

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: P990653

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990653
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-3000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

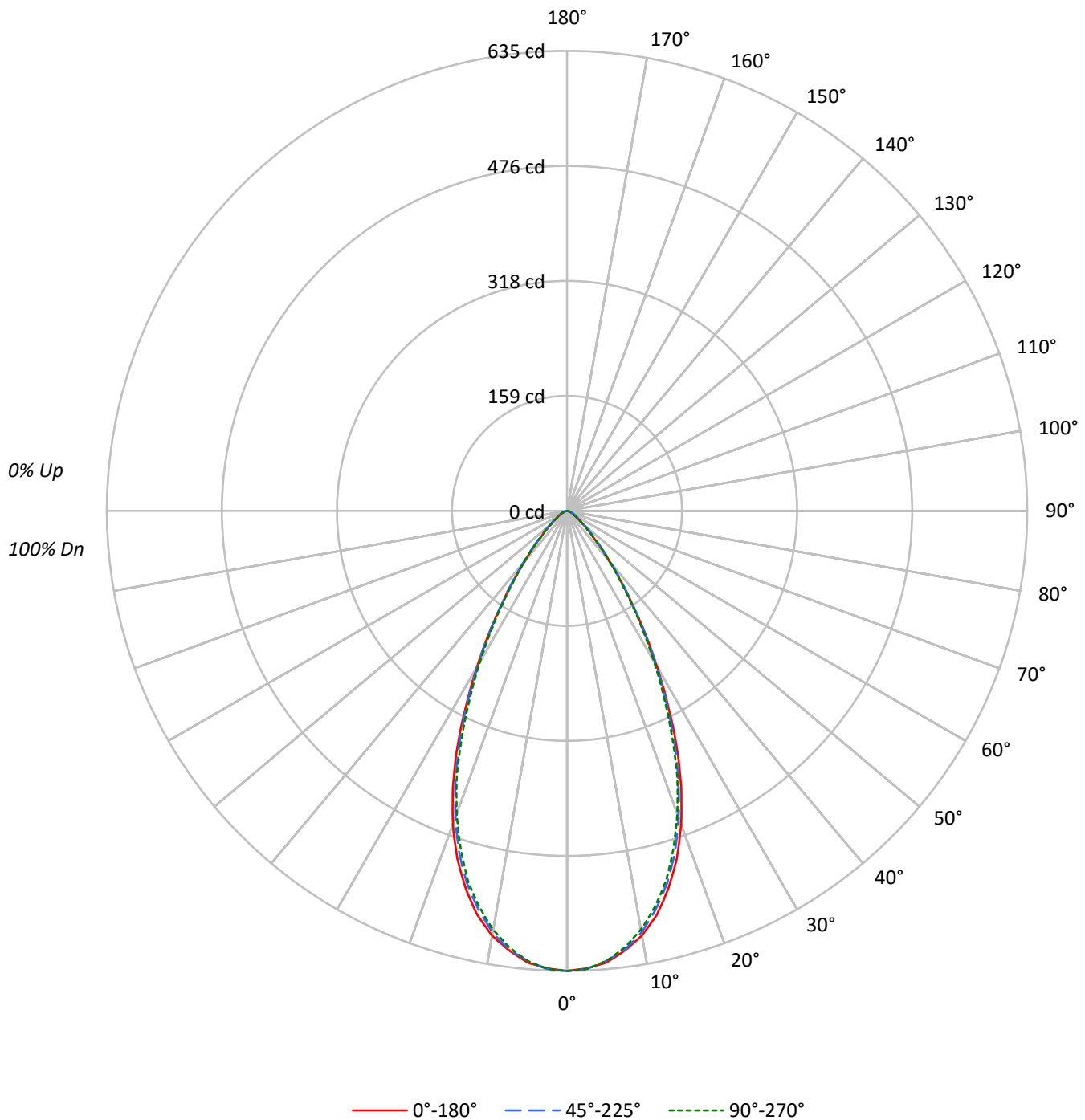
Lumens per Lamp: N/A
 Luminaire Lumens: 537.8 lumens
 Efficiency: N/A
 Efficacy: 70.8 lumens/watt
 Spacing Criteria (0/90/45): 0.84 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	246101	246101	246101
5°	243385	242568	242568
10°	234237	232584	230971
15°	216591	213663	211978
20°	189854	185524	183380
25°	152980	149432	146268
30°	110967	110027	107208
35°	74221	74221	72282
40°	46032	48156	46032
45°	28113	30414	28113
50°	17663	19532	17663
55°	12025	13444	12025
60°	8912	10540	8912
65°	7702	8619	7702
70°	5891	7138	5891
75°	4641	6288	4641
80°	2232	2232	2232
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	10.9
10°-20°	147.9	27.5
20°-30°	158.8	29.5
30°-40°	99.1	18.4
40°-50°	43.1	8.0
50°-60°	17.7	3.3
60°-70°	8.8	1.6
70°-80°	3.5	0.7
80°-90°	0.4	0.1
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°	365.2	67.9
0°-40°	464.3	86.3
0°-60°	525.1	97.6
0°-90°	537.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	537.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	626	626	624	625	624	59
15°	540	539	533	529	528	150
25°	358	355	350	345	342	162
35°	157	157	157	154	153	100
45°	51	53	56	52	51	42
55°	18	19	20	19	18	17
65°	8	8	9	8	8	8
75°	3	3	4	3	3	3
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°	635.1	635.1	635.1	635.1	635.1
2.5°	632.0	632.0	633.0	633.0	633.0
5°	625.7	625.7	623.6	624.6	623.6
7.5°	612.1	612.1	611.0	608.9	607.9
10°	595.3	593.2	591.1	588.0	587.0
12.5°	571.3	568.1	563.9	562.9	559.8
15°	539.9	538.8	532.6	529.4	528.4
17.5°	503.3	501.2	494.9	489.7	488.6
20°	460.4	456.2	449.9	445.7	444.7
22.5°	411.2	408.1	401.8	397.6	397.6
25°	357.8	354.7	349.5	345.3	342.1
27.5°	300.3	300.3	296.1	291.9	289.8
30°	248.0	248.0	245.9	241.7	239.6
32.5°	199.8	199.8	198.8	194.6	193.6
35°	156.9	156.9	156.9	153.8	152.8
37.5°	121.4	121.4	123.5	119.3	118.2
40°	91.0	93.1	95.2	91.0	91.0
42.5°	69.1	71.1	72.2	70.1	69.1
45°	51.3	53.4	55.5	52.3	51.3
47.5°	38.7	40.8	42.9	39.8	38.7
50°	29.3	31.4	32.4	30.3	29.3
52.5°	23.0	24.1	26.2	23.0	22.0
55°	17.8	18.8	19.9	18.8	17.8
57.5°	14.6	15.7	16.7	14.6	13.6
60°	11.5	12.6	13.6	12.6	11.5
62.5°	9.4	10.5	11.5	10.5	9.4
65°	8.4	8.4	9.4	8.4	8.4
67.5°	6.3	7.3	7.3	7.3	6.3
70°	5.2	6.3	6.3	6.3	5.2
72.5°	4.2	4.2	5.2	4.2	4.2
75°	3.1	3.1	4.2	3.1	3.1
77.5°	1.0	2.1	2.1	2.1	2.1
80°	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0
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)