

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: P886634

Luminaire Tested: ML310LSFL95FS1E-TIR4D55WFL-TL3SDMW-1000LM-3500K

Issue Date: 7/8/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886634  
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-3500K  
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1160.3 lumens  
Efficiency: N/A  
Efficacy: 85.3 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

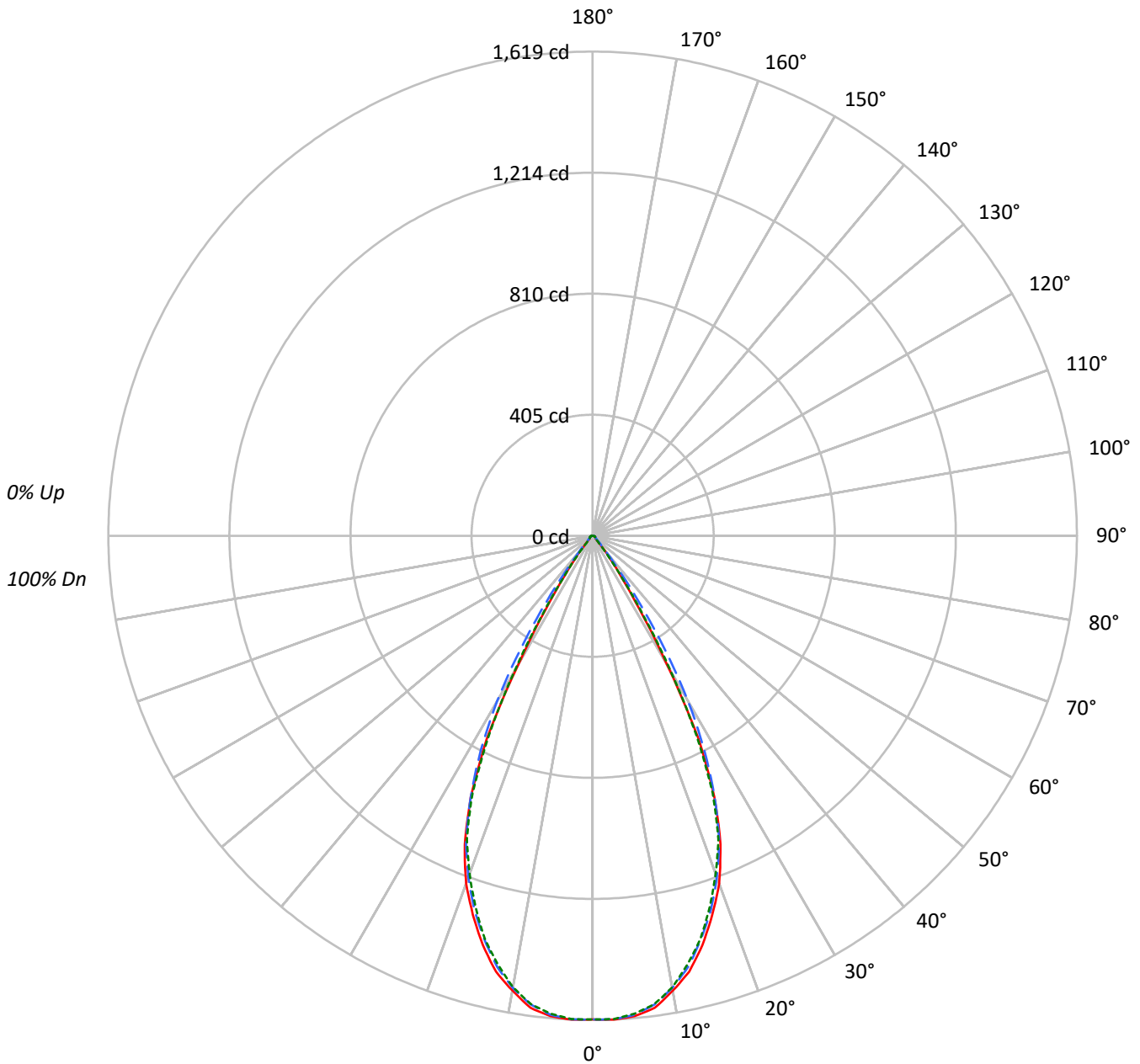
Input Watts (W): 13.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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°	278570	278570	278570
5°	278787	277957	277283
10°	270119	268422	268073
15°	252684	249225	248530
20°	226785	222515	220370
25°	183053	183414	180468
30°	98399	126817	103808
35°	33723	55988	35153
40°	10274	15737	8521
45°	3556	6868	3800
50°	3376	3912	3376
55°	3513	3783	3513
60°	3686	3686	3686
65°	3545	3545	3545
70°	3424	3424	3928
75°	3261	3859	3859
80°	2876	3868	3868
85°	3754	3754	3754

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6868 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.3	13.0
10°-20°	390.5	33.7
20°-30°	425.9	36.7
30°-40°	146.6	12.6
40°-50°	18.6	1.6
50°-60°	10.7	0.9
60°-70°	8.8	0.8
70°-80°	5.8	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°	967.7	83.4
0°-40°	1114.4	96.0
0°-60°	1143.6	98.6
0°-90°	1160.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1160.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1613	1611	1608	1604	1604	152
15°	1417	1414	1398	1398	1394	395
25°	963	971	965	959	950	420
35°	160	175	266	180	167	122
45°	15	18	28	16	16	15
55°	12	12	13	12	12	10
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°	1617.5	1617.5	1617.5	1617.5	1617.5
2.5°	1619.4	1619.4	1618.4	1618.4	1617.5
5°	1612.6	1610.7	1607.8	1603.9	1603.9
7.5°	1592.2	1586.4	1581.5	1579.6	1579.6
10°	1544.6	1545.5	1534.9	1530.0	1532.9
12.5°	1493.1	1485.3	1476.5	1471.7	1466.8
15°	1417.2	1414.3	1397.8	1397.8	1393.9
17.5°	1329.8	1328.8	1313.2	1308.4	1301.6
20°	1237.4	1224.8	1214.1	1211.2	1202.4
22.5°	1116.9	1109.1	1106.2	1102.3	1098.4
25°	963.3	971.1	965.2	959.4	949.7
27.5°	766.9	797.1	809.7	794.2	747.5
30°	494.8	580.3	637.7	576.4	522.0
32.5°	288.7	343.1	445.2	352.9	314.9
35°	160.4	175.0	266.3	179.8	167.2
37.5°	89.4	96.2	136.1	91.4	85.5
40°	45.7	52.5	70.0	49.6	37.9
42.5°	21.4	30.1	42.8	25.3	20.4
45°	14.6	17.5	28.2	16.5	15.6
47.5°	13.6	14.6	19.4	14.6	13.6
50°	12.6	12.6	14.6	12.6	12.6
52.5°	11.7	12.6	12.6	12.6	11.7
55°	11.7	11.7	12.6	11.7	11.7
57.5°	10.7	11.7	11.7	11.7	10.7
60°	10.7	10.7	10.7	10.7	10.7
62.5°	9.7	9.7	9.7	9.7	9.7
65°	8.7	8.7	8.7	9.7	8.7
67.5°	7.8	7.8	7.8	8.7	7.8
70°	6.8	6.8	6.8	7.8	7.8
72.5°	5.8	5.8	6.8	6.8	6.8
75°	4.9	4.9	5.8	5.8	5.8
77.5°	3.9	3.9	4.9	4.9	4.9
80°	2.9	3.9	3.9	3.9	3.9
82.5°	1.9	2.9	2.9	2.9	2.9
85°	1.9	1.9	1.9	1.9	1.9
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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