

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: P990631

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-TL2SDSL-550LM-5000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990631
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D40FL-TL2SDSL-550LM-5000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

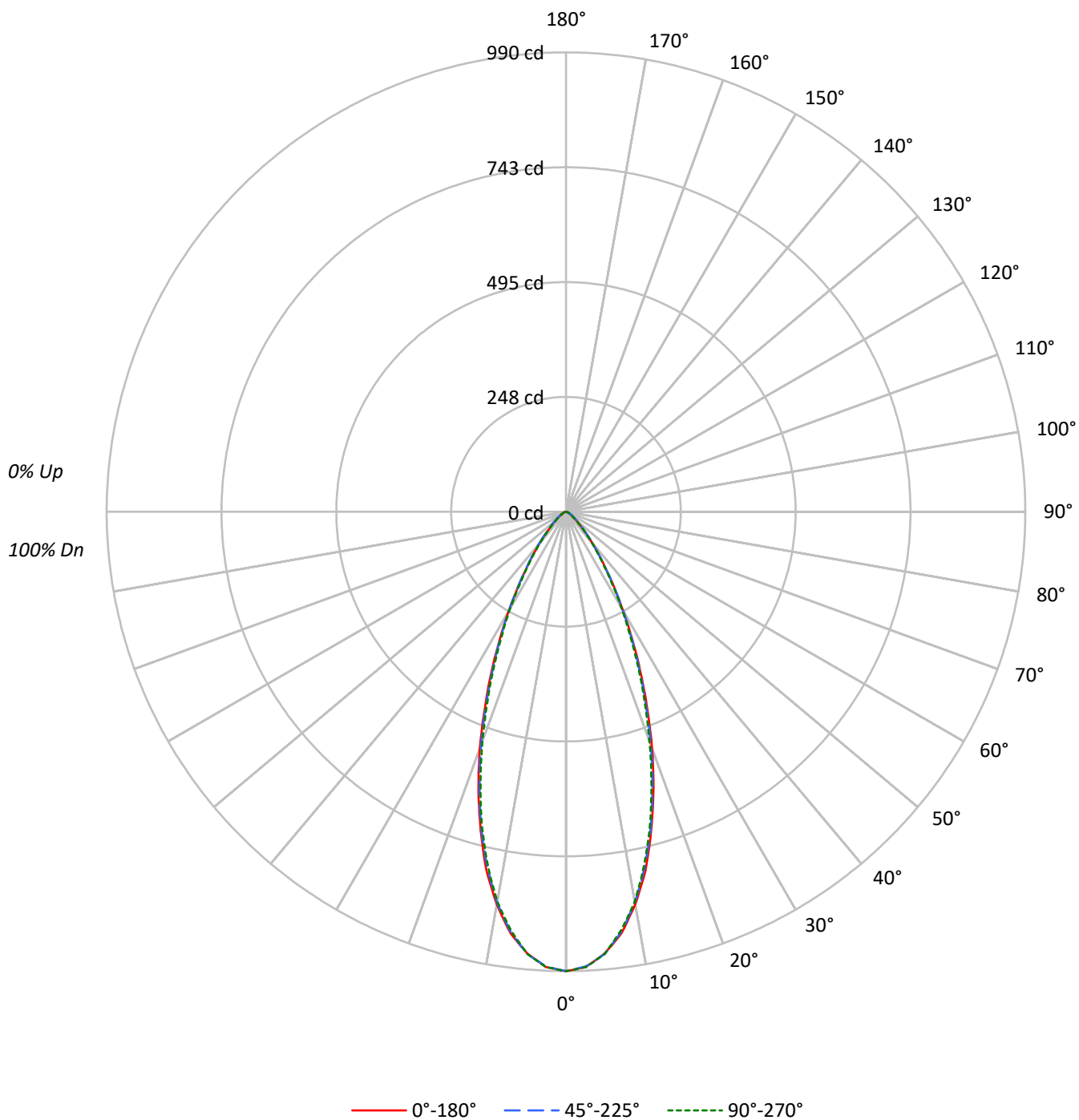
Lumens per Lamp: N/A
 Luminaire Lumens: 618.4 lumens
 Efficiency: N/A
 Efficacy: 81.4 lumens/watt
 Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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	114	111	108	106	111	109	106	104	105	103	101		101	99	98		97
2	108	103	99	96	106	101	98	95	98	95	93		95	93	91		92
3	103	96	91	87	101	95	90	87	92	88	85		90	87	84		88
4	98	90	85	80	96	89	84	80	87	82	79		85	81	78		83
5	93	85	79	75	91	84	78	74	82	77	74		80	76	73		79
6	88	80	74	70	87	79	73	69	77	73	69		76	72	69		75
7	84	75	69	65	83	75	69	65	73	68	65		72	68	64		71
8	81	71	66	62	79	71	65	61	70	65	61		69	64	61		68
9	77	68	62	58	76	67	62	58	66	61	58		65	61	58		65
10	74	64	59	55	73	64	59	55	63	58	55		62	58	55		62

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	95907	95907	95907
5°	92918	93025	93025
10°	84480	84136	83910
15°	71238	70777	70195
20°	55897	55186	54237
25°	40479	39870	39133
30°	27429	27429	26780
35°	17562	17834	17018
40°	11065	11356	10623
45°	6782	7261	6617
50°	4340	4853	4160
55°	2922	3310	2719
60°	2228	2461	2015
65°	1857	2109	1582
70°	1303	1643	1303
75°	861	1310	861
80°	0	669	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	14.2
10°-20°	194.1	31.4
20°-30°	171.5	27.7
30°-40°	95.5	15.4
40°-50°	41.2	6.7
50°-60°	17.1	2.8
60°-70°	8.1	1.3
70°-80°	2.8	0.4
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°	453.6	73.4
0°-40°	549.2	88.8
0°-60°	607.5	98.2
0°-90°	618.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	618.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	956	957	957	956	957	88
15°	710	708	706	701	700	196
25°	379	379	373	370	366	174
35°	148	150	151	147	144	96
45°	50	52	53	51	48	41
55°	17	18	20	18	16	16
65°	8	8	9	8	7	8
75°	2	2	4	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°	990.0	990.0	990.0	990.0	990.0
2.5°	982.0	982.0	980.8	983.1	982.0
5°	955.5	956.6	956.6	955.5	956.6
7.5°	916.3	915.2	912.9	911.7	909.4
10°	858.8	857.6	855.3	855.3	853.0
12.5°	792.0	789.7	784.0	780.5	779.3
15°	710.3	708.0	705.7	701.1	699.9
17.5°	627.4	623.9	619.3	615.9	612.4
20°	542.2	539.9	535.3	528.4	526.1
22.5°	457.0	454.7	450.1	444.4	442.1
25°	378.7	378.7	373.0	369.5	366.1
27.5°	307.4	309.7	303.9	300.5	297.0
30°	245.2	246.4	245.2	240.6	239.4
32.5°	193.4	194.5	193.4	188.8	186.5
35°	148.5	149.7	150.8	147.4	143.9
37.5°	115.1	116.3	116.3	112.8	110.5
40°	87.5	88.6	89.8	86.3	84.0
42.5°	66.8	67.9	69.1	65.6	63.3
45°	49.5	51.8	53.0	50.7	48.3
47.5°	38.0	39.1	41.4	38.0	35.7
50°	28.8	29.9	32.2	29.9	27.6
52.5°	21.9	24.2	25.3	23.0	20.7
55°	17.3	18.4	19.6	18.4	16.1
57.5°	13.8	15.0	16.1	13.8	12.7
60°	11.5	11.5	12.7	11.5	10.4
62.5°	9.2	9.2	10.4	9.2	9.2
65°	8.1	8.1	9.2	8.1	6.9
67.5°	5.8	6.9	6.9	6.9	5.8
70°	4.6	4.6	5.8	5.8	4.6
72.5°	3.5	3.5	4.6	3.5	3.5
75°	2.3	2.3	3.5	2.3	2.3
77.5°	1.2	1.2	1.2	1.2	1.2
80°	0.0	0.0	1.2	1.2	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)