26852
50°	16880	18688	16880
55°	11485	12836	11485
60°	8525	10075	8525
65°	7335	8252	7335
70°	5665	6798	5665
75°	4492	5989	4492
80°	2232	2232	2232
85°	0	0	0

TEST NUMBER: P990652

CATALOG NUMBER: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	10.9
10°-20°	141.4	27.5
20°-30°	151.8	29.5
30°-40°	94.7	18.4
40°-50°	41.2	8.0
50°-60°	17.0	3.3
60°-70°	8.4	1.6
70°-80°	3.4	0.7
80°-90°	0.4	0.1
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°	349.1	67.9
0°-40°	443.8	86.3
0°-60°	502.0	97.6
0°-90°	514.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	514.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	607	607	607	607	607	
5°	598	598	596	597	596	56
15°	516	515	509	506	505	143
25°	342	339	334	330	327	155
35°	150	150	150	147	146	95
45°	49	51	53	50	49	40
55°	17	18	19	18	17	16
65°	8	8	9	8	8	8
75°	3	3	4	3	3	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

TEST NUMBER: P990652
 CATALOG NUMBER: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	607.1	607.1	607.1	607.1	607.1
2.5°	604.1	604.1	605.1	605.1	605.1
5°	598.1	598.1	596.1	597.1	596.1
7.5°	585.1	585.1	584.1	582.1	581.1
10°	569.1	567.1	565.1	562.1	561.1
12.5°	546.1	543.1	539.1	538.1	535.1
15°	516.1	515.1	509.1	506.1	505.1
17.5°	481.1	479.1	473.1	468.1	467.1
20°	440.1	436.1	430.1	426.1	425.1
22.5°	393.1	390.1	384.1	380.1	380.1
25°	342.0	339.0	334.0	330.0	327.0
27.5°	287.0	287.0	283.0	279.0	277.0
30°	237.0	237.0	235.0	231.0	229.0
32.5°	191.0	191.0	190.0	186.0	185.0
35°	150.0	150.0	150.0	147.0	146.0
37.5°	116.0	116.0	118.0	114.0	113.0
40°	87.0	89.0	91.0	87.0	87.0
42.5°	66.0	68.0	69.0	67.0	66.0
45°	49.0	51.0	53.0	50.0	49.0
47.5°	37.0	39.0	41.0	38.0	37.0
50°	28.0	30.0	31.0	29.0	28.0
52.5°	22.0	23.0	25.0	22.0	21.0
55°	17.0	18.0	19.0	18.0	17.0
57.5°	14.0	15.0	16.0	14.0	13.0
60°	11.0	12.0	13.0	12.0	11.0
62.5°	9.0	10.0	11.0	10.0	9.0
65°	8.0	8.0	9.0	8.0	8.0
67.5°	6.0	7.0	7.0	7.0	6.0
70°	5.0	6.0	6.0	6.0	5.0
72.5°	4.0	4.0	5.0	4.0	4.0
75°	3.0	3.0	4.0	3.0	3.0
77.5°	1.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)