

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: P990616

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-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: P990616
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D40FL-TL2SDMB-550LM-5000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

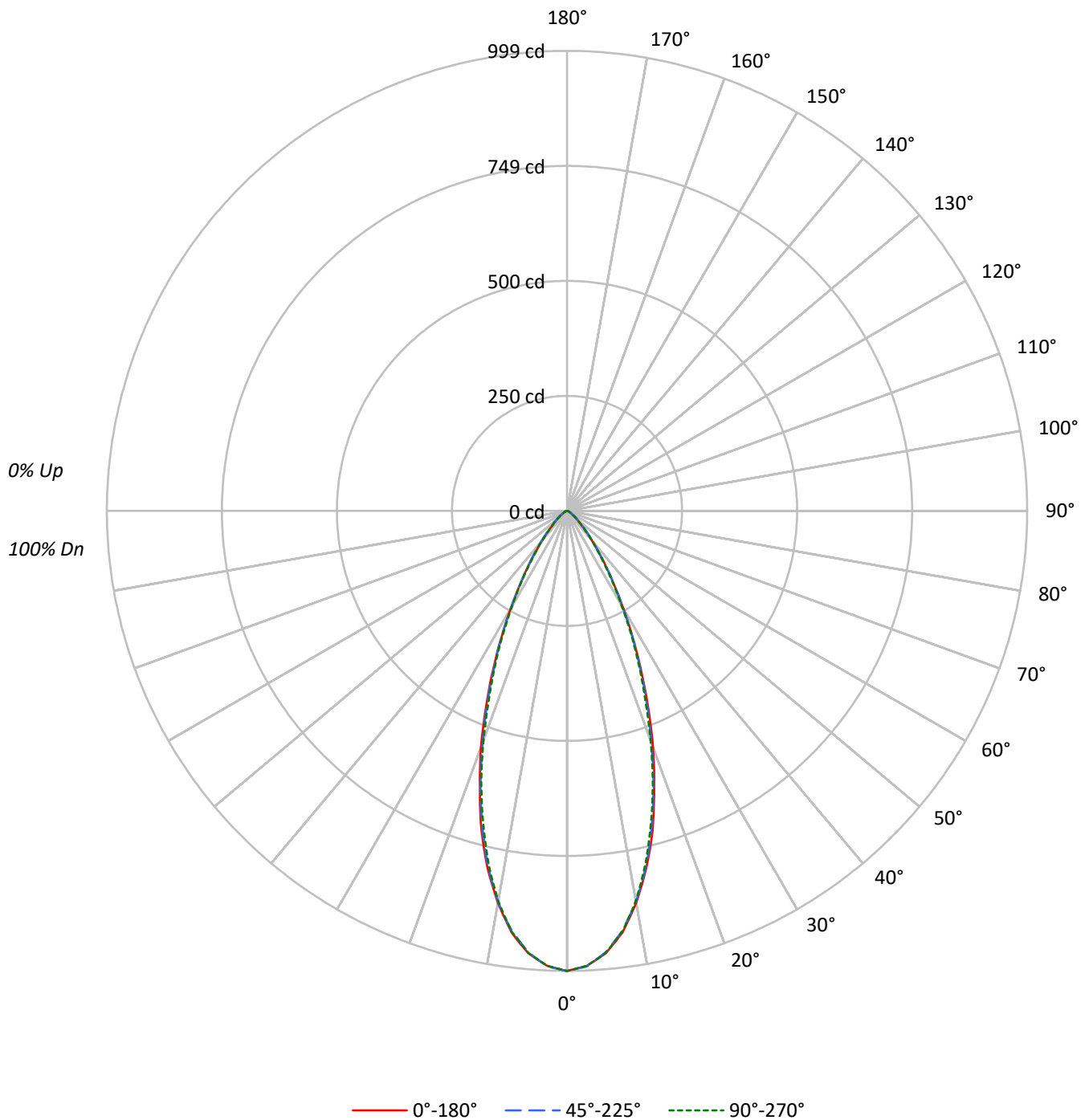
Lumens per Lamp: N/A
 Luminaire Lumens: 614.6 lumens
 Efficiency: N/A
 Efficacy: 80.9 lumens/watt
 Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	114	111	108	106	111	109	106	104	105	103	101		101	100	98		97
2	108	103	99	96	106	102	98	95	98	95	93		95	93	91		93
3	103	96	92	88	101	95	91	87	92	89	86		90	87	84		88
4	98	90	85	81	96	89	84	80	87	83	79		85	82	79		83
5	93	85	79	75	92	84	79	75	82	78	74		81	77	73		79
6	89	80	74	70	87	79	74	70	78	73	69		76	72	69		75
7	85	76	70	66	83	75	70	66	74	69	65		73	68	65		72
8	81	72	66	62	80	71	66	62	70	65	62		69	65	61		68
9	77	68	62	59	76	68	62	59	67	62	58		66	61	58		65
10	74	65	59	56	73	64	59	55	64	59	55		63	58	55		62

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	387151	387151	387151
5°	375210	374315	374743
10°	340122	339217	338312
15°	288160	284910	282142
20°	224988	220246	218803
25°	161916	159950	157470
30°	108685	108685	105597
35°	69680	70248	67504
40°	42491	44261	41935
45°	25208	27729	25866
50°	15975	18025	15252
55°	10134	12431	10134
60°	7130	8912	7130
65°	5318	6327	5318
70°	3965	5212	3965
75°	1797	3444	3444
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	14.4
10°-20°	195.6	31.8
20°-30°	171.8	28.0
30°-40°	94.2	15.3
40°-50°	39.4	6.4
50°-60°	15.6	2.5
60°-70°	6.9	1.1
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°	456.2	74.2
0°-40°	550.4	89.6
0°-60°	605.4	98.5
0°-90°	614.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	999	999	999	999	999	
5°	965	963	962	962	963	89
15°	718	716	710	706	703	197
25°	379	381	374	368	368	174
35°	147	148	148	146	143	94
45°	46	48	51	48	47	38
55°	15	16	18	16	15	14
65°	6	7	7	7	6	6
75°	1	2	2	2	2	1
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°	999.1	999.1	999.1	999.1	999.1
2.5°	988.8	989.9	989.9	989.9	988.8
5°	964.6	963.4	962.3	962.3	963.4
7.5°	923.2	923.2	919.7	920.9	920.9
10°	864.4	867.9	862.1	862.1	859.8
12.5°	795.4	796.5	791.9	789.6	786.2
15°	718.3	716.0	710.2	705.6	703.3
17.5°	629.6	628.5	625.0	619.3	619.3
20°	545.6	541.0	534.1	532.9	530.6
22.5°	459.3	457.0	452.4	445.5	443.2
25°	378.7	381.0	374.1	368.3	368.3
27.5°	307.3	308.5	306.2	300.4	299.3
30°	242.9	245.2	242.9	239.4	236.0
32.5°	189.9	191.1	191.1	188.8	185.3
35°	147.3	148.5	148.5	146.2	142.7
37.5°	110.5	112.8	114.0	111.7	109.4
40°	84.0	85.2	87.5	84.0	82.9
42.5°	63.3	64.5	66.8	64.5	62.2
45°	46.0	48.3	50.6	48.3	47.2
47.5°	35.7	36.8	39.1	36.8	34.5
50°	26.5	27.6	29.9	27.6	25.3
52.5°	20.7	21.9	24.2	21.9	19.6
55°	15.0	16.1	18.4	16.1	15.0
57.5°	11.5	12.7	13.8	12.7	11.5
60°	9.2	10.4	11.5	10.4	9.2
62.5°	8.1	8.1	9.2	8.1	8.1
65°	5.8	6.9	6.9	6.9	5.8
67.5°	4.6	5.8	5.8	5.8	5.8
70°	3.5	4.6	4.6	4.6	3.5
72.5°	2.3	3.5	3.5	3.5	3.5
75°	1.2	2.3	2.3	2.3	2.3
77.5°	0.0	1.2	1.2	1.2	1.2
80°	0.0	0.0	0.0	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)