

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: P990623

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-TL2SDMW-550LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990623
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D40FL-TL2SDMW-550LM-3000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

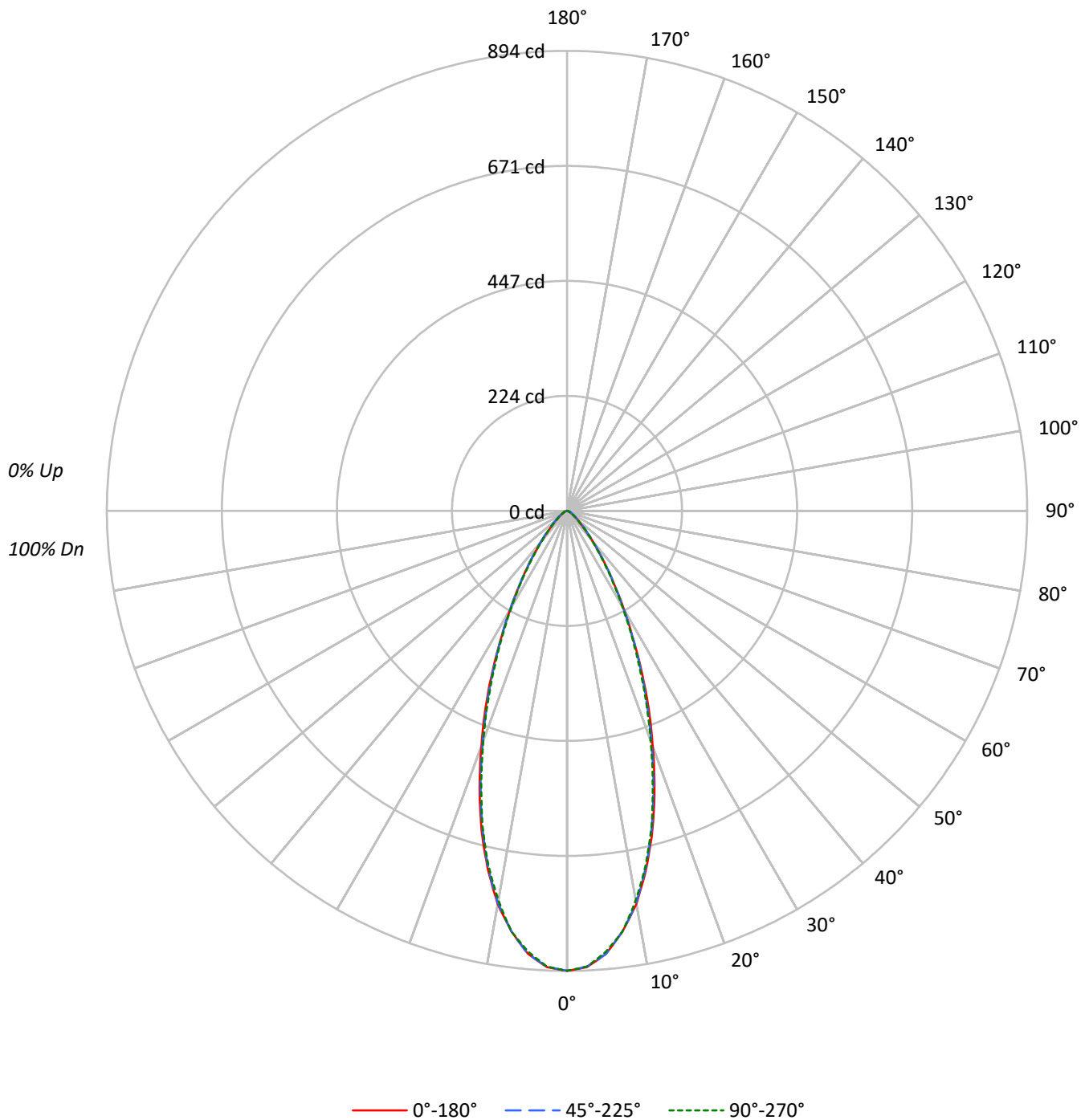
Lumens per Lamp: N/A
 Luminaire Lumens: 559.5 lumens
 Efficiency: N/A
 Efficacy: 73.6 lumens/watt
 Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	113	111	108	106	111	108	106	104	104	103	101		101	99	98		97
2	108	103	99	95	106	101	97	94	98	95	92		95	92	90		92
3	102	96	91	87	100	95	90	86	92	88	85		90	86	84		87
4	97	90	84	80	96	89	84	80	87	82	79		85	81	78		83
5	93	84	79	74	91	84	78	74	82	77	73		80	76	73		79
6	88	80	74	69	87	79	73	69	77	72	69		76	72	68		75
7	84	75	69	65	83	74	69	65	73	68	65		72	68	64		71
8	80	71	65	61	79	71	65	61	69	64	61		68	64	61		68
9	77	68	62	58	76	67	62	58	66	61	58		65	61	57		64
10	74	64	59	55	73	64	58	55	63	58	55		62	58	54		62

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	346308	346308	346308
5°	336234	336234	334639
10°	305142	304315	302269
15°	257350	255264	254421
20°	200658	197648	195916
25°	145883	144515	141394
30°	98796	98796	95977
35°	63862	64382	61875
40°	39152	40771	38141
45°	24112	26359	23509
50°	15794	17663	15131
55°	10607	12701	10607
60°	8137	9765	8137
65°	6693	7702	6693
70°	5891	7138	5891
75°	4641	4641	4641
80°	2232	2232	2232
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.5	14.2
10°-20°	175.1	31.3
20°-30°	154.4	27.6
30°-40°	85.8	15.3
40°-50°	37.0	6.6
50°-60°	15.8	2.8
60°-70°	8.1	1.4
70°-80°	3.4	0.6
80°-90°	0.4	0.1
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°	409.0	73.1
0°-40°	494.9	88.4
0°-60°	547.7	97.9
0°-90°	559.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	559.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	864	863	864	863	860	80
15°	642	640	636	632	634	176
25°	341	339	338	331	331	156
35°	135	134	136	132	131	86
45°	44	46	48	45	43	36
55°	16	17	19	17	16	15
65°	7	8	8	8	7	7
75°	3	3	3	3	3	3
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°	893.7	893.7	893.7	893.7	893.7
2.5°	887.5	886.4	886.4	885.4	886.4
5°	864.4	863.4	864.4	863.4	860.3
7.5°	824.7	826.8	824.7	823.6	824.7
10°	775.5	774.4	773.4	771.3	768.2
12.5°	711.6	710.6	708.5	704.3	705.4
15°	641.5	640.5	636.3	632.1	634.2
17.5°	565.1	563.0	558.9	556.8	553.6
20°	486.6	486.6	479.3	476.2	475.1
22.5°	413.4	410.2	405.0	401.9	401.9
25°	341.2	339.1	338.0	330.7	330.7
27.5°	274.2	277.3	275.2	269.0	269.0
30°	220.8	219.8	220.8	216.6	214.5
32.5°	172.7	174.8	173.7	171.6	169.5
35°	135.0	134.0	136.1	131.9	130.8
37.5°	101.5	102.6	104.7	101.5	99.4
40°	77.4	79.5	80.6	78.5	75.4
42.5°	58.6	60.7	61.7	59.7	57.6
45°	44.0	46.0	48.1	45.0	42.9
47.5°	33.5	35.6	37.7	34.5	32.4
50°	26.2	27.2	29.3	26.2	25.1
52.5°	19.9	20.9	23.0	20.9	19.9
55°	15.7	16.7	18.8	16.7	15.7
57.5°	13.6	13.6	14.7	13.6	12.6
60°	10.5	11.5	12.6	11.5	10.5
62.5°	8.4	9.4	10.5	9.4	8.4
65°	7.3	8.4	8.4	8.4	7.3
67.5°	6.3	6.3	7.3	6.3	6.3
70°	5.2	5.2	6.3	5.2	5.2
72.5°	4.2	4.2	5.2	4.2	4.2
75°	3.1	3.1	3.1	3.1	3.1
77.5°	2.1	2.1	2.1	2.1	2.1
80°	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0
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)