

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: P886597

Luminaire Tested: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886597
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D40FL-TL3SDMB-850LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

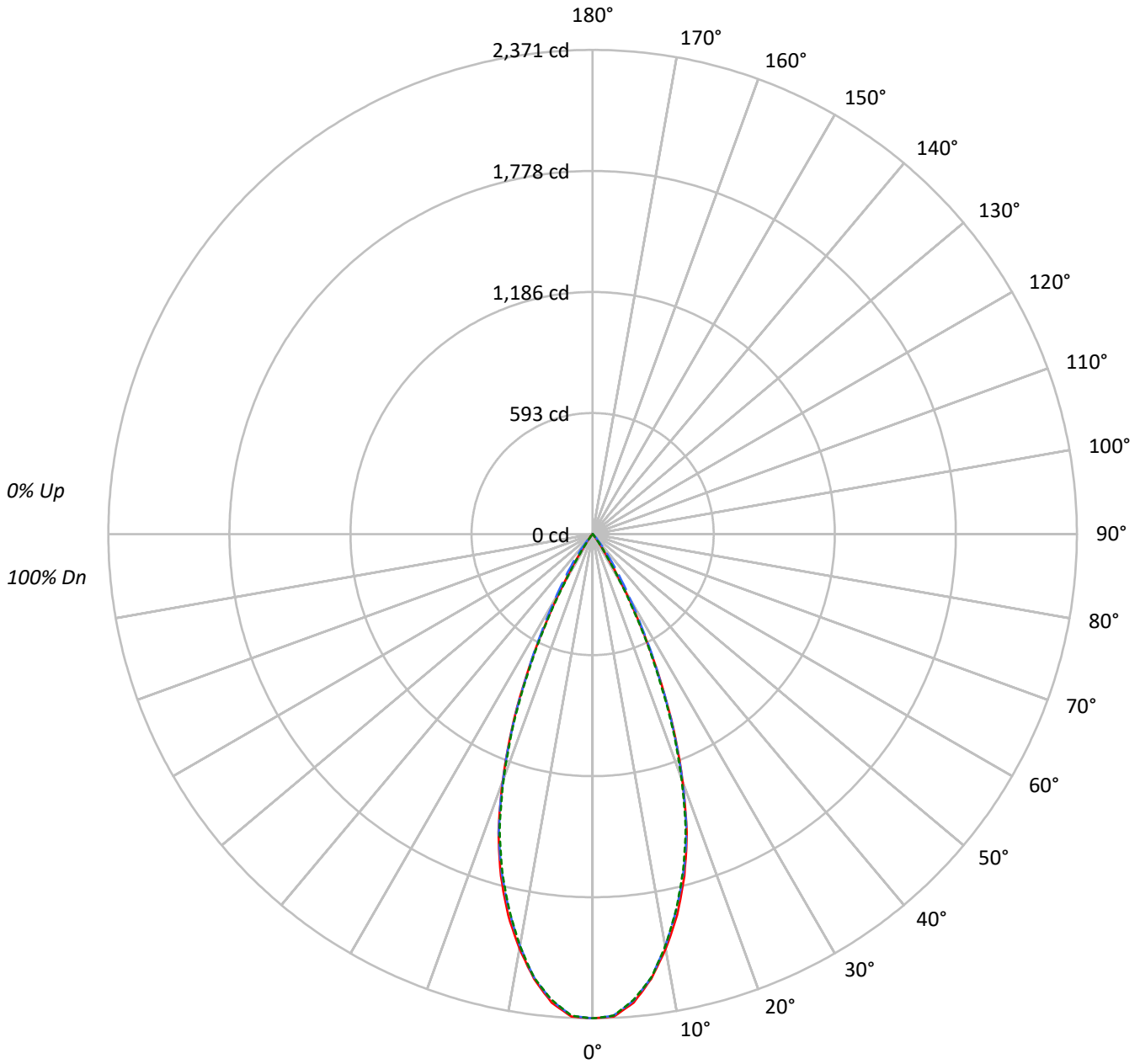
Lumens per Lamp: N/A
Luminaire Lumens: 1111.4 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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					100			
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95					95			
2	110	106	103	100	108	104	101	99	101	99	97	98	96	94	96	94	93	91					91			
3	106	100	96	93	104	99	95	92	97	94	91	94	92	90	92	90	88	87					87			
4	102	96	91	88	100	94	90	87	92	89	86	91	88	85	89	86	84	83					83			
5	98	91	86	83	96	90	86	82	88	85	82	87	84	81	85	83	80	79					79			
6	94	87	82	79	93	86	82	78	85	81	78	84	80	77	82	79	77	76					76			
7	91	83	78	75	90	83	78	75	81	77	74	80	77	74	79	76	74	72					72			
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69					69			
9	84	76	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	66					66			
10	81	73	69	65	80	73	68	65	72	68	65	72	68	65	71	67	65	64					64			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	408374	408374	408374
5°	398144	396415	395931
10°	360427	358206	358206
15°	309097	306173	304711
20°	235711	235216	233035
25°	146054	145180	141380
30°	59501	72705	52819
35°	12425	31369	11290
40°	3058	9600	3058
45°	658	2655	877
50°	241	723	241
55°	0	270	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: 2655 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.3	19.0
10°-20°	471.5	42.4
20°-30°	348.3	31.3
30°-40°	73.9	6.7
40°-50°	6.1	0.6
50°-60°	0.3	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°	1031.1	92.8
0°-40°	1105.0	99.4
0°-60°	1111.4	100.0
0°-90°	1111.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1111.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2371	2371	2371	2371	2371	
5°	2303	2297	2293	2292	2290	212
15°	1734	1733	1717	1712	1709	474
25°	769	773	764	763	744	346
35°	59	86	149	78	54	57
45°	3	4	11	4	4	4
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°	2371.2	2371.2	2371.2	2371.2	2371.2
2.5°	2364.8	2363.0	2360.3	2360.3	2360.3
5°	2303.0	2296.6	2293.0	2292.0	2290.2
7.5°	2196.5	2189.3	2191.1	2191.1	2191.1
10°	2061.0	2051.9	2048.3	2048.3	2048.3
12.5°	1910.9	1911.9	1888.2	1888.2	1884.6
15°	1733.6	1732.7	1717.2	1711.8	1709.0
17.5°	1532.6	1531.7	1528.0	1514.4	1513.5
20°	1286.1	1290.6	1283.4	1274.3	1271.5
22.5°	1036.9	1032.3	1029.6	1029.6	1016.9
25°	768.6	773.1	764.0	763.1	744.0
27.5°	513.0	545.7	541.2	518.4	495.7
30°	299.2	336.5	365.6	312.0	265.6
32.5°	140.1	178.3	241.0	167.4	128.2
35°	59.1	85.5	149.2	78.2	53.7
37.5°	28.2	39.1	83.7	37.3	25.5
40°	13.6	19.1	42.7	19.1	13.6
42.5°	7.3	10.0	21.8	9.1	7.3
45°	2.7	4.5	10.9	4.5	3.6
47.5°	1.8	1.8	4.5	1.8	1.8
50°	0.9	0.9	2.7	0.9	0.9
52.5°	0.0	0.9	0.9	0.9	0.0
55°	0.0	0.0	0.9	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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