

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: P886640

Luminaire Tested: ML310LSFL95FS1E-TIR4D55WFL-TL3SDSL-1000LM-4000K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886640
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: ML310LSFL95FS1E-TIR4D55WFL-TL3SDSL-1000LM-4000K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT
Ballast/Driver: -

Summary

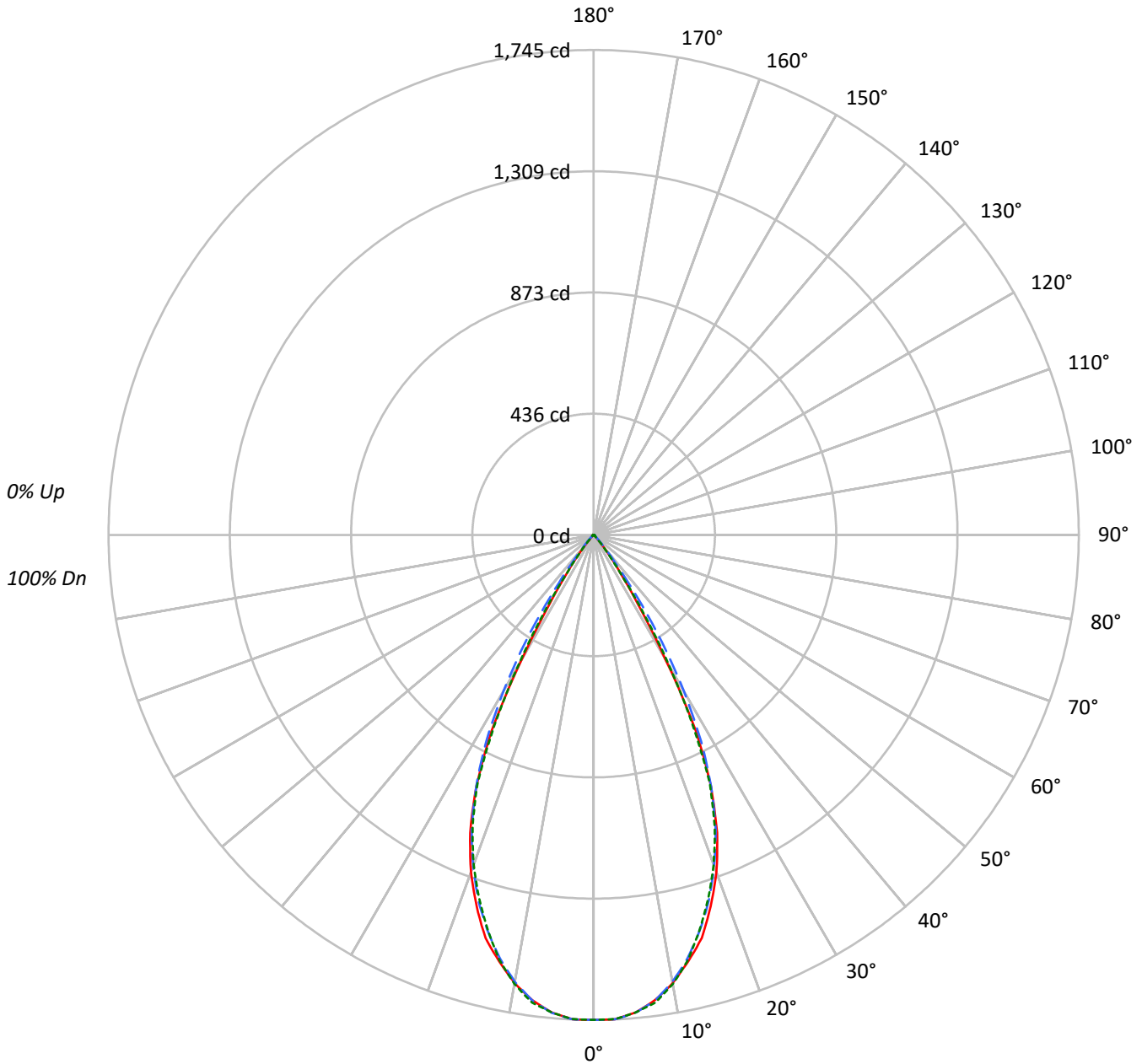
Lumens per Lamp: N/A
Luminaire Lumens: 1191.9 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.84 / 0.81
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.6
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	112	109	107	105	105	104	102	102	100	99	98	97	96	94								
2	109	104	101	98	107	103	99	97	100	97	94	97	94	92	94	92	91	89								
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84								
4	100	93	88	84	98	92	87	83	90	86	82	88	84	81	86	83	81	79								
5	95	88	82	78	94	87	82	78	85	81	77	83	80	77	82	79	76	75								
6	91	83	78	74	90	82	77	73	81	76	73	79	76	73	78	75	72	71								
7	87	79	73	70	86	78	73	69	77	72	69	76	72	69	75	71	68	67								
8	83	75	69	66	82	74	69	66	73	69	65	72	68	65	71	68	65	64								
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	64	62	60								
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	59	57								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	300511	300511	300511
5°	298184	298357	298184
10°	286365	285491	286907
15°	267821	262811	262276
20°	236499	232082	231165
25°	189533	190103	187803
30°	102754	128706	107547
35°	35447	56325	34606
40°	9015	14658	7891
45°	2192	5383	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: 5383 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.9	13.6
10°-20°	411.7	34.5
20°-30°	442.7	37.1
30°-40°	148.6	12.5
40°-50°	14.3	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°	1016.3	85.3
0°-40°	1164.9	97.7
0°-60°	1184.5	99.4
0°-90°	1191.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1191.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1745	1745	1745	1745	1745	
5°	1725	1725	1726	1726	1725	162
15°	1502	1487	1474	1475	1471	416
25°	997	1011	1000	1005	988	436
35°	169	174	268	179	165	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°	1744.9	1744.9	1744.9	1744.9	1744.9
2.5°	1744.9	1743.9	1744.9	1744.9	1743.9
5°	1724.8	1724.8	1725.8	1725.8	1724.8
7.5°	1688.7	1688.7	1689.7	1695.7	1697.7
10°	1637.5	1634.5	1632.5	1636.5	1640.6
12.5°	1571.3	1569.3	1560.3	1559.3	1566.3
15°	1502.1	1487.0	1474.0	1475.0	1471.0
17.5°	1400.7	1394.7	1378.7	1378.7	1370.6
20°	1290.4	1277.3	1266.3	1267.3	1261.3
22.5°	1160.9	1160.9	1146.9	1154.9	1137.9
25°	997.4	1011.4	1000.4	1005.4	988.3
27.5°	797.7	821.8	835.8	824.8	773.6
30°	516.7	603.0	647.2	593.0	540.8
32.5°	293.0	348.2	456.5	362.2	336.1
35°	168.6	173.6	267.9	178.6	164.6
37.5°	87.3	92.3	134.5	89.3	83.3
40°	40.1	46.2	65.2	46.2	35.1
42.5°	16.1	25.1	37.1	20.1	16.1
45°	9.0	11.0	22.1	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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