

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: P990577

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D25NFL-TL2SDMB-550LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990577
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D25NFL-TL2SDMB-550LM-2700K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

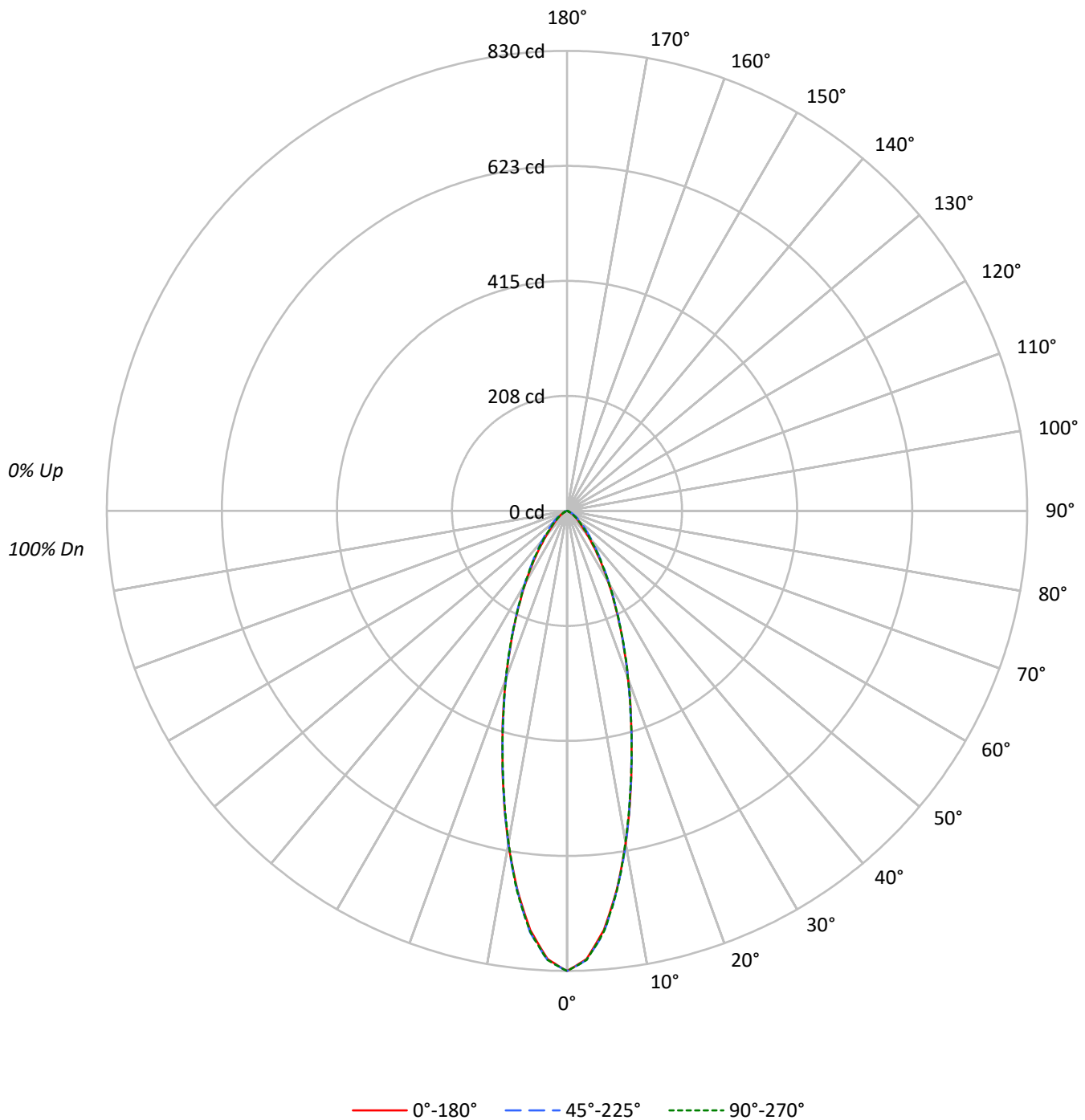
Lumens per Lamp: N/A
 Luminaire Lumens: 418.1 lumens
 Efficiency: N/A
 Efficacy: 55.0 lumens/watt
 Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.59
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

Input Watts (W): 7.6
 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	103	101		101	99	98		97
2	108	103	99	95	106	101	97	94	98	95	92		95	92	90		92
3	102	96	91	87	100	94	90	86	92	88	85		89	86	83		87
4	97	90	84	80	95	89	83	79	86	82	78		84	81	78		83
5	92	84	78	74	91	83	78	74	81	77	73		80	76	72		78
6	88	79	73	69	87	78	73	69	77	72	68		76	71	68		74
7	84	75	69	65	83	74	69	65	73	68	64		72	67	64		71
8	80	71	65	61	79	70	65	61	69	64	61		68	64	60		67
9	77	67	62	58	76	67	61	58	66	61	57		65	61	57		64
10	74	64	59	55	73	64	58	55	63	58	55		62	58	54		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	321663	321663	321663
5°	295274	296830	296441
10°	239667	240060	238880
15°	180125	180125	180125
20°	132783	132370	132783
25°	94918	95773	95345
30°	66669	68459	67564
35°	44940	48724	46832
40°	29339	34903	31868
45°	19728	25756	21372
50°	15071	19291	15071
55°	10809	14863	10809
60°	6975	10850	6975
65°	4585	7335	4585
70°	3399	4532	3399
75°	1497	2994	1497
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.7	16.2
10°-20°	124.9	29.9
20°-30°	103.3	24.7
30°-40°	63.7	15.2
40°-50°	33.4	8.0
50°-60°	16.8	4.0
60°-70°	6.5	1.6
70°-80°	1.7	0.4
80°-90°	0.0	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°	296.0	70.8
0°-40°	359.6	86.0
0°-60°	409.8	98.0
0°-90°	418.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	418.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	759	760	763	762	762	68
15°	449	449	449	450	449	125
25°	222	224	224	223	223	103
35°	95	100	103	101	99	61
45°	36	40	47	43	39	29
55°	16	18	22	18	16	14
65°	5	6	8	6	5	5
75°	1	1	2	2	1	1
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°	830.1	830.1	830.1	830.1	830.1
2.5°	809.1	810.1	811.1	811.1	811.1
5°	759.1	760.1	763.1	762.1	762.1
7.5°	688.1	688.1	690.1	693.1	691.1
10°	609.1	609.1	610.1	608.1	607.1
12.5°	527.0	527.0	526.0	528.0	525.0
15°	449.0	449.0	449.0	450.0	449.0
17.5°	382.0	381.0	381.0	380.0	381.0
20°	322.0	322.0	321.0	321.0	322.0
22.5°	268.0	268.0	269.0	269.0	270.0
25°	222.0	224.0	224.0	223.0	223.0
27.5°	182.0	184.0	185.0	184.0	184.0
30°	149.0	150.0	153.0	151.0	151.0
32.5°	120.0	123.0	125.0	124.0	123.0
35°	95.0	100.0	103.0	101.0	99.0
37.5°	74.0	80.0	84.0	82.0	79.0
40°	58.0	63.0	69.0	66.0	63.0
42.5°	45.0	50.0	57.0	53.0	50.0
45°	36.0	40.0	47.0	43.0	39.0
47.5°	30.0	33.0	39.0	35.0	32.0
50°	25.0	27.0	32.0	28.0	25.0
52.5°	20.0	22.0	26.0	23.0	20.0
55°	16.0	18.0	22.0	18.0	16.0
57.5°	12.0	14.0	18.0	14.0	12.0
60°	9.0	11.0	14.0	11.0	9.0
62.5°	7.0	8.0	11.0	8.0	7.0
65°	5.0	6.0	8.0	6.0	5.0
67.5°	4.0	4.0	6.0	4.0	4.0
70°	3.0	3.0	4.0	3.0	3.0
72.5°	2.0	2.0	3.0	2.0	2.0
75°	1.0	1.0	2.0	2.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0
80°	0.0	0.0	0.0	1.0	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)