

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: P990650

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMB-550LM-4000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990650
 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-4000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

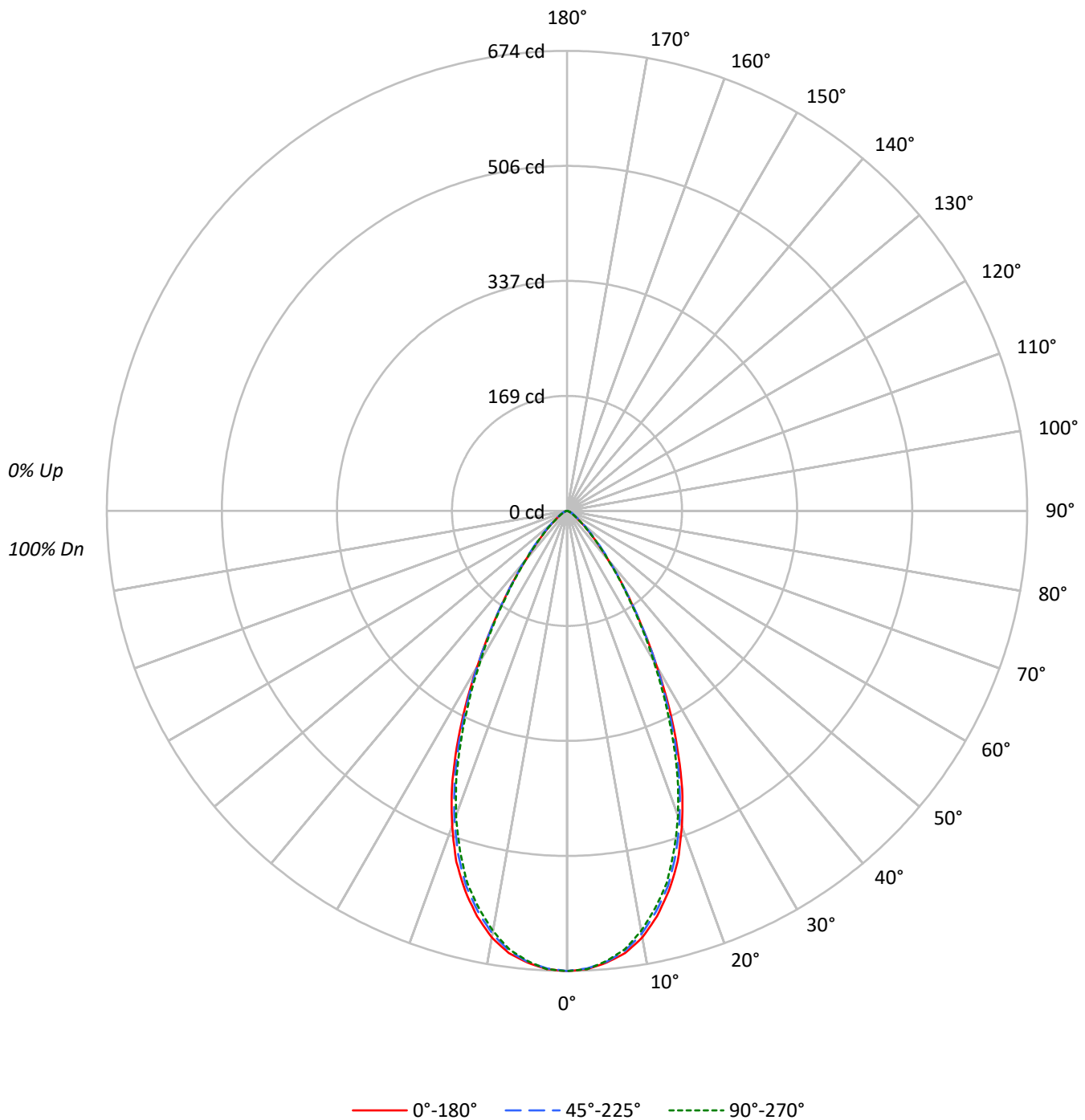
Lumens per Lamp: N/A
 Luminaire Lumens: 563.3 lumens
 Efficiency: N/A
 Efficacy: 74.1 lumens/watt
 Spacing Criteria (0/90/45): 0.85 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	82	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°	261252	261252	261252
5°	258399	257971	257543
10°	249701	247537	245805
15°	231194	228546	226339
20°	202720	198638	195916
25°	163156	159864	156102
30°	117633	117141	113204
35°	77533	78053	75451
40°	47853	49522	47296
45°	28332	30743	28332
50°	16578	19231	17241
55°	11147	12633	10404
60°	7672	9377	7672
65°	6052	7060	6052
70°	4985	4985	4985
75°	1647	3294	3294
80°	0	2455	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	11.1
10°-20°	157.8	28.0
20°-30°	169.6	30.1
30°-40°	104.2	18.5
40°-50°	43.7	7.8
50°-60°	16.3	2.9
60°-70°	7.1	1.3
70°-80°	2.3	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°	389.6	69.2
0°-40°	493.9	87.7
0°-60°	553.8	98.3
0°-90°	563.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	563.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	664	663	663	663	662	63
15°	576	574	570	564	564	160
25°	382	379	374	370	365	173
35°	164	165	165	162	160	105
45°	52	54	56	54	52	42
55°	16	18	19	16	15	15
65°	7	7	8	7	7	7
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°	674.2	674.2	674.2	674.2	674.2
2.5°	672.0	670.9	670.9	672.0	672.0
5°	664.3	663.2	663.2	663.2	662.1
7.5°	653.3	651.1	650.0	647.8	647.8
10°	634.6	631.3	629.1	625.8	624.7
12.5°	608.2	606.0	601.6	598.3	596.1
15°	576.3	574.1	569.7	564.2	564.2
17.5°	538.9	535.6	529.0	522.4	521.3
20°	491.6	489.4	481.7	476.2	475.1
22.5°	441.0	437.7	430.0	425.6	423.4
25°	381.6	379.4	373.9	369.5	365.1
27.5°	322.2	320.0	315.6	310.2	308.0
30°	262.9	262.9	261.8	256.3	253.0
32.5°	210.1	211.2	210.1	205.7	204.6
35°	163.9	165.0	165.0	161.7	159.5
37.5°	127.6	127.6	127.6	125.4	124.3
40°	94.6	96.8	97.9	95.7	93.5
42.5°	70.4	72.6	74.8	71.5	70.4
45°	51.7	53.9	56.1	53.9	51.7
47.5°	38.5	39.6	42.9	39.6	38.5
50°	27.5	29.7	31.9	29.7	28.6
52.5°	20.9	22.0	24.2	22.0	20.9
55°	16.5	17.6	18.7	16.5	15.4
57.5°	13.2	13.2	14.3	13.2	12.1
60°	9.9	11.0	12.1	11.0	9.9
62.5°	7.7	8.8	8.8	8.8	7.7
65°	6.6	6.6	7.7	6.6	6.6
67.5°	5.5	5.5	6.6	5.5	5.5
70°	4.4	4.4	4.4	4.4	4.4
72.5°	3.3	3.3	3.3	3.3	3.3
75°	1.1	2.2	2.2	2.2	2.2
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)