

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: P886538

Luminaire Tested: ML310LSFL95FS1E-TIR4D25AWW-TL3SWSL-1000LM-3000K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-23)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D25AWW-TL3SWSL-1000LM-3000K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT
Ballast/Driver: -

Summary

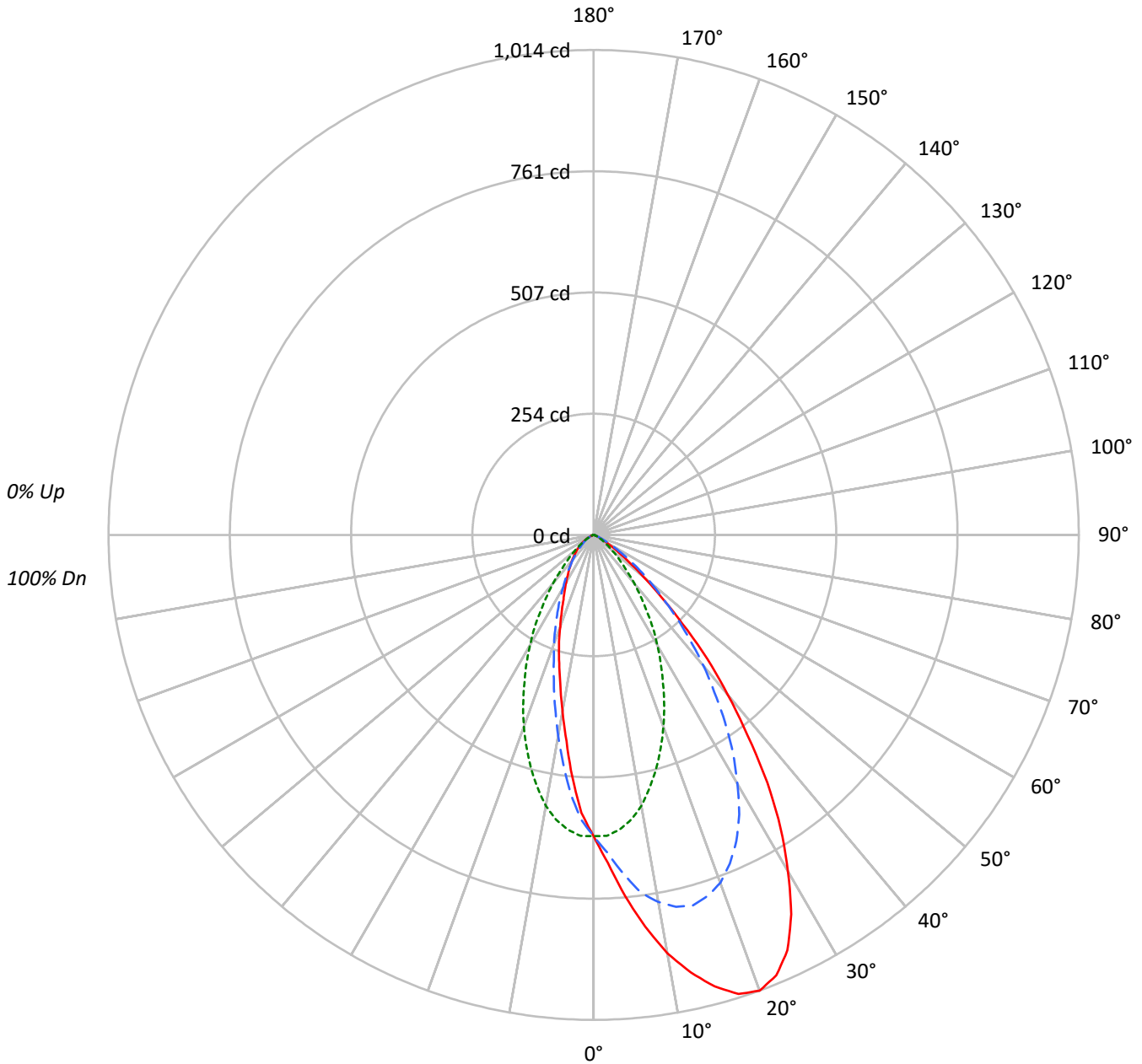
Lumens per Lamp: N/A
Luminaire Lumens: 756.2 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 0.81 / 0.99
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	95	92	89	92	90	87	90	87	85	83					83			
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	73	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	48	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	49	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	108466	108466	108466	108466	108466
5°	131182	122883	106927	94082	88048
10°	155415	136319	100591	74586	65370
15°	174233	143013	90147	57234	49513
20°	185823	141837	78167	44353	37443
25°	182122	134178	65122	33996	28257
30°	161578	119439	52799	25455	22850
35°	133022	100560	40178	19595	18796
40°	97999	80216	29631	15243	15872
45°	63740	59843	19948	11472	13298
50°	36063	41878	13611	8574	10851
55°	19217	26573	9038	6786	8768
60°	9093	14260	6166	5201	6476
65°	4605	7294	4605	3464	3831
70°	2820	3323	2820	1913	1913
75°	1264	1264	1264	1264	599
80°	0	893	893	0	0
85°	0	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 67174 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.0	7.8
10°-20°	158.1	20.9
20°-30°	202.9	26.8
30°-40°	175.1	23.2
40°-50°	103.7	13.7
50°-60°	42.4	5.6
60°-70°	12.7	1.7
70°-80°	2.3	0.3
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°	420.0	55.5
0°-40°	595.1	78.7
0°-60°	741.2	98.0
0°-90°	756.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	756.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	630	630	630	630	630	
5°	759	711	618	544	509	76
15°	977	802	506	321	278	276
25°	958	706	343	179	149	433
35°	633	478	191	93	89	390
45°	262	246	82	47	55	208
55°	64	88	30	23	29	62
65°	11	18	11	8	9	13
75°	2	2	2	2	1	2
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°	112.5°	135°	157.5°	180°
0°	629.8	629.8	629.8	629.8	629.8	629.8	629.8	629.8	629.8
2.5°	686.3	680.7	665.6	646.8	629.8	609.1	595.9	588.4	581.8
5°	758.8	747.5	710.8	666.5	618.5	575.2	544.2	520.6	509.3
7.5°	825.6	804.0	754.1	675.0	600.6	538.5	483.9	450.0	434.9
10°	888.7	857.7	779.5	674.1	575.2	492.4	426.5	383.2	373.8
12.5°	936.7	902.8	796.5	663.7	541.3	449.1	370.9	335.2	321.0
15°	977.2	929.2	802.1	646.8	505.6	398.2	321.0	286.2	277.7
17.5°	1006.4	943.3	791.8	621.4	466.0	353.0	276.8	248.5	241.0
20°	1013.9	945.2	773.9	587.5	426.5	309.7	242.0	211.8	204.3
22.5°	997.0	926.4	743.7	547.9	385.1	269.3	208.1	181.7	174.2
25°	958.4	885.0	706.1	504.6	342.7	232.5	178.9	154.4	148.7
27.5°	894.4	832.2	659.0	458.5	304.1	197.7	152.5	132.7	131.8
30°	812.5	756.9	600.6	413.3	265.5	169.5	128.0	115.8	114.9
32.5°	727.7	683.5	542.3	366.2	230.7	145.0	109.2	101.7	101.7
35°	632.7	602.5	478.3	316.3	191.1	120.5	93.2	88.5	89.4
37.5°	529.1	511.2	414.2	269.3	160.0	98.9	79.1	76.3	79.1
40°	435.9	429.3	356.8	224.1	131.8	81.9	67.8	66.8	70.6
42.5°	352.1	345.5	297.5	186.4	103.6	65.9	55.5	59.3	62.1
45°	261.7	275.8	245.7	146.9	81.9	51.8	47.1	52.7	54.6
47.5°	191.1	208.1	195.8	113.0	66.8	43.3	38.6	46.1	47.1
50°	134.6	153.5	156.3	88.5	50.8	34.8	32.0	39.5	40.5
52.5°	93.2	109.2	121.4	66.8	38.6	27.3	27.3	33.9	33.9
55°	64.0	79.1	88.5	47.1	30.1	20.7	22.6	28.2	29.2
57.5°	41.4	53.7	62.1	34.8	21.7	16.0	18.8	22.6	23.5
60°	26.4	35.8	41.4	24.5	17.9	14.1	15.1	17.9	18.8
62.5°	17.9	24.5	26.4	17.9	13.2	11.3	11.3	14.1	14.1
65°	11.3	16.0	17.9	14.1	11.3	8.5	8.5	10.4	9.4
67.5°	7.5	9.4	11.3	10.4	8.5	6.6	5.6	6.6	5.6
70°	5.6	5.6	6.6	7.5	5.6	4.7	3.8	4.7	3.8
72.5°	3.8	2.8	3.8	4.7	3.8	3.8	2.8	1.9	1.9
75°	1.9	1.9	1.9	2.8	1.9	1.9	1.9	0.9	0.9
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0
80°	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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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