

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: P886720

Luminaire Tested: ML310LSFL9FS1E-TIR4D40FL-TL3RDMW-1000LM-4000K

Issue Date: 7/5/2024

Test Information

Test Method: LM-79-2019
Report Number: P886720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D40FL-TL3RDMW-1000LM-4000K
Description: 3IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

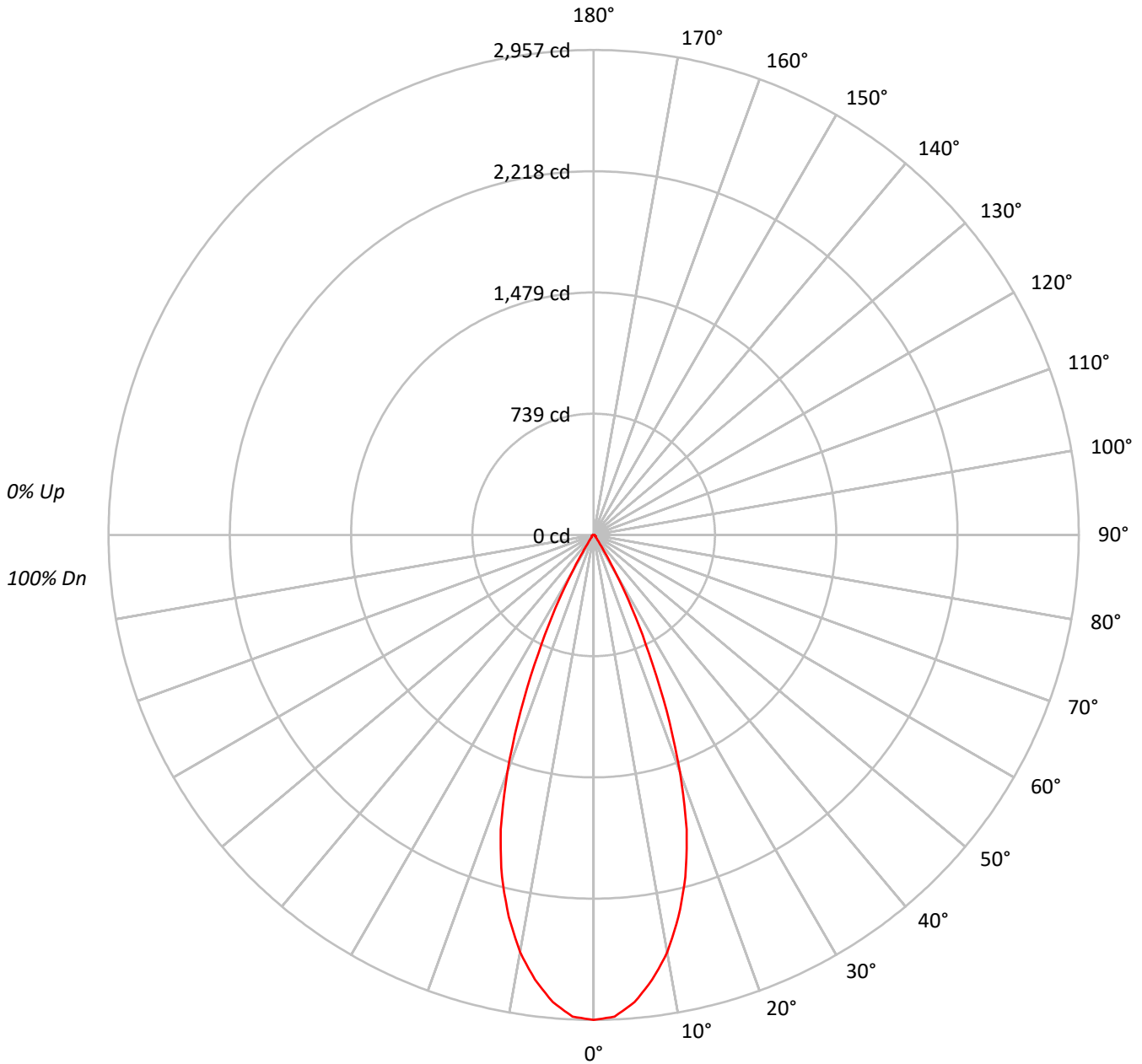
Lumens per Lamp: N/A
Luminaire Lumens: 1323.6 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.62
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95					95			
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90					90			
3	105	100	96	92	103	99	95	92	96	93	90	94	91	89	92	89	87	86					86			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82					82			
5	98	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	79					79			
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75					75			
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72					72			
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69					69			
9	84	76	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	67					67			
10	81	74	69	66	81	73	69	66	72	68	65	72	68	65	71	68	65	64					64			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	648479
5°	629340
10°	575162
15°	490423
20°	358314
25°	192568
30°	67074
35°	15954
40°	7586
45°	5148
50°	4912
55°	5505
60°	5307
65°	5707
70°	5642
75°	5592
80°	5556
85°	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 5746 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.0	19.9
10°-20°	586.7	44.3
20°-30°	371.7	28.1
30°-40°	55.0	4.2
40°-50°	13.7	1.0
50°-60°	12.4	0.9
60°-70°	10.8	0.8
70°-80°	7.0	0.5
80°-90°	2.4	0.2
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°	1222.4	92.4
0°-40°	1277.4	96.5
0°-60°	1303.5	98.5
0°-90°	1323.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1323.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2957	
5°	2859	264
15°	2160	587
25°	796	372
35°	60	55
45°	17	14
55°	14	12
65°	11	11
75°	7	7
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2957.3
2.5°	2939.7
5°	2859.1
7.5°	2735.4
10°	2583.1
12.5°	2386.6
15°	2160.3
17.5°	1883.2
20°	1535.5
22.5°	1161.3
25°	795.9
27.5°	505.6
30°	264.9
32.5°	121.4
35°	59.6
37.5°	39.7
40°	26.5
42.5°	18.8
45°	16.6
47.5°	15.5
50°	14.4
52.5°	14.4
55°	14.4
57.5°	13.2
60°	12.1
62.5°	12.1
65°	11.0
67.5°	9.9
70°	8.8
72.5°	7.7
75°	6.6
77.5°	5.5
80°	4.4
82.5°	3.3
85°	2.2
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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(END OF REPORT)