

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: P885649

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMB-340LM-3000K

Issue Date: 6/19/2024

**Test Information**

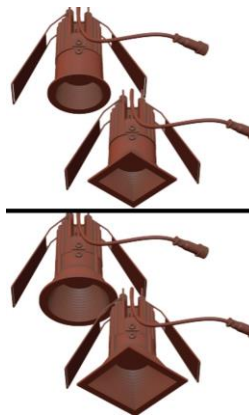
Test Method: LM-79-2019  
Report Number: P885649  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-138)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMB-340LM-3000K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 244.3 lumens  
Efficiency: N/A  
Efficacy: 40.0 lumens/watt  
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.54  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')

CIE Type: Direct

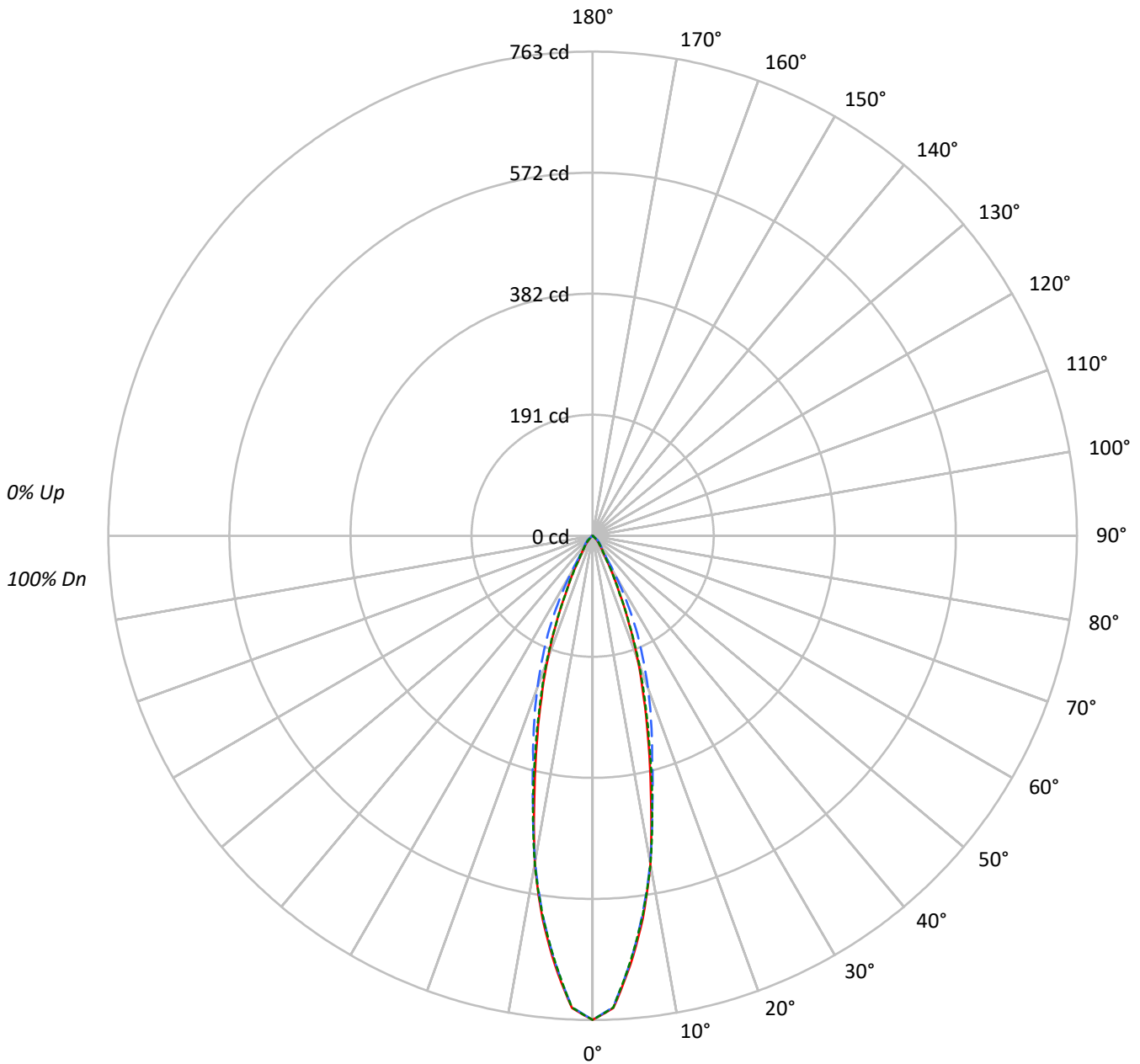
Input Watts (W): 6.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	115	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96																			
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91																			
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87																			
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	87	84	83																			
5	98	91	87	83	97	91	86	83	89	85	82	87	84	81	86	83	81	80																			
6	95	87	83	79	93	87	82	79	85	81	78	84	81	78	83	80	77	76																			
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73																			
8	88	80	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70																			
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68																			
10	82	75	70	67	81	74	70	67	73	69	67	73	69	66	72	69	66	65																			

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

	0°	45°	90°
0°	1182352	1182352	1182352
5°	1057259	1051502	1050102
10°	825053	822062	826469
15°	545275	581220	555706
20°	341280	418476	350517
25°	172907	273812	172907
30°	77141	125644	78751
35°	45981	51279	45981
40°	30351	37838	32172
45°	14468	28716	16440
50°	4582	18085	4582
55°	2432	2432	2432
60°	2790	0	2790
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: 28716 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.9	24.5
10°-20°	98.4	40.3
20°-30°	58.8	24.1
30°-40°	19.0	7.8
40°-50°	7.3	3.0
50°-60°	0.9	0.4
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°	217.0	88.8
0°-40°	236.0	96.6
0°-60°	244.2	100.0
0°-90°	244.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	244.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	763	763	763	763	763	
5°	680	681	676	677	675	60
15°	340	350	362	355	346	94
25°	101	118	160	123	101	49
35°	24	29	27	29	24	16
45°	7	9	13	9	8	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°	762.8	762.8	762.8	762.8	762.8
2.5°	745.1	744.1	743.2	744.1	744.1
5°	679.5	681.4	675.8	676.7	674.9
7.5°	607.5	605.6	601.9	604.7	603.7
10°	524.2	518.5	522.3	522.3	525.1
12.5°	424.0	432.4	434.3	433.4	433.4
15°	339.8	350.1	362.2	354.7	346.3
17.5°	267.7	284.5	306.1	289.2	274.2
20°	206.9	223.7	253.7	226.5	212.5
22.5°	149.8	170.4	205.0	172.2	151.6
25°	101.1	117.9	160.1	122.6	101.1
27.5°	68.3	80.5	112.3	81.4	67.4
30°	43.1	58.0	70.2	57.1	44.0
32.5°	30.9	41.2	39.3	41.2	31.8
35°	24.3	29.0	27.1	29.0	24.3
37.5°	18.7	21.5	22.5	21.5	19.7
40°	15.0	15.9	18.7	16.8	15.9
42.5°	11.2	13.1	15.9	13.1	12.2
45°	6.6	9.4	13.1	9.4	7.5
47.5°	1.9	4.7	11.2	4.7	1.9
50°	1.9	0.9	7.5	0.9	1.9
52.5°	0.9	0.9	2.8	0.9	0.9
55°	0.9	0.9	0.9	0.9	0.9
57.5°	0.9	0.0	0.0	0.9	0.9
60°	0.9	0.0	0.0	0.0	0.9
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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