

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: P886767

Luminaire Tested: ML310LSFL9FS1E-TIR4D55WFL-TL3SDSL-1000LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886767
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-20)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D55WFL-TL3SDSL-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1188.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.84 / 0.81
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

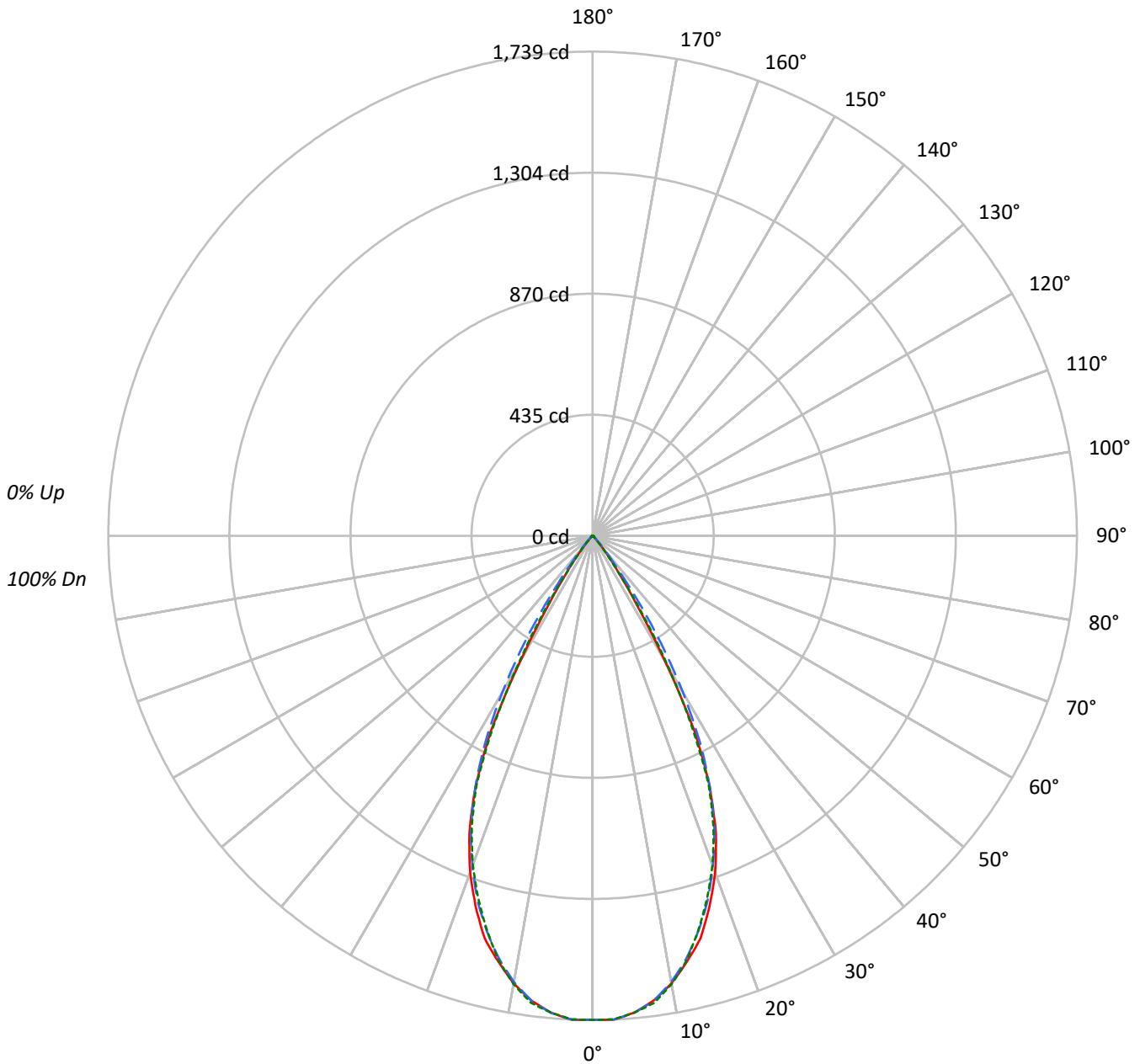
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94					94			
2	109	104	101	98	107	103	99	97	100	97	94	97	94	92	94	92	91	89					89			
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84					84			
4	100	93	88	84	98	92	87	83	90	86	82	88	84	81	86	83	81	79					79			
5	95	88	82	78	94	87	82	78	85	81	77	83	80	77	82	79	76	75					75			
6	91	83	78	74	90	82	77	73	81	76	73	79	76	73	78	75	72	71					71			
7	87	79	73	69	86	78	73	69	77	72	69	76	72	69	75	71	68	67					67			
8	83	75	69	66	82	74	69	66	73	69	65	72	68	65	71	68	65	64					64			
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	64	62	60					60			
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	59	57					57			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	299530	299530	299530
5°	297216	297389	297216
10°	285438	284564	285963
15°	266930	261938	261403
20°	235711	231312	230396
25°	188906	189476	187195
30°	102416	128288	107208
35°	35321	56135	34480
40°	8993	14613	7869
45°	2192	5358	2436
50°	1608	2143	1876
55°	1802	1802	1802
60°	1722	1722	1722
65°	1223	1630	1630
70°	1511	1511	1511
75°	1331	1996	1996
80°	992	1984	1984
85°	1976	1976	1976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5358 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.4	13.6
10°-20°	410.3	34.5
20°-30°	441.3	37.1
30°-40°	148.1	12.5
40°-50°	14.2	1.2
50°-60°	5.3	0.4
60°-70°	4.0	0.3
70°-80°	2.6	0.2
80°-90°	0.9	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°	1013.0	85.3
0°-40°	1161.0	97.7
0°-60°	1180.6	99.4
0°-90°	1188.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1188.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1739	1739	1739	1739	1739	
5°	1719	1719	1720	1720	1719	161
15°	1497	1482	1469	1470	1466	414
25°	994	1008	997	1002	985	435
35°	168	173	267	178	164	124
45°	9	11	22	12	10	11
55°	6	6	6	6	6	5
65°	3	4	4	4	4	3
75°	2	2	3	3	3	2
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1739.2	1739.2	1739.2	1739.2	1739.2
2.5°	1739.2	1738.2	1739.2	1739.2	1738.2
5°	1719.2	1719.2	1720.2	1720.2	1719.2
7.5°	1683.2	1683.2	1684.2	1690.2	1692.2
10°	1632.2	1629.2	1627.2	1631.2	1635.2
12.5°	1566.1	1564.1	1555.1	1554.1	1561.1
15°	1497.1	1482.1	1469.1	1470.1	1466.1
17.5°	1396.1	1390.1	1374.1	1374.1	1366.1
20°	1286.1	1273.1	1262.1	1263.1	1257.1
22.5°	1157.1	1157.1	1143.1	1151.1	1134.1
25°	994.1	1008.1	997.1	1002.1	985.1
27.5°	795.1	819.1	833.1	822.1	771.1
30°	515.0	601.1	645.1	591.1	539.1
32.5°	292.0	347.0	455.0	361.0	335.0
35°	168.0	173.0	267.0	178.0	164.0
37.5°	87.0	92.0	134.0	89.0	83.0
40°	40.0	46.0	65.0	46.0	35.0
42.5°	16.0	25.0	37.0	20.0	16.0
45°	9.0	11.0	22.0	12.0	10.0
47.5°	8.0	8.0	13.0	9.0	8.0
50°	6.0	7.0	8.0	7.0	7.0
52.5°	6.0	6.0	7.0	6.0	6.0
55°	6.0	6.0	6.0	6.0	6.0
57.5°	5.0	5.0	6.0	6.0	5.0
60°	5.0	5.0	5.0	5.0	5.0
62.5°	4.0	4.0	5.0	5.0	5.0
65°	3.0	4.0	4.0	4.0	4.0
67.5°	3.0	3.0	4.0	4.0	4.0
70°	3.0	3.0	3.0	3.0	3.0
72.5°	2.0	3.0	3.0	3.0	3.0
75°	2.0	2.0	3.0	3.0	3.0
77.5°	1.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	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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