

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: P991000

Luminaire Tested: **ML4ALSFLD2W1E-TIR4D55WFL-TL4SDSL-600LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P991000
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML4ALSFLD2W1E-TIR4D55WFL-TL4SDSL-600LM-2700K
 Description: 4IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR,
 METALLIC SILVER TRIM
 Light Source: (1) D2W LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

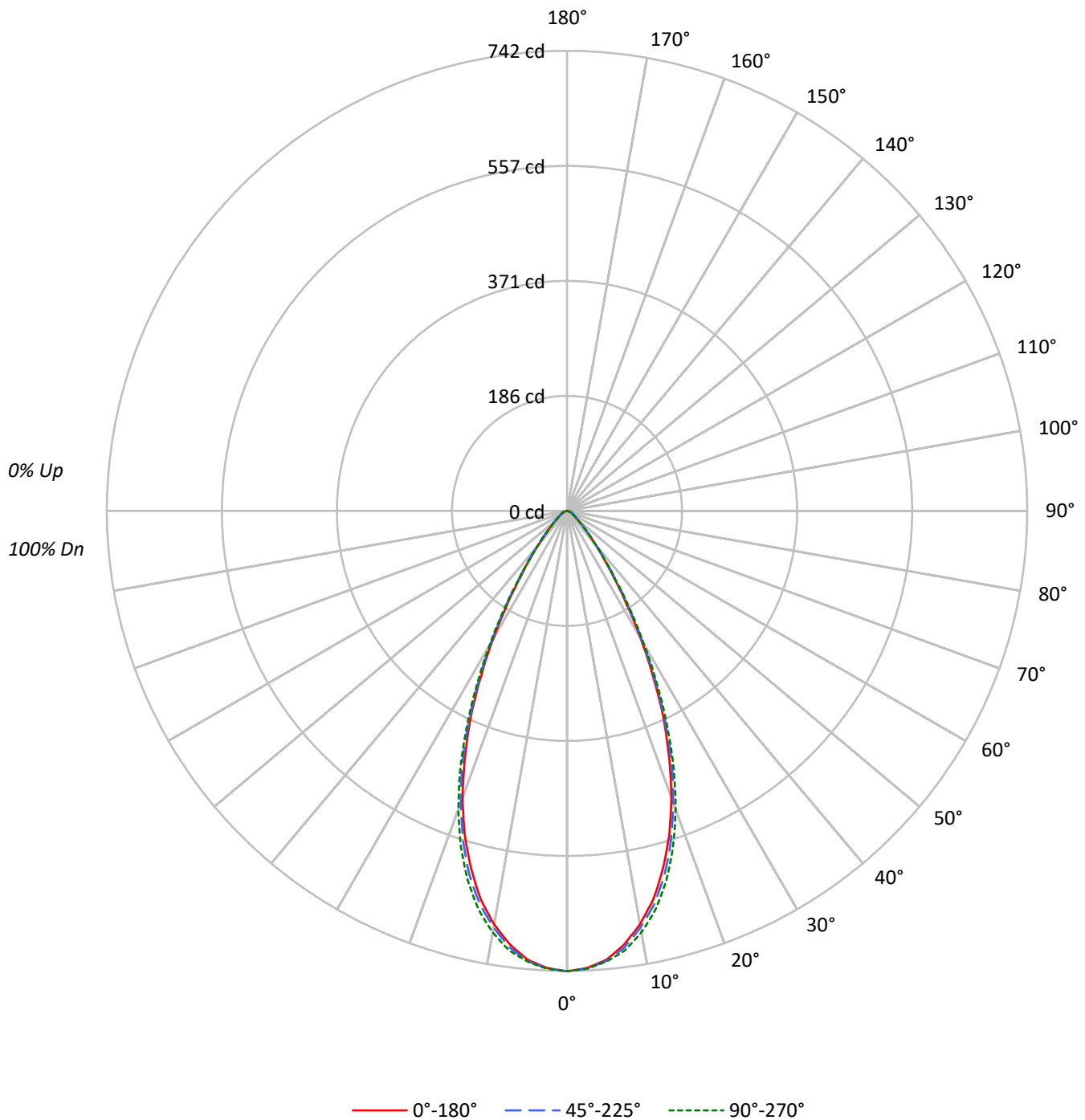
Lumens per Lamp: N/A
 Luminaire Lumens: 556.6 lumens
 Efficiency: N/A
 Efficacy: 67.1 lumens/watt
 Spacing Criteria (0/90/45): 0.78 / 0.8 / 0.78
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 8.3
 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	111	108	106	111	108	106	104	104	102	101		101	99	98		97
2	108	103	99	95	105	101	97	94	98	95	92		95	92	90		92
3	102	96	91	87	100	94	90	86	92	88	84		89	86	83		87
4	97	89	84	80	95	88	83	79	86	82	78		84	80	77		82
5	92	84	78	74	91	83	77	73	81	76	73		79	75	72		78
6	88	79	73	69	86	78	72	68	77	72	68		75	71	67		74
7	84	74	68	64	82	74	68	64	72	67	64		71	67	63		70
8	80	70	64	60	78	70	64	60	69	63	60		68	63	60		67
9	76	66	61	57	75	66	60	57	65	60	56		64	60	56		63
10	73	63	57	54	72	63	57	53	62	57	53		61	56	53		60

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	71930	71930	71930
5°	70678	70853	70960
10°	66587	67098	67905
15°	59915	60958	61951
20°	50753	51588	52783
25°	39282	39902	40768
30°	26500	27205	27731
35°	15658	16474	16415
40°	9105	9624	9320
45°	5562	5891	5329
50°	3497	3934	3406
55°	2550	2837	2550
60°	2131	2364	2131
65°	1857	2132	1994
70°	1643	2124	1813
75°	1310	1722	1310
80°	335	669	335
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	12.2
10°-20°	168.0	30.2
20°-30°	169.3	30.4
30°-40°	89.7	16.1
40°-50°	33.7	6.1
50°-60°	14.8	2.7
60°-70°	8.9	1.6
70°-80°	4.1	0.7
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°	405.3	72.8
0°-40°	495.0	88.9
0°-60°	543.5	97.7
0°-90°	556.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	556.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	727	726	729	730	730	68
15°	597	601	608	614	618	165
25°	368	369	373	380	381	166
35°	132	135	139	141	139	87
45°	41	41	43	41	39	33
55°	15	16	17	16	15	14
65°	8	9	9	9	9	8
75°	4	4	5	4	4	3
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°	742.5	742.5	742.5	742.5	742.5
2.5°	737.9	737.3	739.0	738.5	739.0
5°	726.8	726.3	728.6	729.7	729.7
7.5°	705.4	707.7	710.0	712.3	715.2
10°	676.9	679.2	682.1	687.4	690.3
12.5°	642.1	643.2	649.6	654.9	658.9
15°	597.4	601.4	607.8	614.2	617.7
17.5°	548.0	551.5	557.3	564.9	568.4
20°	492.3	494.6	500.4	509.1	512.0
22.5°	429.6	433.1	440.6	445.3	449.3
25°	367.5	369.2	373.3	380.3	381.4
27.5°	300.1	301.9	307.1	312.3	313.5
30°	236.9	240.3	243.2	247.3	247.9
32.5°	179.4	182.3	186.9	189.3	190.4
35°	132.4	135.3	139.3	141.1	138.8
37.5°	98.1	99.3	103.3	103.3	102.2
40°	72.0	73.7	76.1	75.5	73.7
42.5°	53.4	54.6	56.9	55.2	53.4
45°	40.6	41.2	43.0	41.2	38.9
47.5°	30.2	31.3	33.1	30.8	29.0
50°	23.2	24.4	26.1	23.8	22.6
52.5°	18.0	19.2	20.9	19.2	18.0
55°	15.1	15.7	16.8	15.7	15.1
57.5°	12.2	12.8	14.5	13.4	12.8
60°	11.0	11.0	12.2	11.6	11.0
62.5°	9.3	9.9	10.4	10.4	9.9
65°	8.1	8.7	9.3	9.3	8.7
67.5°	7.0	7.5	8.7	8.1	7.5
70°	5.8	6.4	7.5	7.0	6.4
72.5°	4.6	5.2	6.4	5.8	5.2
75°	3.5	4.1	4.6	4.1	3.5
77.5°	1.2	1.7	2.9	2.3	1.7
80°	0.6	0.6	1.2	0.6	0.6
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)