

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: P886030

Luminaire Tested: ML104LSFLD2W1E-TIR1D40FL-TL1SDMWB-200LM-3500K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886030  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-145)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D40FL-TL1SDMWB-200LM-3500K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE BAFFLED TRIM  
Light Source: (1) D2W LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

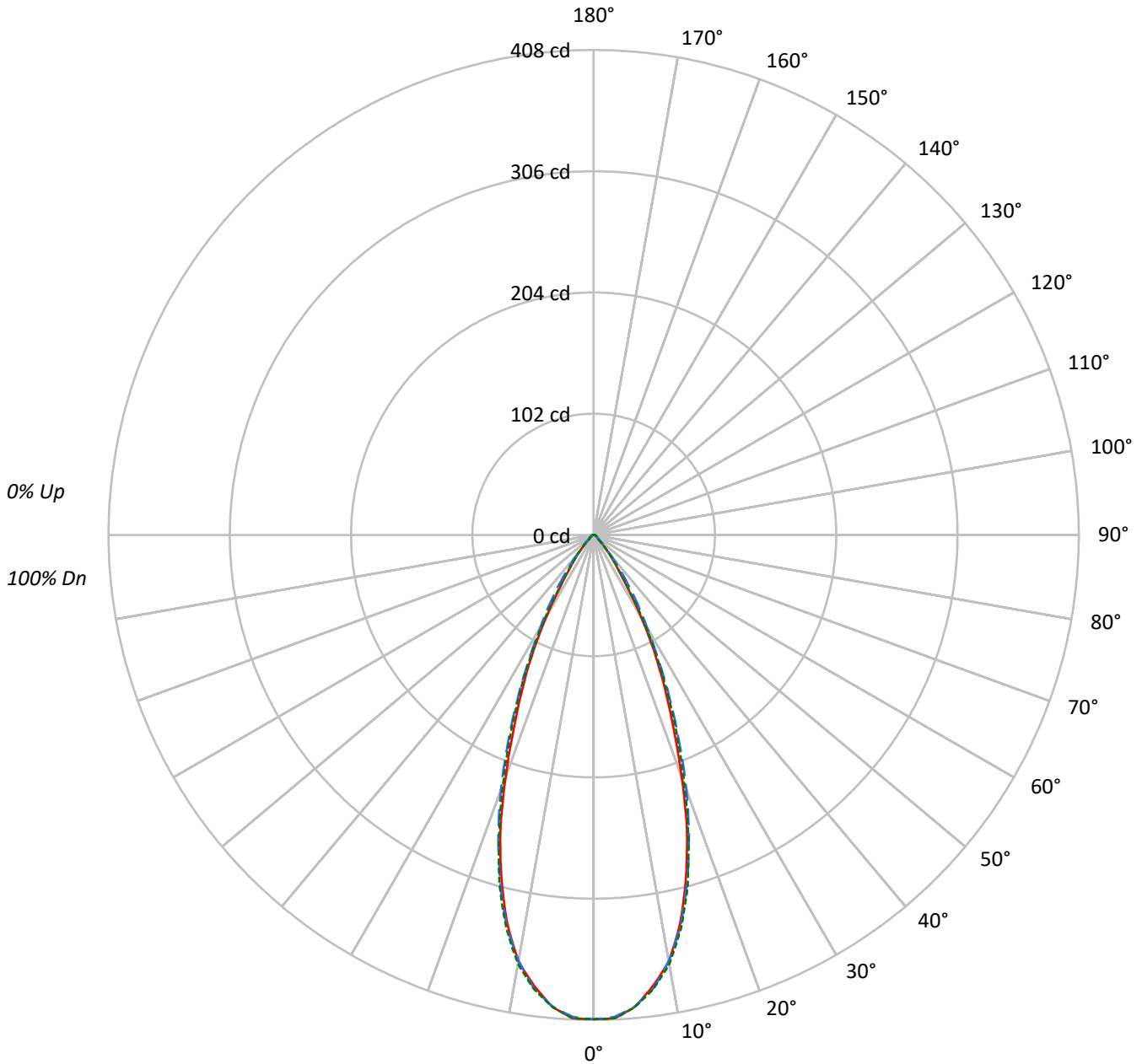
Lumens per Lamp: N/A  
Luminaire Lumens: 231.9 lumens  
Efficiency: N/A  
Efficacy: 72.5 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.69 / 0.68  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

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



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### Luminous Intensity Polar Plot





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**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								
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94								
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88								
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	84	83								
4	99	92	87	83	97	91	86	82	89	85	81	87	83	81	85	82	80	78								
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74								
6	91	82	77	73	89	82	76	73	80	76	72	79	75	72	78	74	71	70								
7	87	78	73	69	85	78	72	69	76	72	68	75	71	68	74	70	68	66								
8	83	74	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63								
9	80	71	66	62	79	70	65	62	70	65	62	69	64	61	68	64	61	60								
10	77	68	62	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57								

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

	0°	45°	90°
0°	631632	631632	631632
5°	620196	619419	620196
10°	573382	572437	576844
15°	480446	486704	490234
20°	356620	375919	367672
25°	239949	257906	251236
30°	142826	159830	150881
35°	69255	94422	73418
40°	38242	45931	39254
45°	17098	24332	15783
50°	10610	13263	10610
55°	8918	10539	8918
60°	8680	8680	8680
65°	8069	8069	8069
70°	7704	7704	7704
75°	6588	6588	6588
80°	5356	9819	9819
85°	10671	10671	10671

**MAXIMUM LUMINANCE 45°-90°:**

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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.9	15.9
10°-20°	82.9	35.7
20°-30°	67.5	29.1
30°-40°	28.9	12.5
40°-50°	8.1	3.5
50°-60°	3.3	1.4
60°-70°	2.3	1.0
70°-80°	1.4	0.6
80°-90°	0.5	0.2
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°	187.3	80.8
0°-40°	216.2	93.3
0°-60°	227.7	98.2
0°-90°	231.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	231.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	399	398	398	398	399	37
15°	299	300	303	304	306	82
25°	140	144	151	148	147	64
35°	37	41	50	44	39	25
45°	8	9	11	9	7	7
55°	3	4	4	4	3	3
65°	2	2	2	2	2	2
75°	1	1	1	1	1	1
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	407.5	407.5	407.5	407.5	407.5
2.5°	407.0	406.4	405.8	406.4	407.0
5°	398.6	398.1	398.1	398.1	398.6
7.5°	382.6	384.2	384.8	385.3	385.3
10°	364.3	363.2	363.7	364.8	366.5
12.5°	335.4	336.0	337.6	338.8	339.3
15°	299.4	300.5	303.3	304.4	305.5
17.5°	261.1	262.2	266.7	266.1	264.5
20°	216.2	220.1	227.9	227.9	222.9
22.5°	174.6	180.2	187.4	185.2	183.5
25°	140.3	143.6	150.8	147.5	146.9
27.5°	109.2	113.7	117.0	117.0	113.7
30°	79.8	87.0	89.3	89.3	84.3
32.5°	53.8	60.4	68.7	63.8	56.6
35°	36.6	41.0	49.9	43.8	38.8
37.5°	26.6	28.8	34.4	29.4	27.7
40°	18.9	20.5	22.7	21.1	19.4
42.5°	12.8	13.9	15.5	14.4	12.8
45°	7.8	9.4	11.1	9.4	7.2
47.5°	5.5	6.1	8.3	6.1	5.5
50°	4.4	5.0	5.5	5.0	4.4
52.5°	3.9	3.9	4.4	3.9	3.9
55°	3.3	3.9	3.9	3.9	3.3
57.5°	2.8	3.3	3.3	3.3	2.8
60°	2.8	2.8	2.8	2.8	2.8
62.5°	2.8	2.8	2.8	2.8	2.8
65°	2.2	2.2	2.2	2.2	2.2
67.5°	2.2	2.2	2.2	2.2	2.2
70°	1.7	1.7	1.7	1.7	1.7
72.5°	1.7	1.7	1.7	1.7	1.7
75°	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1
80°	0.6	1.1	1.1	1.1	1.1
82.5°	0.6	0.6	0.6	0.6	0.6
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



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Scaled Data Report







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

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