

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: P886630

Luminaire Tested: ML310LSFL95FS1E-TIR4D55WFL-TL3SDMB-1000LM-4000K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-21)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D55WFL-TL3SDMB-1000LM-4000K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT
Ballast/Driver: -

Summary

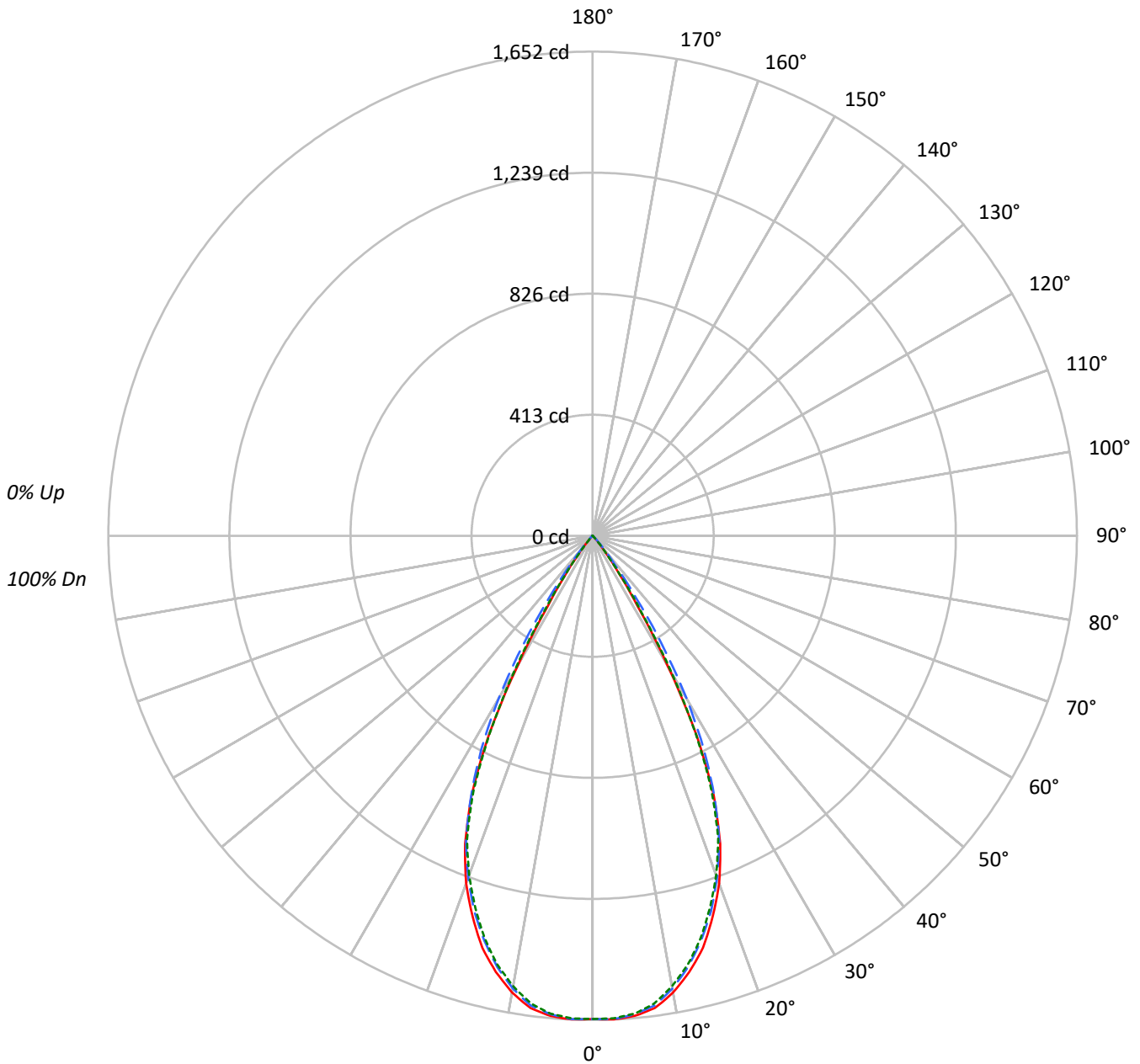
Lumens per Lamp: N/A
Luminaire Lumens: 1139.7 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.86 / 0.82
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (A_{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									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	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95																			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89																			
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84																			
4	100	93	88	85	98	92	88	84	90	86	83	88	85	82	86	84	81	80																			
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75																			
6	92	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73	71																			
7	88	79	74	70	86	79	74	70	77	73	70	76	72	69	75	72	69	68																			
8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65	64																			
9	80	72	66	63	79	71	66	63	70	66	63	70	65	62	69	65	62	61																			
10	77	68	63	60	76	68	63	60	67	63	60	67	62	59	66	62	59	58																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	283961	283961	283961
5°	284354	283317	282971
10°	276764	274298	272899
15°	259441	254788	253540
20°	231367	227335	225667
25°	185732	186701	182692
30°	101581	127334	106970
35°	32693	54222	33555
40°	7666	13309	6317
45°	731	3921	731
50°	268	804	268
55°	0	300	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 3921 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.4	13.6
10°-20°	399.1	35.0
20°-30°	433.0	38.0
30°-40°	143.3	12.6
40°-50°	9.4	0.8
50°-60°	0.4	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	986.6	86.6
0°-40°	1129.9	99.1
0°-60°	1139.7	100.0
0°-90°	1139.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1139.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1645	1643	1639	1638	1637	155
15°	1455	1446	1429	1425	1422	404
25°	977	986	982	975	961	426
35°	156	172	258	174	160	118
45°	3	5	16	5	3	6
55°	0	0	1	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1648.8	1648.8	1648.8	1648.8	1648.8
2.5°	1651.8	1651.8	1650.8	1649.8	1647.8
5°	1644.8	1642.8	1638.8	1637.8	1636.8
7.5°	1625.7	1623.7	1616.7	1609.7	1609.7
10°	1582.6	1581.6	1568.5	1564.5	1560.5
12.5°	1524.4	1520.4	1506.3	1501.3	1499.3
15°	1455.1	1446.1	1429.0	1425.0	1422.0
17.5°	1361.8	1357.8	1342.7	1335.7	1330.7
20°	1262.4	1253.4	1240.4	1235.3	1231.3
22.5°	1137.0	1132.0	1128.0	1125.0	1118.9
25°	977.4	986.5	982.5	975.4	961.4
27.5°	769.7	807.8	821.9	800.8	760.7
30°	510.8	591.1	640.3	579.0	537.9
32.5°	285.0	334.2	442.6	354.2	313.1
35°	155.5	171.6	257.9	173.6	159.6
37.5°	75.3	87.3	128.5	83.3	76.3
40°	34.1	41.1	59.2	39.1	28.1
42.5°	10.0	18.1	31.1	14.0	9.0
45°	3.0	5.0	16.1	5.0	3.0
47.5°	2.0	2.0	7.0	2.0	2.0
50°	1.0	1.0	3.0	1.0	1.0
52.5°	0.0	1.0	1.0	1.0	1.0
55°	0.0	0.0	1.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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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