

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: P990801

Luminaire Tested: **ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMB-750LM-5000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990801
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMB-750LM-5000K
 Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

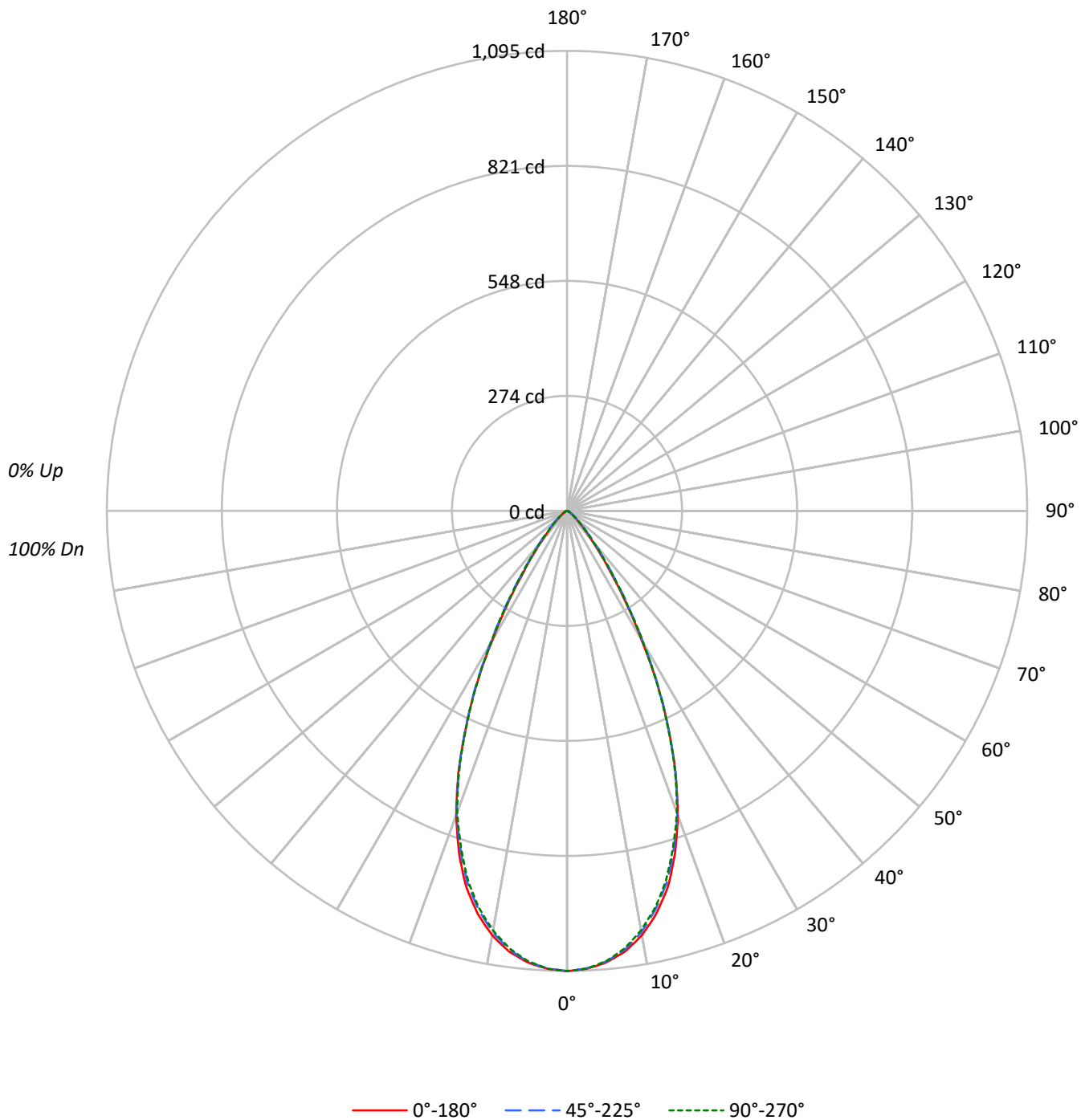
Lumens per Lamp: N/A
 Luminaire Lumens: 808.2 lumens
 Efficiency: N/A
 Efficacy: 83.3 lumens/watt
 Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.78
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

Input Watts (W): 9.7
 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	114	111	108	106	111	109	107	105	105	103	101		101	100	98		98
2	108	103	99	96	106	102	98	95	98	95	93		95	93	91		93
3	103	97	92	88	101	95	91	87	93	89	86		90	87	84		88
4	98	91	85	81	96	89	84	81	87	83	80		85	82	79		83
5	93	85	79	75	92	84	79	75	82	78	74		81	77	74		79
6	89	80	74	70	87	79	74	70	78	73	69		76	72	69		75
7	85	76	70	66	83	75	69	66	74	69	65		73	68	65		71
8	81	72	66	62	80	71	66	62	70	65	61		69	64	61		68
9	77	68	62	58	76	67	62	58	66	61	58		66	61	58		65
10	74	64	59	55	73	64	59	55	63	58	55		62	58	55		62

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	188618	188618	188618
5°	186486	186106	185916
10°	179409	178062	177293
15°	165264	163321	162340
20°	141269	140664	140059
25°	108448	108448	107821
30°	70856	72606	71950
35°	39526	42070	41839
40°	21021	23494	22752
45°	11520	13396	12324
50°	6484	8252	7073
55°	3963	5285	4294
60°	3031	3789	3031
65°	2241	3138	2690
70°	1662	2216	2216
75°	732	1464	1464
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	12.5
10°-20°	253.6	31.4
20°-30°	257.9	31.9
30°-40°	128.9	15.9
40°-50°	43.1	5.3
50°-60°	14.9	1.8
60°-70°	6.7	0.8
70°-80°	2.2	0.3
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°	612.5	75.8
0°-40°	741.4	91.7
0°-60°	799.4	98.9
0°-90°	808.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1079	1079	1076	1075	1075	101
15°	927	922	916	910	910	256
25°	571	575	571	572	567	258
35°	188	194	200	201	199	124
45°	47	51	55	54	51	39
55°	13	15	18	15	14	13
65°	6	7	8	7	7	6
75°	1	2	2	2	2	1
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°	1095.2	1095.2	1095.2	1095.2	1095.2
2.5°	1090.8	1089.7	1089.7	1090.8	1090.8
5°	1078.7	1078.7	1076.5	1075.4	1075.4
7.5°	1057.8	1057.8	1053.4	1051.2	1050.1
10°	1025.9	1023.7	1018.2	1014.9	1013.8
12.5°	981.9	978.6	972.0	968.7	967.6
15°	926.9	921.5	916.0	910.5	910.5
17.5°	854.4	852.2	844.5	843.4	839.0
20°	770.8	771.9	767.5	760.9	764.2
22.5°	675.1	677.3	674.0	668.5	671.8
25°	570.7	575.1	570.7	571.8	567.4
27.5°	466.2	466.2	469.5	466.2	465.1
30°	356.3	360.7	365.1	365.1	361.8
32.5°	263.9	268.3	276.0	273.8	273.8
35°	188.0	193.5	200.1	201.2	199.0
37.5°	133.0	136.3	144.0	146.2	141.8
40°	93.5	96.8	104.5	103.4	101.2
42.5°	67.1	70.4	75.9	74.8	71.5
45°	47.3	50.6	55.0	53.9	50.6
47.5°	33.0	36.3	40.7	38.5	36.3
50°	24.2	26.4	30.8	28.6	26.4
52.5°	17.6	19.8	23.1	20.9	19.8
55°	13.2	15.4	17.6	15.4	14.3
57.5°	11.0	11.0	14.3	12.1	11.0
60°	8.8	8.8	11.0	9.9	8.8
62.5°	6.6	7.7	8.8	7.7	7.7
65°	5.5	6.6	7.7	6.6	6.6
67.5°	4.4	5.5	6.6	5.5	5.5
70°	3.3	4.4	4.4	4.4	4.4
72.5°	2.2	3.3	3.3	3.3	3.3
75°	1.1	2.2	2.2	2.2	2.2
77.5°	0.0	1.1	1.1	1.1	1.1
80°	0.0	0.0	0.0	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)