

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: P990626

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-TL2SDMW-550LM-5000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
Report Number: P990626
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-5000K
Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

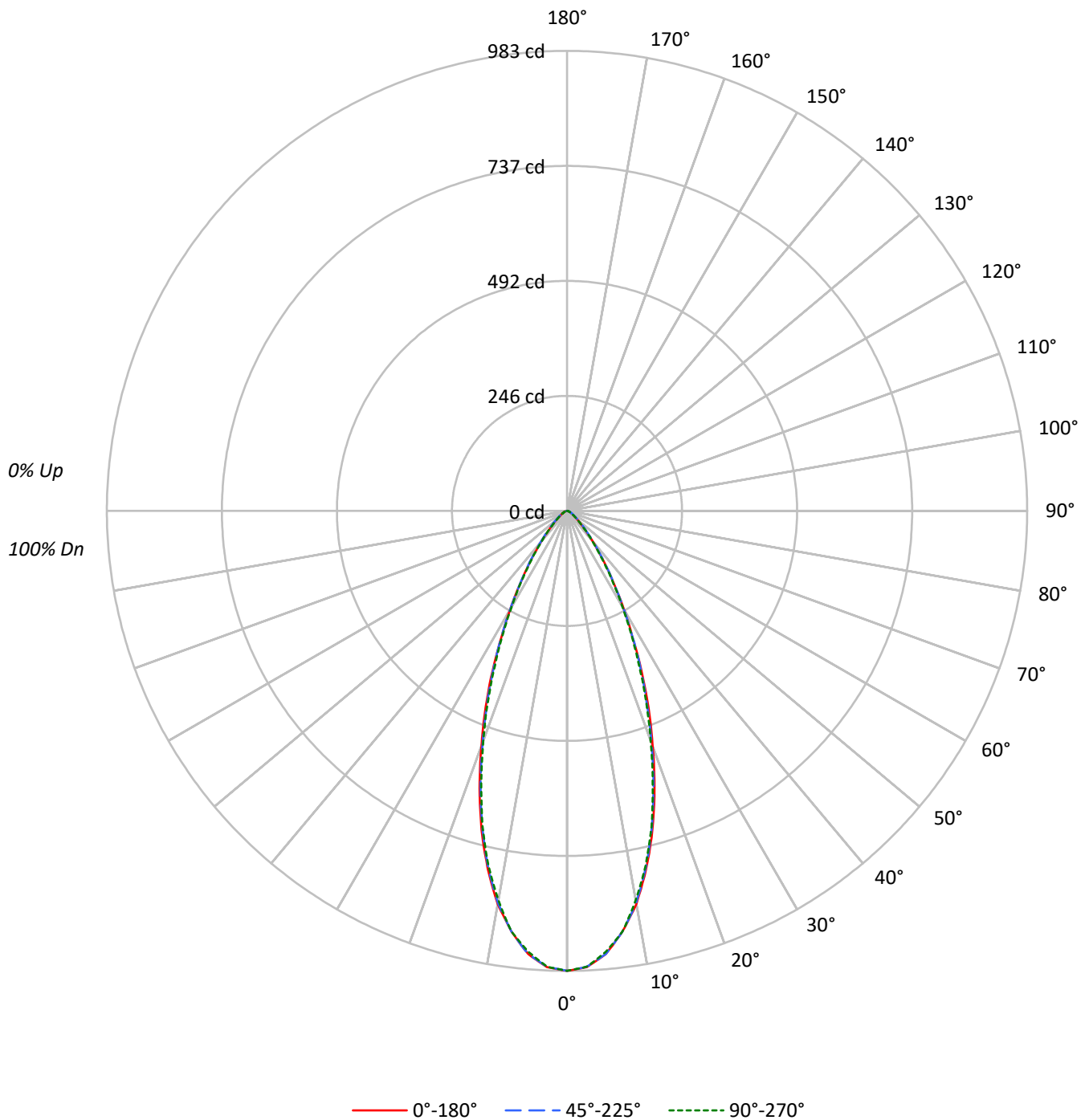
Lumens per Lamp: N/A
Luminaire Lumens: 615.4 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

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°	380834	380834	380834
5°	369764	369764	367975
10°	335557	334652	332370
15°	283025	280698	279775
20°	220658	217359	215462
25°	160420	158923	155503
30°	108640	108640	105552
35°	70248	70768	68072
40°	43098	44818	41935
45°	26469	28990	25866
50°	17362	19412	16638
55°	11688	13985	11688
60°	8912	10695	8912
65°	7427	8435	7427
70°	6571	7818	6571
75°	5240	5240	5240
80°	2678	2678	2678
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.4	14.2
10°-20°	192.6	31.3
20°-30°	169.8	27.6
30°-40°	94.4	15.3
40°-50°	40.7	6.6
50°-60°	17.4	2.8
60°-70°	8.9	1.4
70°-80°	3.8	0.6
80°-90°	0.5	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°	449.8	73.1
0°-40°	544.2	88.4
0°-60°	602.3	97.9
0°-90°	615.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	615.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	951	950	951	950	946	88
15°	706	704	700	695	697	194
25°	375	373	372	364	364	172
35°	148	147	150	145	144	95
45°	48	51	53	50	47	39
55°	17	18	21	18	17	17
65°	8	9	9	9	8	8
75°	4	4	4	4	4	4
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°	982.8	982.8	982.8	982.8	982.8
2.5°	975.9	974.8	974.8	973.6	974.8
5°	950.6	949.5	950.6	949.5	946.0
7.5°	906.9	909.2	906.9	905.7	906.9
10°	852.8	851.6	850.5	848.2	844.7
12.5°	782.6	781.4	779.1	774.5	775.7
15°	705.5	704.3	699.7	695.1	697.4
17.5°	621.5	619.2	614.6	612.3	608.8
20°	535.1	535.1	527.1	523.6	522.5
22.5°	454.6	451.1	445.4	441.9	441.9
25°	375.2	372.9	371.7	363.7	363.7
27.5°	301.5	305.0	302.7	295.8	295.8
30°	242.8	241.7	242.8	238.2	235.9
32.5°	189.9	192.2	191.0	188.7	186.4
35°	148.5	147.3	149.6	145.0	143.9
37.5°	111.6	112.8	115.1	111.6	109.3
40°	85.2	87.5	88.6	86.3	82.9
42.5°	64.4	66.7	67.9	65.6	63.3
45°	48.3	50.6	52.9	49.5	47.2
47.5°	36.8	39.1	41.4	38.0	35.7
50°	28.8	29.9	32.2	28.8	27.6
52.5°	21.9	23.0	25.3	23.0	21.9
55°	17.3	18.4	20.7	18.4	17.3
57.5°	15.0	15.0	16.1	15.0	13.8
60°	11.5	12.7	13.8	12.7	11.5
62.5°	9.2	10.4	11.5	10.4	9.2
65°	8.1	9.2	9.2	9.2	8.1
67.5°	6.9	6.9	8.1	6.9	6.9
70°	5.8	5.8	6.9	5.8	5.8
72.5°	4.6	4.6	5.8	4.6	4.6
75°	3.5	3.5	3.5	3.5	3.5
77.5°	2.3	2.3	2.3	2.3	2.3
80°	1.2	1.2	1.2	1.2	1.2
82.5°	1.2	1.2	1.2	1.2	1.2
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)