

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: P885890

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1RDSL-400LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-125)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1RDSL-400LM-3500K
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

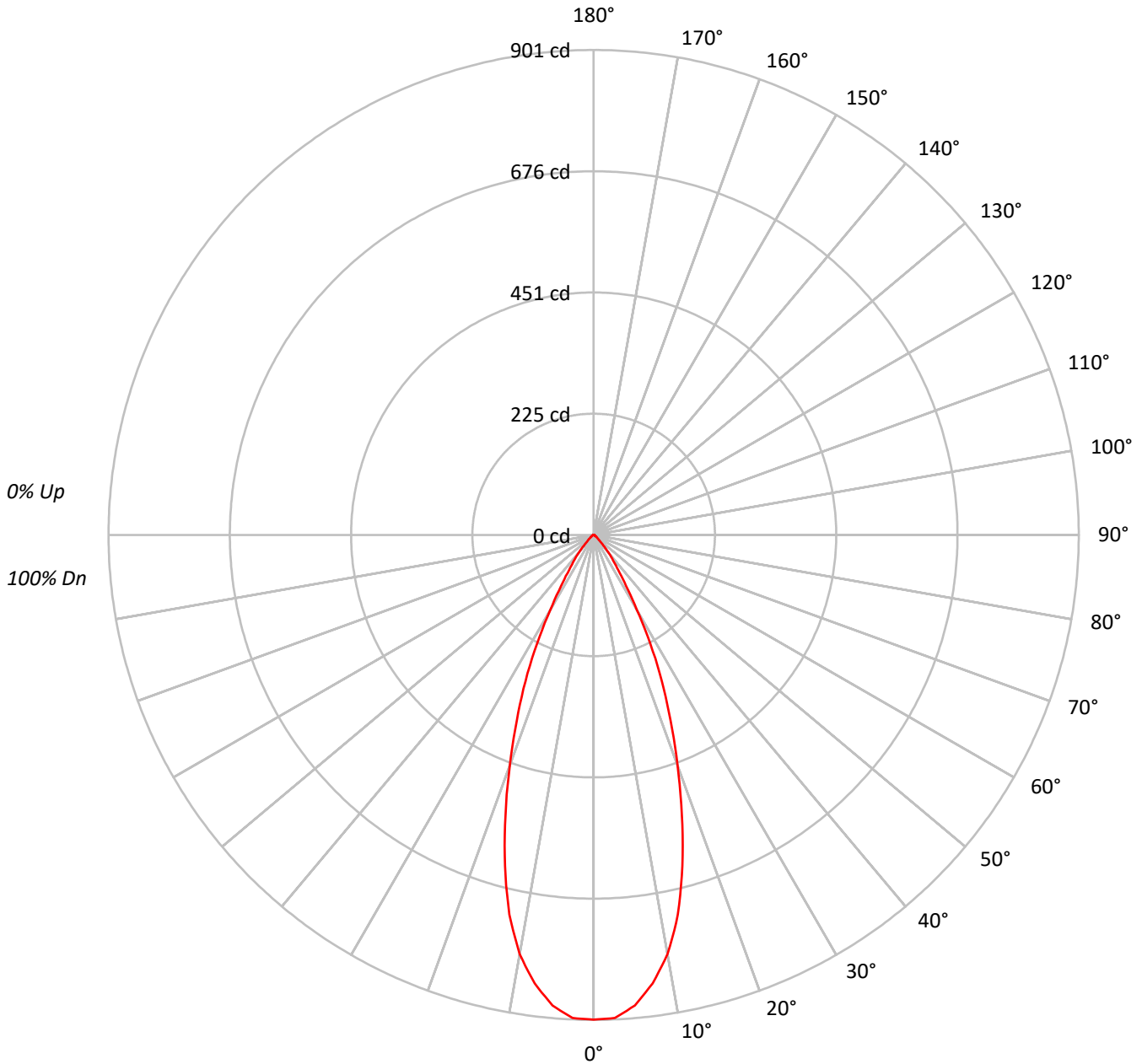
Lumens per Lamp: N/A
Luminaire Lumens: 468.3 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.66
Luminous Opening: Circular (Dia: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6
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	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95																			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89																			
3	104	99	94	91	102	97	93	90	95	91	88	92	89	87	90	88	86	84																			
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80																			
5	96	88	83	79	94	87	82	79	86	81	78	84	80	78	83	79	77	76																			
6	92	84	78	75	90	83	78	74	82	77	74	80	76	73	79	76	73	72																			
7	88	80	74	71	87	79	74	70	78	73	70	77	73	70	76	72	69	68																			
8	84	76	71	67	83	75	70	67	74	70	67	73	69	66	73	69	66	65																			
9	81	73	67	64	80	72	67	64	71	67	64	70	66	63	70	66	63	62																			
10	78	69	64	61	77	69	64	61	68	64	61	68	63	61	67	63	60	59																			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1777372
5°	1738398
10°	1584753
15°	1301493
20°	954961
25°	652833
30°	365528
35°	190572
40°	107431
45°	46052
50°	27019
55°	18924
60°	13025
65°	10274
70°	6347
75°	8388
80°	12502
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 46052 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	17.3
10°-20°	174.1	37.2
20°-30°	135.7	29.0
30°-40°	53.8	11.5
40°-50°	15.2	3.2
50°-60°	5.0	1.1
60°-70°	2.2	0.5
70°-80°	1.2	0.2
80°-90°	0.1	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°	390.8	83.4
0°-40°	444.6	94.9
0°-60°	464.8	99.3
0°-90°	468.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	468.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	901	
5°	878	81
15°	637	174
25°	300	136
35°	79	54
45°	16	15
55°	6	5
65°	2	2
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	900.6
2.5°	898.4
5°	877.5
7.5°	840.2
10°	790.8
12.5°	722.7
15°	637.0
17.5°	544.8
20°	454.7
22.5°	372.3
25°	299.8
27.5°	227.3
30°	160.4
32.5°	112.0
35°	79.1
37.5°	59.3
40°	41.7
42.5°	26.4
45°	16.5
47.5°	12.1
50°	8.8
52.5°	6.6
55°	5.5
57.5°	4.4
60°	3.3
62.5°	2.2
65°	2.2
67.5°	2.2
70°	1.1
72.5°	1.1
75°	1.1
77.5°	1.1
80°	1.1
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

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— 0°-180°

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