

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: P886635

Luminaire Tested: ML310LSFL95FS1E-TIR4D55WFL-TL3SDMW-1000LM-4000K

Issue Date: 7/8/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886635  
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: ML310LSFL95FS1E-TIR4D55WFL-TL3SDMW-1000LM-4000K  
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

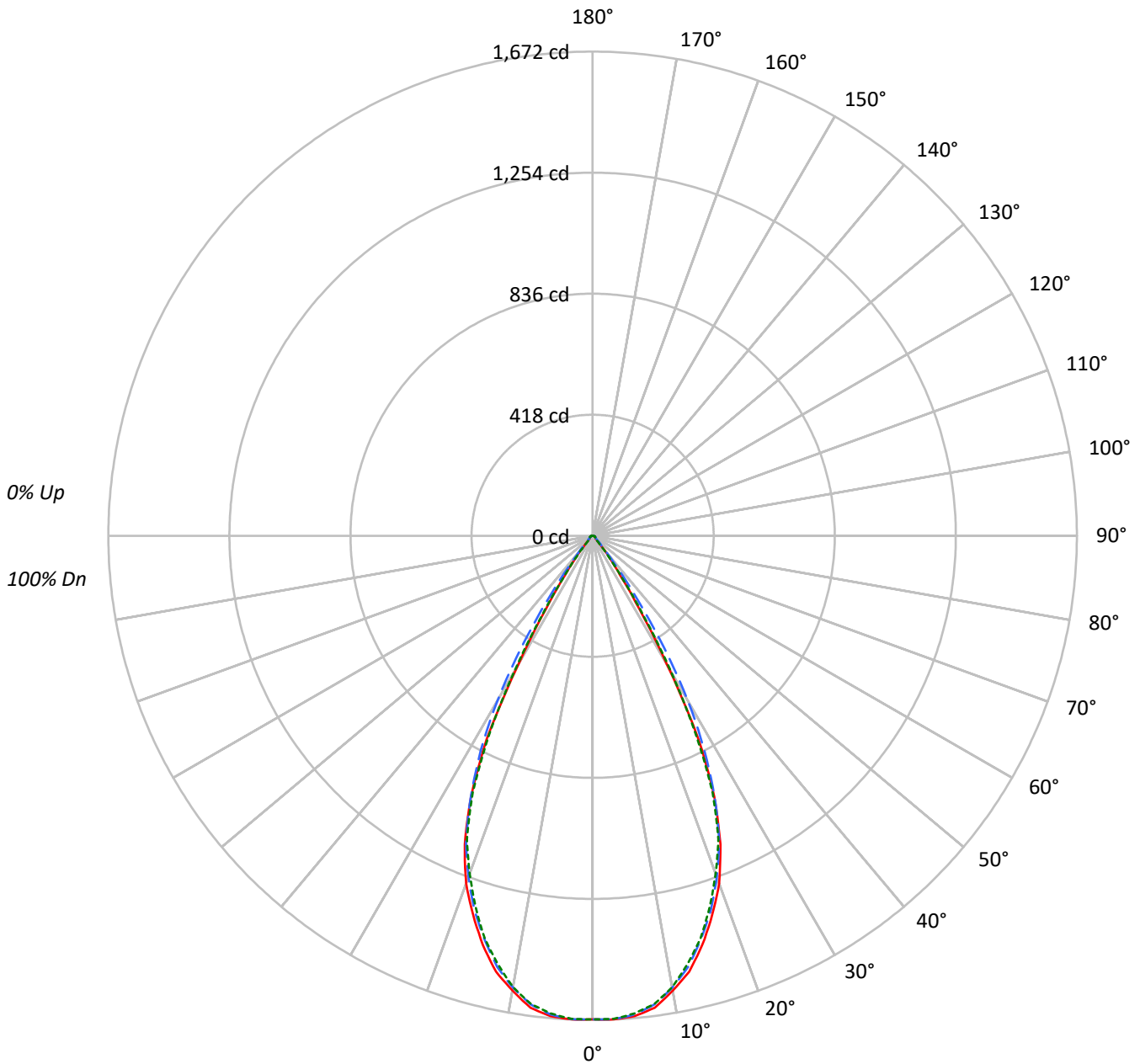
Lumens per Lamp: N/A  
Luminaire Lumens: 1197.9 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.86 / 0.82  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 13.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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°	287612	287612	287612
5°	287829	286964	286273
10°	278880	277131	276764
15°	260886	257320	256589
20°	234153	229736	227518
25°	189001	189381	186321
30°	101581	130933	107169
35°	34817	57817	36288
40°	10612	16255	8790
45°	3678	7088	3921
50°	3483	4046	3483
55°	3603	3903	3603
60°	3789	3789	3789
65°	3668	3668	3668
70°	3525	3525	4028
75°	3327	3993	3993
80°	2975	3967	3967
85°	3952	3952	3952

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 7088 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.2	13.0
10°-20°	403.2	33.7
20°-30°	439.8	36.7
30°-40°	151.4	12.6
40°-50°	19.2	1.6
50°-60°	11.0	0.9
60°-70°	9.1	0.8
70°-80°	5.9	0.5
80°-90°	2.1	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°	999.1	83.4
0°-40°	1150.5	96.0
0°-60°	1180.7	98.6
0°-90°	1197.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1197.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1670	1670	1670	1670	1670	
5°	1665	1663	1660	1656	1656	157
15°	1463	1460	1443	1443	1439	407
25°	995	1003	997	990	980	433
35°	166	181	275	186	173	126
45°	15	18	29	17	16	15
55°	12	12	13	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°	1670.0	1670.0	1670.0	1670.0	1670.0
2.5°	1672.0	1672.0	1671.0	1671.0	1670.0
5°	1664.9	1662.9	1659.9	1655.9	1655.9
7.5°	1643.9	1637.8	1632.8	1630.8	1630.8
10°	1594.7	1595.7	1584.7	1579.6	1582.6
12.5°	1541.5	1533.5	1524.4	1519.4	1514.4
15°	1463.2	1460.2	1443.2	1443.2	1439.1
17.5°	1372.9	1371.9	1355.8	1350.8	1343.8
20°	1277.6	1264.5	1253.5	1250.5	1241.4
22.5°	1153.1	1145.1	1142.1	1138.1	1134.0
25°	994.6	1002.6	996.6	990.5	980.5
27.5°	791.8	822.9	836.0	819.9	771.8
30°	510.8	599.1	658.4	595.1	538.9
32.5°	298.1	354.3	459.6	364.3	325.2
35°	165.6	180.6	275.0	185.7	172.6
37.5°	92.3	99.4	140.5	94.3	88.3
40°	47.2	54.2	72.3	51.2	39.1
42.5°	22.1	31.1	44.2	26.1	21.1
45°	15.1	18.1	29.1	17.1	16.1
47.5°	14.1	15.1	20.1	15.1	14.1
50°	13.0	13.0	15.1	13.0	13.0
52.5°	12.0	13.0	13.0	13.0	12.0
55°	12.0	12.0	13.0	12.0	12.0
57.5°	11.0	12.0	12.0	12.0	11.0
60°	11.0	11.0	11.0	11.0	11.0
62.5°	10.0	10.0	10.0	10.0	10.0
65°	9.0	9.0	9.0	10.0	9.0
67.5°	8.0	8.0	8.0	9.0	8.0
70°	7.0	7.0	7.0	8.0	8.0
72.5°	6.0	6.0	7.0	7.0	7.0
75°	5.0	5.0	6.0	6.0	6.0
77.5°	4.0	4.0	5.0	5.0	5.0
80°	3.0	4.0	4.0	4.0	4.0
82.5°	2.0	3.0	3.0	3.0	3.0
85°	2.0	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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