

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: P885879

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-124)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1RDMW-400LM-3000K
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

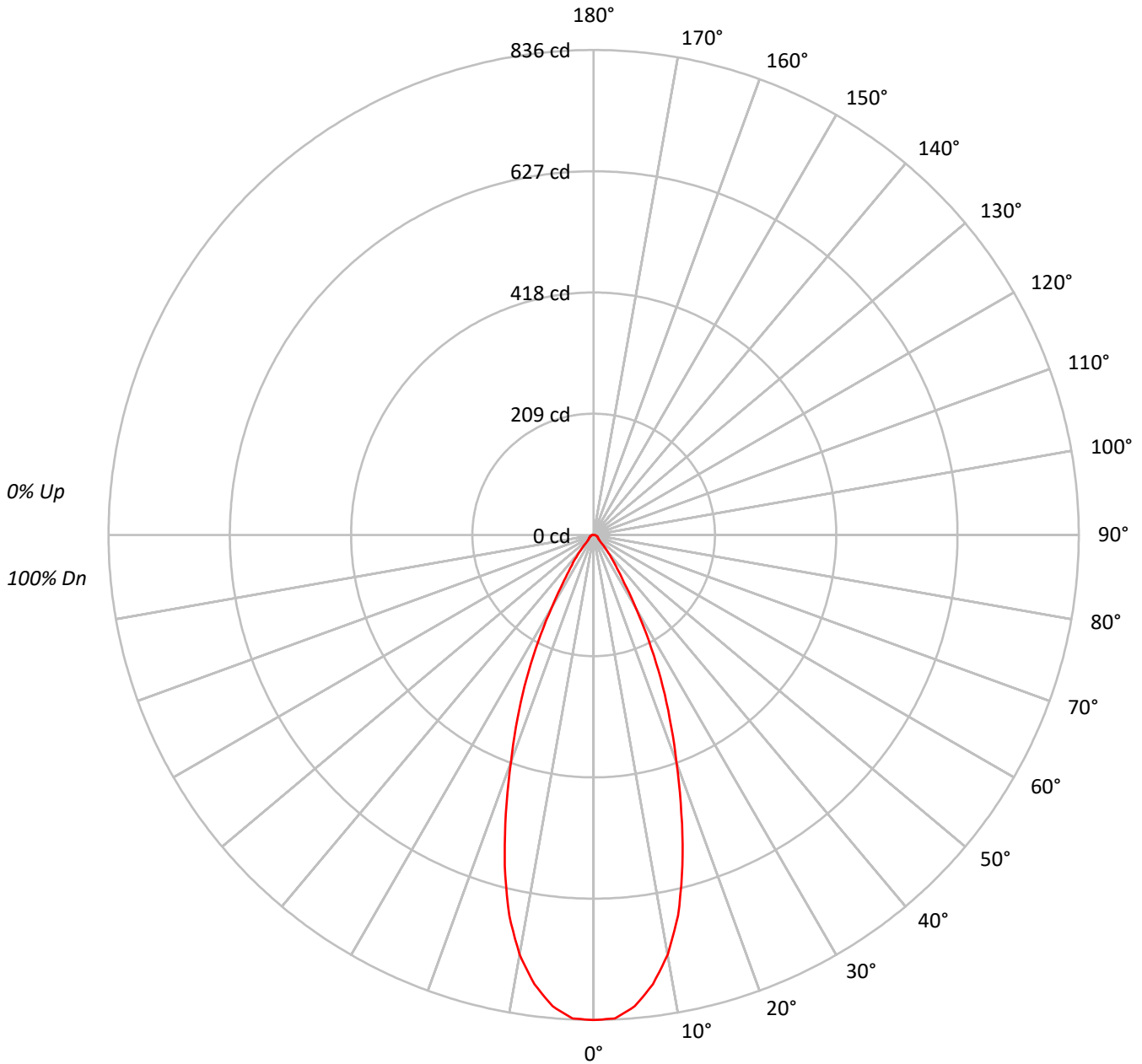
Lumens per Lamp: N/A
Luminaire Lumens: 444.3 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.65
Luminous Opening: Circular (Dia: 0.08' x H: 0')
CIE Type: Direct

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				20				
RC	80				70				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	100	100
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94	94	94	94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88	88	88	88
3	103	97	93	89	101	96	92	88	93	90	87	91	88	85	89	86	84	83	83	83	83
4	99	92	87	83	97	91	86	82	88	84	81	87	83	80	85	82	79	78	78	78	78
5	94	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74	74	74	74
6	90	82	77	73	89	81	76	73	80	75	72	79	75	72	77	74	71	70	70	70	70
7	87	78	73	69	85	78	72	69	76	72	68	75	71	68	74	70	68	66	66	66	66
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63	63	63	63
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	64	61	60	60	60	60
10	77	68	63	59	76	68	63	59	67	62	59	66	62	59	65	62	59	58	58	58	58

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1650276
5°	1615571
10°	1471728
15°	1207712
20°	874943
25°	594910
30°	329066
35°	170093
40°	96353
45°	43540
50°	35001
55°	31999
60°	32761
65°	34090
70°	30005
75°	32026
80°	35232
85°	22644

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 45245 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	16.9
10°-20°	161.2	36.3
20°-30°	123.8	27.9
30°-40°	47.8	10.8
40°-50°	14.7	3.3
50°-60°	8.5	1.9
60°-70°	6.8	1.5
70°-80°	4.7	1.1
80°-90°	1.5	0.3
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°	360.3	81.1
0°-40°	408.1	91.8
0°-60°	431.2	97.1
0°-90°	444.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	444.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	836	
5°	816	75
15°	591	161
25°	273	124
35°	71	48
45°	16	15
55°	9	8
65°	7	7
75°	4	5
85°	1	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	836.2
2.5°	834.2
5°	815.5
7.5°	781.2
10°	734.4
12.5°	672.1
15°	591.1
17.5°	502.8
20°	416.6
22.5°	342.8
25°	273.2
27.5°	205.7
30°	144.4
32.5°	98.7
35°	70.6
37.5°	51.9
40°	37.4
42.5°	24.9
45°	15.6
47.5°	12.5
50°	11.4
52.5°	10.4
55°	9.3
57.5°	8.3
60°	8.3
62.5°	7.3
65°	7.3
67.5°	6.2
70°	5.2
72.5°	5.2
75°	4.2
77.5°	4.2
80°	3.1
82.5°	2.1
85°	1.0
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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