

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: P990998

Luminaire Tested: **ML4ALSFLD2W1E-TIR4D55WFL-TL4SDMW-600LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990998
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML4ALSFLD2W1E-TIR4D55WFL-TL4SDMW-600LM-2700K
 Description: 4IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) D2W LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

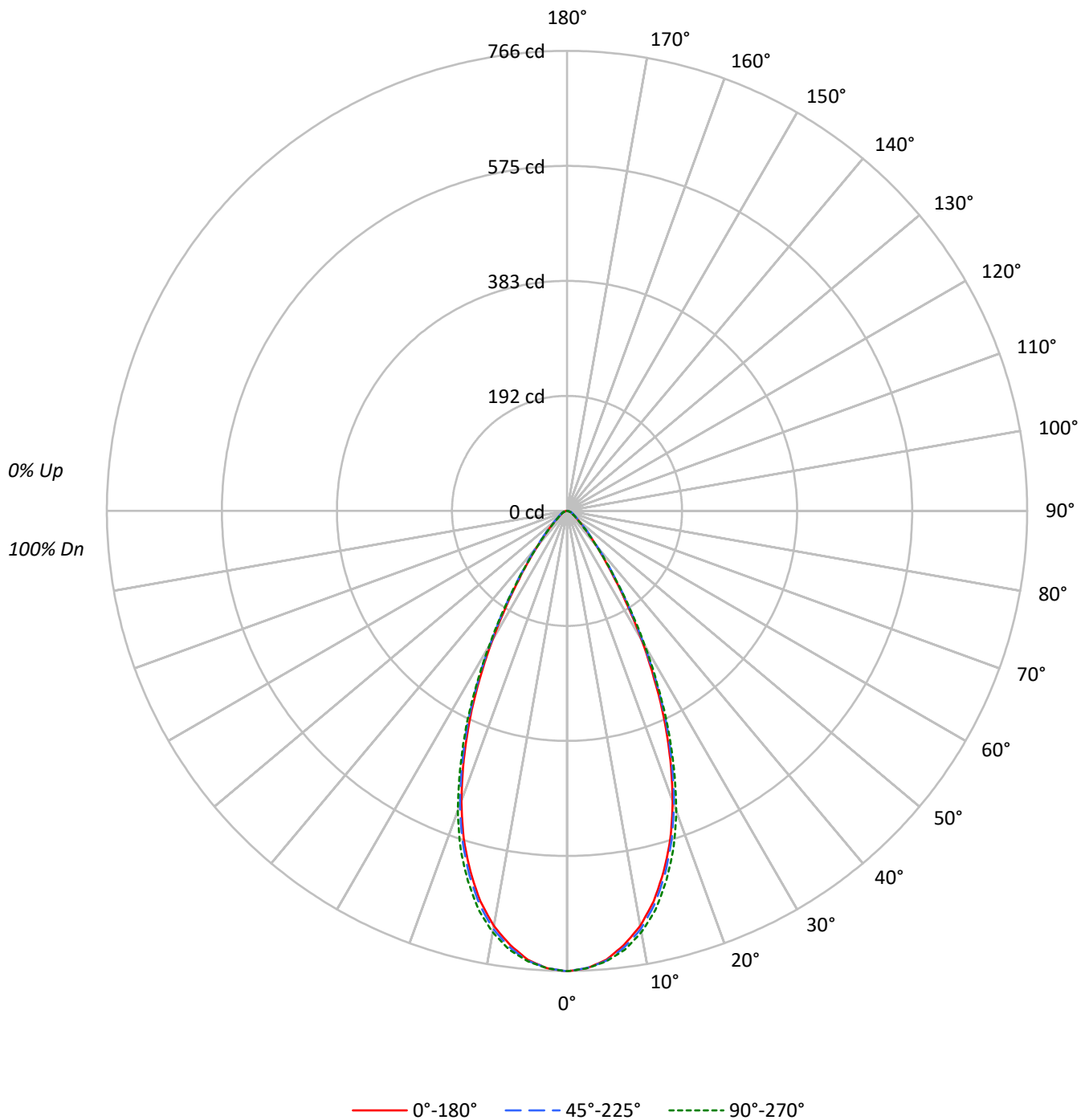
Lumens per Lamp: N/A
 Luminaire Lumens: 580.0 lumens
 Efficiency: N/A
 Efficacy: 69.9 lumens/watt
 Spacing Criteria (0/90/45): 0.79 / 0.81 / 0.78
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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	110	108	106	111	108	106	104	104	102	101		101	99	98		97
2	108	103	98	95	105	101	97	94	98	94	92		95	92	90		92
3	102	96	90	86	100	94	89	86	91	88	84		89	86	83		87
4	97	89	84	79	95	88	83	79	86	82	78		84	80	77		82
5	92	84	78	73	90	83	77	73	81	76	72		79	75	72		78
6	88	79	73	68	86	78	72	68	76	71	68		75	71	67		74
7	83	74	68	64	82	73	68	64	72	67	63		71	66	63		70
8	79	70	64	60	78	69	64	60	68	63	60		67	63	59		66
9	76	66	60	57	75	66	60	56	65	60	56		64	59	56		63
10	73	63	57	53	72	63	57	53	62	57	53		61	56	53		60

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	74255	74255	74255
5°	72954	73129	73197
10°	69006	69538	70069
15°	62322	62984	63947
20°	53010	53691	54814
25°	40928	41837	42478
30°	27753	28491	29028
35°	16521	17302	17302
40°	9598	10130	9598
45°	5768	6193	5521
50°	3723	4084	3542
55°	2652	3057	2652
60°	2209	2558	2209
65°	2063	2338	2063
70°	1869	2209	1869
75°	1572	2021	1347
80°	335	1004	335
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	12.1
10°-20°	174.1	30.0
20°-30°	176.5	30.4
30°-40°	93.9	16.2
40°-50°	35.3	6.1
50°-60°	15.6	2.7
60°-70°	9.5	1.6
70°-80°	4.6	0.8
80°-90°	0.3	0.1
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°	420.9	72.6
0°-40°	514.8	88.8
0°-60°	565.6	97.5
0°-90°	580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	750	750	752	753	753	70
15°	621	623	628	636	638	172
25°	383	387	391	396	397	173
35°	140	141	146	148	146	91
45°	42	43	45	43	40	34
55°	16	17	18	16	16	15
65°	9	10	10	10	9	9
75°	4	4	5	4	4	4
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°	766.5	766.5	766.5	766.5	766.5
2.5°	762.3	761.1	761.7	762.9	762.3
5°	750.2	749.6	752.0	753.3	752.7
7.5°	728.6	729.8	732.8	736.4	737.0
10°	701.5	702.1	706.9	711.7	712.3
12.5°	665.9	667.1	671.4	676.8	680.4
15°	621.4	622.6	628.0	635.8	637.6
17.5°	572.0	572.0	577.4	584.7	589.5
20°	514.2	514.8	520.8	528.1	531.7
22.5°	449.2	451.0	456.4	463.0	464.8
25°	382.9	386.6	391.4	395.6	397.4
27.5°	313.7	316.7	322.7	325.1	325.7
30°	248.1	250.5	254.7	257.7	259.5
32.5°	188.5	189.7	196.3	198.7	198.1
35°	139.7	140.9	146.3	148.1	146.3
37.5°	102.4	104.8	109.0	109.0	105.4
40°	75.9	75.9	80.1	78.9	75.9
42.5°	56.0	56.6	59.6	57.8	55.4
45°	42.1	43.4	45.2	42.8	40.3
47.5°	31.9	33.1	34.3	32.5	30.1
50°	24.7	25.9	27.1	25.3	23.5
52.5°	19.3	20.5	21.7	19.9	18.7
55°	15.7	16.9	18.1	16.3	15.7
57.5°	13.2	13.8	15.1	13.8	13.2
60°	11.4	12.0	13.2	12.0	11.4
62.5°	10.2	10.8	11.4	10.8	10.2
65°	9.0	9.6	10.2	9.6	9.0
67.5°	7.8	8.4	9.0	8.4	7.8
70°	6.6	7.2	7.8	7.2	6.6
72.5°	5.4	6.0	6.6	6.0	5.4
75°	4.2	4.2	5.4	4.2	3.6
77.5°	1.8	3.0	3.6	2.4	1.8
80°	0.6	1.2	1.8	1.2	0.6
82.5°	0.6	0.6	0.6	0.6	0.6
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)