

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: P990660

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDSL-550LM-4000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990660
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDSL-550LM-4000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR,
 METALLIC SILVER TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

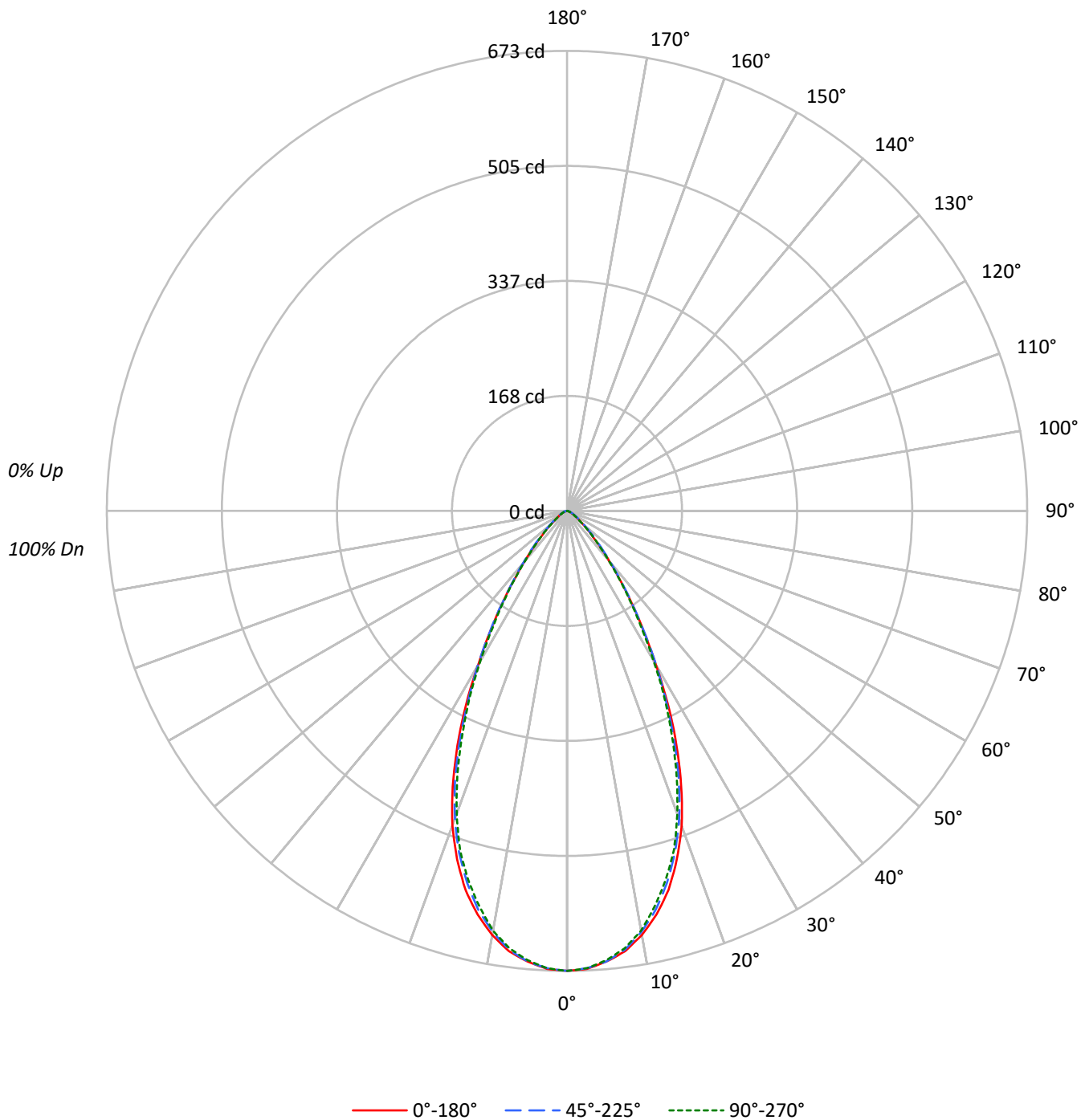
Lumens per Lamp: N/A
 Luminaire Lumens: 566.0 lumens
 Efficiency: N/A
 Efficacy: 74.5 lumens/watt
 Spacing Criteria (0/90/45): 0.84 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93	93	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86	86	86
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79	79	79
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75	74	74	74
5	91	83	77	72	90	82	76	72	80	75	71	78	74	70	77	73	70	68	68	68
6	87	77	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64	64	64
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60	60	60
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56	56	56
9	74	65	59	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52	52	52
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49	49	49

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	260748	260748	260748
5°	257466	257466	256610
10°	247891	246159	245294
15°	230231	226259	224053
20°	202225	197689	194514
25°	162173	158410	155118
30°	116112	116604	113159
35°	78006	78526	75924
40°	48966	50635	47853
45°	29538	31949	29538
50°	18568	20557	17904
55°	11890	14120	11890
60°	9377	10230	8525
65°	7060	8069	7060
70°	4985	6231	4985
75°	3294	4941	3294
80°	0	2455	2455
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	11.0
10°-20°	156.8	27.7
20°-30°	168.4	29.8
30°-40°	104.6	18.5
40°-50°	45.1	8.0
50°-60°	17.8	3.2
60°-70°	8.1	1.4
70°-80°	2.9	0.5
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°	387.3	68.4
0°-40°	491.9	86.9
0°-60°	554.9	98.0
0°-90°	566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	662	662	662	661	660	62
15°	574	571	564	560	558	159
25°	379	376	370	366	363	172
35°	165	167	166	164	160	105
45°	54	56	58	55	54	44
55°	18	19	21	19	18	17
65°	8	8	9	8	8	7
75°	2	2	3	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°	672.9	672.9	672.9	672.9	672.9
2.5°	670.7	669.6	669.6	669.6	669.6
5°	661.9	661.9	661.9	660.8	659.7
7.5°	649.8	648.7	647.6	645.4	645.4
10°	630.0	630.0	625.6	623.4	623.4
12.5°	604.7	603.6	598.1	595.9	592.6
15°	573.9	570.6	564.0	559.6	558.5
17.5°	534.3	529.9	524.4	520.0	520.0
20°	490.4	487.1	479.4	472.8	471.7
22.5°	436.5	433.2	427.7	421.1	418.9
25°	379.3	376.0	370.5	366.1	362.8
27.5°	319.9	318.8	313.3	309.0	309.0
30°	259.5	262.8	260.6	255.1	252.9
32.5°	208.9	210.0	210.0	205.6	202.3
35°	164.9	167.1	166.0	163.8	160.5
37.5°	126.4	128.6	129.7	126.4	125.3
40°	96.8	99.0	100.1	96.8	94.6
42.5°	72.6	74.8	77.0	73.7	71.5
45°	53.9	56.1	58.3	55.0	53.9
47.5°	40.7	41.8	44.0	40.7	39.6
50°	30.8	31.9	34.1	30.8	29.7
52.5°	23.1	24.2	26.4	24.2	22.0
55°	17.6	18.7	20.9	18.7	17.6
57.5°	14.3	15.4	16.5	14.3	13.2
60°	12.1	12.1	13.2	12.1	11.0
62.5°	8.8	9.9	9.9	9.9	8.8
65°	7.7	7.7	8.8	7.7	7.7
67.5°	5.5	6.6	6.6	6.6	5.5
70°	4.4	5.5	5.5	5.5	4.4
72.5°	3.3	4.4	4.4	4.4	3.3
75°	2.2	2.2	3.3	2.2	2.2
77.5°	1.1	1.1	2.2	1.1	1.1
80°	0.0	1.1	1.1	1.1	1.1
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)