

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: P990798

Luminaire Tested: **ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMB-750LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990798
 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-3000K
 Description: 3IN 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

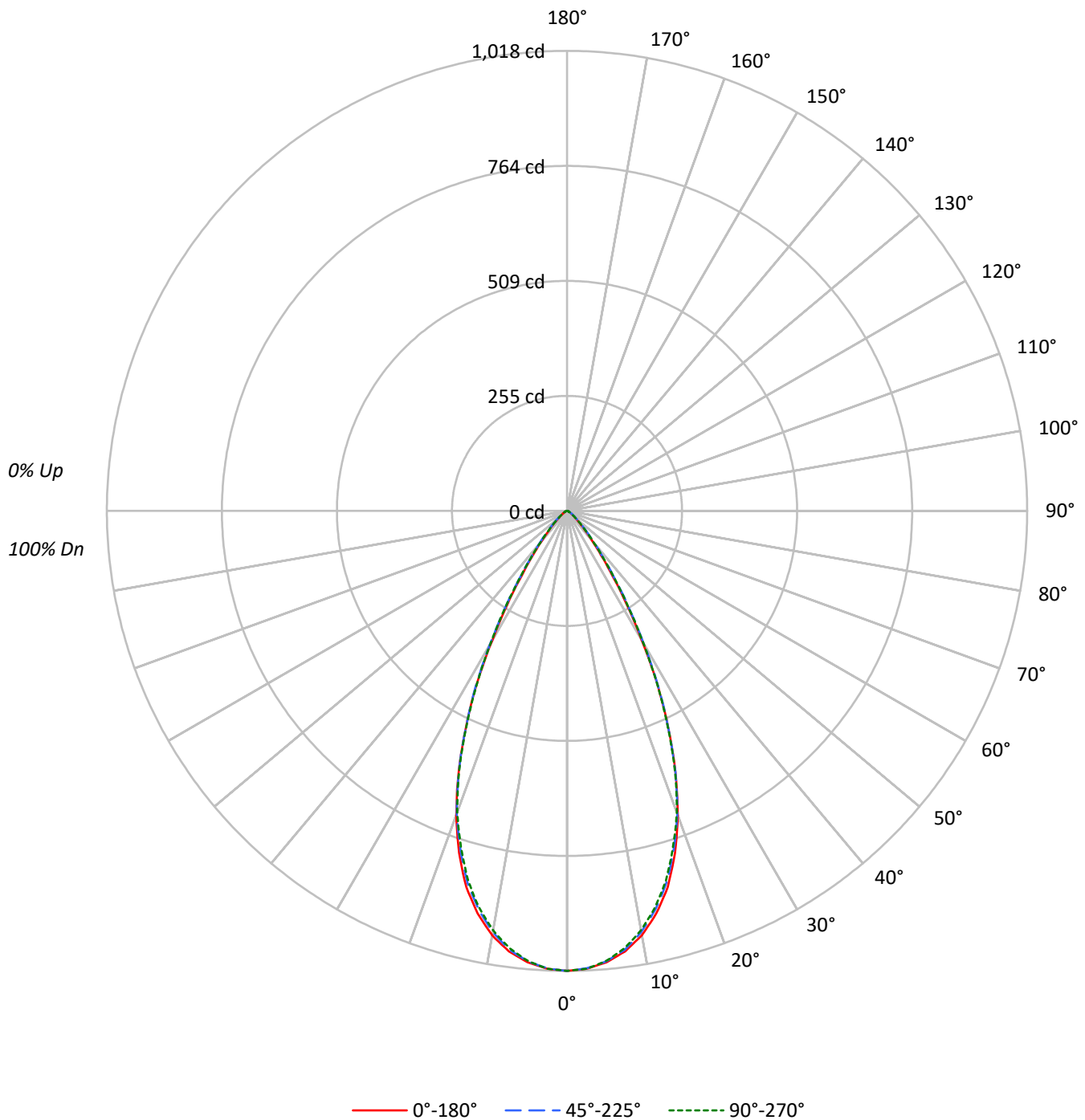
Lumens per Lamp: N/A
 Luminaire Lumens: 751.2 lumens
 Efficiency: N/A
 Efficacy: 77.4 lumens/watt
 Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.78
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

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°	175305	175305	175305
5°	173330	172967	172794
10°	166748	165506	164789
15°	153604	151785	150876
20°	131299	130730	130181
25°	100790	100790	100201
30°	65844	67475	66859
35°	36751	39106	38895
40°	19537	21830	21133
45°	10692	12446	11447
50°	6028	7663	6564
55°	3693	4924	3993
60°	2824	3513	2824
65°	2078	2934	2486
70°	1561	2065	2065
75°	665	1331	1331
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	12.5
10°-20°	235.7	31.4
20°-30°	239.7	31.9
30°-40°	119.8	16.0
40°-50°	40.0	5.3
50°-60°	13.8	1.8
60°-70°	6.2	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°	569.3	75.8
0°-40°	689.1	91.7
0°-60°	742.9	98.9
0°-90°	751.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	751.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1003	1003	1000	1000	1000	94
15°	862	856	851	846	846	238
25°	530	534	530	531	527	240
35°	175	180	186	187	185	115
45°	44	47	51	50	47	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°	1017.9	1017.9	1017.9	1017.9	1017.9
2.5°	1013.8	1012.8	1012.8	1013.8	1013.8
5°	1002.6	1002.6	1000.5	999.5	999.5
7.5°	983.2	983.2	979.1	977.0	976.0
10°	953.5	951.5	946.4	943.3	942.3
12.5°	912.6	909.6	903.4	900.4	899.3
15°	861.5	856.4	851.3	846.2	846.2
17.5°	794.1	792.0	784.9	783.9	779.8
20°	716.4	717.4	713.3	707.2	710.3
22.5°	627.5	629.5	626.5	621.4	624.4
25°	530.4	534.5	530.4	531.4	527.3
27.5°	433.3	433.3	436.4	433.3	432.3
30°	331.1	335.2	339.3	339.3	336.2
32.5°	245.3	249.4	256.5	254.5	254.5
35°	174.8	179.9	186.0	187.0	185.0
37.5°	123.7	126.7	133.9	135.9	131.8
40°	86.9	89.9	97.1	96.1	94.0
42.5°	62.3	65.4	70.5	69.5	66.4
45°	43.9	47.0	51.1	50.1	47.0
47.5°	30.7	33.7	37.8	35.8	33.7
50°	22.5	24.5	28.6	26.6	24.5
52.5°	16.4	18.4	21.5	19.4	18.4
55°	12.3	14.3	16.4	14.3	13.3
57.5°	10.2	10.2	13.3	11.2	10.2
60°	8.2	8.2	10.2	9.2	8.2
62.5°	6.1	7.2	8.2	7.2	7.2
65°	5.1	6.1	7.2	6.1	6.1
67.5°	4.1	5.1	6.1	5.1	5.1
70°	3.1	4.1	4.1	4.1	4.1
72.5°	2.0	3.1	3.1	3.1	3.1
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)