

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: P886757

Luminaire Tested: ML310LSFL9FS1E-TIR4D55WFL-TL3SDMB-1000LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886757
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: ML310LSFL9FS1E-TIR4D55WFL-TL3SDMB-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1136.0 lumens
Efficiency: N/A
Efficacy: 82.3 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

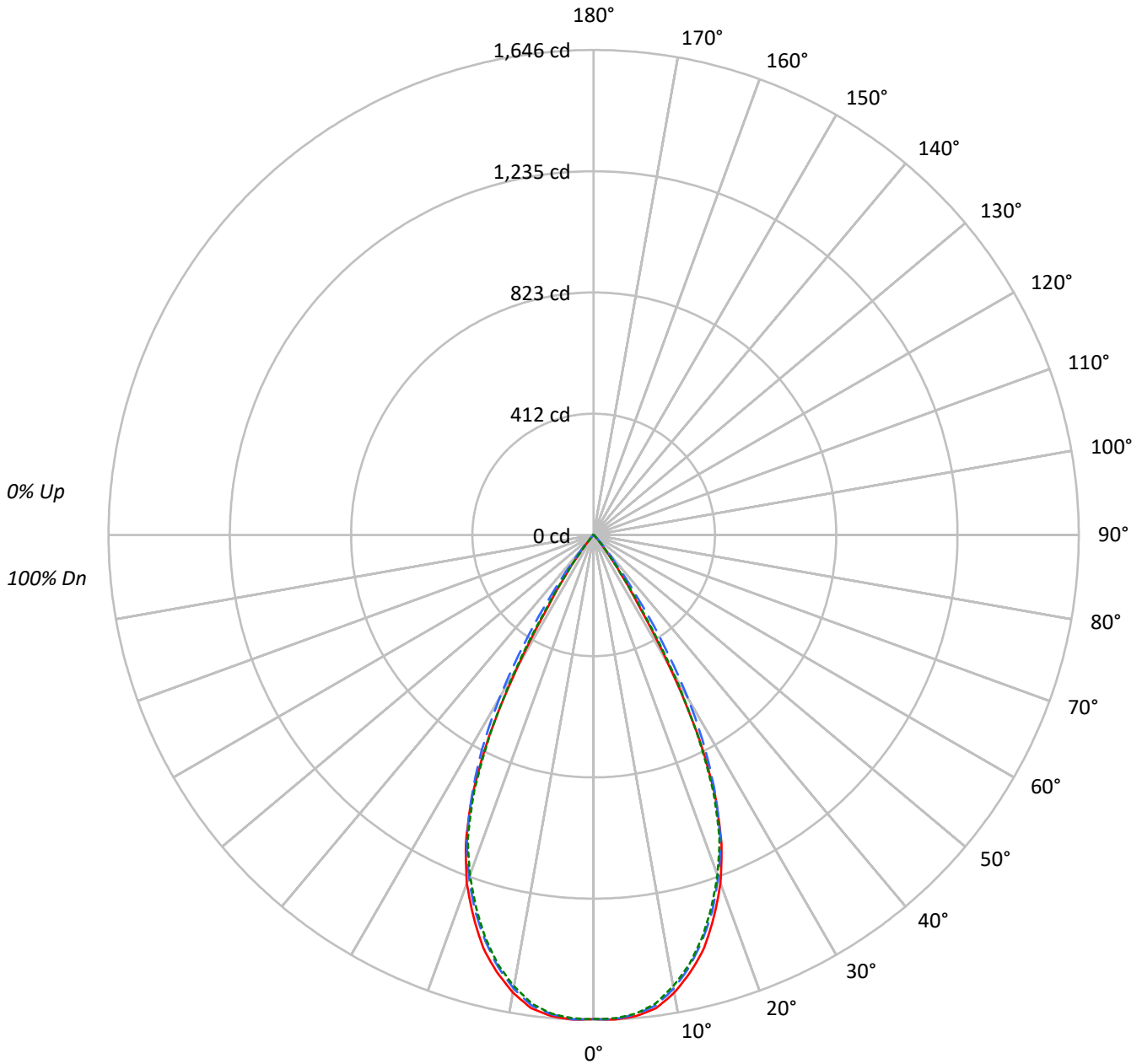
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	100	100	100	100	100		
	1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95	95	95	95	95	95		
	2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89	89	89	89	89	89		
	3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84	84	84	84	84	84		
	4	100	93	88	85	98	92	88	84	90	86	83	88	85	82	86	84	81	80	80	80	80	80	80		
	5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75	75	75	75	75	75		
	6	92	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73	71	71	71	71	71	71		
	7	88	79	74	70	86	79	74	70	77	73	70	76	72	69	75	72	69	68	68	68	68	68	68		
	8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65	64	64	64	64	64	64		
	9	80	72	66	63	79	71	66	63	70	66	63	70	65	62	69	65	62	61	61	61	61	61	61		
	10	77	68	63	60	76	68	63	60	67	63	60	67	62	59	66	62	59	58	58	58	58	58	58		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	283031	283031	283031
5°	283420	282383	282037
10°	275855	273407	272008
15°	258586	253950	252702
20°	230616	226584	224934
25°	185124	186074	182084
30°	101242	126896	106612
35°	32588	54054	33429
40°	7644	13264	6295
45°	731	3897	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: 3897 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	13.6
10°-20°	397.7	35.0
20°-30°	431.6	38.0
30°-40°	142.9	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°	983.3	86.6
0°-40°	1126.2	99.1
0°-60°	1136.0	100.0
0°-90°	1136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1136.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1643	1643	1643	1643	1643	
5°	1639	1637	1633	1632	1631	155
15°	1450	1441	1424	1420	1417	402
25°	974	983	979	972	958	425
35°	155	171	257	173	159	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°	1643.4	1643.4	1643.4	1643.4	1643.4
2.5°	1646.4	1646.4	1645.4	1644.4	1642.4
5°	1639.4	1637.4	1633.4	1632.4	1631.4
7.5°	1620.4	1618.4	1611.4	1604.4	1604.4
10°	1577.4	1576.4	1563.4	1559.4	1555.4
12.5°	1519.3	1515.3	1501.3	1496.3	1494.3
15°	1450.3	1441.3	1424.3	1420.3	1417.3
17.5°	1357.3	1353.3	1338.3	1331.3	1326.3
20°	1258.3	1249.3	1236.3	1231.3	1227.3
22.5°	1133.3	1128.3	1124.3	1121.3	1115.3
25°	974.2	983.2	979.2	972.2	958.2
27.5°	767.2	805.2	819.2	798.2	758.2
30°	509.1	589.1	638.1	577.1	536.1
32.5°	284.1	333.1	441.1	353.1	312.1
35°	155.0	171.0	257.1	173.0	159.0
37.5°	75.0	87.0	128.0	83.0	76.0
40°	34.0	41.0	59.0	39.0	28.0
42.5°	10.0	18.0	31.0	14.0	9.0
45°	3.0	5.0	16.0	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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