

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: P886028

Luminaire Tested: ML104LSFLD2W1E-TIR1D40FL-TL1SDMW-200LM-3500K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886028  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-142)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D40FL-TL1SDMW-200LM-3500K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM  
Light Source: (1) D2W LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

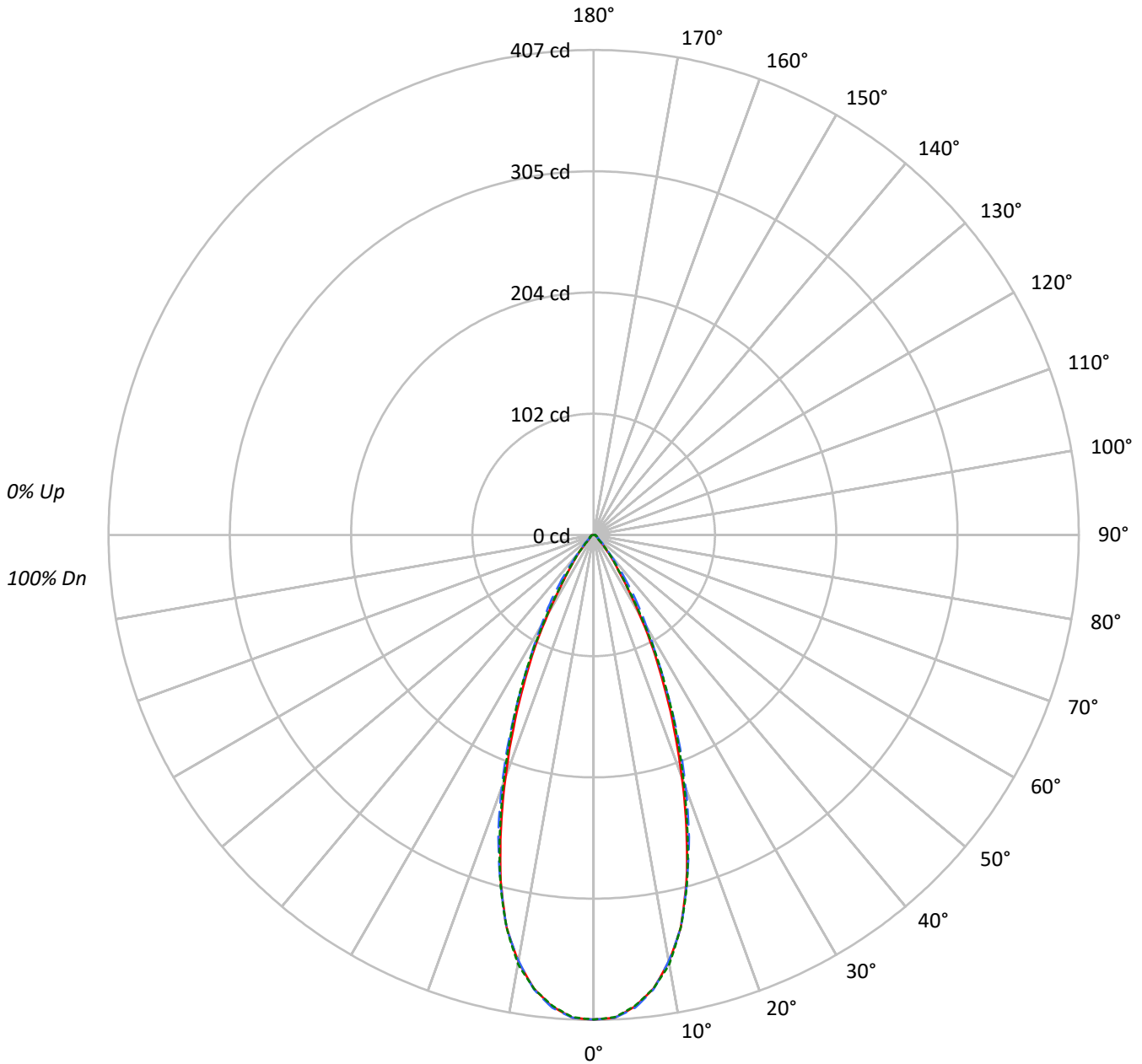
Lumens per Lamp: N/A  
Luminaire Lumens: 230.9 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

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: P886028  
CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMW-200LM-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P886028

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMW-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			
1	114	111	109	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94					94			
2	108	104	100	97	106	102	99	96	99	96	93	96	94	91	93	91	90	88					88			
3	103	97	93	89	102	96	92	88	93	90	87	91	88	86	89	86	84	83					83			
4	99	92	87	83	97	91	86	82	89	84	81	87	83	80	85	82	79	78					78			
5	94	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74					74			
6	90	82	77	73	89	81	76	72	80	75	72	79	75	71	77	74	71	70					70			
7	87	78	73	69	85	77	72	68	76	71	68	75	71	68	74	70	67	66					66			
8	83	74	69	65	82	74	69	65	73	68	65	72	67	64	71	67	64	63					63			
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60					60			
10	76	68	62	59	76	67	62	59	66	62	59	66	61	58	65	61	58	57					57			

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

	0°	45°	90°
0°	630392	630392	630392
5°	618174	619885	617396
10°	572123	571336	575585
15°	482853	484618	485581
20°	356455	371961	363878
25°	237896	249184	250210
30°	136920	157682	144795
35°	67174	93286	70201
40°	37028	43705	39254
45°	15783	24332	15783
50°	12057	13263	12057
55°	10539	10539	10539
60°	10230	10230	10230
65°	10269	10269	10269
70°	9970	9970	9970
75°	10181	10181	10181
80°	9819	9819	9819
85°	10671	10671	10671

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 24332 cd/sqm



TEST NUMBER: P886028

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMW-200LM-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.9	16.0
10°-20°	82.6	35.8
20°-30°	66.6	28.9
30°-40°	27.9	12.1
40°-50°	8.0	3.5
50°-60°	3.5	1.5
60°-70°	2.7	1.2
70°-80°	1.9	0.8
80°-90°	0.6	0.3
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°	186.1	80.6
0°-40°	214.0	92.7
0°-60°	225.6	97.7
0°-90°	230.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	230.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	397	397	398	398	397	37
15°	301	300	302	301	303	82
25°	139	144	146	146	146	64
35°	36	39	49	40	37	25
45°	7	9	11	9	7	7
55°	4	4	4	4	4	4
65°	3	3	3	3	3	3
75°	2	2	2	2	2	2
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P886028

CATALOG NUMBER: ML104LSFLD2W1E-TIR1D40FL-TL1SDMW-200LM-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	406.7	406.7	406.7	406.7	406.7
2.5°	405.6	405.6	405.6	406.2	405.1
5°	397.3	397.3	398.4	397.9	396.8
7.5°	384.0	384.0	384.6	384.6	384.0
10°	363.5	364.1	363.0	364.6	365.7
12.5°	337.5	336.9	337.5	338.0	337.5
15°	300.9	299.8	302.0	300.9	302.6
17.5°	258.8	262.7	266.0	263.8	261.6
20°	216.1	219.4	225.5	222.8	220.6
22.5°	176.2	180.7	185.6	184.5	181.8
25°	139.1	143.5	145.7	146.3	146.3
27.5°	107.5	111.4	113.0	115.3	111.9
30°	76.5	82.0	88.1	87.6	80.9
32.5°	52.1	57.6	68.2	61.5	54.3
35°	35.5	39.3	49.3	40.5	37.1
37.5°	26.0	28.3	32.7	28.8	27.2
40°	18.3	19.9	21.6	21.1	19.4
42.5°	12.2	13.9	15.5	14.4	12.2
45°	7.2	8.9	11.1	9.4	7.2
47.5°	5.5	6.1	8.3	6.1	5.5
50°	5.0	5.0	5.5	5.0	5.0
52.5°	4.4	4.4	4.4	4.4	4.4
55°	3.9	3.9	3.9	3.9	3.9
57.5°	3.3	3.3	3.3	3.3	3.3
60°	3.3	3.3	3.3	3.3	3.3
62.5°	2.8	2.8	2.8	2.8	2.8
65°	2.8	2.8	2.8	2.8	2.8
67.5°	2.2	2.8	2.8	2.8	2.8
70°	2.2	2.2	2.2	2.2	2.2
72.5°	2.2	2.2	2.2	2.2	2.2
75°	1.7	1.7	1.7	1.7	1.7
77.5°	1.7	1.7	1.7	1.7	1.7
80°	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	0.6	1.1	1.1
85°	0.6	0.6	0.6	0.6	0.6
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)