

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: P886763

Luminaire Tested: ML310LSFL9FS1E-TIR4D55WFL-TL3SDMW-1000LM-3000K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886763
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-3000K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

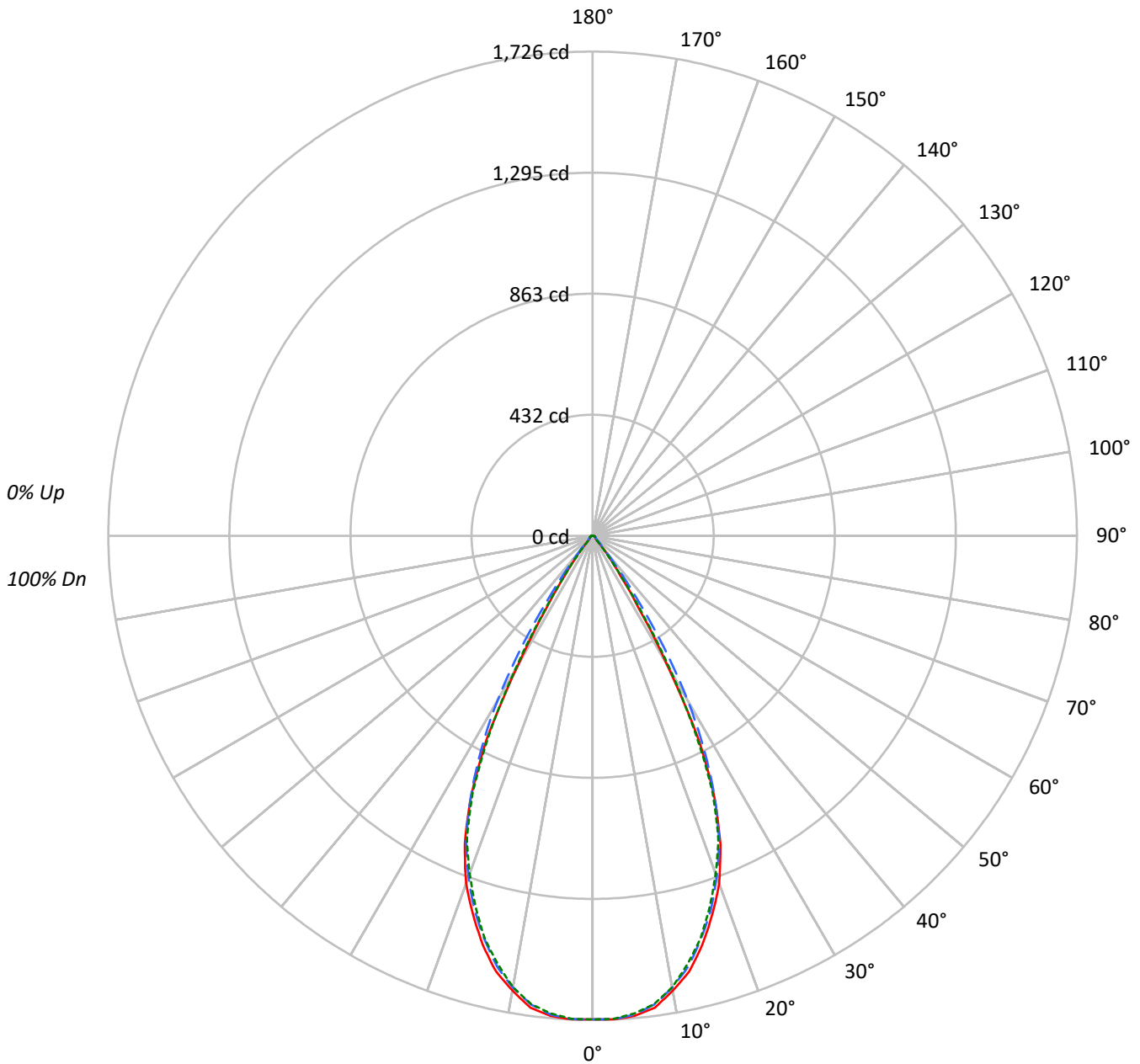
Lumens per Lamp: N/A
Luminaire Lumens: 1236.4 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.86 / 0.82
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	296843	296843	296843
5°	297078	296196	295470
10°	287834	286033	285666
15°	269266	265575	264844
20°	241667	237104	234831
25°	195062	195461	192307
30°	104842	135129	110609
35°	35931	59668	37466
40°	10949	16772	9083
45°	3775	7307	4043
50°	3617	4153	3617
55°	3723	4054	3723
60°	3927	3927	3927
65°	3790	3790	3790
70°	3676	3676	4179
75°	3460	4126	4126
80°	3075	4066	4066
85°	4150	4150	4150

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 7307 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.2	13.0
10°-20°	416.1	33.7
20°-30°	453.9	36.7
30°-40°	156.3	12.6
40°-50°	19.8	1.6
50°-60°	11.4	0.9
60°-70°	9.4	0.8
70°-80°	6.2	0.5
80°-90°	2.2	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°	1031.2	83.4
0°-40°	1187.5	96.0
0°-60°	1218.7	98.6
0°-90°	1236.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1236.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1724	1724	1724	1724	1724	
5°	1718	1716	1713	1709	1709	162
15°	1510	1507	1490	1490	1485	420
25°	1026	1035	1029	1022	1012	447
35°	171	186	284	192	178	130
45°	16	19	30	18	17	16
55°	12	12	14	12	12	11
65°	9	9	9	10	9	9
75°	5	5	6	6	6	5
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°	1723.6	1723.6	1723.6	1723.6	1723.6
2.5°	1725.7	1725.7	1724.7	1724.7	1723.6
5°	1718.4	1716.4	1713.3	1709.1	1709.1
7.5°	1696.7	1690.5	1685.3	1683.2	1683.2
10°	1645.9	1647.0	1635.6	1630.4	1633.5
12.5°	1591.0	1582.7	1573.4	1568.2	1563.1
15°	1510.2	1507.1	1489.5	1489.5	1485.4
17.5°	1417.0	1416.0	1399.4	1394.2	1387.0
20°	1318.6	1305.1	1293.7	1290.6	1281.3
22.5°	1190.2	1181.9	1178.8	1174.6	1170.5
25°	1026.5	1034.8	1028.6	1022.4	1012.0
27.5°	817.3	849.4	862.8	846.3	796.6
30°	527.2	618.4	679.5	614.2	556.2
32.5°	307.6	365.6	474.4	376.0	335.6
35°	170.9	186.4	283.8	191.6	178.2
37.5°	95.3	102.5	145.0	97.4	91.2
40°	48.7	55.9	74.6	52.8	40.4
42.5°	22.8	32.1	45.6	26.9	21.8
45°	15.5	18.6	30.0	17.6	16.6
47.5°	14.5	15.5	20.7	15.5	14.5
50°	13.5	13.5	15.5	13.5	13.5
52.5°	12.4	13.5	13.5	13.5	12.4
55°	12.4	12.4	13.5	12.4	12.4
57.5°	11.4	12.4	12.4	12.4	11.4
60°	11.4	11.4	11.4	11.4	11.4
62.5°	10.4	10.4	10.4	10.4	10.4
65°	9.3	9.3	9.3	10.4	9.3
67.5°	8.3	8.3	8.3	9.3	8.3
70°	7.3	7.3	7.3	8.3	8.3
72.5°	6.2	6.2	7.3	7.3	7.3
75°	5.2	5.2	6.2	6.2	6.2
77.5°	4.1	4.1	5.2	5.2	5.2
80°	3.1	4.1	4.1	4.1	4.1
82.5°	2.1	3.1	3.1	3.1	3.1
85°	2.1	2.1	2.1	2.1	2.1
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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