

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: P990688

Luminaire Tested: **ML2ALSFLD2W1E-TIR1D40FL-TL2SDSL-400LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990688
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFLD2W1E-TIR1D40FL-TL2SDSL-400LM-2700K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR,
 METALLIC SILVER TRIM
 Light Source: (1) D2W LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

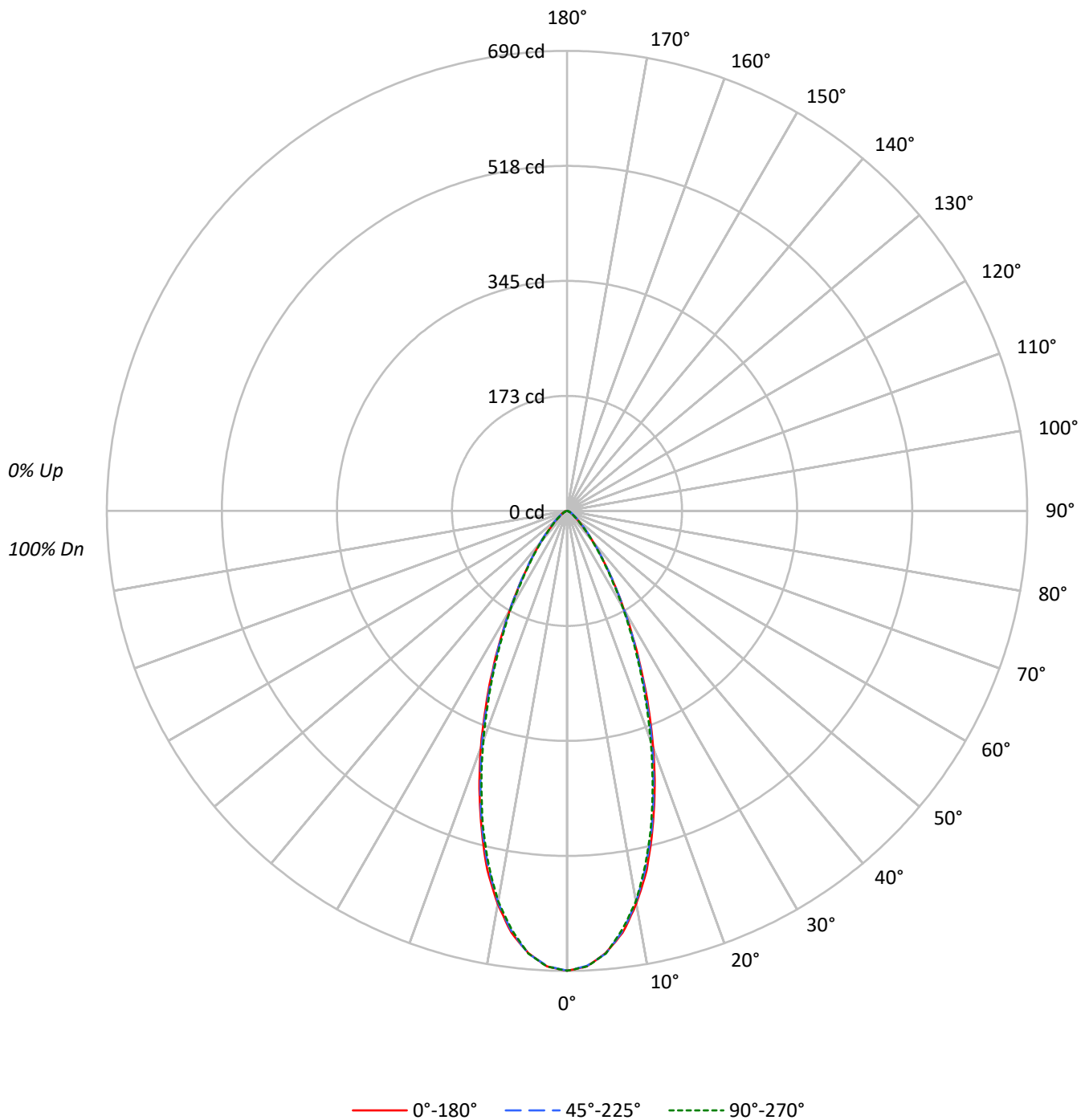
Lumens per Lamp: N/A
 Luminaire Lumens: 430.7 lumens
 Efficiency: N/A
 Efficacy: 70.6 lumens/watt
 Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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	114	111	108	106	111	109	106	104	105	103	101		101	99	98		97
2	108	103	99	96	106	101	98	95	98	95	93		95	93	91		92
3	103	96	91	87	101	95	90	87	92	88	85		90	87	84		88
4	98	90	85	80	96	89	84	80	87	82	79		85	81	78		83
5	93	85	79	75	91	84	78	74	82	77	74		80	76	73		79
6	88	80	74	70	87	79	73	69	77	73	69		76	72	69		75
7	84	75	69	65	83	75	69	65	73	68	65		72	68	64		71
8	81	71	66	62	79	71	65	61	70	65	61		69	64	61		68
9	77	68	62	58	76	67	62	58	66	61	58		65	61	58		65
10	74	64	59	55	73	64	59	55	63	58	55		62	58	55		62

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	66805	66805	66805
5°	64727	64804	64804
10°	58845	58609	58451
15°	49625	49304	48893
20°	38938	38443	37783
25°	28198	27770	27257
30°	19106	19106	18659
35°	12228	12418	11850
40°	7702	7904	7398
45°	4727	5055	4617
50°	3014	3391	2894
55°	2027	2297	1892
60°	1550	1705	1395
65°	1284	1467	1100
70°	906	1133	906
75°	599	898	599
80°	0	446	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	14.2
10°-20°	135.2	31.4
20°-30°	119.5	27.7
30°-40°	66.5	15.4
40°-50°	28.7	6.7
50°-60°	11.9	2.8
60°-70°	5.6	1.3
70°-80°	1.9	0.4
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°	316.0	73.4
0°-40°	382.5	88.8
0°-60°	423.1	98.2
0°-90°	430.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	430.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	690	690	690	690	690	
5°	666	666	666	666	666	61
15°	495	493	492	488	488	136
25°	264	264	260	257	255	121
35°	103	104	105	103	100	67
45°	34	36	37	35	34	28
55°	12	13	14	13	11	11
65°	6	6	6	6	5	5
75°	2	2	2	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°	689.6	689.6	689.6	689.6	689.6
2.5°	684.0	684.0	683.2	684.8	684.0
5°	665.6	666.4	666.4	665.6	666.4
7.5°	638.3	637.5	635.9	635.1	633.5
10°	598.2	597.4	595.8	595.8	594.2
12.5°	551.7	550.1	546.1	543.7	542.9
15°	494.8	493.2	491.6	488.3	487.5
17.5°	437.0	434.6	431.4	429.0	426.6
20°	377.7	376.1	372.9	368.1	366.5
22.5°	318.3	316.7	313.5	309.5	307.9
25°	263.8	263.8	259.8	257.4	255.0
27.5°	214.1	215.7	211.7	209.3	206.9
30°	170.8	171.6	170.8	167.6	166.8
32.5°	134.7	135.5	134.7	131.5	129.9
35°	103.4	104.2	105.0	102.6	100.2
37.5°	80.2	81.0	81.0	78.6	77.0
40°	60.9	61.7	62.5	60.1	58.5
42.5°	46.5	47.3	48.1	45.7	44.1
45°	34.5	36.1	36.9	35.3	33.7
47.5°	26.5	27.3	28.9	26.5	24.9
50°	20.0	20.8	22.5	20.8	19.2
52.5°	15.2	16.8	17.6	16.0	14.4
55°	12.0	12.8	13.6	12.8	11.2
57.5°	9.6	10.4	11.2	9.6	8.8
60°	8.0	8.0	8.8	8.0	7.2
62.5°	6.4	6.4	7.2	6.4	6.4
65°	5.6	5.6	6.4	5.6	4.8
67.5°	4.0	4.8	4.8	4.8	4.0
70°	3.2	3.2	4.0	4.0	3.2
72.5°	2.4	2.4	3.2	2.4	2.4
75°	1.6	1.6	2.4	1.6	1.6
77.5°	0.8	0.8	0.8	0.8	0.8
80°	0.0	0.0	0.8	0.8	0.0
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)