

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: P990847

Luminaire Tested: **ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMB-600LM-3000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
Report Number: P990847
Test Lab: Cooper Lighting Solutions
Issue Date: 5/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML3ALSFLD2W1E-TIR4D55WFL-TL3SDMB-600LM-3000K
Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) D2W LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

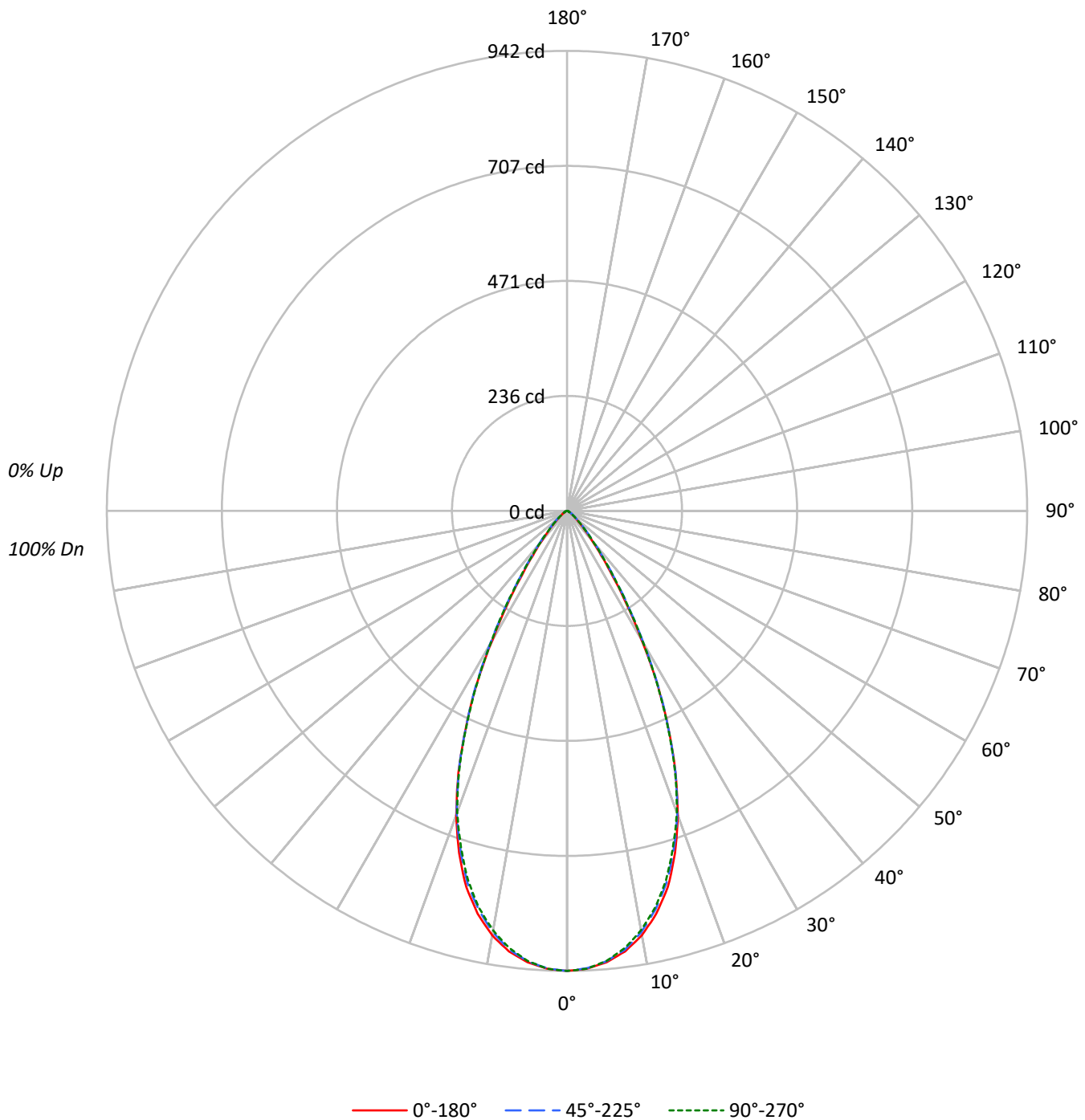
Lumens per Lamp: N/A
Luminaire Lumens: 695.2 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.78
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 9.4
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			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	107	105	105	103	101		101	100	98		98	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93		95	93	91		93	91	89	87
3	103	97	92	88	101	95	91	87	93	89	86		90	87	84		88	85	83	82
4	98	91	85	81	96	89	84	81	87	83	80		85	82	79		83	80	78	76
5	93	85	79	75	92	84	79	75	82	78	74		81	77	74		79	76	73	71
6	89	80	74	70	87	79	74	70	78	73	69		76	72	69		75	71	69	67
7	85	76	70	66	83	75	69	66	74	69	65		73	68	65		71	68	65	63
8	81	72	66	62	80	71	66	62	70	65	61		69	64	61		68	64	61	60
9	77	68	62	58	76	67	62	58	66	61	58		66	61	58		65	61	58	56
10	74	64	59	55	73	64	59	55	63	58	55		62	58	55		62	58	55	53

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	162234	162234	162234
5°	160399	160070	159914
10°	154314	153159	152495
15°	142157	140463	139625
20°	121512	120980	120467
25°	93265	93265	92733
30°	60932	62444	61887
35°	33997	36183	35994
40°	18076	20189	19559
45°	9913	11520	10595
50°	5573	7100	6082
55°	3393	4534	3693
60°	2618	3272	2618
65°	1915	2690	2323
70°	1410	1913	1913
75°	599	1264	1264
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.9	12.5
10°-20°	218.1	31.4
20°-30°	221.8	31.9
30°-40°	110.9	16.0
40°-50°	37.0	5.3
50°-60°	12.8	1.8
60°-70°	5.8	0.8
70°-80°	1.9	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°	526.8	75.8
0°-40°	637.7	91.7
0°-60°	687.5	98.9
0°-90°	695.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	695.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	928	928	926	925	925	87
15°	797	792	788	783	783	220
25°	491	495	491	492	488	222
35°	162	166	172	173	171	107
45°	41	44	47	46	44	34
55°	11	13	15	13	12	11
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°	942.0	942.0	942.0	942.0	942.0
2.5°	938.2	937.2	937.2	938.2	938.2
5°	927.8	927.8	925.9	925.0	925.0
7.5°	909.8	909.8	906.0	904.1	903.2
10°	882.4	880.5	875.8	872.9	872.0
12.5°	844.6	841.7	836.1	833.2	832.3
15°	797.3	792.5	787.8	783.1	783.1
17.5°	734.9	733.0	726.3	725.4	721.6
20°	663.0	663.9	660.1	654.5	657.3
22.5°	580.7	582.6	579.8	575.0	577.9
25°	490.8	494.6	490.8	491.8	488.0
27.5°	401.0	401.0	403.8	401.0	400.1
30°	306.4	310.2	314.0	314.0	311.2
32.5°	227.0	230.8	237.4	235.5	235.5
35°	161.7	166.5	172.1	173.1	171.2
37.5°	114.4	117.3	123.9	125.8	122.0
40°	80.4	83.2	89.8	88.9	87.0
42.5°	57.7	60.5	65.3	64.3	61.5
45°	40.7	43.5	47.3	46.3	43.5
47.5°	28.4	31.2	35.0	33.1	31.2
50°	20.8	22.7	26.5	24.6	22.7
52.5°	15.1	17.0	19.9	18.0	17.0
55°	11.3	13.2	15.1	13.2	12.3
57.5°	9.5	9.5	12.3	10.4	9.5
60°	7.6	7.6	9.5	8.5	7.6
62.5°	5.7	6.6	7.6	6.6	6.6
65°	4.7	5.7	6.6	5.7	5.7
67.5°	3.8	4.7	5.7	4.7	4.7
70°	2.8	3.8	3.8	3.8	3.8
72.5°	1.9	2.8	2.8	2.8	2.8
75°	0.9	1.9	1.9	1.9	1.9
77.5°	0.0	0.9	0.9	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)