

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: P990805

Luminaire Tested: **ML3ALSFL9FS1E-TIR4D55WFL-TL3SDMW-750LM-4000K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P990805
 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-4000K
 Description: 3IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
 Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
 Ballast/Driver: -

Summary

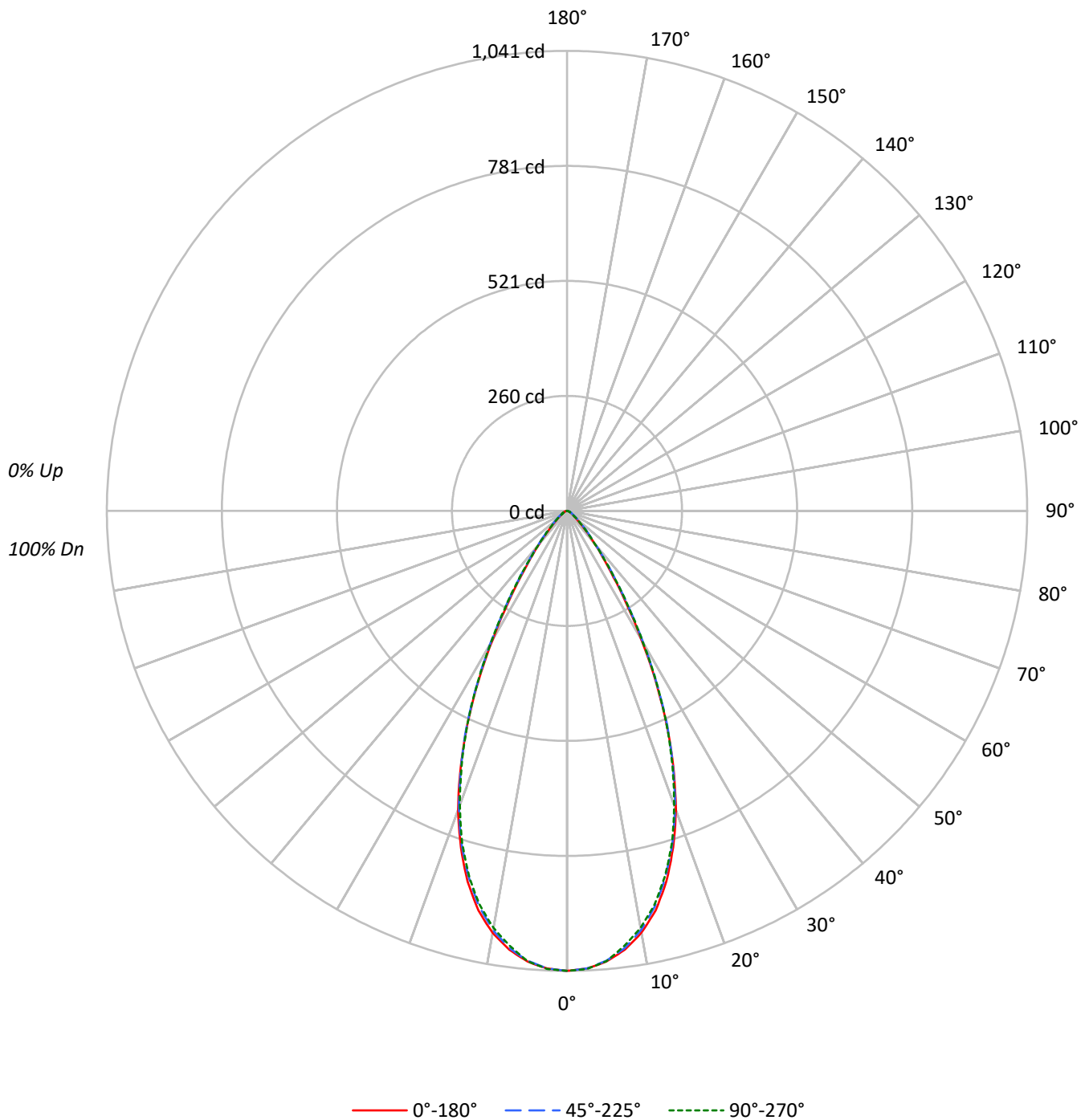
Lumens per Lamp: N/A
 Luminaire Lumens: 775.9 lumens
 Efficiency: N/A
 Efficacy: 80.0 lumens/watt
 Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.78
 Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
 CIE Type: Direct

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°	179249	179249	179249
5°	176995	176615	176805
10°	169546	168426	167500
15°	154834	153122	152552
20°	132050	131060	129906
25°	101322	101930	101322
30°	66878	68788	68350
35°	38475	40724	40724
40°	22010	23449	22482
45°	12178	14005	12957
50°	7422	9136	7984
55°	5104	6396	5104
60°	4030	4753	4030
65°	3464	4320	3464
70°	3223	3726	3223
75°	2129	2861	2129
80°	1091	1091	1091
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	12.3
10°-20°	238.2	30.7
20°-30°	241.0	31.1
30°-40°	124.4	16.0
40°-50°	45.0	5.8
50°-60°	17.8	2.3
60°-70°	9.3	1.2
70°-80°	4.1	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°	574.9	74.1
0°-40°	699.4	90.1
0°-60°	762.2	98.2
0°-90°	775.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	775.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1024	1024	1022	1022	1023	96
15°	868	866	859	858	856	240
25°	533	533	536	533	533	241
35°	183	187	194	195	194	121
45°	50	54	58	56	53	42
55°	17	18	21	19	17	16
65°	8	8	11	10	8	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°	1040.8	1040.8	1040.8	1040.8	1040.8
2.5°	1036.5	1037.6	1036.5	1036.5	1037.6
5°	1023.8	1023.8	1021.6	1021.6	1022.7
7.5°	1001.4	1000.4	998.2	996.1	992.9
10°	969.5	967.4	963.1	959.9	957.8
12.5°	925.9	921.6	917.3	913.1	913.1
15°	868.4	866.3	858.8	857.8	855.6
17.5°	798.2	798.2	791.8	788.6	788.6
20°	720.5	720.5	715.1	714.1	708.8
22.5°	628.9	630.0	626.8	625.8	622.6
25°	533.2	533.2	536.4	533.2	533.2
27.5°	434.2	435.3	438.5	436.3	438.5
30°	336.3	338.4	345.9	344.8	343.7
32.5°	252.2	256.5	260.7	261.8	261.8
35°	183.0	187.3	193.7	194.7	193.7
37.5°	134.1	136.2	142.6	141.5	138.3
40°	97.9	99.0	104.3	104.3	100.0
42.5°	71.3	73.4	76.6	75.6	72.4
45°	50.0	54.3	57.5	56.4	53.2
47.5°	36.2	40.4	43.6	41.5	39.4
50°	27.7	29.8	34.1	30.9	29.8
52.5°	21.3	23.4	26.6	24.5	22.3
55°	17.0	18.1	21.3	19.2	17.0
57.5°	13.8	14.9	17.0	14.9	13.8
60°	11.7	12.8	13.8	12.8	11.7
62.5°	9.6	10.6	11.7	10.6	10.6
65°	8.5	8.5	10.6	9.6	8.5
67.5°	7.4	7.4	8.5	8.5	7.4
70°	6.4	6.4	7.4	6.4	6.4
72.5°	4.3	5.3	6.4	5.3	4.3
75°	3.2	4.3	4.3	4.3	3.2
77.5°	1.1	2.1	3.2	2.1	2.1
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)