

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: P886002

Luminaire Tested: ML104LSFLD2W1E-TIR1D25NFL-TL1SDMBB-200LM-2700K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886002  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-141)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D25NFL-TL1SDMBB-200LM-2700K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK BAFFLED TRIM  
Light Source: (1) D2W LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 151.0 lumens  
Efficiency: N/A  
Efficacy: 47.2 lumens/watt  
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.55  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

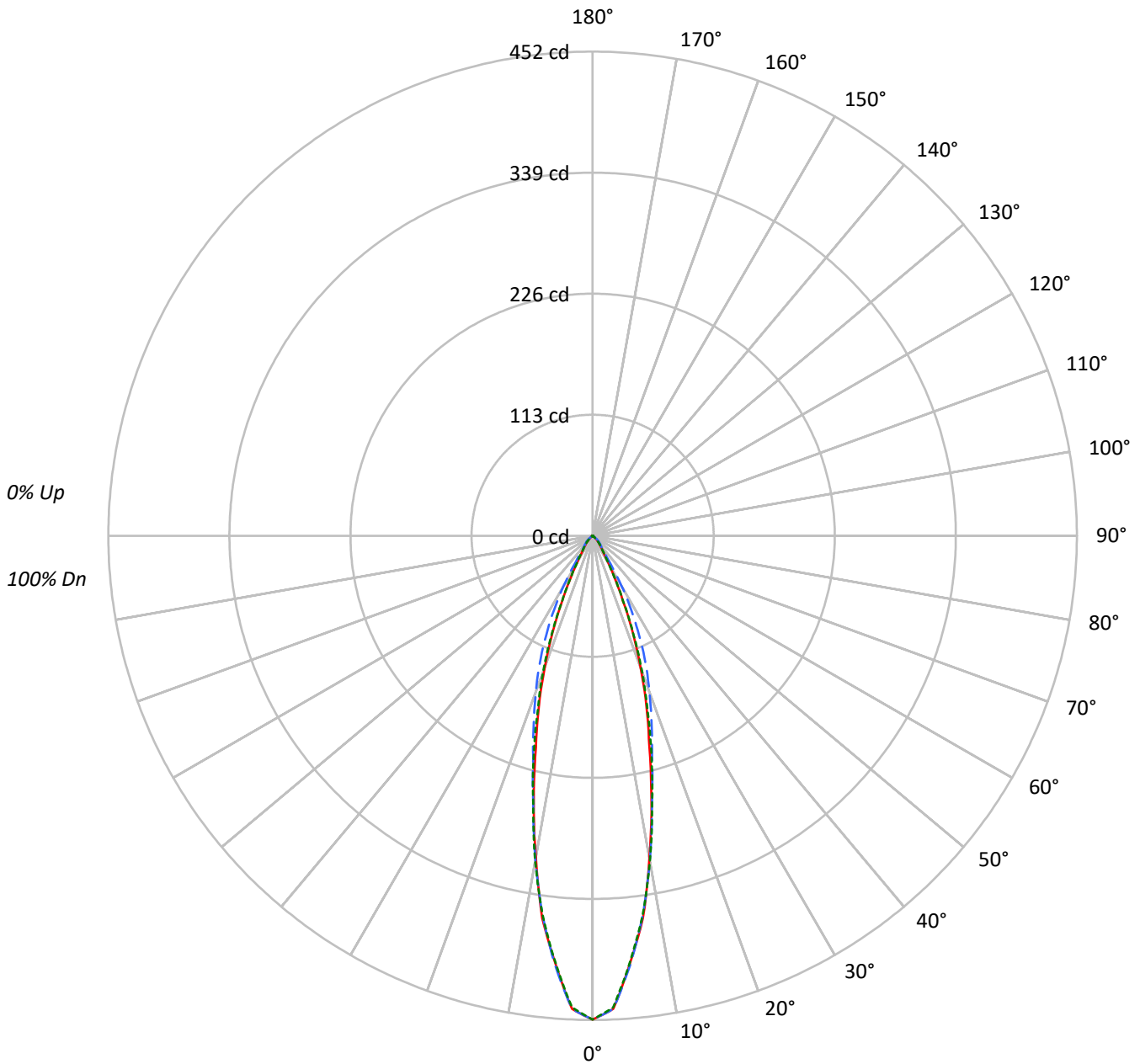
Input Watts (W): 3.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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

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

	0°	45°	90°
0°	700142	700142	700142
5°	623308	625953	621597
10°	480363	483825	485557
15°	327679	343726	340195
20°	215094	255341	222352
25°	113903	175643	115784
30°	52620	95397	51725
35°	28383	34628	28383
40°	19020	23674	20234
45°	12056	18194	12056
50°	2653	13263	2653
55°	1621	1621	1621
60°	1860	0	1860
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°	35.4	23.4
10°-20°	59.1	39.2
20°-30°	38.3	25.3
30°-40°	12.4	8.2
40°-50°	4.9	3.2
50°-60°	0.8	0.5
60°-70°	0.1	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°	132.8	87.9
0°-40°	145.2	96.2
0°-60°	150.9	100.0
0°-90°	151.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	151.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	401	402	402	400	400	35
15°	204	210	214	213	212	57
25°	67	80	103	80	68	32
35°	15	19	18	18	15	10
45°	6	6	8	7	6	4
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°	451.7	451.7	451.7	451.7	451.7
2.5°	442.2	441.1	442.2	440.6	440.6
5°	400.6	402.3	402.3	399.5	399.5
7.5°	360.1	359.0	357.9	355.7	357.3
10°	305.2	304.1	307.4	309.1	308.5
12.5°	253.6	253.6	255.8	260.8	256.4
15°	204.2	209.7	214.2	213.1	212.0
17.5°	167.0	172.6	182.6	177.0	170.3
20°	130.4	140.4	154.8	142.6	134.8
22.5°	98.2	109.9	129.3	111.5	99.9
25°	66.6	79.9	102.7	80.5	67.7
27.5°	43.8	52.7	78.2	54.4	44.9
30°	29.4	36.6	53.3	36.1	28.9
32.5°	19.4	26.6	31.1	26.1	20.0
35°	15.0	18.9	18.3	18.3	15.0
37.5°	11.7	13.9	13.9	13.3	12.2
40°	9.4	10.0	11.7	10.0	10.0
42.5°	7.2	8.3	10.0	8.3	7.8
45°	5.5	6.1	8.3	6.7	5.5
47.5°	1.7	3.9	7.2	3.9	1.7
50°	1.1	1.1	5.5	1.1	1.1
52.5°	1.1	0.6	2.8	0.6	1.1
55°	0.6	0.6	0.6	0.6	0.6
57.5°	0.6	0.6	0.6	0.6	0.6
60°	0.6	0.0	0.0	0.6	0.6
62.5°	0.6	0.0	0.0	0.0	0.6
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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