

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: P885801

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-100LM-4000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P885801
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-120)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-100LM-4000K
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

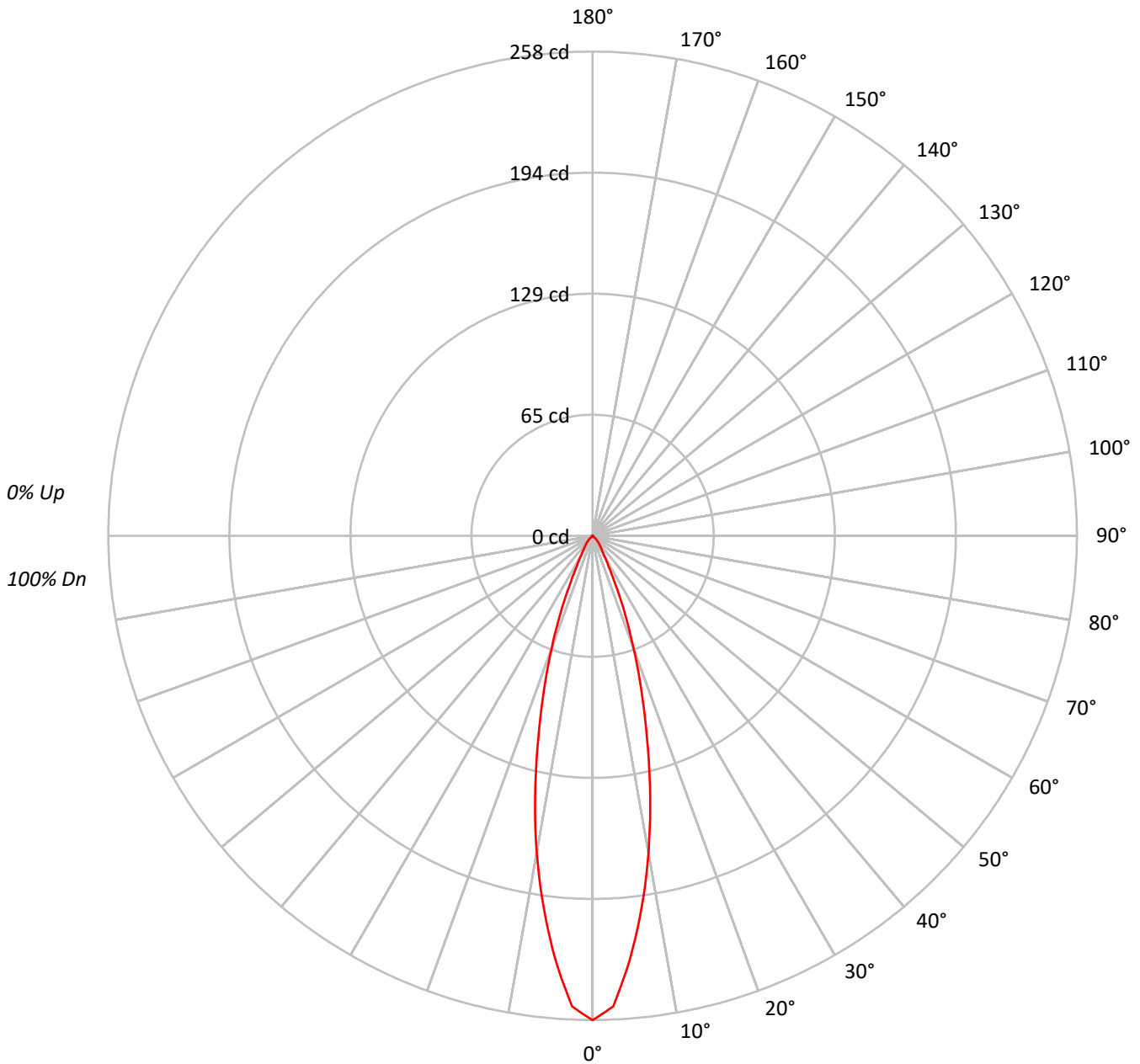
Lumens per Lamp: N/A
Luminaire Lumens: 72.3 lumens
Efficiency: N/A
Efficacy: 32.8 lumens/watt
Spacing Criteria (0/90/45): 0.45 / 0.45 / 0.48
Luminous Opening: Circular (Dia: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 2.2
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



TEST NUMBER: P885801
CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-100LM-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P885801

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1RDDB-100LM-4000K

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				100															
1	115	112	110	108	112	110	108	107	106	105	104	103	101	100	99	98	98	96				96															
2	110	106	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92				92															
3	106	101	97	94	105	100	96	93	97	94	92	95	93	91	93	91	89	88				88															
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84				84															
5	99	93	88	85	98	92	87	84	90	86	84	88	85	83	87	84	82	81				81															
6	96	89	84	81	94	88	84	81	87	83	80	85	82	80	84	81	79	78				78															
7	92	85	81	77	91	85	80	77	84	80	77	83	79	77	82	78	76	75				75															
8	89	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72				72															
9	87	79	75	72	86	79	75	72	78	74	71	77	74	71	77	73	71	70				70															
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68				68															

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	509371
5°	449705
10°	343684
15°	228221
20°	133573
25°	62496
30°	28714
35°	18310
40°	12624
45°	6978
50°	1535
55°	1032
60°	1184
65°	0
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6978 cd/sqm



TEST NUMBER: P885801

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1RDDB-100LM-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	27.6
10°-20°	30.8	42.6
20°-30°	14.3	19.8
30°-40°	4.9	6.8
40°-50°	1.8	2.6
50°-60°	0.3	0.5
60°-70°	0.1	0.2
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°	65.0	90.0
0°-40°	70.0	96.8
0°-60°	72.1	99.8
0°-90°	72.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	72.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	258	
5°	227	20
15°	112	31
25°	29	14
35°	8	5
45°	2	2
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P885801

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMB-100LM-4000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	258.1
2.5°	251.0
5°	227.0
7.5°	199.9
10°	171.5
12.5°	141.5
15°	111.7
17.5°	86.0
20°	63.6
22.5°	44.8
25°	28.7
27.5°	18.3
30°	12.6
32.5°	9.6
35°	7.6
37.5°	6.0
40°	4.9
42.5°	3.8
45°	2.5
47.5°	0.8
50°	0.5
52.5°	0.5
55°	0.3
57.5°	0.3
60°	0.3
62.5°	0.3
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)