

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: P990832

Luminaire Tested: **ML3ALSFLD2W1E-TIR4D40FL-TL3SDMB-600LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990832
 Test Lab: Cooper Lighting Solutions
 Issue Date: 5/13/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML3ALSFLD2W1E-TIR4D40FL-TL3SDMB-600LM-2700K
 Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
 Light Source: (1) D2W LED 90CRI / 2700K CCT
 Ballast/Driver: -

Summary

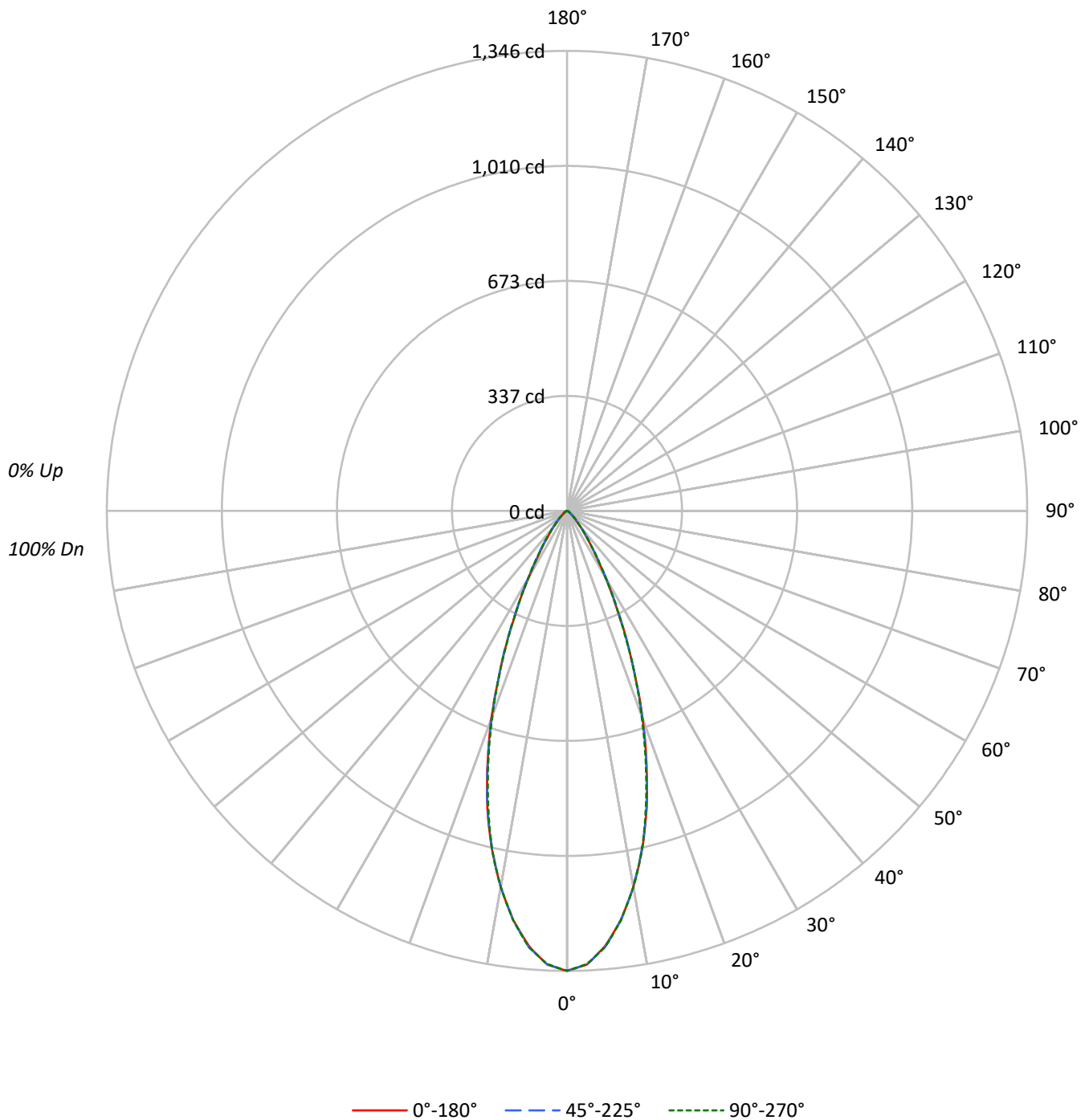
Lumens per Lamp: N/A
 Luminaire Lumens: 675.3 lumens
 Efficiency: N/A
 Efficacy: 71.8 lumens/watt
 Spacing Criteria (0/90/45): 0.63 / 0.62 / 0.63
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

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
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	109	107	112	109	107	105	105	104	102		101	100	99		98
2	109	104	101	98	107	103	99	96	99	97	94		97	94	92		94
3	104	98	94	90	102	97	93	89	94	91	88		92	89	86		90
4	99	93	88	84	98	91	87	83	89	85	82		87	84	81		86
5	95	88	82	78	94	87	82	78	85	81	77		83	80	77		82
6	91	83	78	74	90	82	77	74	81	76	73		80	76	73		78
7	87	79	74	70	86	78	73	70	77	73	69		76	72	69		75
8	84	75	70	66	83	75	70	66	74	69	66		73	69	65		72
9	80	72	67	63	79	71	66	63	70	66	63		70	65	62		69
10	77	69	63	60	76	68	63	60	67	63	60		67	63	60		66

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	231726	231726	231726
5°	220993	221460	221460
10°	195410	195253	195410
15°	160450	160308	158881
20°	118598	117956	116820
25°	77284	77284	76258
30°	44645	45699	45540
35°	24725	26028	25650
40°	13916	15108	14703
45°	8184	9036	8622
50°	4742	5680	5198
55°	3183	3993	3183
60°	2446	2756	2446
65°	1793	2160	1793
70°	1360	1762	1360
75°	599	1198	599
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.0	17.3
10°-20°	245.5	36.4
20°-30°	186.3	27.6
30°-40°	79.6	11.8
40°-50°	29.1	4.3
50°-60°	11.0	1.6
60°-70°	5.1	0.8
70°-80°	1.7	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°	548.8	81.3
0°-40°	628.4	93.1
0°-60°	668.5	99.0
0°-90°	675.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	675.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1278	1278	1281	1280	1281	117
15°	900	898	899	896	891	246
25°	407	407	407	404	401	186
35°	118	118	124	123	122	77
45°	34	34	37	36	35	27
55°	11	12	13	12	11	10
65°	4	4	5	5	4	4
75°	1	2	2	2	1	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°	1345.5	1345.5	1345.5	1345.5	1345.5
2.5°	1328.7	1327.8	1327.8	1327.8	1326.9
5°	1278.3	1278.3	1281.0	1280.1	1281.0
7.5°	1206.7	1207.6	1207.6	1207.6	1207.6
10°	1117.4	1119.2	1116.5	1119.2	1117.4
12.5°	1014.9	1014.9	1012.2	1014.0	1014.9
15°	899.9	898.2	899.1	896.4	891.1
17.5°	772.6	771.8	770.9	768.2	765.6
20°	647.1	647.1	643.6	642.7	637.4
21°	595.0	595.8	594.1	589.6	588.8
22°	540.1	544.6	541.9	541.9	539.3
23°	493.3	495.1	494.2	494.2	495.1
24°	450.0	450.0	450.0	446.4	447.3
25°	406.7	406.7	406.7	404.0	401.3
26°	360.7	363.3	366.0	362.5	362.5
27°	320.9	323.6	328.0	325.3	322.7
28°	290.0	287.3	291.7	290.0	291.7
29°	254.6	256.4	259.9	257.3	257.3
30°	224.5	226.3	229.8	228.1	229.0
31°	195.4	200.7	203.3	203.3	203.3
32°	173.3	175.9	178.6	178.6	177.7
33°	152.1	154.7	159.1	157.4	157.4
34°	133.5	136.1	140.6	140.6	138.8
35°	117.6	118.5	123.8	122.9	122.0
36°	102.5	103.4	109.6	109.6	108.7
37°	90.2	91.9	97.2	96.4	95.5
38°	79.6	80.4	85.8	85.8	84.0
39°	69.8	71.6	75.1	75.1	74.3
40°	61.9	62.8	67.2	66.3	65.4
42.5°	44.2	46.9	49.5	49.5	47.7
45°	33.6	34.5	37.1	36.2	35.4
47.5°	24.8	25.6	28.3	27.4	25.6
50°	17.7	19.4	21.2	20.3	19.4
52.5°	13.3	15.0	16.8	15.0	14.1
55°	10.6	11.5	13.3	11.5	10.6
57.5°	8.0	8.8	10.6	8.8	8.8
60°	7.1	7.1	8.0	7.1	7.1
62.5°	5.3	6.2	7.1	6.2	5.3
65°	4.4	4.4	5.3	5.3	4.4
67.5°	3.5	4.4	4.4	4.4	3.5
70°	2.7	3.5	3.5	3.5	2.7
72.5°	1.8	2.7	2.7	2.7	1.8
75°	0.9	1.8	1.8	1.8	0.9
77.5°	0.0	0.9	0.9	0.9	0.9
80°	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
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)