

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: P990797

Luminaire Tested: **ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMB-750LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
Report Number: P990797
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-2700K
Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

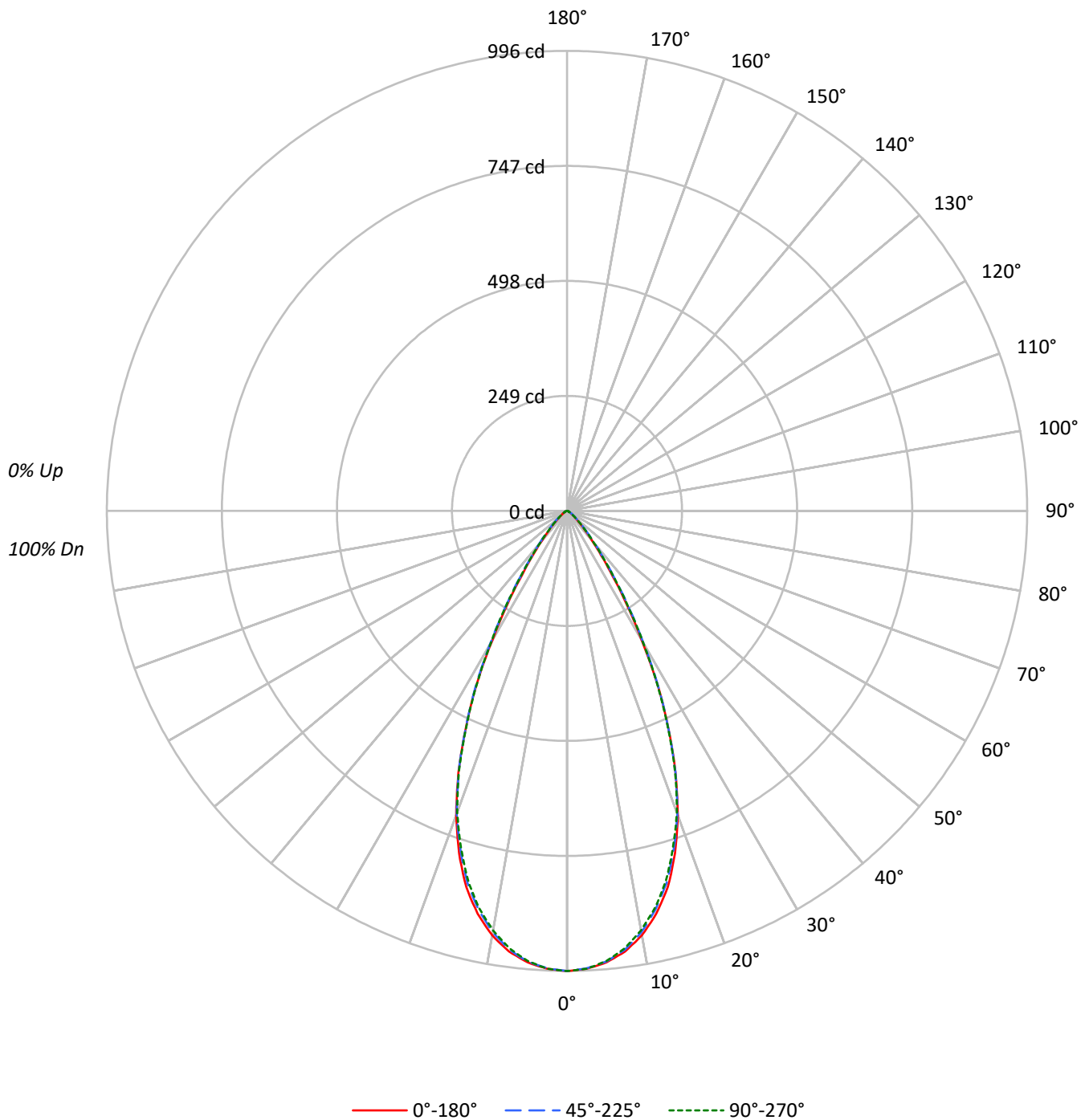
Lumens per Lamp: N/A
Luminaire Lumens: 735.2 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.78
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	171568	171568	171568
5°	169630	169285	169112
10°	163198	161973	161274
15°	150341	148558	147666
20°	128513	127963	127413
25°	98643	98643	98073
30°	64452	66043	65447
35°	35952	38265	38054
40°	19110	21358	20684
45°	10473	12178	11204
50°	5894	7502	6430
55°	3603	4804	3903
60°	2756	3444	2756
65°	2038	2853	2445
70°	1511	2014	2014
75°	665	1331	1331
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.9	12.5
10°-20°	230.7	31.4
20°-30°	234.6	31.9
30°-40°	117.3	16.0
40°-50°	39.2	5.3
50°-60°	13.5	1.8
60°-70°	6.1	0.8
70°-80°	2.0	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°	557.2	75.8
0°-40°	674.4	91.7
0°-60°	727.1	98.9
0°-90°	735.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	735.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	996	996	996	996	996	
5°	981	981	979	978	978	92
15°	843	838	833	828	828	233
25°	519	523	519	520	516	234
35°	171	176	182	183	181	113
45°	43	46	50	49	46	36
55°	12	14	16	14	13	12
65°	5	6	7	6	6	5
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°	996.2	996.2	996.2	996.2	996.2
2.5°	992.2	991.2	991.2	992.2	992.2
5°	981.2	981.2	979.2	978.2	978.2
7.5°	962.2	962.2	958.2	956.2	955.2
10°	933.2	931.2	926.2	923.2	922.2
12.5°	893.2	890.2	884.2	881.2	880.2
15°	843.2	838.2	833.2	828.2	828.2
17.5°	777.2	775.2	768.2	767.2	763.2
20°	701.2	702.2	698.2	692.2	695.2
22.5°	614.1	616.1	613.1	608.1	611.1
25°	519.1	523.1	519.1	520.1	516.1
27.5°	424.1	424.1	427.1	424.1	423.1
30°	324.1	328.1	332.1	332.1	329.1
32.5°	240.1	244.1	251.1	249.1	249.1
35°	171.0	176.0	182.0	183.0	181.0
37.5°	121.0	124.0	131.0	133.0	129.0
40°	85.0	88.0	95.0	94.0	92.0
42.5°	61.0	64.0	69.0	68.0	65.0
45°	43.0	46.0	50.0	49.0	46.0
47.5°	30.0	33.0	37.0	35.0	33.0
50°	22.0	24.0	28.0	26.0	24.0
52.5°	16.0	18.0	21.0	19.0	18.0
55°	12.0	14.0	16.0	14.0	13.0
57.5°	10.0	10.0	13.0	11.0	10.0
60°	8.0	8.0	10.0	9.0	8.0
62.5°	6.0	7.0	8.0	7.0	7.0
65°	5.0	6.0	7.0	6.0	6.0
67.5°	4.0	5.0	6.0	5.0	5.0
70°	3.0	4.0	4.0	4.0	4.0
72.5°	2.0	3.0	3.0	3.0	3.0
75°	1.0	2.0	2.0	2.0	2.0
77.5°	0.0	1.0	1.0	1.0	1.0
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)