

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: P990651

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMB-550LM-5000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990651
 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-5000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

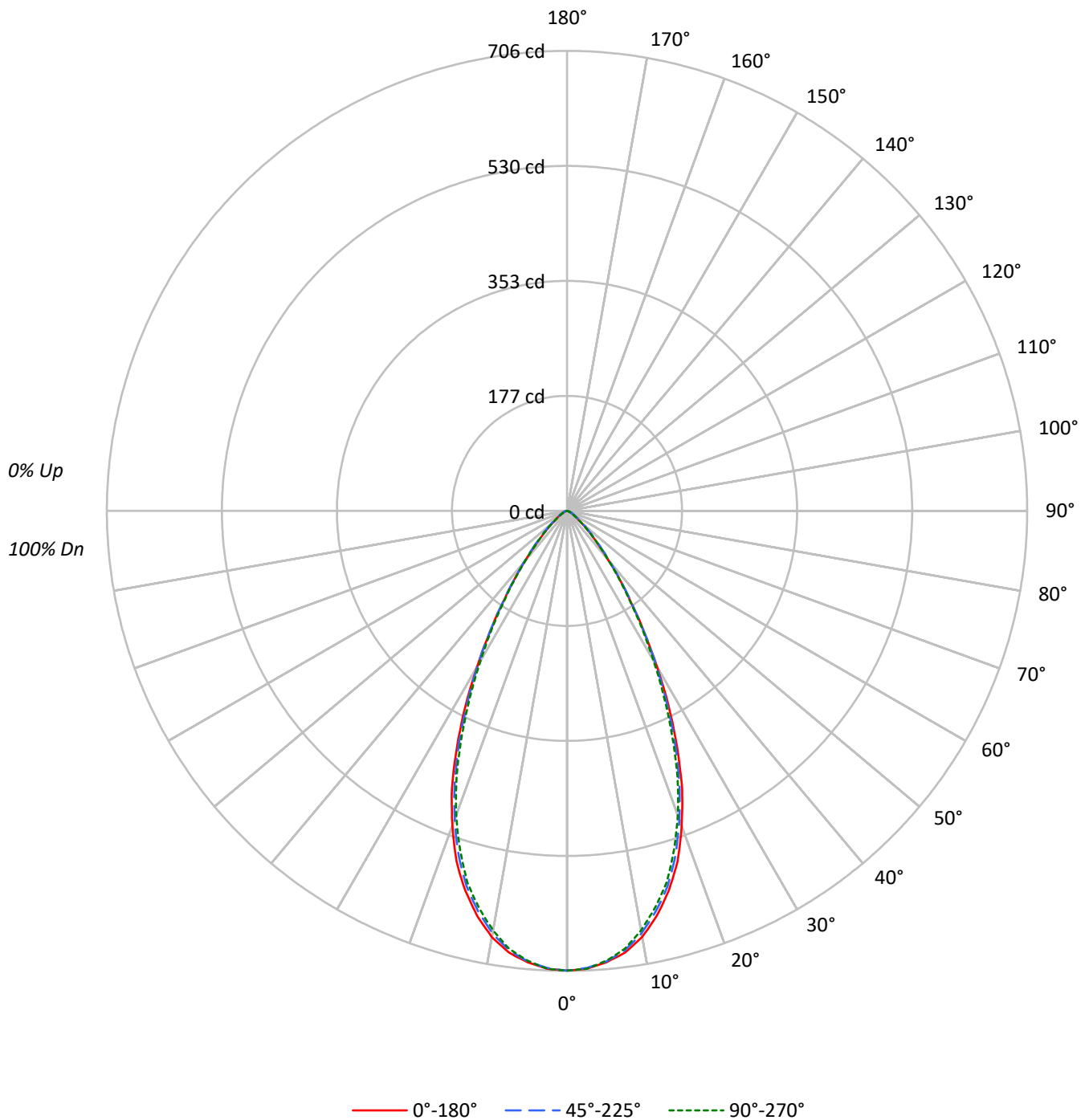
Lumens per Lamp: N/A
 Luminaire Lumens: 589.5 lumens
 Efficiency: N/A
 Efficacy: 77.6 lumens/watt
 Spacing Criteria (0/90/45): 0.85 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	72	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	66		74	69	66		73	69	66	64
7	82	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	63	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°	273381	273381	273381
5°	270419	269952	269524
10°	261308	259026	257216
15°	241945	239177	236850
20°	212163	207875	205029
25°	170767	167304	163370
30°	123092	122555	118439
35°	81128	81648	78952
40°	50079	51798	49472
45°	29647	32168	29647
50°	17362	20135	18025
55°	11688	13241	10877
60°	8060	9842	8060
65°	6327	7427	6327
70°	5212	5212	5212
75°	1797	3444	3444
80°	0	2678	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	11.0
10°-20°	165.2	28.0
20°-30°	177.4	30.1
30°-40°	109.1	18.5
40°-50°	45.7	7.8
50°-60°	17.0	2.9
60°-70°	7.5	1.3
70°-80°	2.4	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°	407.7	69.2
0°-40°	516.8	87.7
0°-60°	579.6	98.3
0°-90°	589.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	589.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	695	694	694	694	693	65
15°	603	601	596	590	590	167
25°	399	397	391	387	382	181
35°	172	173	173	169	167	110
45°	54	56	59	56	54	44
55°	17	18	20	17	16	16
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°	705.5	705.5	705.5	705.5	705.5
2.5°	703.2	702.1	702.1	703.2	703.2
5°	695.2	694.0	694.0	694.0	692.9
7.5°	683.7	681.4	680.2	677.9	677.9
10°	664.1	660.6	658.3	654.9	653.7
12.5°	636.5	634.2	629.6	626.1	623.8
15°	603.1	600.8	596.2	590.4	590.4
17.5°	564.0	560.5	553.6	546.7	545.5
20°	514.5	512.2	504.1	498.4	497.2
22.5°	461.5	458.1	450.0	445.4	443.1
25°	399.4	397.1	391.3	386.7	382.1
27.5°	337.2	334.9	330.3	324.6	322.3
30°	275.1	275.1	273.9	268.2	264.7
32.5°	219.8	221.0	219.8	215.2	214.1
35°	171.5	172.6	172.6	169.2	166.9
37.5°	133.5	133.5	133.5	131.2	130.1
40°	99.0	101.3	102.4	100.1	97.8
42.5°	73.7	76.0	78.3	74.8	73.7
45°	54.1	56.4	58.7	56.4	54.1
47.5°	40.3	41.4	44.9	41.4	40.3
50°	28.8	31.1	33.4	31.1	29.9
52.5°	21.9	23.0	25.3	23.0	21.9
55°	17.3	18.4	19.6	17.3	16.1
57.5°	13.8	13.8	15.0	13.8	12.7
60°	10.4	11.5	12.7	11.5	10.4
62.5°	8.1	9.2	9.2	9.2	8.1
65°	6.9	6.9	8.1	6.9	6.9
67.5°	5.8	5.8	6.9	5.8	5.8
70°	4.6	4.6	4.6	4.6	4.6
72.5°	3.5	3.5	3.5	3.5	3.5
75°	1.2	2.3	2.3	2.3	2.3
77.5°	1.2	1.2	1.2	1.2	1.2
80°	0.0	0.0	1.2	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)