

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: P990851

Luminaire Tested: **ML3ALSFLD2W1E-TIR4D55WFL-TL3SDSL-600LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990851
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDSL-600LM-3000K
 Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR,
 METALLIC SILVER TRIM
 Light Source: (1) D2W LED 90CRI / 3000K CCT
 Ballast/Driver: -

Summary

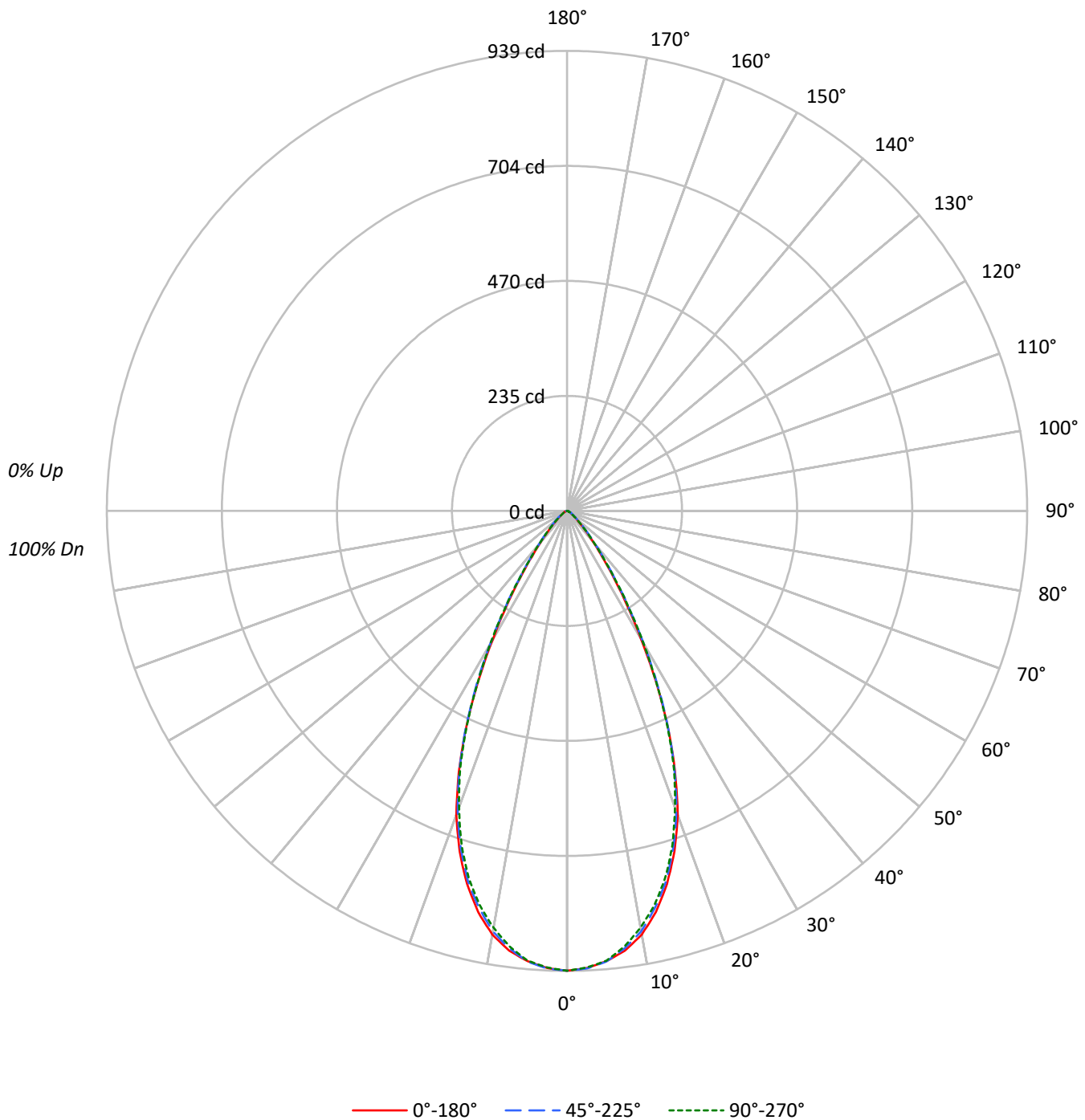
Lumens per Lamp: N/A
 Luminaire Lumens: 694.5 lumens
 Efficiency: N/A
 Efficacy: 73.9 lumens/watt
 Spacing Criteria (0/90/45): 0.81 / 0.8 / 0.78
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

Input Watts (W): 9.4
 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				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10		0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102		100
1	114	111	108	106	111	109	106	104	105	103	101		101	100	98		97	96	95		94
2	108	103	99	96	106	102	98	95	98	95	93		95	93	91		93	91	89		87
3	103	96	92	88	101	95	91	87	92	89	86		90	87	84		88	85	83		81
4	98	90	85	81	96	89	84	80	87	83	79		85	81	78		83	80	78		76
5	93	85	79	75	91	84	79	75	82	77	74		80	76	73		79	75	73		71
6	89	80	74	70	87	79	74	70	78	73	69		76	72	69		75	71	68		67
7	84	75	70	65	83	75	69	65	73	69	65		72	68	65		71	67	64		63
8	81	71	65	62	79	71	65	61	70	65	61		69	64	61		68	64	61		59
9	77	68	62	58	76	67	62	58	66	61	58		65	61	57		64	60	57		56
10	74	64	59	55	73	64	58	55	63	58	55		62	58	54		61	57	54		53

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	161648	161648	161648
5°	159482	159638	159309
10°	153544	152390	151061
15°	140517	139340	138163
20°	121035	119477	118084
25°	92410	92771	91878
30°	60018	62086	62285
35°	34606	36393	36204
40°	18930	20414	19784
45°	10595	11983	10838
50°	6082	7609	6350
55°	3963	4834	3963
60°	2928	3582	2928
65°	2323	3097	2690
70°	1913	2367	1913
75°	1264	1863	1264
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	12.4
10°-20°	216.2	31.1
20°-30°	219.5	31.6
30°-40°	111.3	16.0
40°-50°	38.4	5.5
50°-60°	13.8	2.0
60°-70°	6.6	0.9
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°	522.1	75.2
0°-40°	633.5	91.2
0°-60°	685.7	98.7
0°-90°	694.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	694.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	939	939	939	939	939	
5°	922	923	923	921	922	87
15°	788	786	782	776	775	218
25°	486	488	488	486	484	219
35°	165	168	173	173	172	108
45°	44	46	49	47	44	36
55°	13	14	16	14	13	12
65°	6	7	8	7	7	6
75°	2	2	3	2	2	2
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°	938.6	938.6	938.6	938.6	938.6
2.5°	933.8	933.8	934.8	932.9	932.9
5°	922.5	923.4	923.4	920.6	921.5
7.5°	905.4	903.6	900.7	897.9	896.9
10°	878.0	876.1	871.4	867.6	863.8
12.5°	838.3	836.4	829.8	825.0	824.1
15°	788.1	786.2	781.5	775.8	774.9
17.5°	728.5	726.6	721.0	716.2	715.3
20°	660.4	655.7	651.9	648.1	644.3
22.5°	576.2	573.4	573.4	571.5	570.5
25°	486.3	488.2	488.2	486.3	483.5
27.5°	392.6	397.4	399.3	396.4	394.5
30°	301.8	309.4	312.2	313.2	313.2
32.5°	228.0	229.0	235.6	235.6	236.5
35°	164.6	167.5	173.1	173.1	172.2
37.5°	117.3	120.2	125.8	125.8	123.9
40°	84.2	86.1	90.8	90.8	88.0
42.5°	60.6	62.4	66.2	65.3	63.4
45°	43.5	46.4	49.2	47.3	44.5
47.5°	30.3	33.1	36.9	35.0	33.1
50°	22.7	24.6	28.4	25.5	23.7
52.5°	17.0	18.0	20.8	18.9	17.0
55°	13.2	14.2	16.1	14.2	13.2
57.5°	10.4	11.4	13.2	11.4	10.4
60°	8.5	9.5	10.4	9.5	8.5
62.5°	7.6	7.6	8.5	7.6	7.6
65°	5.7	6.6	7.6	6.6	6.6
67.5°	4.7	4.7	5.7	5.7	4.7
70°	3.8	3.8	4.7	4.7	3.8
72.5°	2.8	2.8	3.8	2.8	2.8
75°	1.9	1.9	2.8	1.9	1.9
77.5°	0.9	0.9	1.9	0.9	0.9
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)