

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: P886603

Luminaire Tested: ML310LSFL95FS1E-TIR4D40FL-TL3SDMW-850LM-3000K

Issue Date: 7/5/2024

Test Information

Test Method: LM-79-2019
Report Number: P886603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D40FL-TL3SDMW-850LM-3000K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1195.2 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 0.69 / 0.68 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

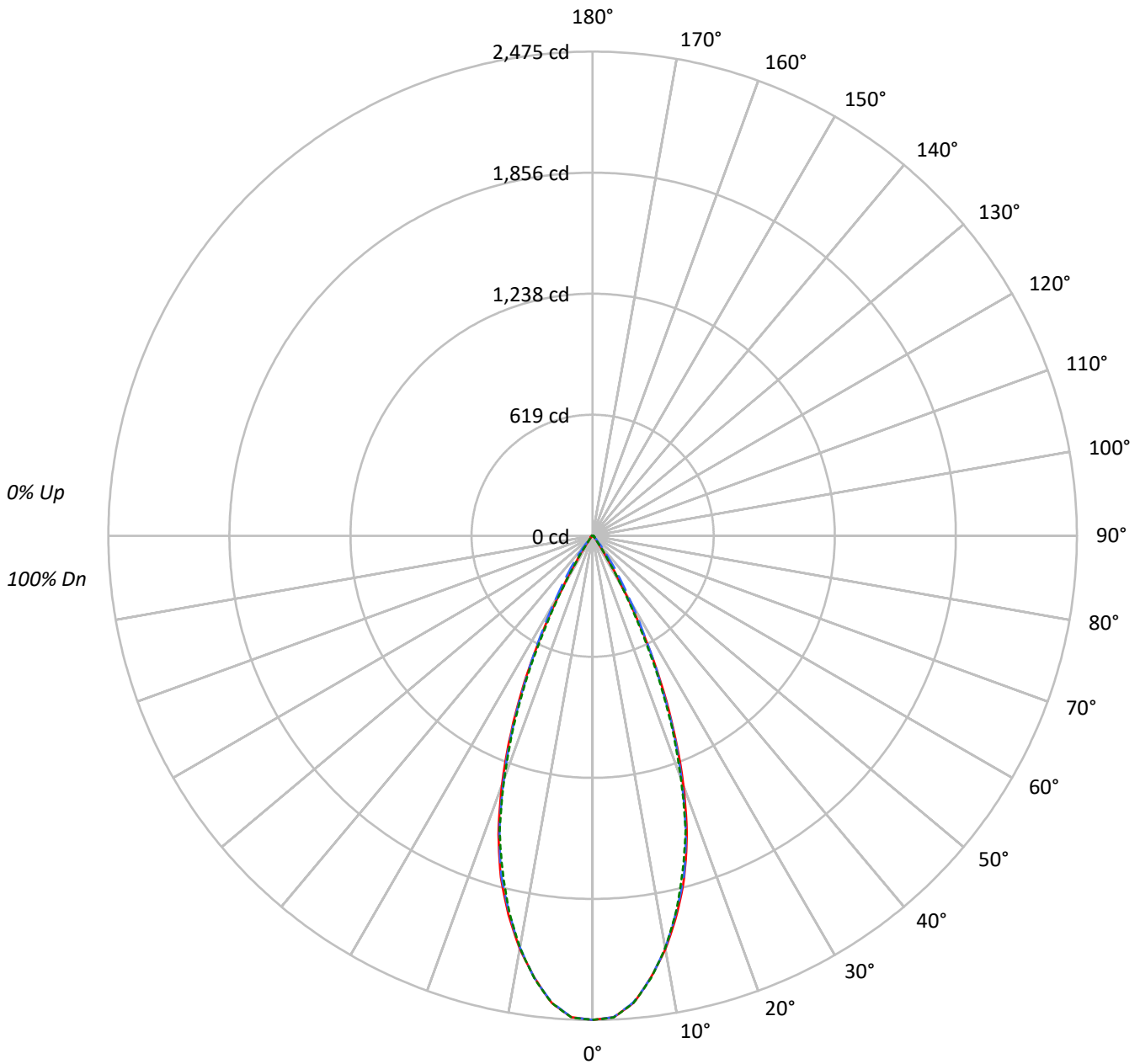
Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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								
1	114	112	109	107	112	110	108	106	106	104	102	102	101	99	98	97	97	95								
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	92	90								
3	105	99	95	92	103	98	94	91	96	92	90	93	90	88	91	89	87	85								
4	101	94	90	86	99	93	89	85	91	87	85	89	86	84	87	85	83	81								
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77								
6	93	86	80	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74								
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71								
8	86	78	73	70	85	78	73	70	77	72	69	76	72	69	75	71	69	68								
9	83	75	70	67	82	74	70	66	74	69	66	73	69	66	72	68	66	65								
10	80	72	67	64	79	72	67	64	71	66	64	70	66	63	69	66	63	62								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	426182	426182	426182
5°	414481	413824	414481
10°	374837	373857	374015
15°	322612	321275	316729
20°	248503	243848	241429
25°	156088	152344	148050
30°	60634	77458	55941
35°	14234	34018	13855
40°	5508	12275	5508
45°	3215	5261	3215
50°	2786	3269	3028
55°	3123	3123	3123
60°	3238	3238	3238
65°	3056	3464	3056
70°	2820	3323	3323
75°	3127	3127	3127
80°	2777	2777	3769
85°	1778	3754	3754

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5261 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.2	18.4
10°-20°	491.1	41.1
20°-30°	364.0	30.5
30°-40°	81.8	6.8
40°-50°	14.2	1.2
50°-60°	9.2	0.8
60°-70°	7.9	0.7
70°-80°	5.1	0.4
80°-90°	1.8	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°	1075.3	90.0
0°-40°	1157.0	96.8
0°-60°	1180.5	98.8
0°-90°	1195.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1195.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2475	2475	2475	2475	2475	
5°	2398	2396	2394	2392	2398	220
15°	1809	1797	1802	1777	1776	495
25°	821	810	802	791	779	366
35°	68	96	162	91	66	63
45°	13	15	22	15	13	11
55°	10	10	10	10	10	9
65°	8	8	8	8	8	7
75°	5	5	5	5	5	5
85°	1	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2474.6	2474.6	2474.6	2474.6	2474.6
2.5°	2463.3	2465.2	2463.3	2463.3	2464.3
5°	2397.5	2396.5	2393.7	2391.8	2397.5
7.5°	2278.0	2280.8	2279.8	2282.7	2280.8
10°	2143.4	2134.9	2137.8	2134.0	2138.7
12.5°	1984.4	1982.5	1972.2	1969.3	1967.5
15°	1809.4	1797.1	1801.9	1777.4	1776.4
17.5°	1600.5	1592.0	1583.6	1579.8	1579.8
20°	1355.9	1352.1	1330.5	1328.6	1317.3
22.5°	1089.6	1073.6	1074.5	1071.7	1054.8
25°	821.4	810.1	801.7	791.3	779.1
27.5°	546.7	568.3	569.3	544.8	501.5
30°	304.9	351.0	389.5	328.4	281.3
32.5°	150.5	195.7	256.9	180.7	143.0
35°	67.7	96.0	161.8	91.3	65.9
37.5°	36.7	48.9	96.9	47.0	35.8
40°	24.5	29.2	54.6	29.2	24.5
42.5°	16.9	19.8	32.9	19.8	17.9
45°	13.2	15.1	21.6	15.1	13.2
47.5°	11.3	12.2	16.0	12.2	12.2
50°	10.4	11.3	12.2	11.3	11.3
52.5°	10.4	10.4	11.3	10.4	10.4
55°	10.4	10.4	10.4	10.4	10.4
57.5°	9.4	9.4	10.4	9.4	9.4
60°	9.4	9.4	9.4	9.4	9.4
62.5°	8.5	8.5	8.5	8.5	8.5
65°	7.5	8.5	8.5	8.5	7.5
67.5°	6.6	7.5	7.5	7.5	7.5
70°	5.6	6.6	6.6	6.6	6.6
72.5°	5.6	5.6	5.6	5.6	5.6
75°	4.7	4.7	4.7	4.7	4.7
77.5°	3.8	3.8	3.8	4.7	3.8
80°	2.8	2.8	2.8	3.8	3.8
82.5°	1.9	1.9	1.9	2.8	2.8
85°	0.9	1.9	1.9	1.9	1.9
87.5°	0.9	0.9	0.9	0.9	0.9
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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