

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: P990613

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-TL2SDMB-550LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990613
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D40FL-TL2SDMB-550LM-3000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

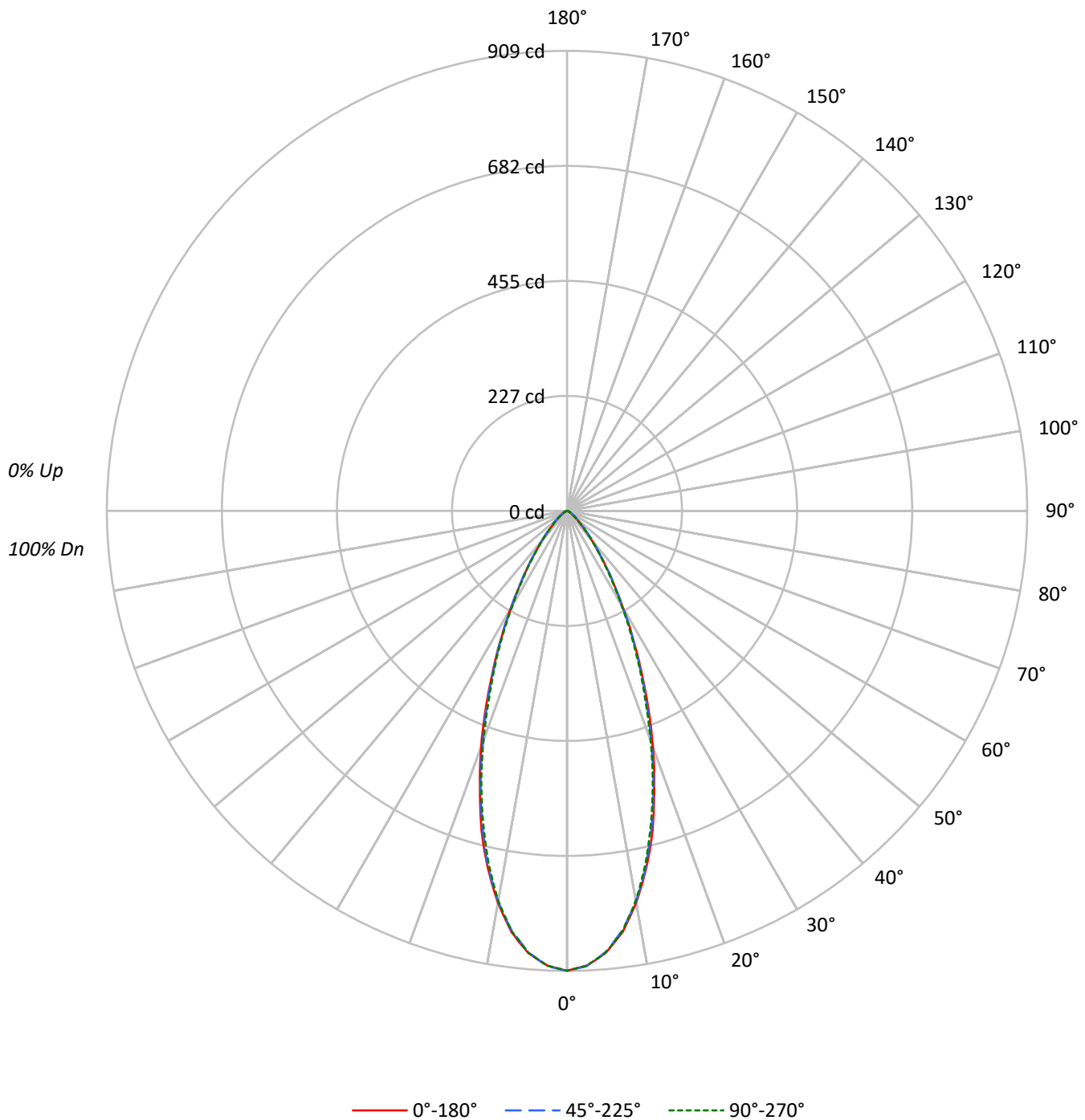
Lumens per Lamp: N/A
 Luminaire Lumens: 558.8 lumens
 Efficiency: N/A
 Efficacy: 73.5 lumens/watt
 Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	98	96	95	94		
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87		
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81		
4	98	90	85	81	96	89	84	80	87	83	79	85	82	79	83	80	78	76		
5	93	85	79	75	92	84	79	75	82	78	74	81	77	74	79	76	73	71		
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	69	67		
7	85	76	70	66	83	75	70	66	74	69	65	73	68	65	72	68	65	63		
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60		
9	77	68	62	59	76	68	62	59	67	62	58	66	61	58	65	61	58	57		
10	74	65	59	56	73	64	59	56	64	59	55	63	58	55	62	58	55	54		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	352082	352082	352082
5°	341213	340396	340785
10°	309312	308486	307660
15°	262044	259075	256588
20°	204576	200287	198968
25°	147251	145455	143232
30°	98841	98841	96022
35°	63389	63862	61402
40°	38647	40265	38141
45°	22961	25263	23509
50°	14528	16397	13865
55°	9188	11282	9188
60°	6510	8137	6510
65°	4768	5776	4768
70°	3512	4758	3512
75°	1497	3144	3144
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	14.4
10°-20°	177.9	31.8
20°-30°	156.3	28.0
30°-40°	85.7	15.3
40°-50°	35.8	6.4
50°-60°	14.2	2.5
60°-70°	6.3	1.1
70°-80°	2.0	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°	414.9	74.2
0°-40°	500.6	89.6
0°-60°	550.5	98.5
0°-90°	558.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	558.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	909	909	909	909	909	
5°	877	876	875	875	876	81
15°	653	651	646	642	640	179
25°	344	346	340	335	335	158
35°	134	135	135	133	130	86
45°	42	44	46	44	43	35
55°	14	15	17	15	14	13
65°	5	6	6	6	5	6
75°	1	2	2	2	2	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°	908.6	908.6	908.6	908.6	908.6
2.5°	899.1	900.2	900.2	900.2	899.1
5°	877.2	876.1	875.1	875.1	876.1
7.5°	839.5	839.5	836.3	837.4	837.4
10°	786.1	789.2	784.0	784.0	781.9
12.5°	723.3	724.3	720.2	718.1	714.9
15°	653.2	651.1	645.8	641.6	639.6
17.5°	572.6	571.5	568.4	563.1	563.1
20°	496.1	492.0	485.7	484.6	482.5
22.5°	417.6	415.6	411.4	405.1	403.0
25°	344.4	346.5	340.2	335.0	335.0
27.5°	279.5	280.5	278.4	273.2	272.1
30°	220.9	223.0	220.9	217.7	214.6
32.5°	172.7	173.8	173.8	171.7	168.5
35°	134.0	135.0	135.0	132.9	129.8
37.5°	100.5	102.6	103.6	101.5	99.4
40°	76.4	77.5	79.6	76.4	75.4
42.5°	57.6	58.6	60.7	58.6	56.5
45°	41.9	44.0	46.1	44.0	42.9
47.5°	32.4	33.5	35.6	33.5	31.4
50°	24.1	25.1	27.2	25.1	23.0
52.5°	18.8	19.9	22.0	19.9	17.8
55°	13.6	14.7	16.7	14.7	13.6
57.5°	10.5	11.5	12.6	11.5	10.5
60°	8.4	9.4	10.5	9.4	8.4
62.5°	7.3	7.3	8.4	7.3	7.3
65°	5.2	6.3	6.3	6.3	5.2
67.5°	4.2	5.2	5.2	5.2	5.2
70°	3.1	4.2	4.2	4.2	3.1
72.5°	2.1	3.1	3.1	3.1	3.1
75°	1.0	2.1	2.1	2.1	2.1
77.5°	0.0	1.0	1.0	1.0	1.0
80°	0.0	0.0	0.0	0.0	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)