

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: P885819

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMW-400LM-3000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P885819
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-118)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMW-400LM-3000K
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

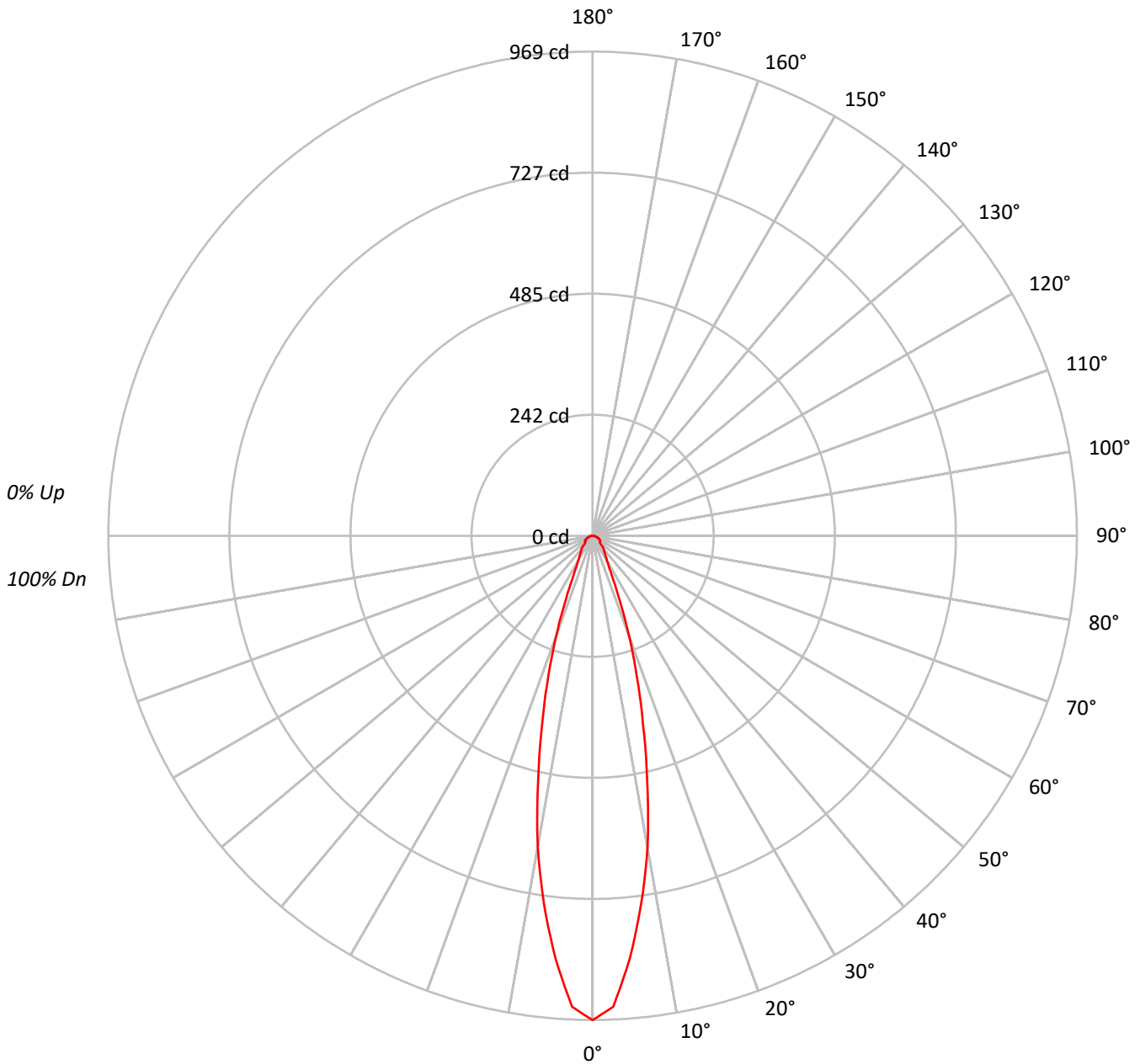
Lumens per Lamp: N/A
Luminaire Lumens: 317.3 lumens
Efficiency: N/A
Efficacy: 52.9 lumens/watt
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.46
Luminous Opening: Circular (Dia: 0.08' x H: 0')
CIE Type: Direct

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	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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92						92													
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85						85													
3	102	95	90	86	100	94	89	85	91	87	84	89	85	83	86	84	81	80						80													
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75						75													
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71						71													
6	89	80	74	70	87	79	74	70	78	73	70	77	72	69	75	72	69	67						67													
7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	66	64						64													
8	82	73	68	64	81	73	67	64	72	67	63	71	66	63	70	66	63	61						61													
9	79	70	65	61	78	70	64	61	69	64	61	68	64	60	67	63	60	59						59													
10	76	67	62	59	75	67	62	59	66	62	58	66	61	58	65	61	58	57						57													

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1912954
5°	1683522
10°	1267923
15°	796015
20°	445032
25°	212748
30°	130122
35°	102634
40°	88366
45°	60844
50°	60485
55°	64342
60°	65522
65°	63042
70°	60011
75°	55664
80°	47734
85°	47552

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 65522 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	23.4
10°-20°	108.0	34.0
20°-30°	49.7	15.7
30°-40°	27.1	8.6
40°-50°	18.7	5.9
50°-60°	16.4	5.2
60°-70°	13.1	4.1
70°-80°	7.7	2.4
80°-90°	2.3	0.7
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°	232.0	73.1
0°-40°	259.1	81.7
0°-60°	294.2	92.7
0°-90°	317.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	317.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	969	
5°	850	74
15°	390	108
25°	98	50
35°	43	27
45°	22	19
55°	19	16
65°	14	13
75°	7	8
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	969.3
2.5°	943.3
5°	849.8
7.5°	743.9
10°	632.7
12.5°	503.9
15°	389.6
17.5°	294.0
20°	211.9
22.5°	144.4
25°	97.7
27.5°	70.6
30°	57.1
32.5°	48.8
35°	42.6
37.5°	37.4
40°	34.3
42.5°	29.1
45°	21.8
47.5°	19.7
50°	19.7
52.5°	18.7
55°	18.7
57.5°	17.7
60°	16.6
62.5°	14.5
65°	13.5
67.5°	11.4
70°	10.4
72.5°	8.3
75°	7.3
77.5°	6.2
80°	4.2
82.5°	3.1
85°	2.1
87.5°	1.0
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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(END OF REPORT)