

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: P886027

Luminaire Tested: ML104LSFLD2W1E-TIR1D40FL-TL1SDMBB-200LM-4000K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886027  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-147)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D40FL-TL1SDMBB-200LM-4000K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK BAFFLED TRIM  
Light Source: (1) D2W LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

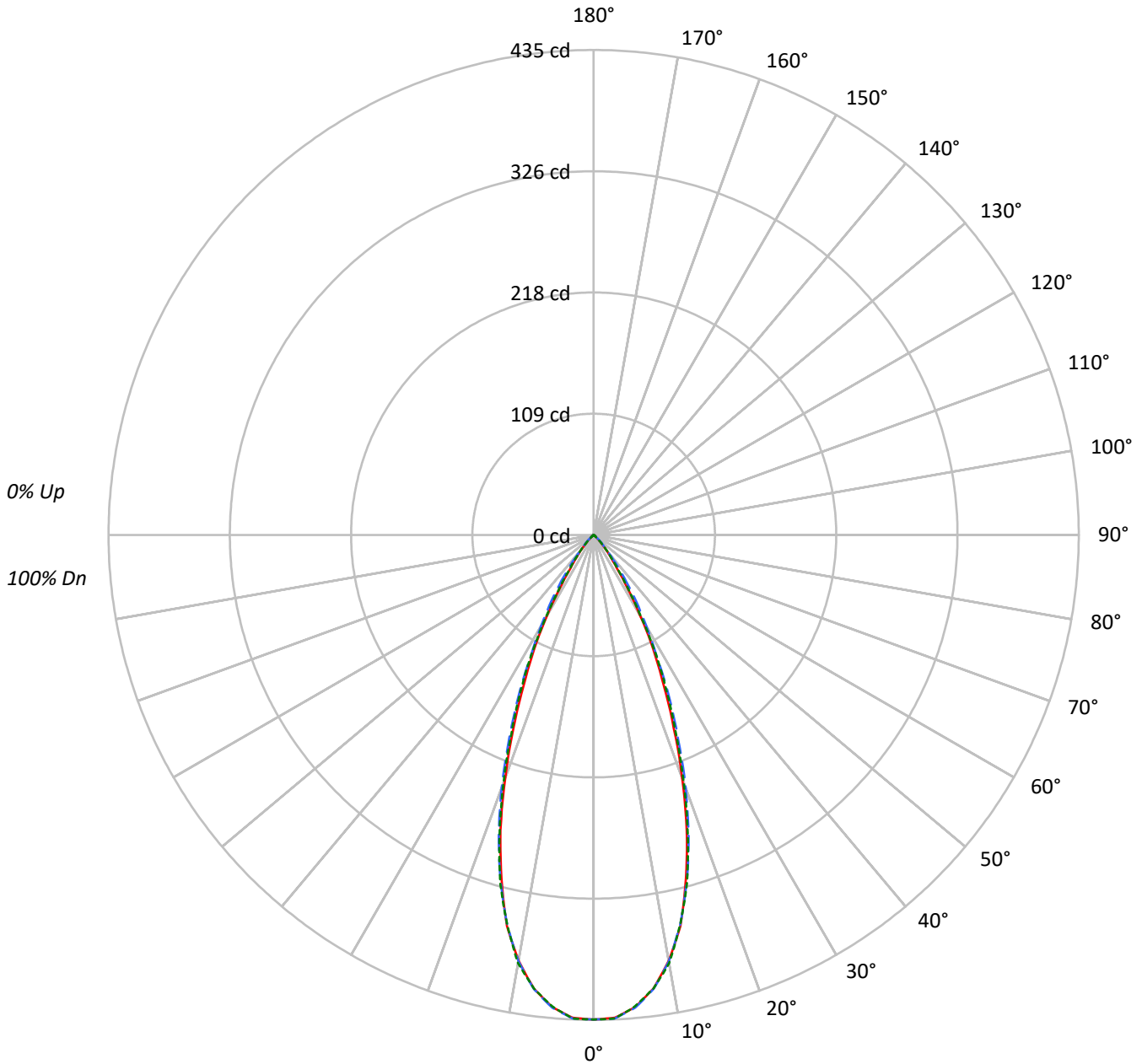
Lumens per Lamp: N/A  
Luminaire Lumens: 234.8 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

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



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

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

	0°	45°	90°
0°	673792	673792	673792
5°	661584	662518	660651
10°	610212	611156	613989
15°	512540	517193	519119
20°	382517	397363	389445
25°	253289	272614	265431
30°	149091	168242	154281
35°	67552	95746	73229
40°	33791	40873	36017
45°	11837	19509	11837
50°	4341	7234	4341
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: 19509 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.4	16.8
10°-20°	88.1	37.5
20°-30°	71.3	30.4
30°-40°	29.0	12.3
40°-50°	6.2	2.7
50°-60°	0.7	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°	198.9	84.7
0°-40°	227.9	97.0
0°-60°	234.8	100.0
0°-90°	234.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	234.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	435	435	435	435	435	
5°	425	425	426	425	425	39
15°	319	322	322	321	324	87
25°	148	153	159	155	155	68
35°	36	42	51	43	39	25
45°	5	6	9	7	5	5
55°	1	1	1	1	1	1
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	434.7	434.7	434.7	434.7	434.7
2.5°	433.5	433.5	434.1	433.5	434.1
5°	425.2	425.2	425.8	424.6	424.6
7.5°	410.3	410.3	410.9	410.9	410.3
10°	387.7	388.9	388.3	389.5	390.1
12.5°	359.2	358.6	358.0	359.2	358.0
15°	319.4	321.7	322.3	321.1	323.5
17.5°	277.7	279.5	283.1	283.1	280.7
20°	231.9	237.9	240.9	238.5	236.1
22.5°	187.9	192.7	198.0	196.3	192.7
25°	148.1	152.8	159.4	155.2	155.2
27.5°	115.4	119.5	121.9	123.1	120.7
30°	83.3	89.2	94.0	92.2	86.2
32.5°	55.3	61.8	70.8	65.4	58.3
35°	35.7	41.6	50.6	43.4	38.7
37.5°	24.4	27.4	33.9	28.5	26.2
40°	16.7	19.0	20.2	19.0	17.8
42.5°	10.1	11.9	13.1	12.5	10.7
45°	5.4	6.5	8.9	7.1	5.4
47.5°	2.4	3.6	5.4	3.6	2.4
50°	1.8	1.8	3.0	1.8	1.8
52.5°	1.2	1.2	1.2	1.2	1.2
55°	0.6	0.6	0.6	0.6	0.6
57.5°	0.0	0.0	0.6	0.6	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



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Scaled Data Report







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

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