

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: P990588

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D25NFL-TL2SDSL-550LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990588
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D25NFL-TL2SDSL-550LM-3000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 25D TIR,
 METALLIC SILVER TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

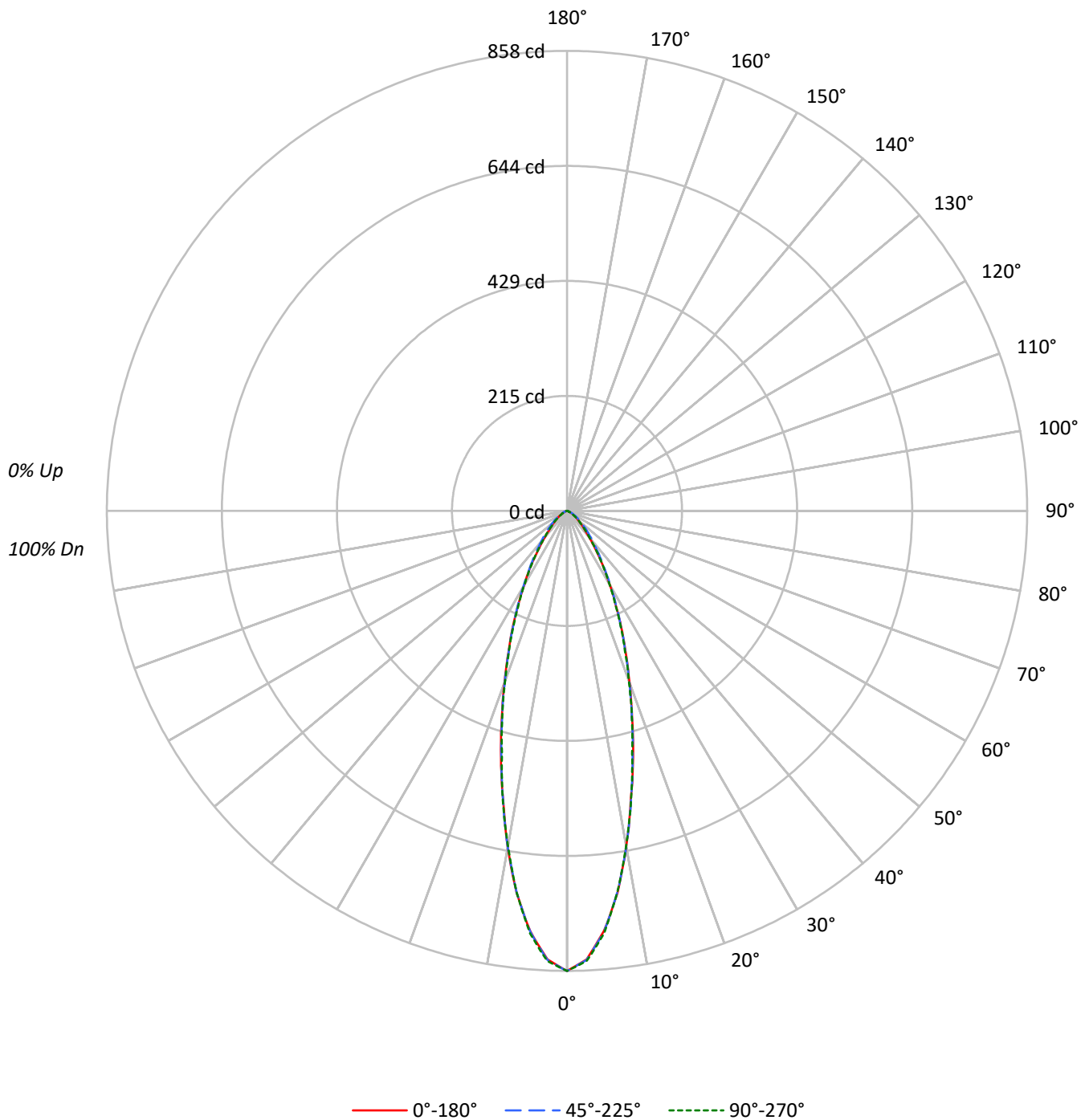
Lumens per Lamp: N/A
 Luminaire Lumens: 445.7 lumens
 Efficiency: N/A
 Efficacy: 58.6 lumens/watt
 Spacing Criteria (0/90/45): 0.54 / 0.53 / 0.6
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	111	108	106	111	108	106	104	104	102	101		101	99	98		97
2	108	103	98	95	105	101	97	94	98	95	92		95	92	90		92
3	102	96	90	86	100	94	89	86	91	88	84		89	86	83		87
4	97	89	84	79	95	88	83	79	86	82	78		84	80	77		82
5	92	84	78	74	90	83	77	73	81	76	73		79	75	72		78
6	88	79	73	69	86	78	72	68	76	72	68		75	71	67		74
7	84	74	68	64	82	74	68	64	72	67	64		71	67	63		70
8	80	70	64	60	79	70	64	60	69	64	60		68	63	60		67
9	76	67	61	57	75	66	61	57	65	60	57		65	60	57		64
10	73	64	58	54	72	63	58	54	62	57	54		62	57	54		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	332513	332513	332513
5°	306127	306516	307722
10°	250370	250370	249543
15°	190997	189753	188068
20°	140246	139834	138968
25°	102015	101588	100690
30°	71636	72576	71189
35°	49008	52461	49481
40°	32829	38090	33335
45°	22961	28661	23509
50°	17060	21461	17060
55°	12701	16282	12025
60°	8912	12167	8137
65°	5776	8619	5776
70°	4758	5891	3512
75°	3144	3144	3144
80°	2232	2232	2232
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	15.8
10°-20°	131.3	29.5
20°-30°	109.7	24.6
30°-40°	68.3	15.3
40°-50°	36.8	8.3
50°-60°	18.9	4.2
60°-70°	7.8	1.7
70°-80°	2.3	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°	311.4	69.9
0°-40°	379.7	85.2
0°-60°	435.5	97.7
0°-90°	445.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	445.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	787	789	788	791	791	70
15°	476	473	473	472	469	132
25°	239	239	238	236	236	110
35°	104	108	111	107	105	66
45°	42	45	52	46	43	33
55°	19	21	24	21	18	17
65°	6	7	9	7	6	7
75°	2	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°	858.1	858.1	858.1	858.1	858.1
2.5°	837.2	840.3	838.2	840.3	840.3
5°	787.0	789.0	788.0	791.1	791.1
7.5°	718.9	718.9	717.9	717.9	717.9
10°	636.3	636.3	636.3	636.3	634.2
12.5°	550.4	552.5	551.5	550.4	552.5
15°	476.1	473.0	473.0	472.0	468.8
17.5°	403.9	403.9	401.8	398.7	401.8
20°	340.1	341.2	339.1	339.1	337.0
22.5°	285.7	286.7	284.6	284.6	282.5
25°	238.6	238.6	237.6	235.5	235.5
27.5°	195.7	197.8	197.8	194.6	193.6
30°	160.1	162.2	162.2	160.1	159.1
32.5°	130.8	132.9	132.9	131.9	129.8
35°	103.6	107.8	110.9	106.7	104.6
37.5°	81.6	86.9	91.0	87.9	83.7
40°	64.9	69.1	75.3	71.2	65.9
42.5°	51.3	55.5	62.8	57.6	53.4
45°	41.9	45.0	52.3	46.0	42.9
47.5°	33.5	36.6	42.9	38.7	34.5
50°	28.3	30.3	35.6	31.4	28.3
52.5°	23.0	25.1	29.3	25.1	22.0
55°	18.8	20.9	24.1	20.9	17.8
57.5°	14.7	15.7	19.9	15.7	13.6
60°	11.5	12.6	15.7	12.6	10.5
62.5°	8.4	9.4	12.6	9.4	8.4
65°	6.3	7.3	9.4	7.3	6.3
67.5°	5.2	5.2	6.3	5.2	4.2
70°	4.2	4.2	5.2	4.2	3.1
72.5°	3.1	3.1	3.1	3.1	3.1
75°	2.1	2.1	2.1	2.1	2.1
77.5°	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0
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)