

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: P990655

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D55WFL-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: P990655
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML2ALSFL9FS1E-TIR1D55WFL-TL2SDMW-550LM-4000K
 Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 565.2 lumens
 Efficiency: N/A
 Efficacy: 74.4 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

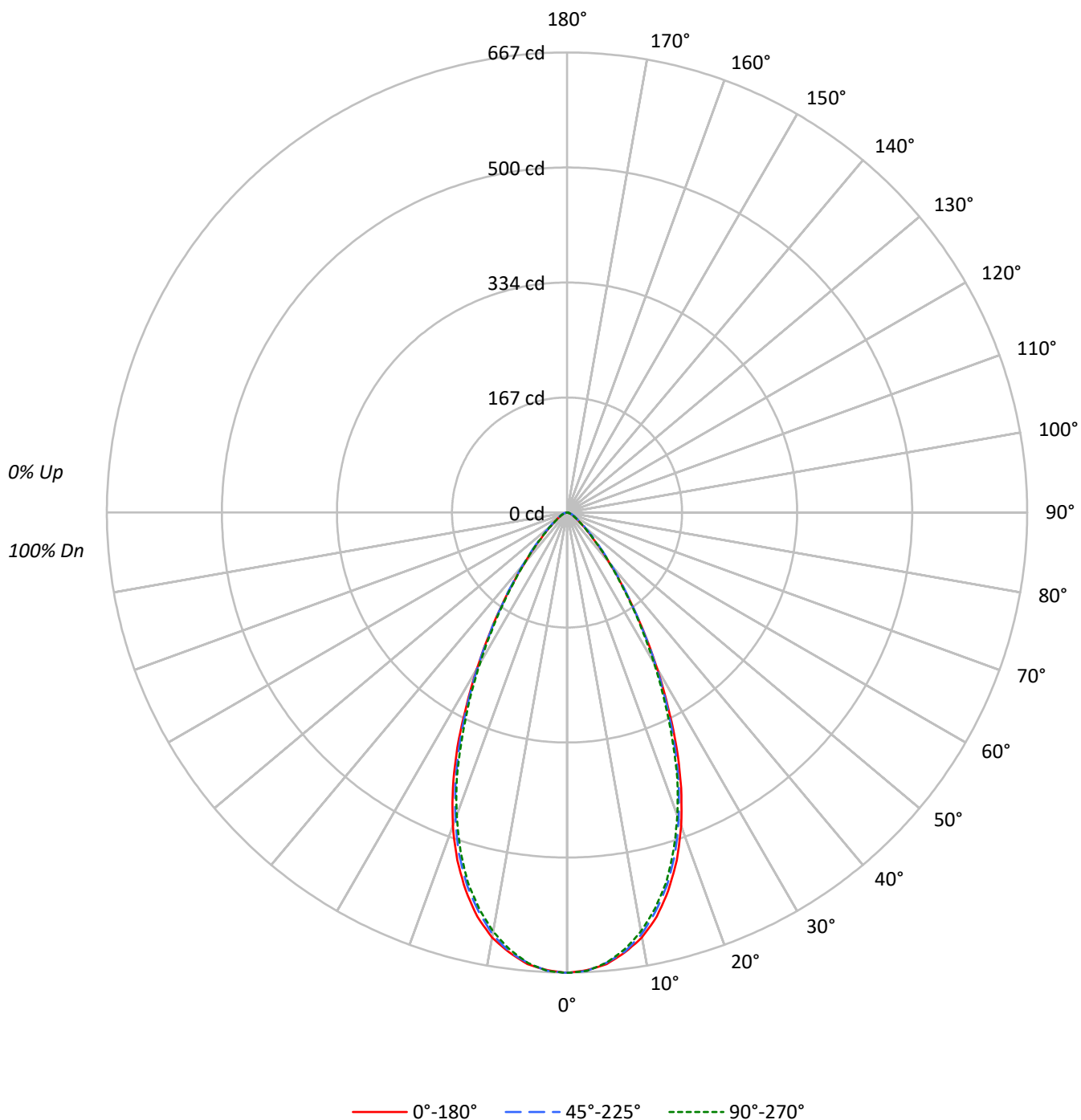
Input Watts (W): 7.6
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT

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

TEST NUMBER: P990655

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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	105	111	108	106	104	104	102	100		100	99	97		97
2	107	102	98	94	105	100	96	93	97	94	91		94	91	89		91
3	101	95	89	85	99	93	88	85	91	87	83		88	85	82		86
4	96	88	82	78	94	87	82	77	85	80	77		83	79	76		81
5	91	82	76	72	89	81	76	71	80	75	71		78	74	70		76
6	86	77	71	66	85	76	70	66	75	70	66		73	69	65		72
7	82	72	66	62	81	72	66	62	70	65	61		69	64	61		68
8	78	68	62	58	77	68	62	58	66	61	57		65	61	57		64
9	74	64	58	54	73	64	58	54	63	58	54		62	57	54		61
10	71	61	55	51	70	60	55	51	60	54	51		59	54	51		58

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	258617	258617	258617
5°	255754	254898	254898
10°	246159	244428	242697
15°	227583	224494	222729
20°	199504	194968	192700
25°	160762	156999	153707
30°	116604	115620	112667
35°	78006	78006	75924
40°	48409	50635	48409
45°	29538	31949	29538
50°	18568	20557	18568
55°	12633	14120	12633
60°	9377	11082	9377
65°	8069	9077	8069
70°	6231	7478	6231
75°	4941	6588	4941
80°	2455	2455	2455
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	10.9
10°-20°	155.4	27.5
20°-30°	166.8	29.5
30°-40°	104.1	18.4
40°-50°	45.3	8.0
50°-60°	18.7	3.3
60°-70°	9.2	1.6
70°-80°	3.7	0.7
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°	383.8	67.9
0°-40°	487.9	86.3
0°-60°	551.9	97.6
0°-90°	565.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	565.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	658	658	655	656	655	62
15°	567	566	560	556	555	157
25°	376	373	367	363	360	170
35°	165	165	165	162	160	105
45°	54	56	58	55	54	44
55°	19	20	21	20	19	18
65°	9	9	10	9	9	8
75°	3	3	4	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°	667.4	667.4	667.4	667.4	667.4
2.5°	664.1	664.1	665.2	665.2	665.2
5°	657.5	657.5	655.3	656.4	655.3
7.5°	643.2	643.2	642.1	639.9	638.8
10°	625.6	623.4	621.2	617.9	616.8
12.5°	600.3	597.0	592.6	591.5	588.2
15°	567.3	566.2	559.6	556.3	555.2
17.5°	528.8	526.6	520.0	514.6	513.5
20°	483.8	479.4	472.8	468.4	467.3
22.5°	432.1	428.8	422.2	417.8	417.8
25°	376.0	372.7	367.2	362.8	359.5
27.5°	315.5	315.5	311.2	306.8	304.6
30°	260.6	260.6	258.4	254.0	251.8
32.5°	210.0	210.0	208.9	204.5	203.4
35°	164.9	164.9	164.9	161.6	160.5
37.5°	127.5	127.5	129.7	125.3	124.2
40°	95.7	97.9	100.1	95.7	95.7
42.5°	72.6	74.8	75.9	73.7	72.6
45°	53.9	56.1	58.3	55.0	53.9
47.5°	40.7	42.9	45.1	41.8	40.7
50°	30.8	33.0	34.1	31.9	30.8
52.5°	24.2	25.3	27.5	24.2	23.1
55°	18.7	19.8	20.9	19.8	18.7
57.5°	15.4	16.5	17.6	15.4	14.3
60°	12.1	13.2	14.3	13.2	12.1
62.5°	9.9	11.0	12.1	11.0	9.9
65°	8.8	8.8	9.9	8.8	8.8
67.5°	6.6	7.7	7.7	7.7	6.6
70°	5.5	6.6	6.6	6.6	5.5
72.5°	4.4	4.4	5.5	4.4	4.4
75°	3.3	3.3	4.4	3.3	3.3
77.5°	1.1	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)