

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: P886026

Luminaire Tested: ML104LSFLD2W1E-TIR1D40FL-TL1SDMBB-200LM-3500K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886026  
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-3500K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK BAFFLED TRIM  
Light Source: (1) D2W LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

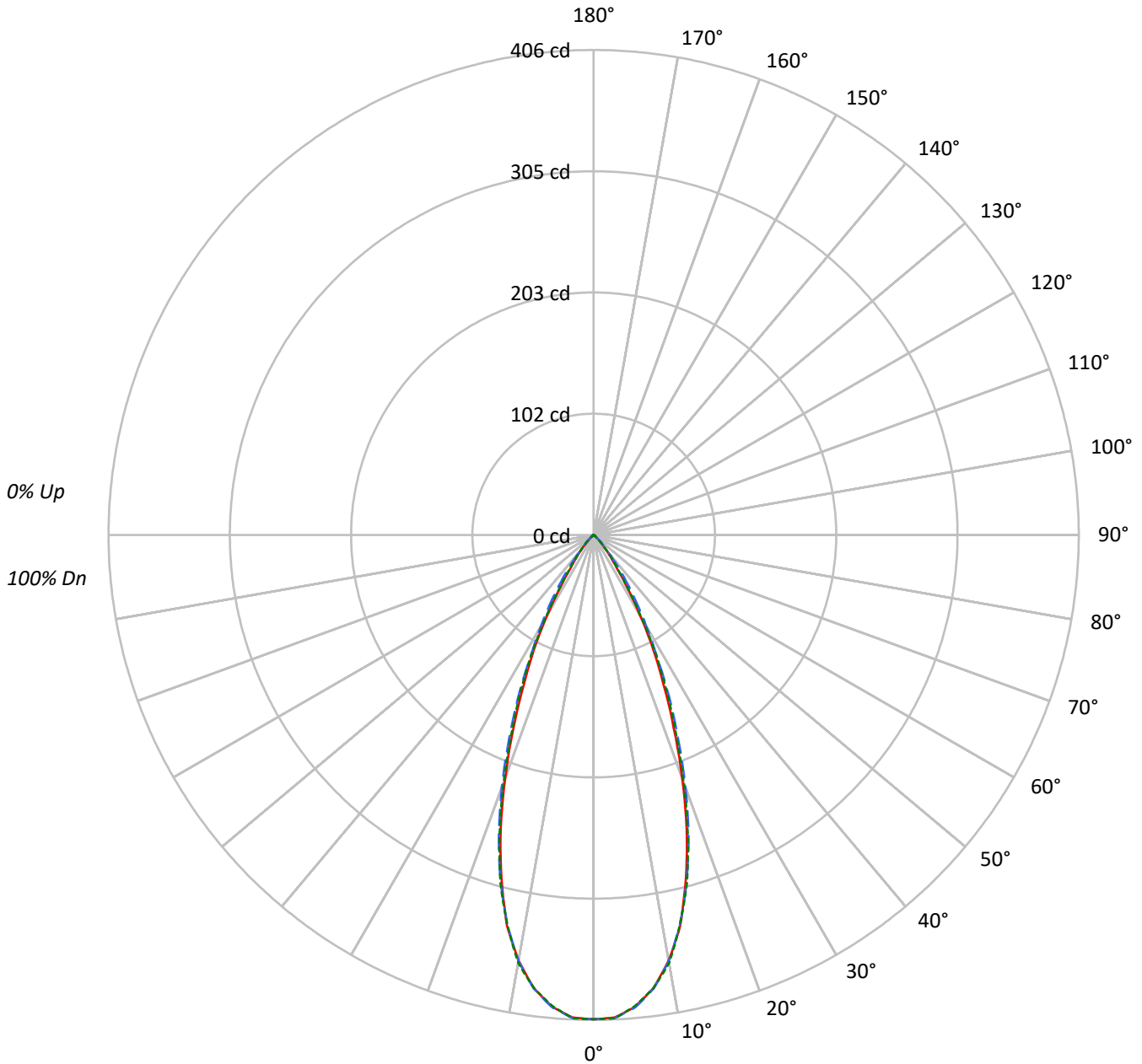
Lumens per Lamp: N/A  
Luminaire Lumens: 219.0 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

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										
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°	628532	628532	628532
5°	617085	618018	616151
10°	569290	570077	572752
15°	478039	482371	484136
20°	356785	370476	363218
25°	236186	254315	247645
30°	139068	156787	143900
35°	63011	89124	68309
40°	31363	38242	33588
45°	10960	18194	10960
50°	4099	6752	4099
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: 18194 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.8	16.8
10°-20°	82.2	37.5
20°-30°	66.5	30.4
30°-40°	27.0	12.3
40°-50°	5.8	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°	185.5	84.7
0°-40°	212.6	97.0
0°-60°	219.0	100.0
0°-90°	219.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	219.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	406	406	406	406	406	
5°	397	397	397	396	396	37
15°	298	300	301	300	302	82
25°	138	143	149	145	145	64
35°	33	39	47	40	36	23
45°	5	6	8	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°	405.5	405.5	405.5	405.5	405.5
2.5°	404.4	404.4	404.9	404.4	404.9
5°	396.6	396.6	397.2	396.0	396.0
7.5°	382.7	382.7	383.3	383.3	382.7
10°	361.7	362.8	362.2	363.3	363.9
12.5°	335.0	334.5	333.9	335.0	333.9
15°	297.9	300.1	300.6	299.5	301.7
17.5°	259.0	260.7	264.0	264.0	261.8
20°	216.3	221.9	224.6	222.4	220.2
22.5°	175.3	179.7	184.7	183.0	179.7
25°	138.1	142.6	148.7	144.8	144.8
27.5°	107.6	111.5	113.7	114.8	112.6
30°	77.7	83.2	87.6	86.0	80.4
32.5°	51.6	57.7	66.0	61.0	54.4
35°	33.3	38.8	47.1	40.5	36.1
37.5°	22.7	25.5	31.6	26.6	24.4
40°	15.5	17.7	18.9	17.7	16.6
42.5°	9.4	11.1	12.2	11.6	10.0
45°	5.0	6.1	8.3	6.7	5.0
47.5°	2.2	3.3	5.0	3.3	2.2
50°	1.7	1.7	2.8	1.7	1.7
52.5°	1.1	1.1	1.1	1.1	1.1
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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