

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: P990806

Luminaire Tested: **ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMW-750LM-5000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990806
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMW-750LM-5000K
 Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

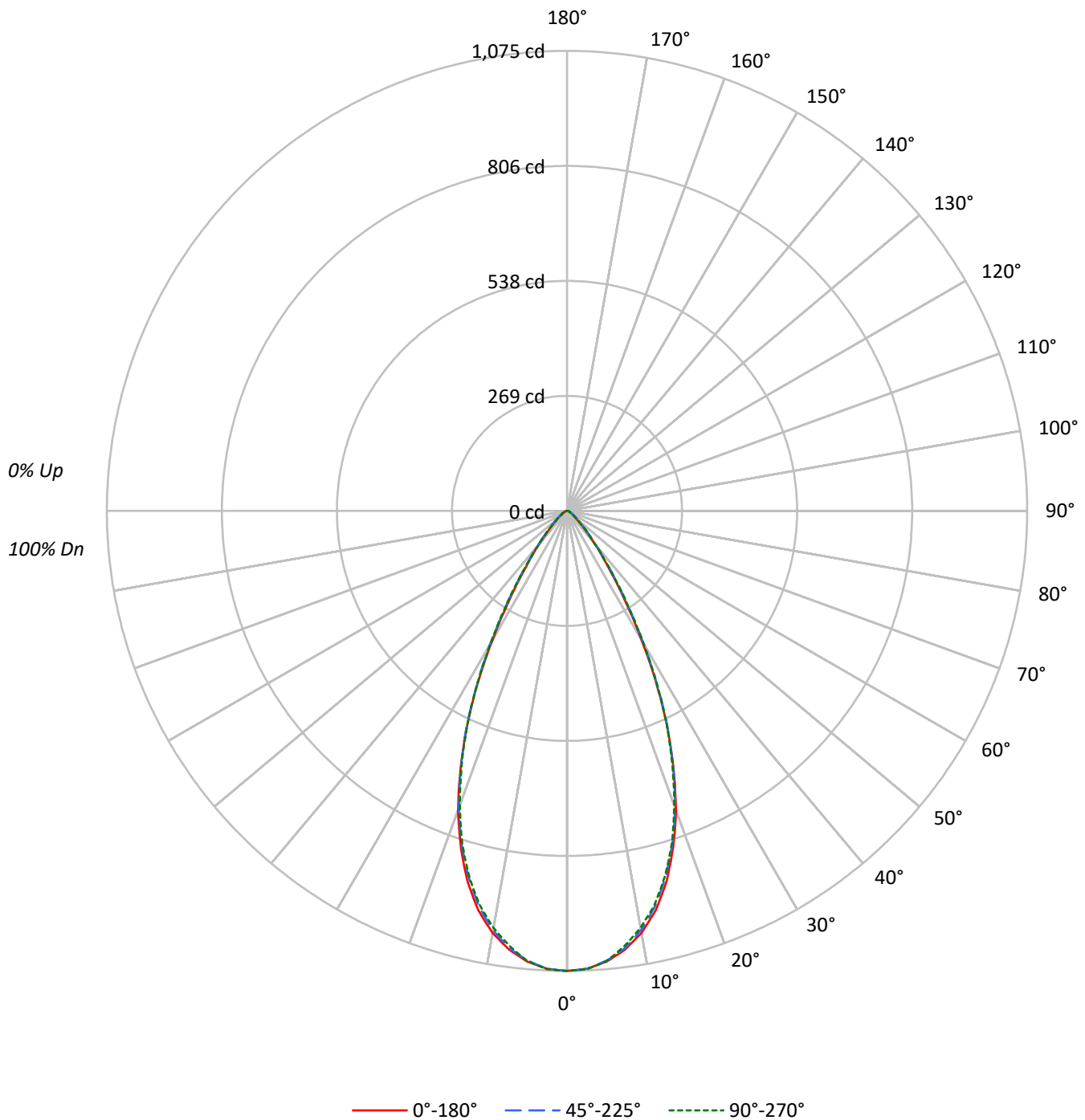
Lumens per Lamp: N/A
 Luminaire Lumens: 801.4 lumens
 Efficiency: N/A
 Efficacy: 82.6 lumens/watt
 Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.78
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

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	113	111	108	106	111	109	106	104	104	103	101		101	99	98		97
2	108	103	99	95	106	101	98	94	98	95	92		95	93	90		92
3	102	96	91	87	100	95	90	86	92	88	85		90	86	84		87
4	97	90	84	80	96	89	84	80	87	82	79		85	81	78		83
5	93	84	79	74	91	83	78	74	82	77	73		80	76	73		78
6	88	79	73	69	87	79	73	69	77	72	69		76	71	68		74
7	84	75	69	65	83	74	69	65	73	68	64		72	67	64		71
8	80	71	65	61	79	70	65	61	69	64	60		68	64	60		67
9	77	67	61	57	75	67	61	57	66	61	57		65	60	57		64
10	73	64	58	54	72	63	58	54	62	57	54		62	57	54		61

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	185139	185139	185139
5°	182804	182424	182614
10°	175124	173970	173008
15°	159915	158150	157562
20°	136394	135386	134176
25°	104648	105275	104648
30°	69066	71035	70597
35°	39757	42070	42070
40°	22729	24213	23224
45°	12592	14467	13396
50°	7663	9431	8252
55°	5285	6606	5285
60°	4168	4926	4168
65°	3586	4483	3586
70°	3323	3877	3323
75°	2196	2928	2196
80°	1091	1091	1091
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.9	12.3
10°-20°	246.0	30.7
20°-30°	248.9	31.1
30°-40°	128.5	16.0
40°-50°	46.5	5.8
50°-60°	18.4	2.3
60°-70°	9.7	1.2
70°-80°	4.2	0.5
80°-90°	0.3	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°	593.8	74.1
0°-40°	722.4	90.1
0°-60°	787.3	98.2
0°-90°	801.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1075	1075	1075	1075	1075	
5°	1057	1057	1055	1055	1056	99
15°	897	895	887	886	884	248
25°	551	551	554	551	551	249
35°	189	194	200	201	200	125
45°	52	56	59	58	55	43
55°	18	19	22	20	18	17
65°	9	9	11	10	9	9
75°	3	4	4	4	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°	1075.0	1075.0	1075.0	1075.0	1075.0
2.5°	1070.6	1071.7	1070.6	1070.6	1071.7
5°	1057.4	1057.4	1055.2	1055.2	1056.3
7.5°	1034.3	1033.2	1031.0	1028.8	1025.5
10°	1001.4	999.2	994.8	991.5	989.3
12.5°	956.3	951.9	947.5	943.1	943.1
15°	896.9	894.7	887.0	885.9	883.7
17.5°	824.4	824.4	817.8	814.5	814.5
20°	744.2	744.2	738.7	737.6	732.1
22.5°	649.6	650.7	647.4	646.3	643.0
25°	550.7	550.7	554.0	550.7	550.7
27.5°	448.5	449.6	452.9	450.7	452.9
30°	347.3	349.5	357.2	356.1	355.0
32.5°	260.5	264.9	269.3	270.4	270.4
35°	189.1	193.5	200.1	201.2	200.1
37.5°	138.5	140.7	147.3	146.2	142.9
40°	101.1	102.2	107.7	107.7	103.3
42.5°	73.6	75.8	79.1	78.0	74.7
45°	51.7	56.1	59.4	58.3	55.0
47.5°	37.4	41.8	45.1	42.9	40.7
50°	28.6	30.8	35.2	31.9	30.8
52.5°	22.0	24.2	27.5	25.3	23.1
55°	17.6	18.7	22.0	19.8	17.6
57.5°	14.3	15.4	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	11.0
65°	8.8	8.8	11.0	9.9	8.8
67.5°	7.7	7.7	8.8	8.8	7.7
70°	6.6	6.6	7.7	6.6	6.6
72.5°	4.4	5.5	6.6	5.5	4.4
75°	3.3	4.4	4.4	4.4	3.3
77.5°	1.1	2.2	3.3	2.2	2.2
80°	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	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)