

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: P990671

Luminaire Tested: **ML2ALSFLD2W1E-TIR1D25NFL-TL2SDMW-400LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990671
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFLD2W1E-TIR1D25NFL-TL2SDMW-400LM-3000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
 Light Source: (1) D2W LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

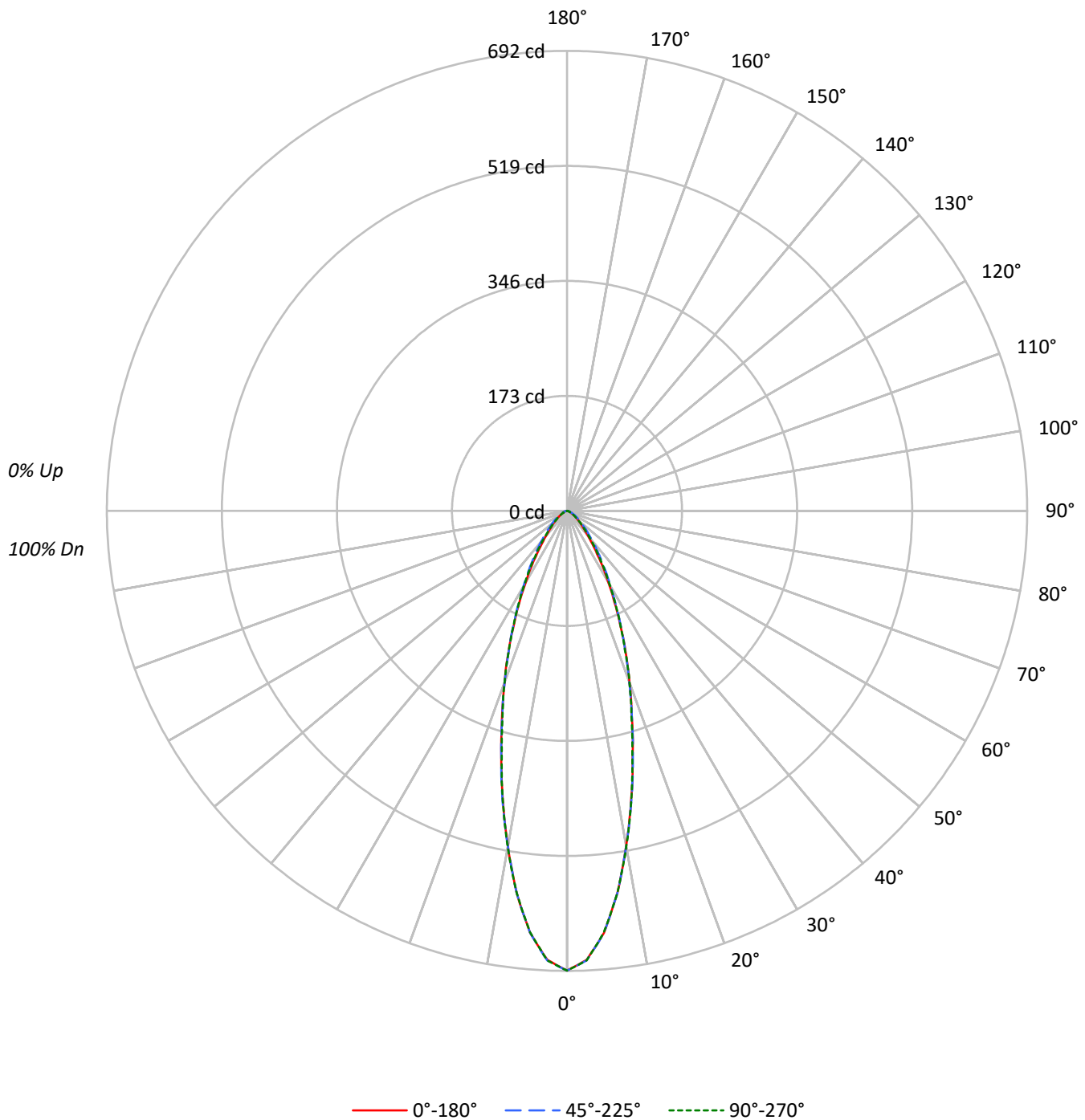
Lumens per Lamp: N/A
 Luminaire Lumens: 361.0 lumens
 Efficiency: N/A
 Efficacy: 59.2 lumens/watt
 Spacing Criteria (0/90/45): 0.53 / 0.53 / 0.6
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

Input Watts (W): 6.1
 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

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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
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	97	93	97	94	91		94	92	89		91
3	102	95	90	86	100	94	89	85	91	87	84		89	85	82		86
4	97	89	83	79	95	88	82	78	86	81	77		84	80	77		82
5	92	83	77	73	90	82	77	73	81	76	72		79	75	71		77
6	87	78	72	68	86	78	72	68	76	71	67		75	70	67		73
7	83	74	68	64	82	73	68	64	72	67	63		71	66	63		70
8	80	70	64	60	78	69	64	60	68	63	60		67	63	59		66
9	76	67	61	57	75	66	60	57	65	60	56		64	60	56		63
10	73	63	58	54	72	63	57	54	62	57	54		61	57	53		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	267956	267956	267956
5°	247741	247741	247391
10°	201539	201539	201893
15°	153086	153447	152083
20°	113360	112989	113360
25°	81022	82134	81407
30°	55752	58436	57318
35°	37134	42007	39594
40°	25039	30654	27214
45°	17755	22468	18687
50°	13383	17000	13383
55°	9796	13241	9796
60°	7285	10617	7285
65°	6235	7794	5501
70°	4872	5778	4872
75°	5090	5090	3893
80°	3794	3794	3794
85°	4001	4001	4001

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.8	15.7
10°-20°	106.0	29.4
20°-30°	88.1	24.4
30°-40°	54.2	15.0
40°-50°	29.1	8.1
50°-60°	15.5	4.3
60°-70°	7.3	2.0
70°-80°	3.3	0.9
80°-90°	0.7	0.2
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°	250.9	69.5
0°-40°	305.1	84.5
0°-60°	349.6	96.8
0°-90°	361.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	361.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	637	637	637	637	636	57
15°	382	382	382	382	379	106
25°	190	192	192	190	190	88
35°	78	83	89	86	84	50
45°	32	35	41	38	34	26
55°	14	16	20	17	14	13
65°	7	7	8	7	6	7
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	691.5	691.5	691.5	691.5	691.5
2.5°	676.1	677.0	677.0	677.0	677.0
5°	636.9	636.9	636.9	636.9	636.0
7.5°	579.7	578.0	579.7	579.7	579.7
10°	512.2	512.2	512.2	513.1	513.1
12.5°	445.6	447.3	447.3	444.8	446.5
15°	381.6	381.6	382.5	381.6	379.1
17.5°	324.4	323.6	323.6	322.7	321.9
20°	274.9	274.0	274.0	274.0	274.9
22.5°	230.5	229.7	228.8	228.8	228.8
25°	189.5	192.1	192.1	189.5	190.4
27.5°	154.5	157.1	157.9	157.1	157.1
30°	124.6	128.1	130.6	129.8	128.1
32.5°	99.9	104.2	108.4	105.9	105.0
35°	78.5	82.8	88.8	86.2	83.7
37.5°	61.5	66.6	73.4	70.0	67.4
40°	49.5	52.9	60.6	57.2	53.8
42.5°	39.3	42.7	49.5	46.1	42.7
45°	32.4	35.0	41.0	37.6	34.1
47.5°	27.3	29.0	33.3	30.7	28.2
50°	22.2	23.9	28.2	25.6	22.2
52.5°	17.9	20.5	23.9	20.5	17.9
55°	14.5	16.2	19.6	17.1	14.5
57.5°	12.0	13.7	16.2	13.7	12.0
60°	9.4	10.2	13.7	11.1	9.4
62.5°	7.7	8.5	11.1	8.5	6.8
65°	6.8	6.8	8.5	6.8	6.0
67.5°	6.0	6.0	6.8	5.1	5.1
70°	4.3	5.1	5.1	4.3	4.3
72.5°	3.4	4.3	4.3	3.4	3.4
75°	3.4	3.4	3.4	2.6	2.6
77.5°	2.6	2.6	2.6	2.6	1.7
80°	1.7	1.7	1.7	1.7	1.7
82.5°	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9
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)