

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: P990648

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMB-550LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990648
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMB-550LM-3000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

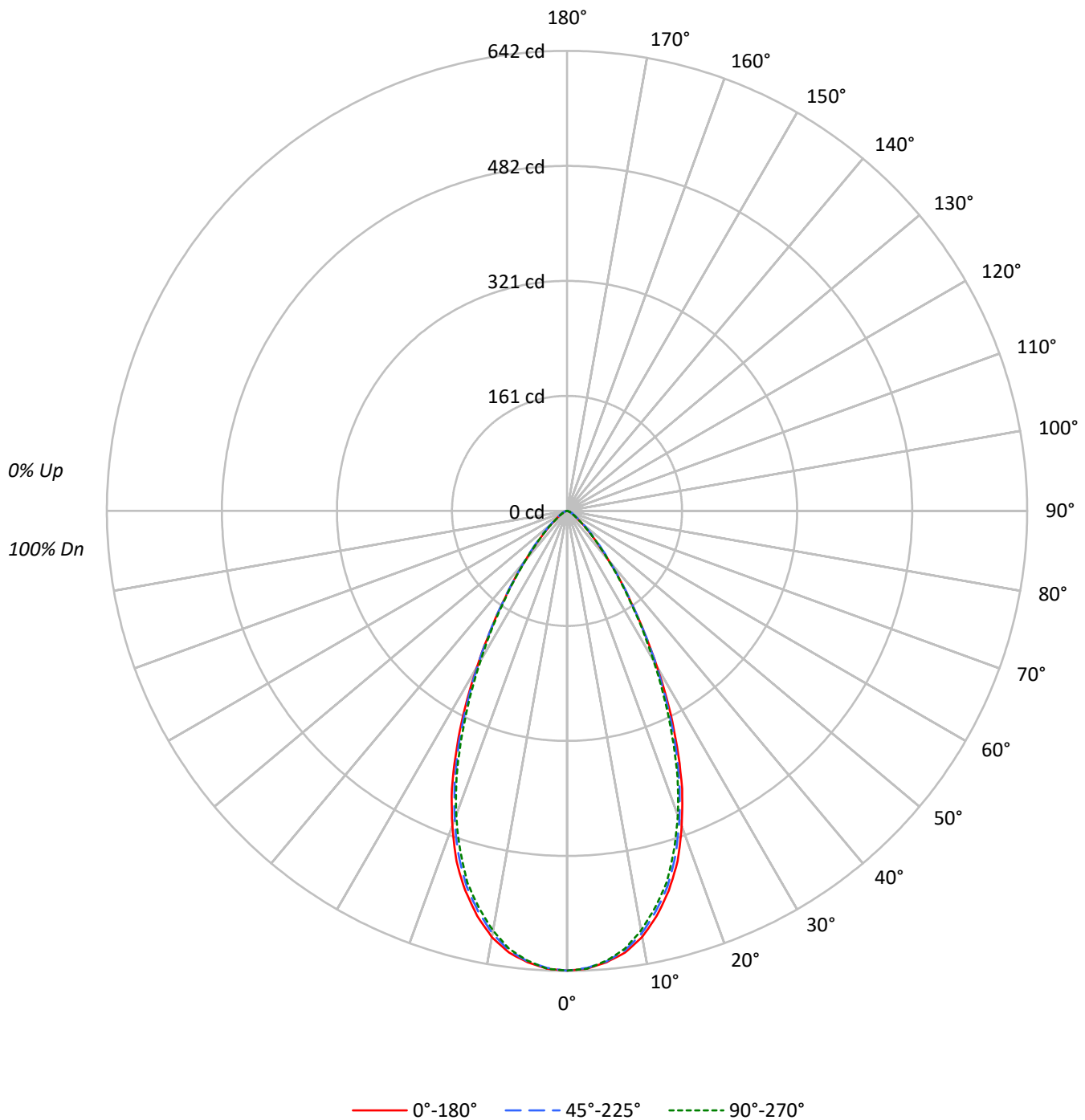
Lumens per Lamp: N/A
 Luminaire Lumens: 536.0 lumens
 Efficiency: N/A
 Efficacy: 70.5 lumens/watt
 Spacing Criteria (0/90/45): 0.85 / 0.82 / 0.82
 Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
 CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	248620	248620	248620
5°	245913	245485	245096
10°	237621	235575	233922
15°	220001	217474	215388
20°	192906	189030	186432
25°	155289	152168	148576
30°	111906	111459	107700
35°	73748	74269	71809
40°	45526	47094	45020
45°	26962	29264	26962
50°	15794	18326	16397
55°	10607	12025	9931
60°	7285	8912	7285
65°	5776	6693	5776
70°	4758	4758	4758
75°	1497	3144	3144
80°	0	2232	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	11.1
10°-20°	150.2	28.0
20°-30°	161.4	30.1
30°-40°	99.2	18.5
40°-50°	41.6	7.8
50°-60°	15.5	2.9
60°-70°	6.8	1.3
70°-80°	2.2	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°	370.8	69.2
0°-40°	470.0	87.7
0°-60°	527.0	98.3
0°-90°	536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	642	642	642	642	642	
5°	632	631	631	631	630	59
15°	548	546	542	537	537	152
25°	363	361	356	352	348	165
35°	156	157	157	154	152	100
45°	49	51	53	51	49	40
55°	16	17	18	16	15	15
65°	6	6	7	6	6	6
75°	1	2	2	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°	641.6	641.6	641.6	641.6	641.6
2.5°	639.5	638.4	638.4	639.5	639.5
5°	632.2	631.1	631.1	631.1	630.1
7.5°	621.7	619.6	618.6	616.5	616.5
10°	603.9	600.8	598.7	595.5	594.5
12.5°	578.8	576.7	572.5	569.4	567.3
15°	548.4	546.3	542.1	536.9	536.9
17.5°	512.8	509.7	503.4	497.1	496.1
20°	467.8	465.7	458.4	453.2	452.1
22.5°	419.7	416.6	409.2	405.0	402.9
25°	363.2	361.1	355.9	351.7	347.5
27.5°	306.7	304.6	300.4	295.1	293.1
30°	250.1	250.1	249.1	243.9	240.7
32.5°	199.9	201.0	199.9	195.7	194.7
35°	155.9	157.0	157.0	153.9	151.8
37.5°	121.4	121.4	121.4	119.3	118.3
40°	90.0	92.1	93.1	91.1	89.0
42.5°	67.0	69.1	71.2	68.0	67.0
45°	49.2	51.3	53.4	51.3	49.2
47.5°	36.6	37.7	40.8	37.7	36.6
50°	26.2	28.3	30.4	28.3	27.2
52.5°	19.9	20.9	23.0	20.9	19.9
55°	15.7	16.7	17.8	15.7	14.7
57.5°	12.6	12.6	13.6	12.6	11.5
60°	9.4	10.5	11.5	10.5	9.4
62.5°	7.3	8.4	8.4	8.4	7.3
65°	6.3	6.3	7.3	6.3	6.3
67.5°	5.2	5.2	6.3	5.2	5.2
70°	4.2	4.2	4.2	4.2	4.2
72.5°	3.1	3.1	3.1	3.1	3.1
75°	1.0	2.1	2.1	2.1	2.1
77.5°	1.0	1.0	1.0	1.0	1.0
80°	0.0	0.0	1.0	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)