

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: P990849

Luminaire Tested: **ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMW-600LM-3000K**

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: P990849
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMW-600LM-3000K
 Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) D2W LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

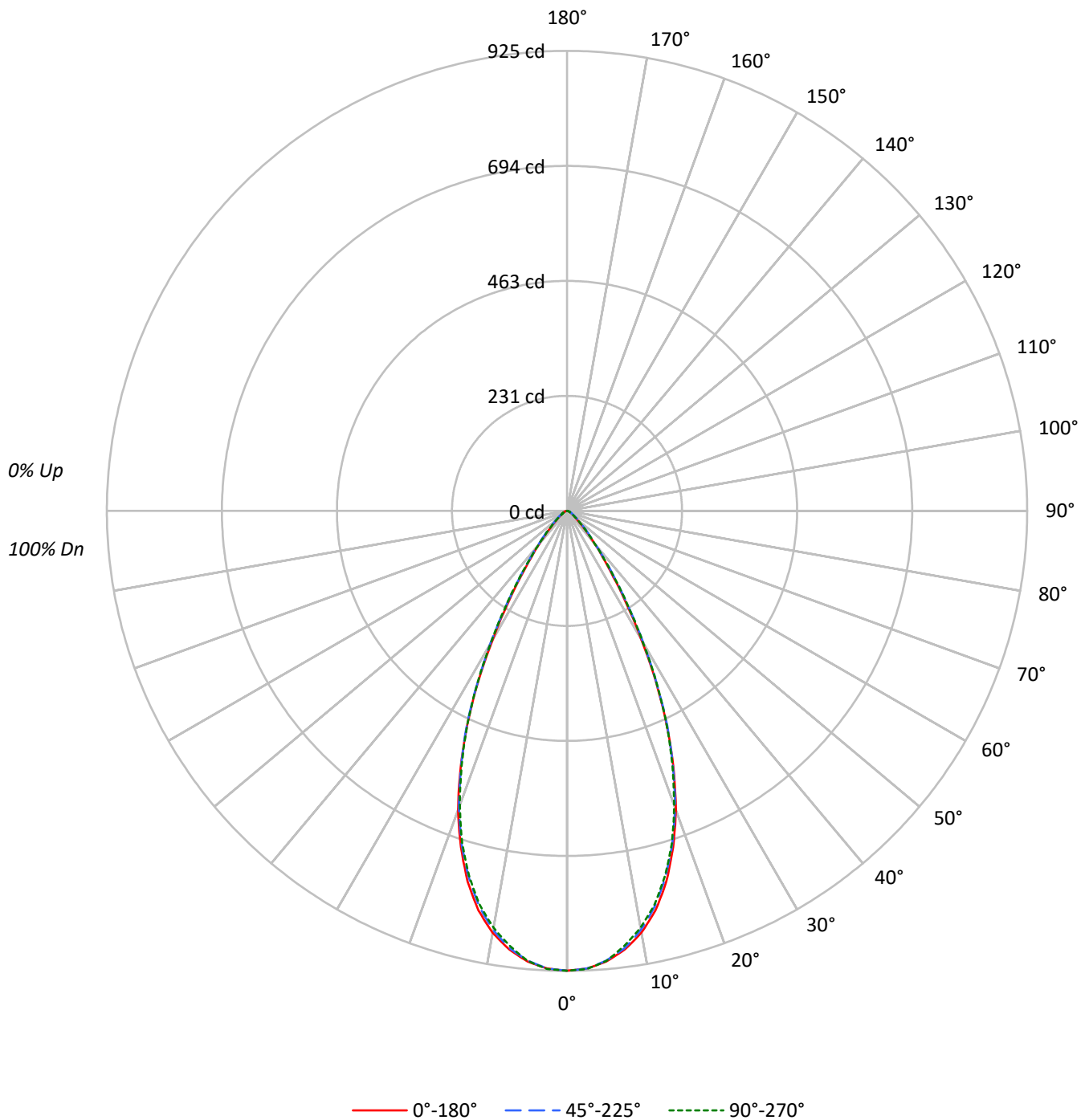
Lumens per Lamp: N/A
 Luminaire Lumens: 689.3 lumens
 Efficiency: N/A
 Efficacy: 73.3 lumens/watt
 Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.78
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

Input Watts (W): 9.4
 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: P990849
CATALOG NUMBER: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMW-600LM-3000K

Luminous Intensity Polar Plot



TEST NUMBER: P990849

CATALOG NUMBER: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMW-600LM-3000K

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	111	108	106	111	109	106	104	104	103	101		101	99	98		97
2	108	103	99	96	106	101	98	94	98	95	92		95	93	90		92
3	102	96	91	87	100	95	90	86	92	88	85		90	86	84		87
4	97	90	84	80	96	89	84	80	87	82	79		85	81	78		83
5	93	84	79	74	91	83	78	74	82	77	73		80	76	73		78
6	88	79	73	69	87	79	73	69	77	72	69		76	71	68		74
7	84	75	69	65	83	74	69	65	73	68	64		72	67	64		71
8	80	71	65	61	79	70	65	61	69	64	61		68	64	60		67
9	77	67	61	57	75	67	61	57	66	61	57		65	60	57		64
10	73	64	58	54	72	63	58	54	62	57	54		62	57	54		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	159237	159237	159237
5°	157235	156906	157062
10°	150624	149627	148805
15°	137557	136041	135524
20°	117296	116435	115409
25°	90016	90548	90016
30°	59421	61111	60734
35°	34186	36183	36183
40°	19559	20841	19987
45°	10814	12446	11520
50°	6591	8118	7100
55°	4534	5675	4534
60°	3582	4237	3582
65°	3097	3871	3097
70°	2870	3323	2870
75°	1863	2529	1863
80°	893	893	893
85°	0	0	0

TEST NUMBER: P990849

CATALOG NUMBER: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMW-600LM-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.0	12.3
10°-20°	211.6	30.7
20°-30°	214.1	31.1
30°-40°	110.6	16.0
40°-50°	40.0	5.8
50°-60°	15.8	2.3
60°-70°	8.3	1.2
70°-80°	3.6	0.5
80°-90°	0.3	0.0
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°	510.8	74.1
0°-40°	621.3	90.1
0°-60°	677.1	98.2
0°-90°	689.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	689.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	910	910	908	908	908	85
15°	772	770	763	762	760	213
25°	474	474	476	474	474	214
35°	163	166	172	173	172	107
45°	44	48	51	50	47	37
55°	15	16	19	17	15	14
65°	8	8	10	8	8	8
75°	3	4	4	4	3	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

TEST NUMBER: P990849
 CATALOG NUMBER: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMW-600LM-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.6	924.6	924.6	924.6	924.6
2.5°	920.8	921.8	920.8	920.8	921.8
5°	909.5	909.5	907.6	907.6	908.5
7.5°	889.6	888.7	886.8	884.9	882.1
10°	861.3	859.4	855.6	852.8	850.9
12.5°	822.5	818.7	815.0	811.2	811.2
15°	771.5	769.6	763.0	762.0	760.1
17.5°	709.1	709.1	703.4	700.6	700.6
20°	640.0	640.0	635.3	634.4	629.7
22.5°	558.7	559.7	556.9	555.9	553.1
25°	473.7	473.7	476.5	473.7	473.7
27.5°	385.7	386.7	389.5	387.6	389.5
30°	298.8	300.6	307.3	306.3	305.4
32.5°	224.1	227.8	231.6	232.6	232.6
35°	162.6	166.4	172.1	173.0	172.1
37.5°	119.1	121.0	126.7	125.7	122.9
40°	87.0	87.9	92.7	92.7	88.9
42.5°	63.3	65.2	68.1	67.1	64.3
45°	44.4	48.2	51.1	50.1	47.3
47.5°	32.1	35.9	38.8	36.9	35.0
50°	24.6	26.5	30.3	27.4	26.5
52.5°	18.9	20.8	23.6	21.7	19.9
55°	15.1	16.1	18.9	17.0	15.1
57.5°	12.3	13.2	15.1	13.2	12.3
60°	10.4	11.3	12.3	11.3	10.4
62.5°	8.5	9.5	10.4	9.5	9.5
65°	7.6	7.6	9.5	8.5	7.6
67.5°	6.6	6.6	7.6	7.6	6.6
70°	5.7	5.7	6.6	5.7	5.7
72.5°	3.8	4.7	5.7	4.7	3.8
75°	2.8	3.8	3.8	3.8	2.8
77.5°	0.9	1.9	2.8	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.0	0.0
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)