

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: P990659

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDSL-550LM-3500K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990659
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDSL-550LM-3500K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR,
 METALLIC SILVER TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
 Ballast/Driver: -

Summary

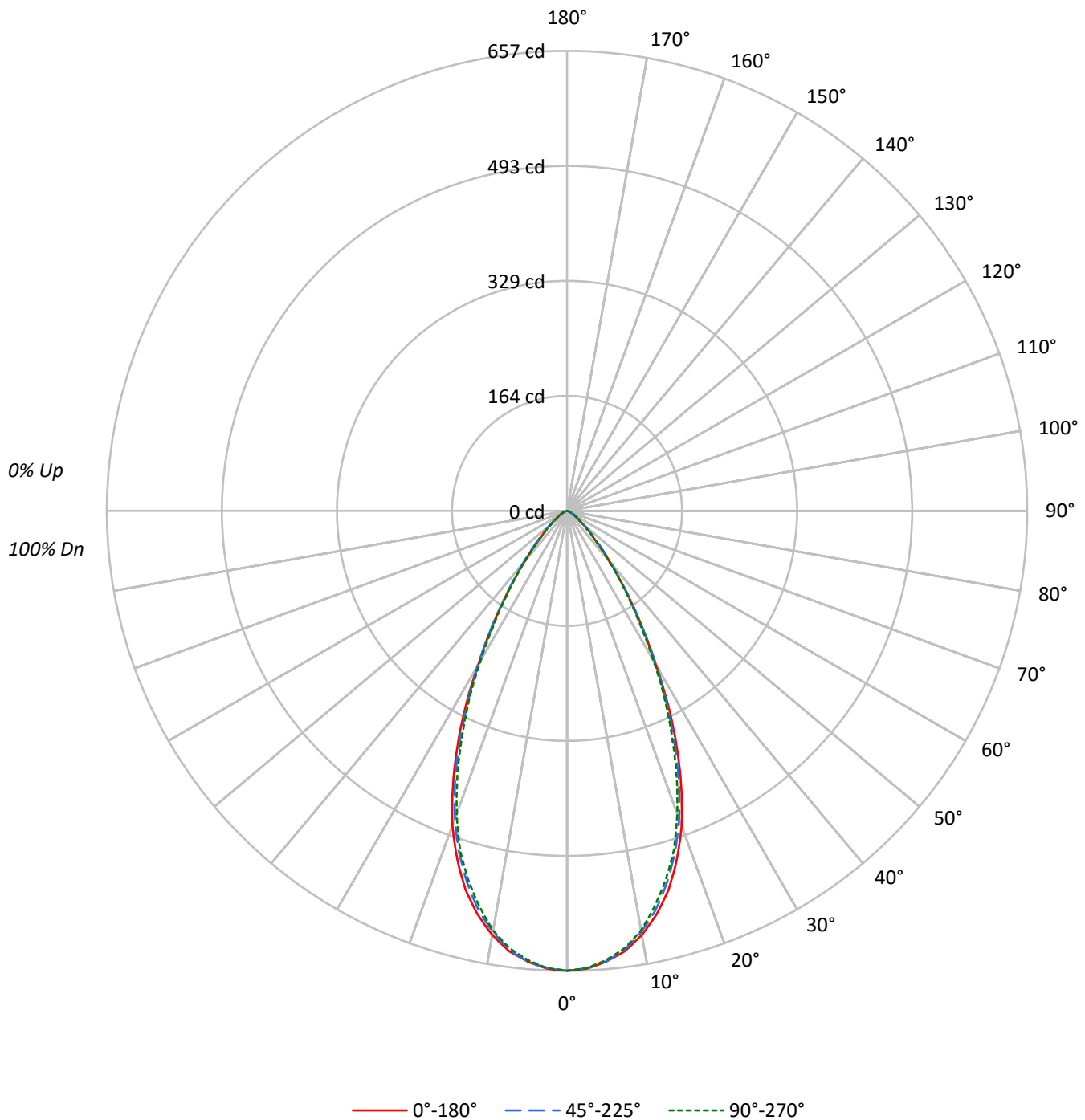
Lumens per Lamp: N/A
 Luminaire Lumens: 552.4 lumens
 Efficiency: N/A
 Efficacy: 72.7 lumens/watt
 Spacing Criteria (0/90/45): 0.84 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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			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	105	111	108	106	104	104	102	101		100	99	98		97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91		94	92	89		91	89	87	86
3	102	95	90	86	100	94	89	85	91	87	84		88	85	82		86	83	81	79
4	96	88	83	78	94	87	82	78	85	80	77		83	79	76		81	78	75	74
5	91	83	77	72	90	82	76	72	80	75	71		78	74	70		77	73	70	68
6	87	77	71	67	85	77	71	67	75	70	66		74	69	66		72	68	65	64
7	82	73	66	62	81	72	66	62	71	65	62		69	65	61		68	64	61	60
8	78	68	62	58	77	68	62	58	67	61	58		66	61	57		65	60	57	56
9	74	65	59	54	73	64	58	54	63	58	54		62	57	54		61	57	54	52
10	71	61	55	51	70	61	55	51	60	55	51		59	54	51		58	54	51	49

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	254510	254510	254510
5°	251281	251281	250464
10°	241949	240257	239431
15°	224735	220843	218717
20°	197359	192947	189854
25°	158282	154605	151398
30°	113338	113785	110430
35°	76161	76634	74127
40°	47752	49421	46689
45°	28825	31182	28825
50°	18085	20075	17482
55°	11620	13782	11620
60°	9145	9997	8292
65°	6877	7885	6877
70°	4872	6118	4872
75°	3144	4791	3144
80°	0	2455	2455
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	11.0
10°-20°	153.1	27.7
20°-30°	164.4	29.8
30°-40°	102.1	18.5
40°-50°	44.0	8.0
50°-60°	17.4	3.2
60°-70°	7.9	1.4
70°-80°	2.8	0.5
80°-90°	0.1	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°	378.0	68.4
0°-40°	480.1	86.9
0°-60°	541.6	98.0
0°-90°	552.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	552.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	646	646	646	645	644	61
15°	560	557	550	546	545	155
25°	370	367	362	357	354	168
35°	161	163	162	160	157	102
45°	53	55	57	54	53	43
55°	17	18	20	18	17	17
65°	8	8	9	8	8	7
75°	2	2	3	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°	656.8	656.8	656.8	656.8	656.8
2.5°	654.6	653.5	653.5	653.5	653.5
5°	646.0	646.0	646.0	645.0	643.9
7.5°	634.2	633.2	632.1	629.9	629.9
10°	614.9	614.9	610.6	608.5	608.5
12.5°	590.2	589.2	583.8	581.6	578.4
15°	560.2	557.0	550.5	546.2	545.2
17.5°	521.5	517.3	511.9	507.6	507.6
20°	478.6	475.4	467.9	461.4	460.4
22.5°	426.0	422.8	417.5	411.0	408.9
25°	370.2	367.0	361.6	357.4	354.1
27.5°	312.3	311.2	305.8	301.6	301.6
30°	253.3	256.5	254.3	249.0	246.8
32.5°	203.9	205.0	205.0	200.7	197.5
35°	161.0	163.1	162.0	159.9	156.7
37.5°	123.4	125.6	126.6	123.4	122.3
40°	94.4	96.6	97.7	94.4	92.3
42.5°	70.8	73.0	75.1	71.9	69.8
45°	52.6	54.7	56.9	53.7	52.6
47.5°	39.7	40.8	42.9	39.7	38.6
50°	30.0	31.1	33.3	30.0	29.0
52.5°	22.5	23.6	25.8	23.6	21.5
55°	17.2	18.2	20.4	18.2	17.2
57.5°	14.0	15.0	16.1	14.0	12.9
60°	11.8	11.8	12.9	11.8	10.7
62.5°	8.6	9.7	9.7	9.7	8.6
65°	7.5	7.5	8.6	7.5	7.5
67.5°	5.4	6.4	6.4	6.4	5.4
70°	4.3	5.4	5.4	5.4	4.3
72.5°	3.2	4.3	4.3	4.3	3.2
75°	2.1	2.1	3.2	2.1	2.1
77.5°	1.1	1.1	2.1	1.1	1.1
80°	0.0	1.1	1.1	1.1	1.1
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)