

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: P990625

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-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: P990625
 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-4000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

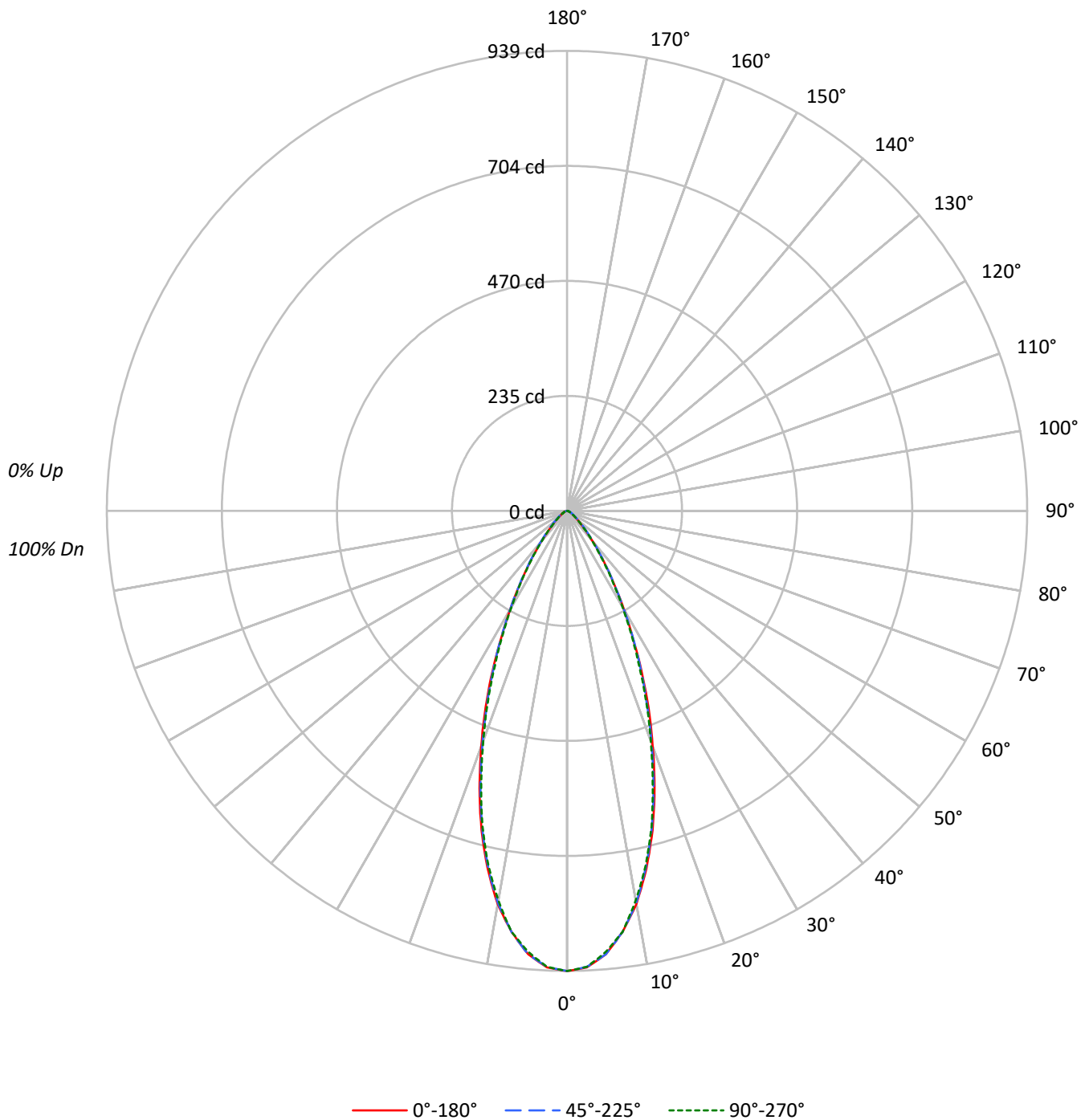
Lumens per Lamp: N/A
 Luminaire Lumens: 588.0 lumens
 Efficiency: N/A
 Efficacy: 77.4 lumens/watt
 Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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	83	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°	363939	363939	363939
5°	353349	353349	351638
10°	320645	319779	317615
15°	270428	268222	267339
20°	210885	207710	205895
25°	153280	151869	148576
30°	103807	103807	100854
35°	67126	67646	65044
40°	41176	42845	40063
45°	25318	27729	24715
50°	16578	18568	15915
55°	11147	13377	11147
60°	8525	10230	8525
65°	7060	8069	7060
70°	6231	7478	6231
75°	4941	4941	4941
80°	2455	2455	2455
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	14.2
10°-20°	184.0	31.3
20°-30°	162.2	27.6
30°-40°	90.2	15.3
40°-50°	38.9	6.6
50°-60°	16.7	2.8
60°-70°	8.5	1.4
70°-80°	3.6	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°	429.8	73.1
0°-40°	520.0	88.4
0°-60°	575.6	97.9
0°-90°	588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	588.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	939	939	939	939	939	
5°	908	907	908	907	904	84
15°	674	673	669	664	666	185
25°	358	356	355	348	348	164
35°	142	141	143	139	138	90
45°	46	48	51	47	45	38
55°	16	18	20	18	16	16
65°	8	9	9	9	8	8
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°	939.2	939.2	939.2	939.2	939.2
2.5°	932.6	931.5	931.5	930.4	931.5
5°	908.4	907.3	908.4	907.3	904.0
7.5°	866.6	868.8	866.6	865.5	866.6
10°	814.9	813.8	812.7	810.5	807.2
12.5°	747.8	746.7	744.5	740.1	741.2
15°	674.1	673.0	668.6	664.2	666.4
17.5°	593.9	591.7	587.3	585.1	581.8
20°	511.4	511.4	503.7	500.4	499.3
22.5°	434.4	431.1	425.6	422.3	422.3
25°	358.5	356.3	355.2	347.5	347.5
27.5°	288.1	291.4	289.2	282.6	282.6
30°	232.0	230.9	232.0	227.6	225.4
32.5°	181.5	183.7	182.6	180.4	178.2
35°	141.9	140.8	143.0	138.6	137.5
37.5°	106.7	107.8	110.0	106.7	104.5
40°	81.4	83.6	84.7	82.5	79.2
42.5°	61.6	63.8	64.9	62.7	60.5
45°	46.2	48.4	50.6	47.3	45.1
47.5°	35.2	37.4	39.6	36.3	34.1
50°	27.5	28.6	30.8	27.5	26.4
52.5°	20.9	22.0	24.2	22.0	20.9
55°	16.5	17.6	19.8	17.6	16.5
57.5°	14.3	14.3	15.4	14.3	13.2
60°	11.0	12.1	13.2	12.1	11.0
62.5°	8.8	9.9	11.0	9.9	8.8
65°	7.7	8.8	8.8	8.8	7.7
67.5°	6.6	6.6	7.7	6.6	6.6
70°	5.5	5.5	6.6	5.5	5.5
72.5°	4.4	4.4	5.5	4.4	4.4
75°	3.3	3.3	3.3	3.3	3.3
77.5°	2.2	2.2	2.2	2.2	2.2
80°	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1
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)