

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: P990647

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-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: P990647
 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-2700K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

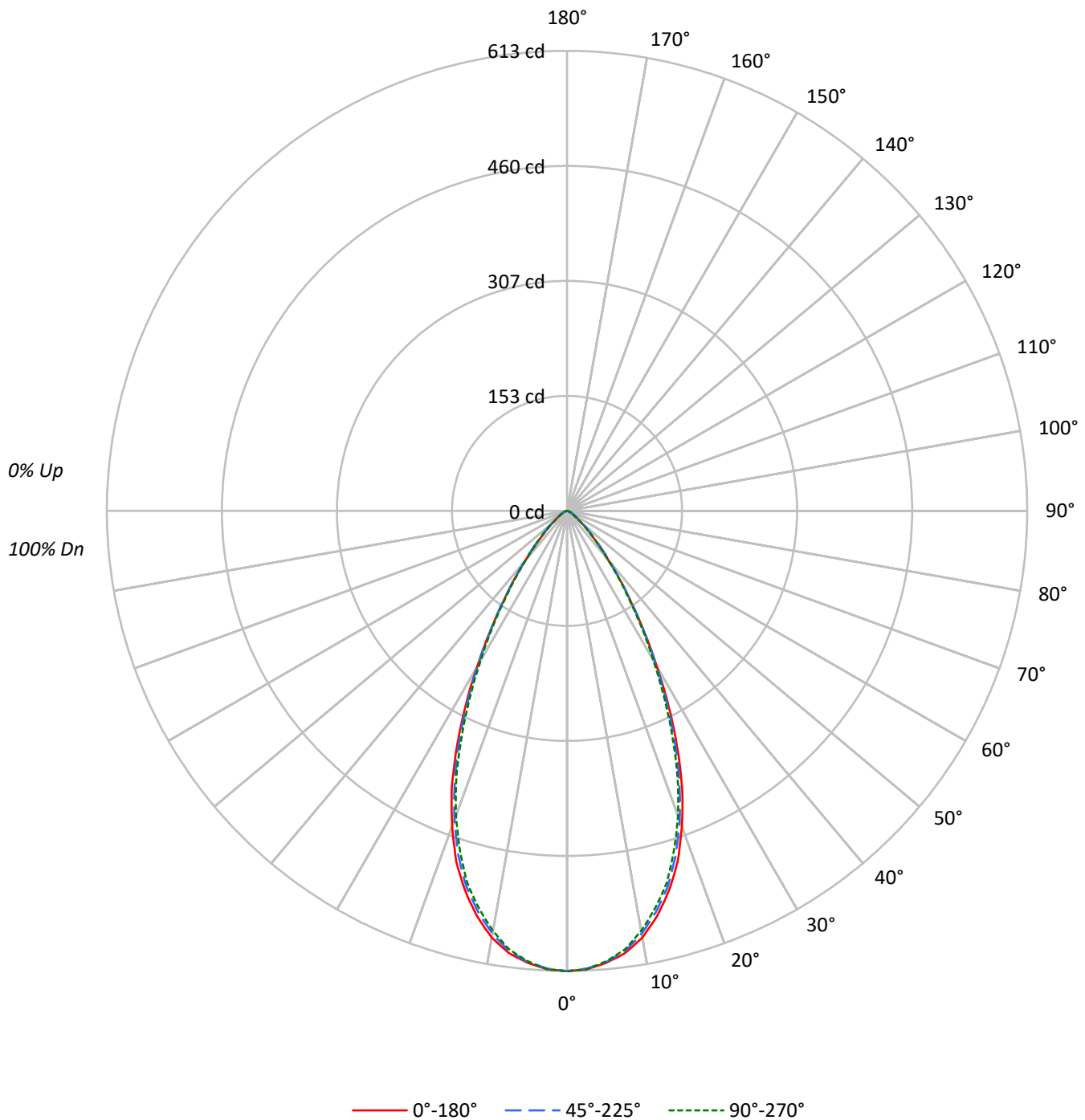
Lumens per Lamp: N/A
 Luminaire Lumens: 512.4 lumens
 Efficiency: N/A
 Efficacy: 67.4 lumens/watt
 Spacing Criteria (0/90/45): 0.85 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	237653	237653	237653
5°	235060	234671	234282
10°	227154	225187	223613
15°	210293	207886	205880
20°	184411	180700	178226
25°	148448	145455	142035
30°	106984	106537	102957
35°	70532	71005	68639
40°	43503	45020	42997
45°	25756	27948	25756
50°	15071	17482	15674
55°	10134	11485	9458
60°	6975	8525	6975
65°	5501	6418	5501
70°	4532	4532	4532
75°	1497	2994	2994
80°	0	2232	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.6	11.1
10°-20°	143.6	28.0
20°-30°	154.3	30.1
30°-40°	94.8	18.5
40°-50°	39.7	7.8
50°-60°	14.8	2.9
60°-70°	6.5	1.3
70°-80°	2.1	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°	354.4	69.2
0°-40°	449.2	87.7
0°-60°	503.8	98.3
0°-90°	512.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	512.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	613	613	613	613	613	
5°	604	603	603	603	602	57
15°	524	522	518	513	513	146
25°	347	345	340	336	332	157
35°	149	150	150	147	145	95
45°	47	49	51	49	47	38
55°	15	16	17	15	14	14
65°	6	6	7	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°	613.3	613.3	613.3	613.3	613.3
2.5°	611.3	610.3	610.3	611.3	611.3
5°	604.3	603.3	603.3	603.3	602.3
7.5°	594.3	592.3	591.3	589.3	589.3
10°	577.3	574.3	572.3	569.3	568.3
12.5°	553.3	551.3	547.2	544.2	542.2
15°	524.2	522.2	518.2	513.2	513.2
17.5°	490.2	487.2	481.2	475.2	474.2
20°	447.2	445.2	438.2	433.2	432.2
22.5°	401.2	398.2	391.2	387.2	385.2
25°	347.2	345.2	340.2	336.2	332.2
27.5°	293.1	291.1	287.1	282.1	280.1
30°	239.1	239.1	238.1	233.1	230.1
32.5°	191.1	192.1	191.1	187.1	186.1
35°	149.1	150.1	150.1	147.1	145.1
37.5°	116.1	116.1	116.1	114.1	113.1
40°	86.0	88.0	89.0	87.0	85.0
42.5°	64.0	66.0	68.0	65.0	64.0
45°	47.0	49.0	51.0	49.0	47.0
47.5°	35.0	36.0	39.0	36.0	35.0
50°	25.0	27.0	29.0	27.0	26.0
52.5°	19.0	20.0	22.0	20.0	19.0
55°	15.0	16.0	17.0	15.0	14.0
57.5°	12.0	12.0	13.0	12.0	11.0
60°	9.0	10.0	11.0	10.0	9.0
62.5°	7.0	8.0	8.0	8.0	7.0
65°	6.0	6.0	7.0	6.0	6.0
67.5°	5.0	5.0	6.0	5.0	5.0
70°	4.0	4.0	4.0	4.0	4.0
72.5°	3.0	3.0	3.0	3.0	3.0
75°	1.0	2.0	2.0	2.0	2.0
77.5°	1.0	1.0	1.0	1.0	1.0
80°	0.0	0.0	1.0	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)