

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: P990582

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990582
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-2700K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

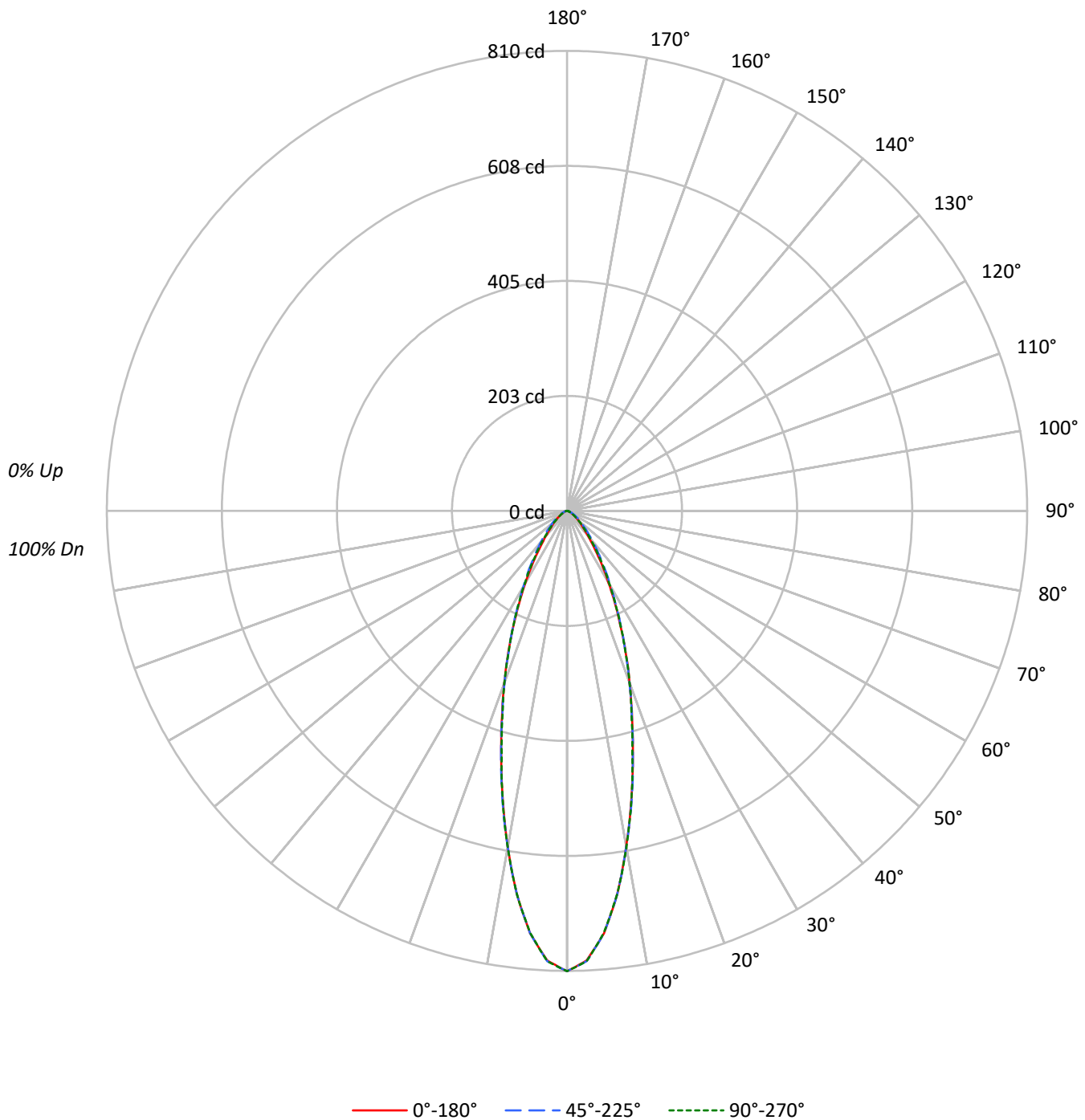
Lumens per Lamp: N/A
 Luminaire Lumens: 423.1 lumens
 Efficiency: N/A
 Efficacy: 55.7 lumens/watt
 Spacing Criteria (0/90/45): 0.53 / 0.53 / 0.6
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	110	108	105	111	108	106	104	104	102	100		100	99	97		97
2	107	102	98	94	105	100	97	93	97	94	91		94	92	89		91
3	102	95	90	86	100	94	89	85	91	87	84		89	85	82		86
4	97	89	83	79	95	88	82	78	86	81	77		84	80	77		82
5	92	83	77	73	90	82	77	73	81	76	72		79	75	71		77
6	87	78	72	68	86	78	72	68	76	71	67		75	70	67		73
7	83	74	68	64	82	73	68	64	72	67	63		71	66	63		70
8	80	70	64	60	78	69	64	60	68	63	60		67	63	59		66
9	76	67	61	57	75	66	60	57	65	60	56		64	60	56		63
10	73	63	58	54	72	63	57	54	62	57	54		61	57	53		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	314068	314068	314068
5°	290334	290334	289945
10°	236204	236204	236598
15°	179443	179844	178239
20°	132865	132453	132865
25°	94961	96243	95388
30°	65372	68504	67162
35°	43568	49244	46406
40°	29339	35915	31868
45°	20824	26304	21920
50°	15674	19894	15674
55°	11485	15538	11485
60°	8525	12400	8525
65°	7335	9169	6418
70°	5665	6798	5665
75°	5989	5989	4492
80°	4463	4463	4463
85°	4446	4446	4446

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	15.7
10°-20°	124.2	29.4
20°-30°	103.3	24.4
30°-40°	63.5	15.0
40°-50°	34.1	8.1
50°-60°	18.1	4.3
60°-70°	8.6	2.0
70°-80°	3.9	0.9
80°-90°	0.8	0.2
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°	294.0	69.5
0°-40°	357.5	84.5
0°-60°	409.8	96.9
0°-90°	423.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	423.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	746	746	746	746	745	67
15°	447	447	448	447	444	124
25°	222	225	225	222	223	103
35°	92	97	104	101	98	59
45°	38	41	48	44	40	30
55°	17	19	23	20	17	16
65°	8	8	10	8	7	8
75°	4	4	4	3	3	4
85°	1	1	1	1	1	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	810.5	810.5	810.5	810.5	810.5
2.5°	792.5	793.5	793.5	793.5	793.5
5°	746.4	746.4	746.4	746.4	745.4
7.5°	679.4	677.4	679.4	679.4	679.4
10°	600.3	600.3	600.3	601.3	601.3
12.5°	522.3	524.3	524.3	521.3	523.3
15°	447.3	447.3	448.3	447.3	444.3
17.5°	380.2	379.2	379.2	378.2	377.2
20°	322.2	321.2	321.2	321.2	322.2
22.5°	270.2	269.2	268.2	268.2	268.2
25°	222.1	225.1	225.1	222.1	223.1
27.5°	181.1	184.1	185.1	184.1	184.1
30°	146.1	150.1	153.1	152.1	150.1
32.5°	117.1	122.1	127.1	124.1	123.1
35°	92.1	97.1	104.1	101.1	98.1
37.5°	72.0	78.0	86.0	82.0	79.0
40°	58.0	62.0	71.0	67.0	63.0
42.5°	46.0	50.0	58.0	54.0	50.0
45°	38.0	41.0	48.0	44.0	40.0
47.5°	32.0	34.0	39.0	36.0	33.0
50°	26.0	28.0	33.0	30.0	26.0
52.5°	21.0	24.0	28.0	24.0	21.0
55°	17.0	19.0	23.0	20.0	17.0
57.5°	14.0	16.0	19.0	16.0	14.0
60°	11.0	12.0	16.0	13.0	11.0
62.5°	9.0	10.0	13.0	10.0	8.0
65°	8.0	8.0	10.0	8.0	7.0
67.5°	7.0	7.0	8.0	6.0	6.0
70°	5.0	6.0	6.0	5.0	5.0
72.5°	4.0	5.0	5.0	4.0	4.0
75°	4.0	4.0	4.0	3.0	3.0
77.5°	3.0	3.0	3.0	3.0	2.0
80°	2.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0
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)