

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: P886732

Luminaire Tested: ML310LSFL9FS1E-TIR4D40FL-TL3SDMW-1000LM-2700K

Issue Date: 7/5/2024

Test Information

Test Method: LM-79-2019
Report Number: P886732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D40FL-TL3SDMW-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1270.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 0.69 / 0.68 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

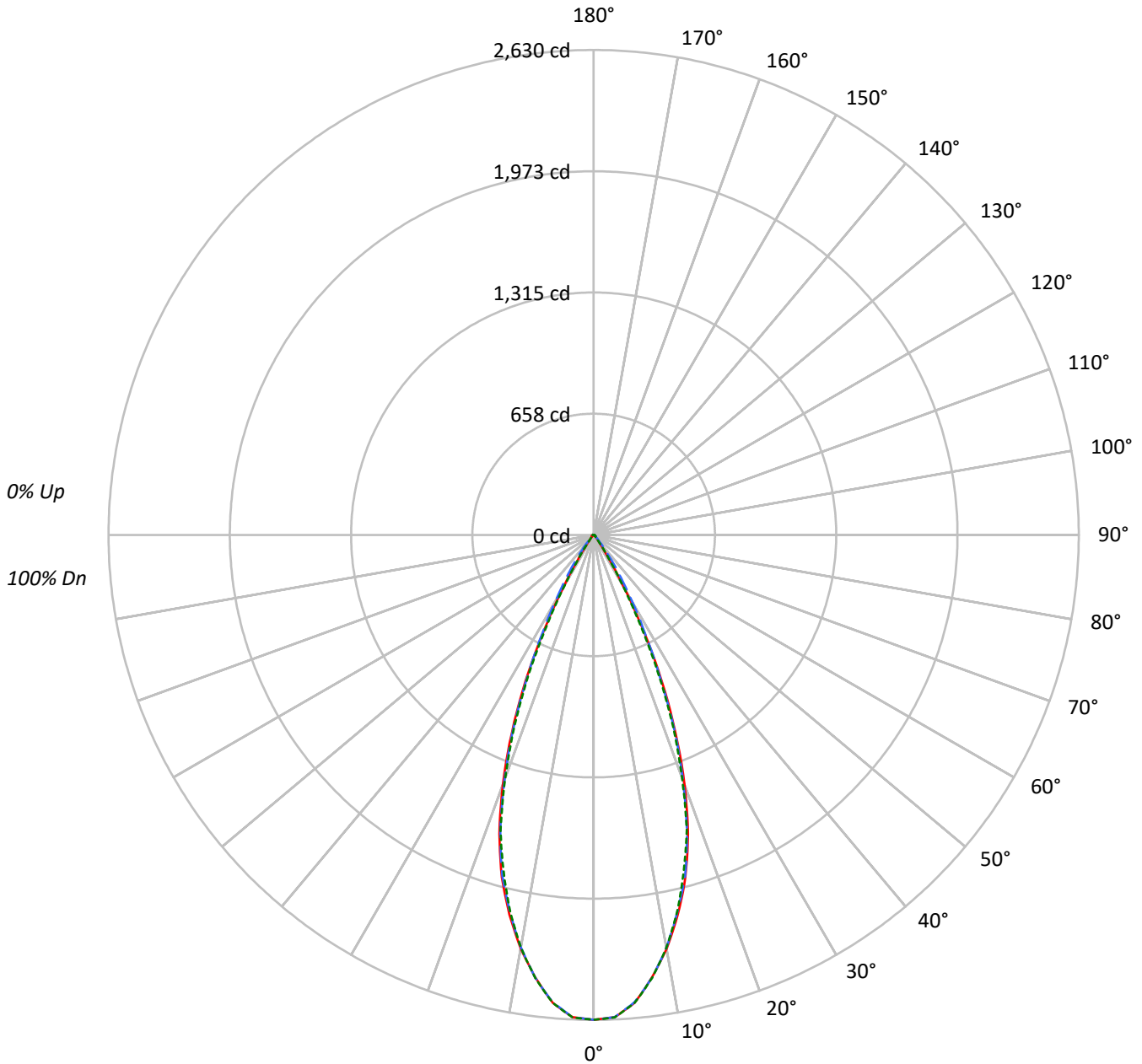
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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																			
1	114	112	109	107	112	110	108	106	106	104	102	102	101	99	98	97	97	95																			
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	92	90																			
3	105	99	95	92	103	98	94	91	96	92	90	93	90	88	91	89	87	85																			
4	101	94	90	86	99	93	89	85	91	87	85	89	86	84	87	85	83	81																			
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77																			
6	93	86	80	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74																			
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71																			
8	86	78	73	70	85	78	73	70	77	72	69	76	72	69	75	71	69	68																			
9	83	75	70	67	82	74	70	66	74	69	66	73	69	66	72	68	66	65																			
10	80	72	67	64	79	72	67	64	71	66	64	70	66	63	69	66	63	62																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	452859	452859	452859
5°	440413	439722	440413
10°	398305	397256	397431
15°	342796	341369	336555
20°	264045	259097	256531
25°	165855	161865	157304
30°	64413	82310	59441
35°	15138	36162	14717
40°	5845	13040	5845
45°	3410	5602	3410
50°	2947	3483	3215
55°	3303	3303	3303
60°	3444	3444	3444
65°	3260	3668	3260
70°	3021	3525	3525
75°	3327	3327	3327
80°	2975	2975	3967
85°	1976	3952	3952

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5602 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.0	18.4
10°-20°	521.8	41.1
20°-30°	386.7	30.5
30°-40°	86.9	6.8
40°-50°	15.1	1.2
50°-60°	9.8	0.8
60°-70°	8.4	0.7
70°-80°	5.4	0.4
80°-90°	1.9	0.1
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°	1142.5	90.0
0°-40°	1229.4	96.8
0°-60°	1254.3	98.8
0°-90°	1270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2630	2630	2630	2630	2630	
5°	2548	2546	2544	2542	2548	234
15°	1923	1910	1915	1889	1888	526
25°	873	861	852	841	828	389
35°	72	102	172	97	70	67
45°	14	16	23	16	14	12
55°	11	11	11	11	11	10
65°	8	9	9	9	8	8
75°	5	5	5	5	5	5
85°	1	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2629.5	2629.5	2629.5	2629.5	2629.5
2.5°	2617.5	2619.5	2617.5	2617.5	2618.5
5°	2547.5	2546.5	2543.5	2541.5	2547.5
7.5°	2420.5	2423.5	2422.5	2425.5	2423.5
10°	2277.6	2268.6	2271.6	2267.6	2272.6
12.5°	2108.6	2106.6	2095.6	2092.6	2090.6
15°	1922.6	1909.6	1914.6	1888.6	1887.6
17.5°	1700.7	1691.7	1682.7	1678.7	1678.7
20°	1440.7	1436.7	1413.7	1411.7	1399.7
22.5°	1157.8	1140.8	1141.8	1138.8	1120.8
25°	872.8	860.8	851.8	840.8	827.8
27.5°	580.9	603.9	604.9	578.9	532.9
30°	323.9	372.9	413.9	348.9	298.9
32.5°	160.0	208.0	272.9	192.0	152.0
35°	72.0	102.0	172.0	97.0	70.0
37.5°	39.0	52.0	103.0	50.0	38.0
40°	26.0	31.0	58.0	31.0	26.0
42.5°	18.0	21.0	35.0	21.0	19.0
45°	14.0	16.0	23.0	16.0	14.0
47.5°	12.0	13.0	17.0	13.0	13.0
50°	11.0	12.0	13.0	12.0	12.0
52.5°	11.0	11.0	12.0	11.0	11.0
55°	11.0	11.0	11.0	11.0	11.0
57.5°	10.0	10.0	11.0	10.0	10.0
60°	10.0	10.0	10.0	10.0	10.0
62.5°	9.0	9.0	9.0	9.0	9.0
65°	8.0	9.0	9.0	9.0	8.0
67.5°	7.0	8.0	8.0	8.0	8.0
70°	6.0	7.0	7.0	7.0	7.0
72.5°	6.0	6.0	6.0	6.0	6.0
75°	5.0	5.0	5.0	5.0	5.0
77.5°	4.0	4.0	4.0	5.0	4.0
80°	3.0	3.0	3.0	4.0	4.0
82.5°	2.0	2.0	2.0	3.0	3.0
85°	1.0	2.0	2.0	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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