

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: P885821

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1RDMW-400LM-4000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P885821
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-4000K
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

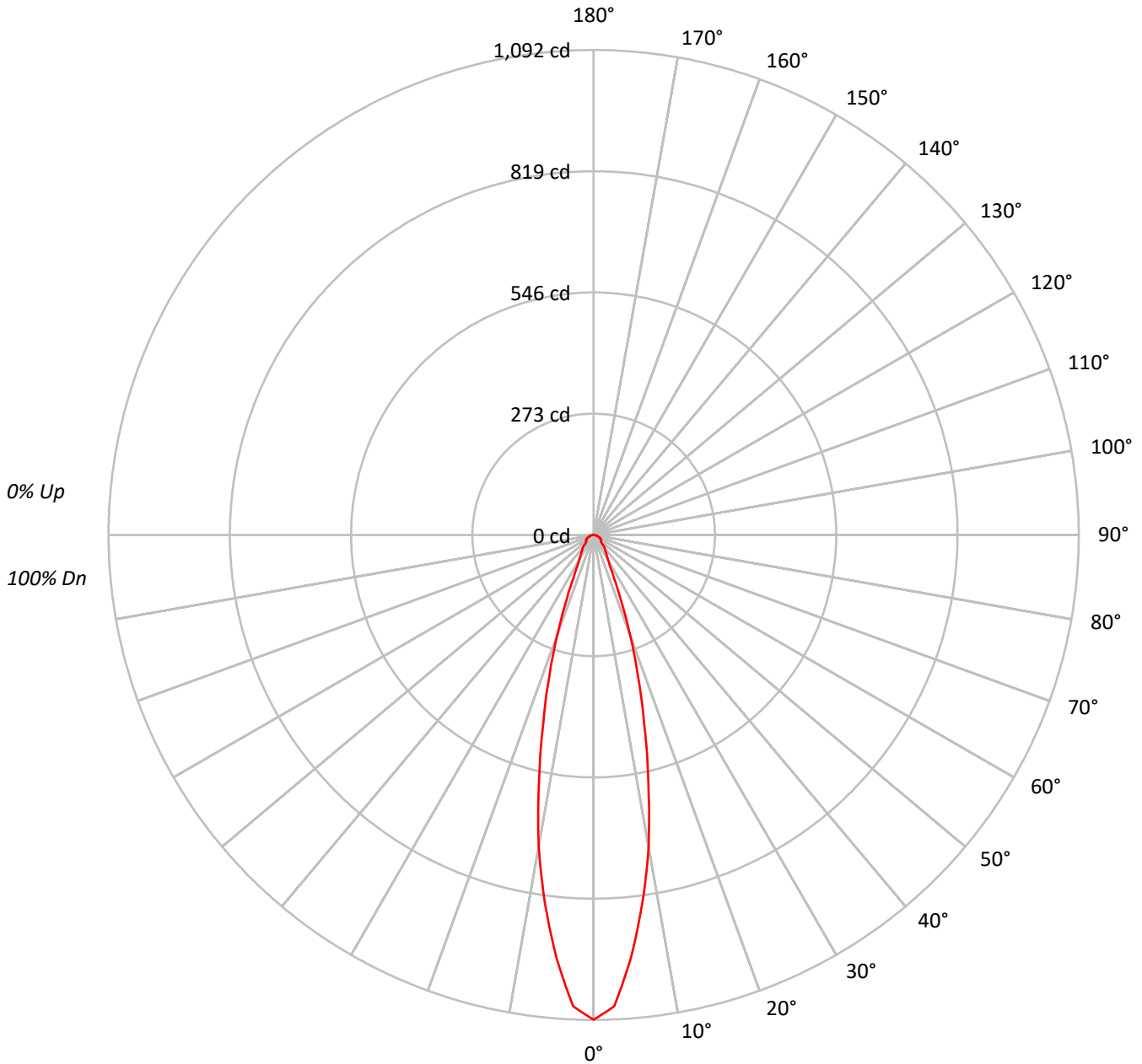
Lumens per Lamp: N/A
Luminaire Lumens: 357.3 lumens
Efficiency: N/A
Efficacy: 59.6 lumens/watt
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.46
Luminous Opening: Circular (Dia: 0.08' x H: 0')
CIE Type: Direct

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	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°	2154121
5°	1895696
10°	1427640
15°	896335
20°	501108
25°	239532
30°	146530
35°	115644
40°	99444
45°	68659
50°	68160
55°	72600
60°	73810
65°	70981
70°	67512
75°	62526
80°	53416
85°	52081

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 73810 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	23.4
10°-20°	121.6	34.0
20°-30°	55.9	15.7
30°-40°	30.6	8.6
40°-50°	21.1	5.9
50°-60°	18.5	5.2
60°-70°	14.8	4.1
70°-80°	8.7	2.4
80°-90°	2.5	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°	261.2	73.1
0°-40°	291.8	81.7
0°-60°	331.4	92.7
0°-90°	357.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	357.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1092	
5°	957	84
15°	439	122
25°	110	56
35°	48	31
45°	25	21
55°	21	18
65°	15	15
75°	8	9
85°	2	3
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1091.5
2.5°	1062.2
5°	956.9
7.5°	837.6
10°	712.4
12.5°	567.4
15°	438.7
17.5°	331.1
20°	238.6
22.5°	162.6
25°	110.0
27.5°	79.5
30°	64.3
32.5°	55.0
35°	48.0
37.5°	42.1
40°	38.6
42.5°	32.8
45°	24.6
47.5°	22.2
50°	22.2
52.5°	21.1
55°	21.1
57.5°	19.9
60°	18.7
62.5°	16.4
65°	15.2
67.5°	12.9
70°	11.7
72.5°	9.4
75°	8.2
77.5°	7.0
80°	4.7
82.5°	3.5
85°	2.3
87.5°	1.2
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)