

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: P990585

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-4000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990585
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-4000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

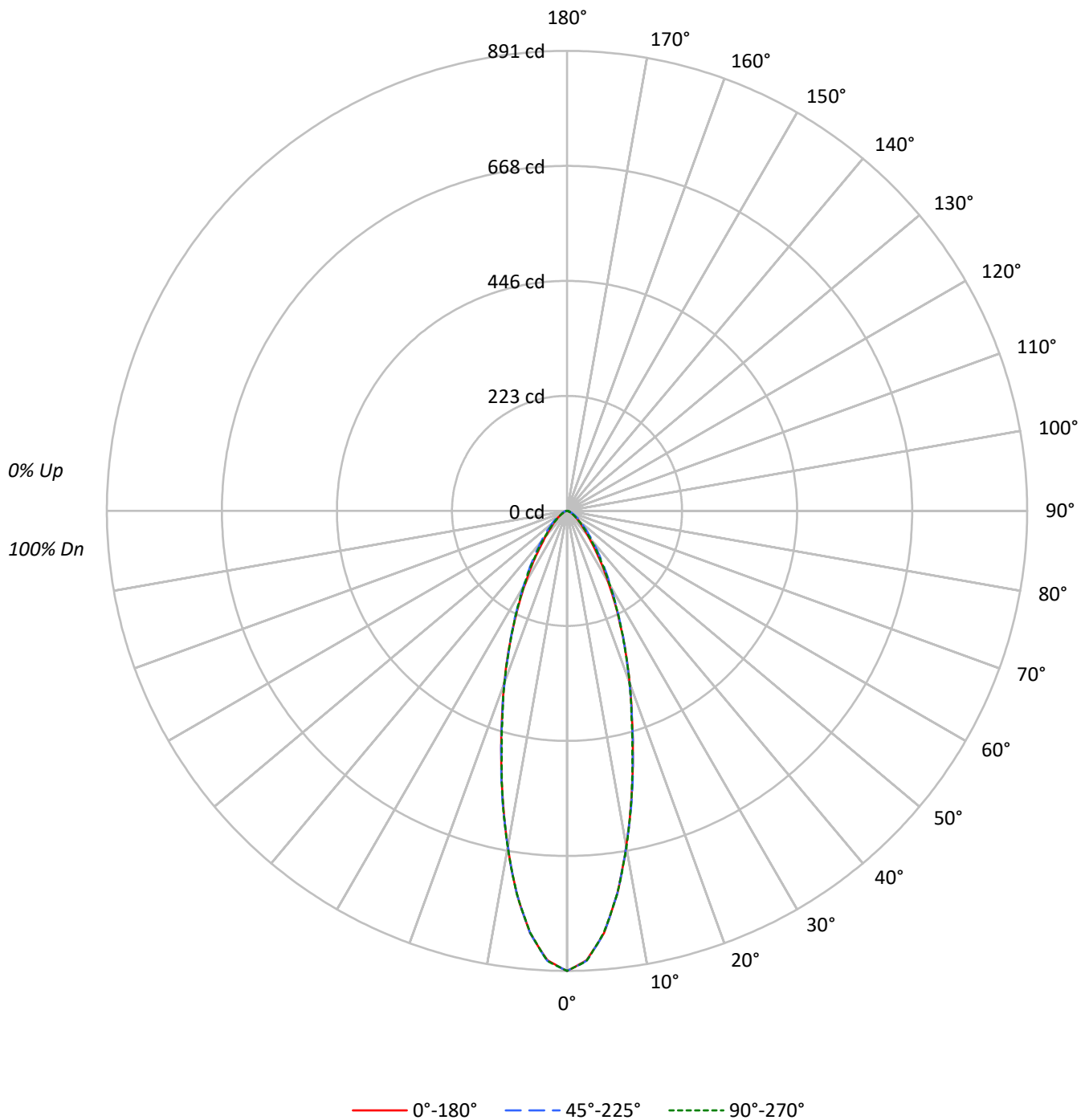
Lumens per Lamp: N/A
 Luminaire Lumens: 465.1 lumens
 Efficiency: N/A
 Efficacy: 61.2 lumens/watt
 Spacing Criteria (0/90/45): 0.53 / 0.53 / 0.6
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	97	93	97	94	91		94	92	89		91
3	102	95	90	86	100	94	89	85	91	87	84		89	85	82		86
4	97	89	83	79	95	88	82	78	86	81	77		84	80	77		82
5	92	83	77	73	90	82	77	73	81	76	72		79	75	71		77
6	87	78	72	68	86	78	72	68	76	71	67		75	70	67		73
7	83	74	68	64	82	73	68	64	72	67	63		71	66	63		70
8	80	70	64	60	78	69	64	60	68	63	60		67	63	59		66
9	76	67	61	57	75	66	60	57	65	60	56		64	60	56		63
10	73	63	58	54	72	63	57	54	62	57	54		61	57	53		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	345262	345262	345262
5°	319197	319197	318769
10°	259695	259695	260128
15°	197255	197696	195931
20°	146061	145607	146061
25°	104410	105821	104880
30°	71860	75305	73829
35°	47873	54117	50995
40°	32273	39506	35055
45°	22907	28935	24112
50°	17241	21883	17241
55°	12633	17092	12633
60°	9377	13640	9377
65°	8069	10086	7060
70°	6231	7478	6231
75°	6588	6588	4941
80°	4909	4909	4909
85°	4891	4891	4891

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	15.7
10°-20°	136.5	29.4
20°-30°	113.6	24.4
30°-40°	69.8	15.0
40°-50°	37.5	8.1
50°-60°	19.9	4.3
60°-70°	9.5	2.0
70°-80°	4.3	0.9
80°-90°	0.9	0.2
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°	323.3	69.5
0°-40°	393.1	84.5
0°-60°	450.5	96.9
0°-90°	465.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	465.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	821	821	821	821	820	73
15°	492	492	493	492	488	137
25°	244	248	248	244	245	113
35°	101	107	114	111	108	65
45°	42	45	53	48	44	33
55°	19	21	25	22	19	17
65°	9	9	11	9	8	9
75°	4	4	4	3	3	4
85°	1	1	1	1	1	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	891.0	891.0	891.0	891.0	891.0
2.5°	871.2	872.3	872.3	872.3	872.3
5°	820.6	820.6	820.6	820.6	819.5
7.5°	746.9	744.7	746.9	746.9	746.9
10°	660.0	660.0	660.0	661.1	661.1
12.5°	574.2	576.4	576.4	573.1	575.3
15°	491.7	491.7	492.8	491.7	488.4
17.5°	418.0	416.9	416.9	415.8	414.7
20°	354.2	353.1	353.1	353.1	354.2
22.5°	297.0	295.9	294.8	294.8	294.8
25°	244.2	247.5	247.5	244.2	245.3
27.5°	199.1	202.4	203.5	202.4	202.4
30°	160.6	165.0	168.3	167.2	165.0
32.5°	128.7	134.2	139.7	136.4	135.3
35°	101.2	106.7	114.4	111.1	107.8
37.5°	79.2	85.8	94.6	90.2	86.9
40°	63.8	68.2	78.1	73.7	69.3
42.5°	50.6	55.0	63.8	59.4	55.0
45°	41.8	45.1	52.8	48.4	44.0
47.5°	35.2	37.4	42.9	39.6	36.3
50°	28.6	30.8	36.3	33.0	28.6
52.5°	23.1	26.4	30.8	26.4	23.1
55°	18.7	20.9	25.3	22.0	18.7
57.5°	15.4	17.6	20.9	17.6	15.4
60°	12.1	13.2	17.6	14.3	12.1
62.5°	9.9	11.0	14.3	11.0	8.8
65°	8.8	8.8	11.0	8.8	7.7
67.5°	7.7	7.7	8.8	6.6	6.6
70°	5.5	6.6	6.6	5.5	5.5
72.5°	4.4	5.5	5.5	4.4	4.4
75°	4.4	4.4	4.4	3.3	3.3
77.5°	3.3	3.3	3.3	3.3	2.2
80°	2.2	2.2	2.2	2.2	2.2
82.5°	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	1.1
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)