

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P886024

Luminaire Tested: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-3500K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886024  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-144)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-3500K  
Description: 1IN SQUARE ML FLEX, 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: 214.8 lumens  
Efficiency: N/A  
Efficacy: 67.1 lumens/watt  
Spacing Criteria (0/90/45): 0.67 / 0.68 / 0.68  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

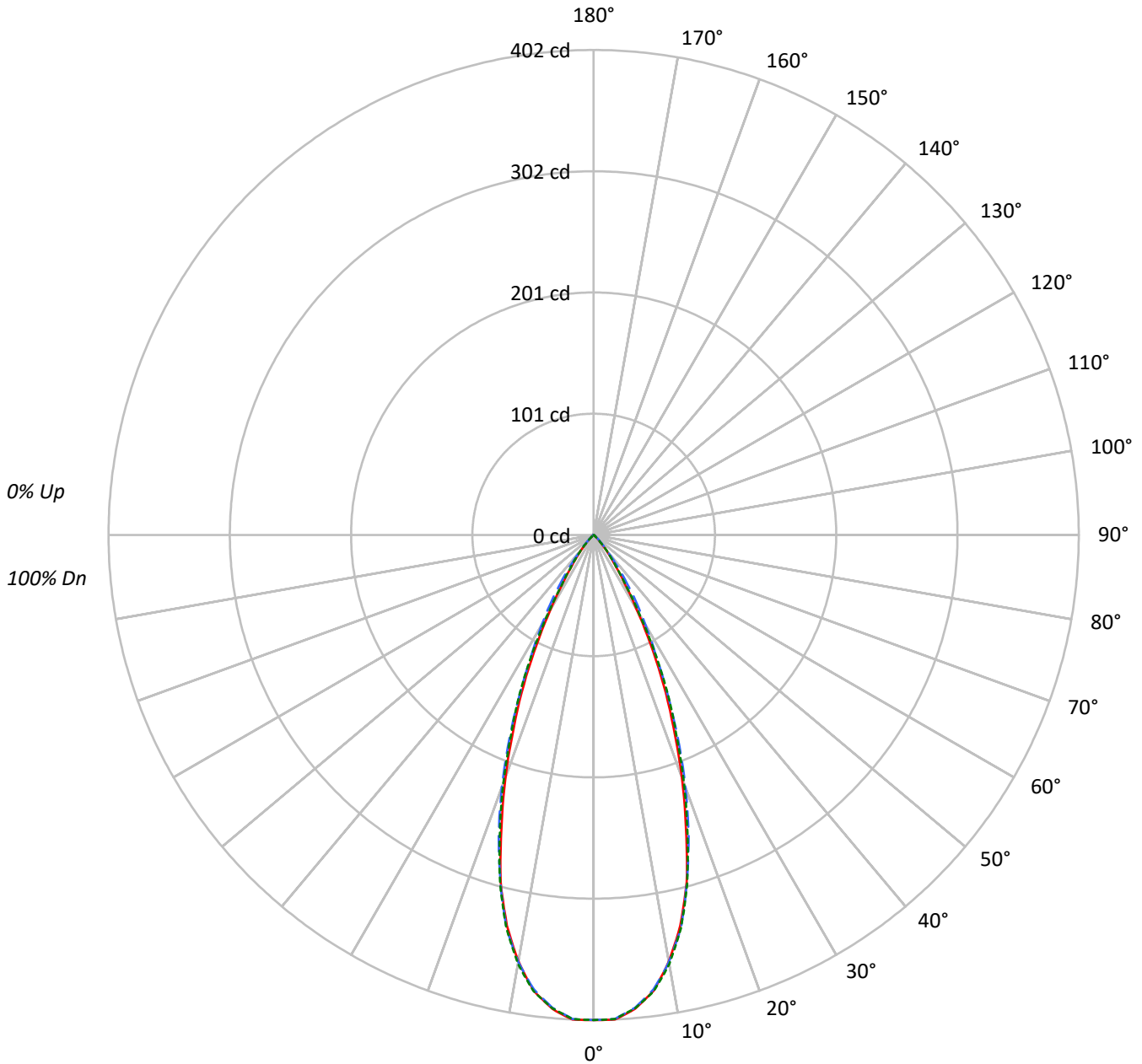
Input Watts (W): 3.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P886024

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P886024

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-3500K

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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	100	100	100	100	100		
	1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95	95	95	95	95	95		
	2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90	90	90	90	90	90		
	3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	87	85	85	85	85	85	85		
	4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81	81	81	81	81	81		
	5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	77	77	77	77	77	77		
	6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73	73	73	73	73	73		
	7	89	81	75	72	87	80	75	71	79	74	71	78	74	71	77	73	70	69	69	69	69	69	69		
	8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66	66	66	66	66	66		
	9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63	63	63	63	63	63		
	10	79	70	65	62	78	70	65	62	69	65	62	68	64	61	68	64	61	60	60	60	60	60	60		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	623417	623417	623417
5°	613662	611950	612728
10°	564883	565670	568345
15°	478039	478841	480606
20°	352332	366847	360414
25°	234305	245763	248500
30°	128150	152849	136025
35°	60929	84961	63957
40°	29137	36017	31363
45°	9645	15783	8549
50°	2653	5305	2653
55°	1621	1621	1621
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 15783 cd/sqm



TEST NUMBER: P886024

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.5	17.0
10°-20°	81.5	38.0
20°-30°	65.3	30.4
30°-40°	25.6	11.9
40°-50°	5.3	2.5
50°-60°	0.6	0.3
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	183.3	85.3
0°-40°	209.0	97.3
0°-60°	214.8	100.0
0°-90°	214.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	214.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	402	402	402	402	402	
5°	394	393	393	394	394	37
15°	298	297	298	299	300	81
25°	137	138	144	146	145	62
35°	32	37	45	38	34	22
45°	4	6	7	6	4	4
55°	1	1	1	1	1	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P886024

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	402.2	402.2	402.2	402.2	402.2
2.5°	402.2	401.0	401.6	402.2	401.6
5°	394.4	393.3	393.3	393.8	393.8
7.5°	381.1	380.5	380.0	380.5	381.6
10°	358.9	360.0	359.4	361.1	361.1
12.5°	331.7	331.2	333.9	333.9	333.9
15°	297.9	296.8	298.4	299.0	299.5
17.5°	254.0	257.9	261.8	260.2	258.5
20°	213.6	216.9	222.4	220.2	218.5
22.5°	172.5	176.9	181.9	180.8	178.6
25°	137.0	138.1	143.7	145.9	145.3
27.5°	101.5	108.2	110.4	113.7	109.3
30°	71.6	79.3	85.4	83.8	76.0
32.5°	48.3	54.4	64.3	57.7	49.4
35°	32.2	36.6	44.9	37.7	33.8
37.5°	22.2	24.4	28.8	25.5	22.7
40°	14.4	16.6	17.8	17.2	15.5
42.5°	8.3	10.5	11.6	10.5	8.9
45°	4.4	5.5	7.2	5.5	3.9
47.5°	2.2	2.8	4.4	2.8	2.2
50°	1.1	1.7	2.2	1.7	1.1
52.5°	0.6	1.1	1.1	1.1	0.6
55°	0.6	0.6	0.6	0.6	0.6
57.5°	0.0	0.0	0.6	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
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

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report







— 0°-180°    - - 45°-225°    - - - 90°-270°

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)