

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: P990649

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMB-550LM-3500K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990649
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMB-550LM-3500K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
 Ballast/Driver: -

Summary

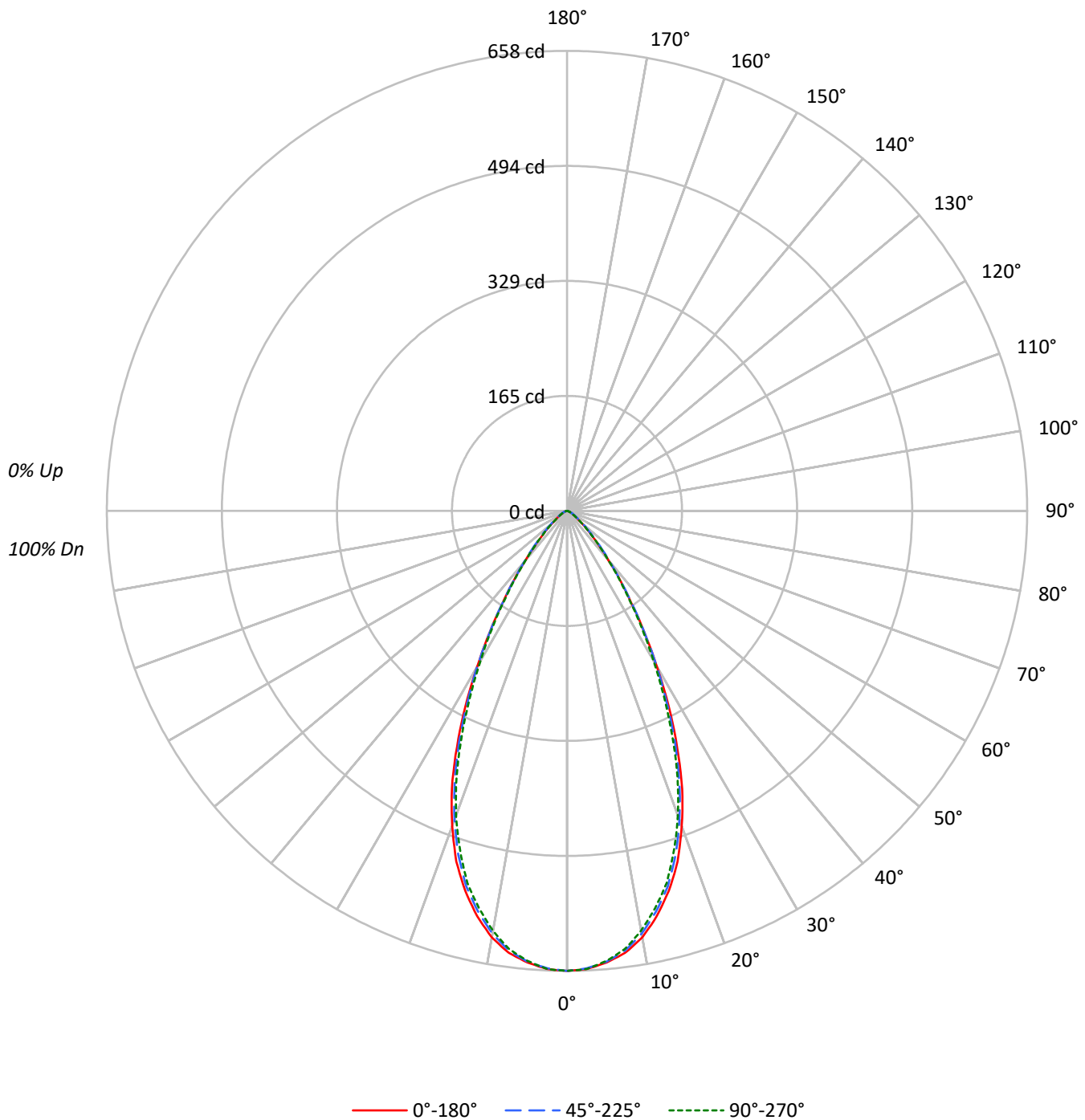
Lumens per Lamp: N/A
 Luminaire Lumens: 549.8 lumens
 Efficiency: N/A
 Efficacy: 72.3 lumens/watt
 Spacing Criteria (0/90/45): 0.85 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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			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	110	108	106	111	108	106	104	104	102	101		100	99	98		97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92		94	92	90		92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84		89	85	83		86	84	81	80
4	96	89	83	79	95	88	82	78	85	81	77		83	79	76		81	78	75	74
5	91	83	77	73	90	82	76	72	80	75	72		78	74	71		77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	67		74	69	66		73	69	66	64
7	83	73	67	63	81	72	67	62	71	66	62		70	65	62		69	65	61	60
8	78	69	63	59	77	68	62	58	67	62	58		66	61	58		65	61	58	56
9	75	65	59	55	74	64	59	55	64	58	55		63	58	54		62	57	54	53
10	71	61	56	52	70	61	55	52	60	55	51		59	55	51		59	54	51	50

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	254975	254975	254975
5°	252214	251786	251359
10°	243720	241595	239903
15°	225658	223090	220924
20°	197854	193896	191215
25°	159265	156059	152382
30°	114815	114322	110474
35°	75641	76161	73654
40°	46689	48308	46133
45°	27674	29976	27674
50°	16156	18748	16819
55°	10877	12296	10134
60°	7517	9145	7517
65°	5868	6877	5868
70°	4872	4872	4872
75°	1647	3144	3144
80°	0	2455	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.8	11.1
10°-20°	154.0	28.0
20°-30°	165.5	30.1
30°-40°	101.7	18.5
40°-50°	42.7	7.8
50°-60°	15.9	2.9
60°-70°	7.0	1.3
70°-80°	2.2	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°	380.3	69.2
0°-40°	482.0	87.7
0°-60°	540.5	98.3
0°-90°	549.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	549.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	648	647	647	647	646	61
15°	562	560	556	551	551	156
25°	372	370	365	361	356	169
35°	160	161	161	158	156	102
45°	50	53	55	53	50	41
55°	16	17	18	16	15	15
65°	6	6	8	6	6	6
75°	1	2	2	2	2	2
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°	658.0	658.0	658.0	658.0	658.0
2.5°	655.9	654.8	654.8	655.9	655.9
5°	648.4	647.3	647.3	647.3	646.2
7.5°	637.6	635.5	634.4	632.3	632.3
10°	619.4	616.2	614.0	610.8	609.7
12.5°	593.6	591.5	587.2	584.0	581.8
15°	562.5	560.4	556.1	550.7	550.7
17.5°	526.0	522.8	516.3	509.9	508.8
20°	479.8	477.7	470.2	464.8	463.7
22.5°	430.5	427.2	419.7	415.4	413.3
25°	372.5	370.4	365.0	360.7	356.4
27.5°	314.5	312.4	308.1	302.7	300.6
30°	256.6	256.6	255.5	250.1	246.9
32.5°	205.0	206.1	205.0	200.7	199.7
35°	159.9	161.0	161.0	157.8	155.7
37.5°	124.5	124.5	124.5	122.4	121.3
40°	92.3	94.5	95.5	93.4	91.2
42.5°	68.7	70.8	73.0	69.8	68.7
45°	50.5	52.6	54.7	52.6	50.5
47.5°	37.6	38.6	41.9	38.6	37.6
50°	26.8	29.0	31.1	29.0	27.9
52.5°	20.4	21.5	23.6	21.5	20.4
55°	16.1	17.2	18.2	16.1	15.0
57.5°	12.9	12.9	14.0	12.9	11.8
60°	9.7	10.7	11.8	10.7	9.7
62.5°	7.5	8.6	8.6	8.6	7.5
65°	6.4	6.4	7.5	6.4	6.4
67.5°	5.4	5.4	6.4	5.4	5.4
70°	4.3	4.3	4.3	4.3	4.3
72.5°	3.2	3.2	3.2	3.2	3.2
75°	1.1	2.1	2.1	2.1	2.1
77.5°	1.1	1.1	1.1	1.1	1.1
80°	0.0	0.0	1.1	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)