

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: P886764

Luminaire Tested: ML310LSFL9FS1E-TIR4D55WFL-TL3SDMW-1000LM-3500K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-19)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D55WFL-TL3SDMW-1000LM-3500K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1276.7 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.86 / 0.82
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

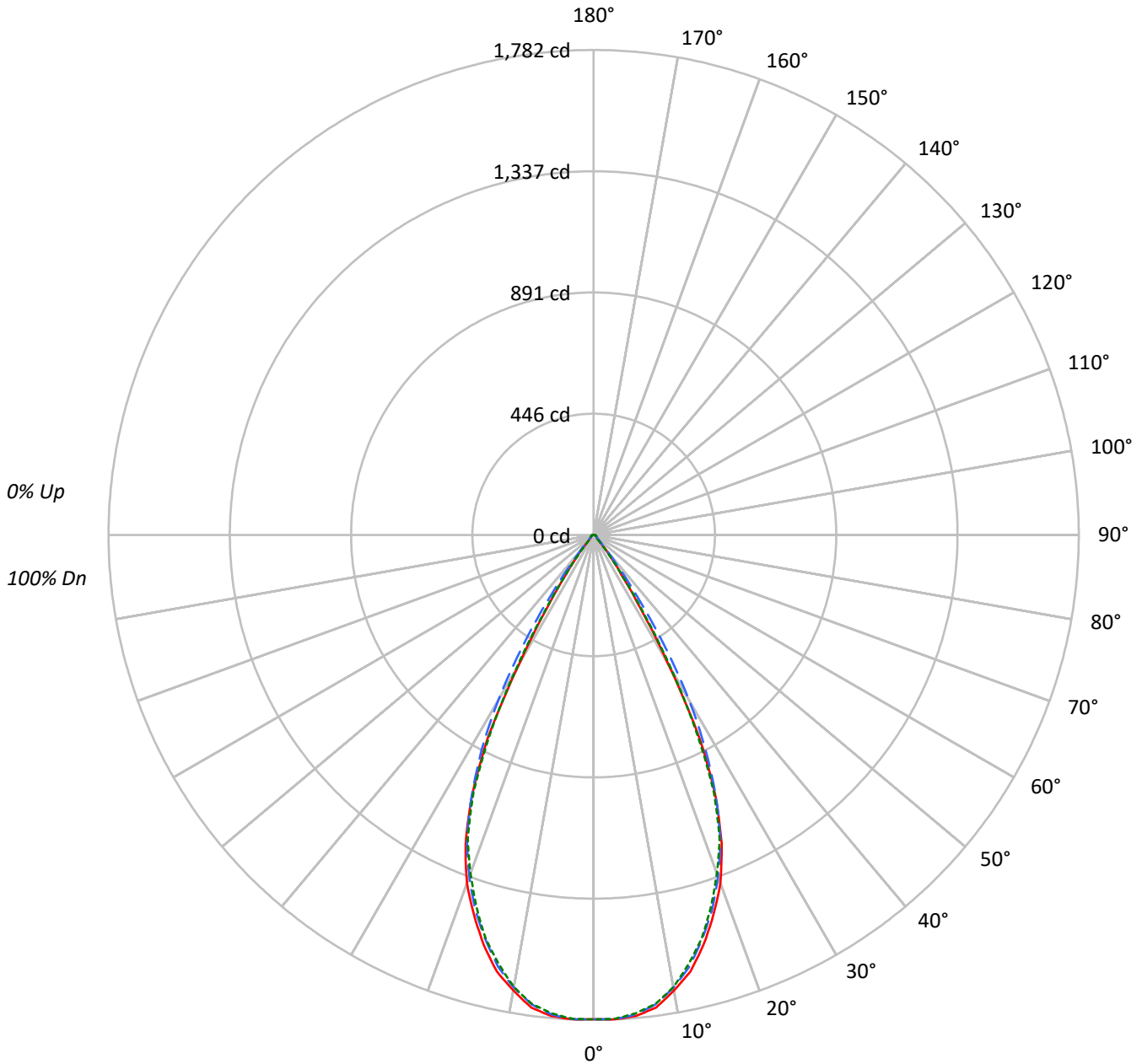
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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								
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94								
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88								
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	84	83								
4	99	92	87	83	97	91	86	82	89	85	81	87	83	80	85	82	80	78								
5	94	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74								
6	90	82	77	73	89	81	76	72	80	75	72	78	74	71	77	74	71	70								
7	86	78	72	68	85	77	72	68	76	71	68	75	71	67	74	70	67	66								
8	83	74	68	64	81	73	68	64	72	67	64	71	67	64	70	66	64	62								
9	79	70	65	61	78	70	65	61	69	64	61	68	64	61	67	63	60	59								
10	76	67	61	58	75	66	61	58	66	61	58	65	61	58	64	60	57	56								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	306522	306522	306522
5°	306759	305843	305100
10°	297225	295354	294969
15°	278056	274240	273473
20°	249548	244838	242492
25°	201428	201827	198578
30°	108262	139524	114228
35°	37108	61623	38685
40°	11308	17311	9375
45°	3897	7550	4165
50°	3724	4287	3724
55°	3843	4174	3843
60°	4064	4064	4064
65°	3912	3912	3912
70°	3777	3777	4330
75°	3527	4259	4259
80°	3174	4265	4265
85°	4150	4150	4150

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 7550 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.5	13.0
10°-20°	429.7	33.7
20°-30°	468.7	36.7
30°-40°	161.4	12.6
40°-50°	20.4	1.6
50°-60°	11.7	0.9
60°-70°	9.7	0.8
70°-80°	6.3	0.5
80°-90°	2.3	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°	1064.9	83.4
0°-40°	1226.2	96.0
0°-60°	1258.4	98.6
0°-90°	1276.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1276.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1774	1772	1769	1765	1765	167
15°	1560	1556	1538	1538	1534	434
25°	1060	1068	1062	1056	1045	462
35°	176	192	293	198	184	134
45°	16	19	31	18	17	16
55°	13	13	14	13	13	11
65°	10	10	10	11	10	10
75°	5	5	6	6	6	6
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1781.9	1781.9	1780.9	1780.9	1779.8
5°	1774.4	1772.3	1769.1	1764.8	1764.8
7.5°	1752.0	1745.6	1740.2	1738.1	1738.1
10°	1699.6	1700.6	1688.9	1683.5	1686.7
12.5°	1642.9	1634.3	1624.7	1619.4	1614.0
15°	1559.5	1556.2	1538.1	1538.1	1533.8
17.5°	1463.2	1462.1	1445.0	1439.7	1432.2
20°	1361.6	1347.7	1335.9	1332.7	1323.1
22.5°	1229.0	1220.4	1217.2	1212.9	1208.6
25°	1060.0	1068.5	1062.1	1055.7	1045.0
27.5°	843.9	877.1	891.0	873.9	822.5
30°	544.4	638.5	701.6	634.3	574.4
32.5°	317.7	377.6	489.9	388.3	346.5
35°	176.5	192.5	293.1	197.9	184.0
37.5°	98.4	105.9	149.7	100.5	94.1
40°	50.3	57.8	77.0	54.5	41.7
42.5°	23.5	33.2	47.1	27.8	22.5
45°	16.0	19.3	31.0	18.2	17.1
47.5°	15.0	16.0	21.4	16.0	15.0
50°	13.9	13.9	16.0	13.9	13.9
52.5°	12.8	13.9	13.9	13.9	12.8
55°	12.8	12.8	13.9	12.8	12.8
57.5°	11.8	12.8	12.8	12.8	11.8
60°	11.8	11.8	11.8	11.8	11.8
62.5°	10.7	10.7	10.7	10.7	10.7
65°	9.6	9.6	9.6	10.7	9.6
67.5°	8.6	8.6	8.6	9.6	8.6
70°	7.5	7.5	7.5	8.6	8.6
72.5°	6.4	6.4	7.5	7.5	7.5
75°	5.3	5.3	6.4	6.4	6.4
77.5°	4.3	4.3	5.3	5.3	5.3
80°	3.2	4.3	4.3	4.3	4.3
82.5°	2.1	3.2	3.2	3.2	3.2
85°	2.1	2.1	2.1	2.1	2.1
87.5°	1.1	1.1	1.1	1.1	1.1
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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