

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: P886690

Luminaire Tested: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMW-1000LM-4000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P886690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D25NFL-TL3RDMW-1000LM-4000K
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

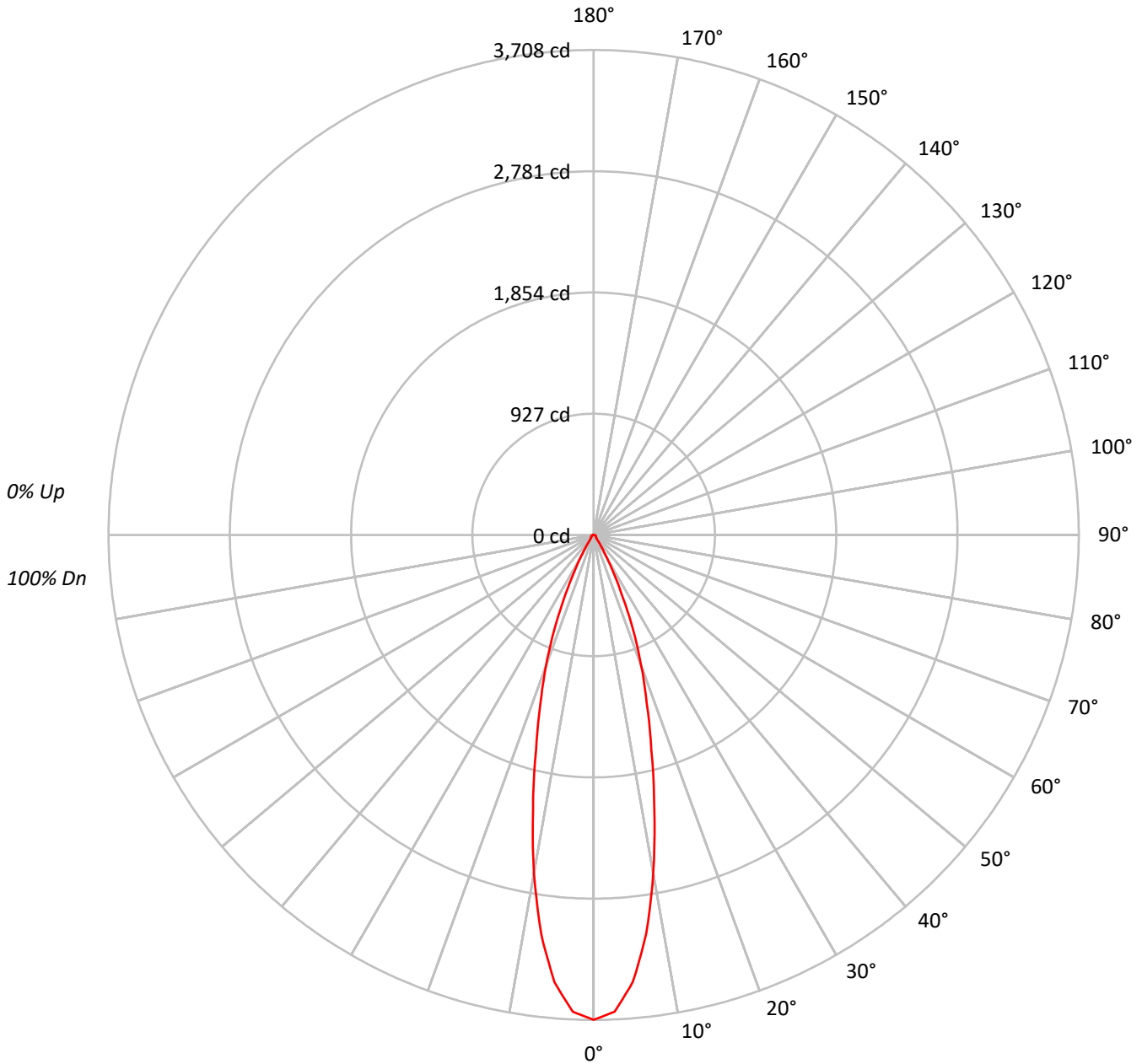
Lumens per Lamp: N/A
Luminaire Lumens: 1155.9 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.5
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): 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			
1	114	112	109	107	112	109	107	106	105	104	102	102	101	99	98	97	97	95			
2	110	105	102	99	107	104	100	98	100	98	96	97	95	94	95	93	92	90			
3	105	100	95	92	103	98	95	91	96	93	90	94	91	89	91	89	87	86			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82			
5	98	91	86	82	96	90	85	82	88	84	81	87	83	81	85	82	80	79			
6	94	87	82	78	93	86	82	78	85	81	78	83	80	77	82	79	77	76			
7	91	83	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73			
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70			
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68			
10	82	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	66	65			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	813005
5°	755314
10°	584714
15°	386472
20°	247752
25°	127507
30°	51476
35°	18926
40°	9160
45°	8218
50°	7914
55°	8449
60°	8727
65°	9184
70°	9232
75°	9320
80°	8334
85°	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 75°
 Luminance: 9320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.5	26.1
10°-20°	476.2	41.2
20°-30°	252.6	21.9
30°-40°	53.2	4.6
40°-50°	20.9	1.8
50°-60°	19.7	1.7
60°-70°	17.1	1.5
70°-80°	11.2	1.0
80°-90°	3.6	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°	1030.2	89.1
0°-40°	1083.4	93.7
0°-60°	1123.9	97.2
0°-90°	1155.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1155.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3708	
5°	3431	301
15°	1702	476
25°	527	253
35°	71	53
45°	26	21
55°	22	20
65°	18	17
75°	11	11
85°	3	4
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	3707.6
2.5°	3649.0
5°	3431.4
7.5°	3075.7
10°	2626.0
12.5°	2142.1
15°	1702.4
17.5°	1351.1
20°	1061.7
22.5°	788.8
25°	527.0
27.5°	337.0
30°	203.3
32.5°	121.5
35°	70.7
37.5°	42.0
40°	32.0
42.5°	28.7
45°	26.5
47.5°	25.4
50°	23.2
52.5°	23.2
55°	22.1
57.5°	21.0
60°	19.9
62.5°	18.8
65°	17.7
67.5°	15.5
70°	14.4
72.5°	12.2
75°	11.0
77.5°	8.8
80°	6.6
82.5°	5.5
85°	3.3
87.5°	1.1
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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