

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: P990701

Luminaire Tested: **ML2ALSFLD2W1E-TIR1D55WFL-TL2SDSL-400LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
Report Number: P990701
Test Lab: Cooper Lighting Solutions
Issue Date: 5/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML2ALSFLD2W1E-TIR1D55WFL-TL2SDSL-400LM-3000K
Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR,
METALLIC SILVER TRIM
Light Source: (1) D2W LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

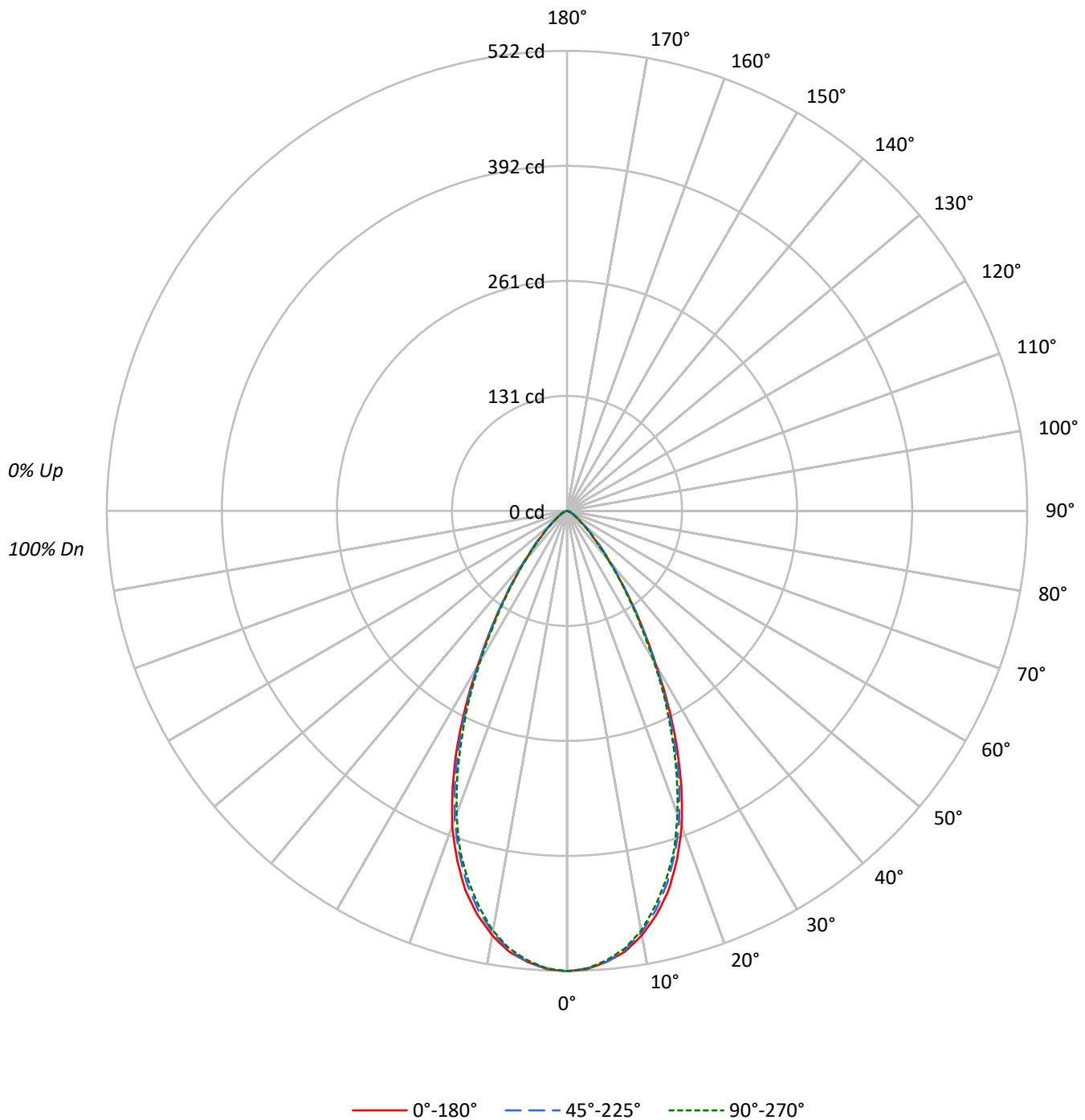
Lumens per Lamp: N/A
Luminaire Lumens: 439.3 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 0.82 / 0.82
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 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	101		100	99	98		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		88	85	82		86
4	96	88	83	78	94	87	82	78	85	80	77		83	79	76		81
5	91	83	77	72	90	82	76	72	80	75	71		78	74	70		77
6	87	77	71	67	85	77	71	67	75	70	66		74	69	66		72
7	82	73	66	62	81	72	66	62	71	65	62		69	65	61		68
8	78	68	62	58	77	68	62	58	67	61	58		66	61	57		65
9	74	65	59	54	73	64	58	54	63	58	54		62	57	54		61
10	71	61	55	51	70	61	55	51	60	55	51		59	54	51		58

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	202352	202352	202352
5°	199819	199819	199158
10°	192410	191073	190364
15°	178681	175632	173907
20°	156947	153442	150968
25°	125873	122966	120400
30°	90116	90474	87834
35°	60550	60976	58942
40°	37989	39304	37129
45°	22907	24770	22907
50°	14408	15975	13865
55°	9256	10944	9256
60°	7285	7905	6587
65°	5501	6235	5501
70°	3852	4872	3852
75°	2545	3893	2545
80°	0	2008	2008
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	11.0
10°-20°	121.7	27.7
20°-30°	130.7	29.8
30°-40°	81.2	18.5
40°-50°	35.0	8.0
50°-60°	13.8	3.2
60°-70°	6.3	1.4
70°-80°	2.3	0.5
80°-90°	0.1	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°	300.6	68.4
0°-40°	381.8	86.9
0°-60°	430.6	98.0
0°-90°	439.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	439.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	514	514	514	513	512	48
15°	445	443	438	434	434	123
25°	294	292	288	284	282	133
35°	128	130	129	127	125	81
45°	42	44	45	43	42	34
55°	14	14	16	14	14	13
65°	6	6	7	6	6	6
75°	2	2	3	2	2	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	522.2	522.2	522.2	522.2	522.2
2.5°	520.5	519.7	519.7	519.7	519.7
5°	513.7	513.7	513.7	512.9	512.0
7.5°	504.3	503.5	502.6	500.9	500.9
10°	489.0	489.0	485.6	483.8	483.8
12.5°	469.3	468.5	464.2	462.5	460.0
15°	445.4	442.9	437.8	434.4	433.5
17.5°	414.7	411.3	407.0	403.6	403.6
20°	380.6	378.0	372.1	366.9	366.1
22.5°	338.8	336.2	332.0	326.8	325.1
25°	294.4	291.8	287.6	284.2	281.6
27.5°	248.3	247.5	243.2	239.8	239.8
30°	201.4	203.9	202.2	198.0	196.3
32.5°	162.1	163.0	163.0	159.6	157.0
35°	128.0	129.7	128.9	127.1	124.6
37.5°	98.1	99.8	100.7	98.1	97.3
40°	75.1	76.8	77.7	75.1	73.4
42.5°	56.3	58.0	59.7	57.2	55.5
45°	41.8	43.5	45.2	42.7	41.8
47.5°	31.6	32.4	34.1	31.6	30.7
50°	23.9	24.7	26.5	23.9	23.0
52.5°	17.9	18.8	20.5	18.8	17.1
55°	13.7	14.5	16.2	14.5	13.7
57.5°	11.1	11.9	12.8	11.1	10.2
60°	9.4	9.4	10.2	9.4	8.5
62.5°	6.8	7.7	7.7	7.7	6.8
65°	6.0	6.0	6.8	6.0	6.0
67.5°	4.3	5.1	5.1	5.1	4.3
70°	3.4	4.3	4.3	4.3	3.4
72.5°	2.6	3.4	3.4	3.4	2.6
75°	1.7	1.7	2.6	1.7	1.7
77.5°	0.9	0.9	1.7	0.9	0.9
80°	0.0	0.9	0.9	0.9	0.9
82.5°	0.0	0.0	0.0	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)