

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: P990992

Luminaire Tested: **ML4ALSFLD2W1E-TIR4D55WFL-TL4RDMW-600LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
Report Number: P990992
Test Lab: Cooper Lighting Solutions
Issue Date: 5/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4ALSFLD2W1E-TIR4D55WFL-TL4RDMW-600LM-2700K
Description: 4IN ROUND ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
Light Source: (1) D2W LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

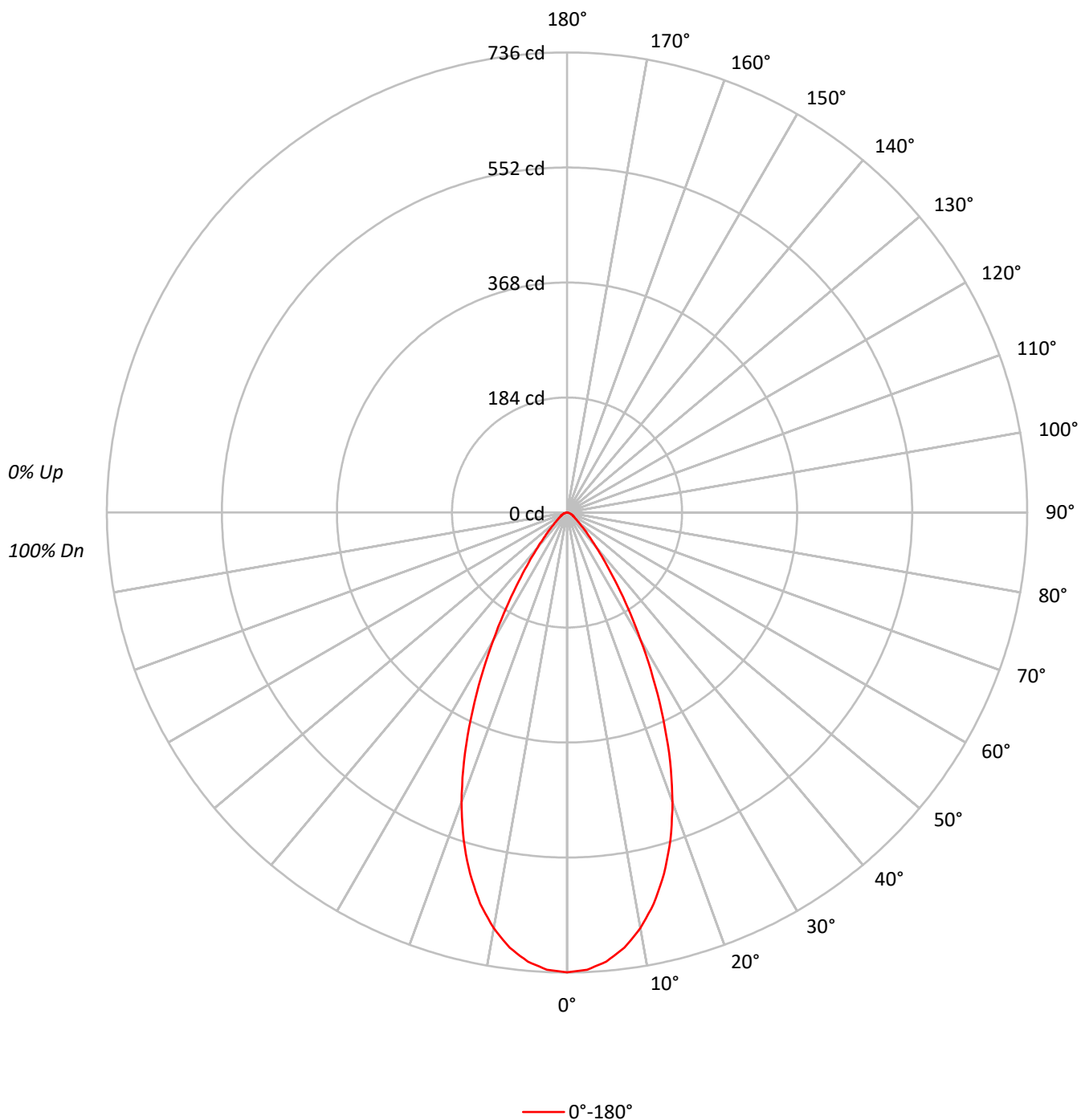
Lumens per Lamp: N/A
Luminaire Lumens: 545.8 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.77
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10		0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102		100
1	113	111	108	106	111	108	106	104	104	102	101		101	99	98		97	96	95		93
2	108	103	99	95	105	101	97	94	98	95	92		95	92	90		92	90	88		86
3	102	96	91	87	100	94	90	86	92	88	85		89	86	83		87	84	82		80
4	97	89	84	80	95	88	83	79	86	82	78		84	80	77		82	79	76		75
5	92	84	78	74	91	83	77	73	81	76	73		79	75	72		78	74	71		70
6	88	79	73	69	86	78	72	68	77	72	68		75	71	67		74	70	67		66
7	84	74	68	64	82	74	68	64	72	67	64		71	67	63		70	66	63		62
8	80	70	64	60	78	70	64	60	69	64	60		68	63	60		67	62	59		58
9	76	67	61	57	75	66	61	57	65	60	57		64	60	56		63	59	56		55
10	73	63	57	54	72	63	57	54	62	57	53		61	57	53		60	56	53		52

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	90745
5°	89297
10°	84593
15°	76465
20°	64738
25°	49512
30°	33556
35°	20268
40°	11770
45°	7082
50°	4567
55°	3376
60°	2862
65°	2539
70°	2308
75°	1668
80°	426
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	12.3
10°-20°	165.6	30.3
20°-30°	165.1	30.2
30°-40°	87.4	16.0
40°-50°	33.0	6.1
50°-60°	14.7	2.7
60°-70°	8.8	1.6
70°-80°	3.7	0.7
80°-90°	0.2	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°	398.1	72.9
0°-40°	485.5	88.9
0°-60°	533.1	97.7
0°-90°	545.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	545.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	736	
5°	721	67
15°	599	166
25°	364	165
35°	135	87
45°	41	33
55°	16	15
65°	9	9
75°	4	4
85°	0	0
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	735.7
2.5°	732.2
5°	721.2
7.5°	702.1
10°	675.4
12.5°	641.1
15°	598.8
17.5°	550.0
20°	493.2
22.5°	431.1
25°	363.8
27.5°	297.7
30°	235.6
32.5°	180.4
35°	134.6
37.5°	99.8
40°	73.1
42.5°	54.0
45°	40.6
47.5°	30.2
50°	23.8
52.5°	19.1
55°	15.7
57.5°	13.3
60°	11.6
62.5°	10.4
65°	8.7
67.5°	7.5
70°	6.4
72.5°	5.2
75°	3.5
77.5°	1.7
80°	0.6
82.5°	0.6
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)