

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: P886539

Luminaire Tested: ML310LSFL95FS1E-TIR4D25AWW-TL3SWSL-1000LM-3500K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886539
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-3500K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT
Ballast/Driver: -

Summary

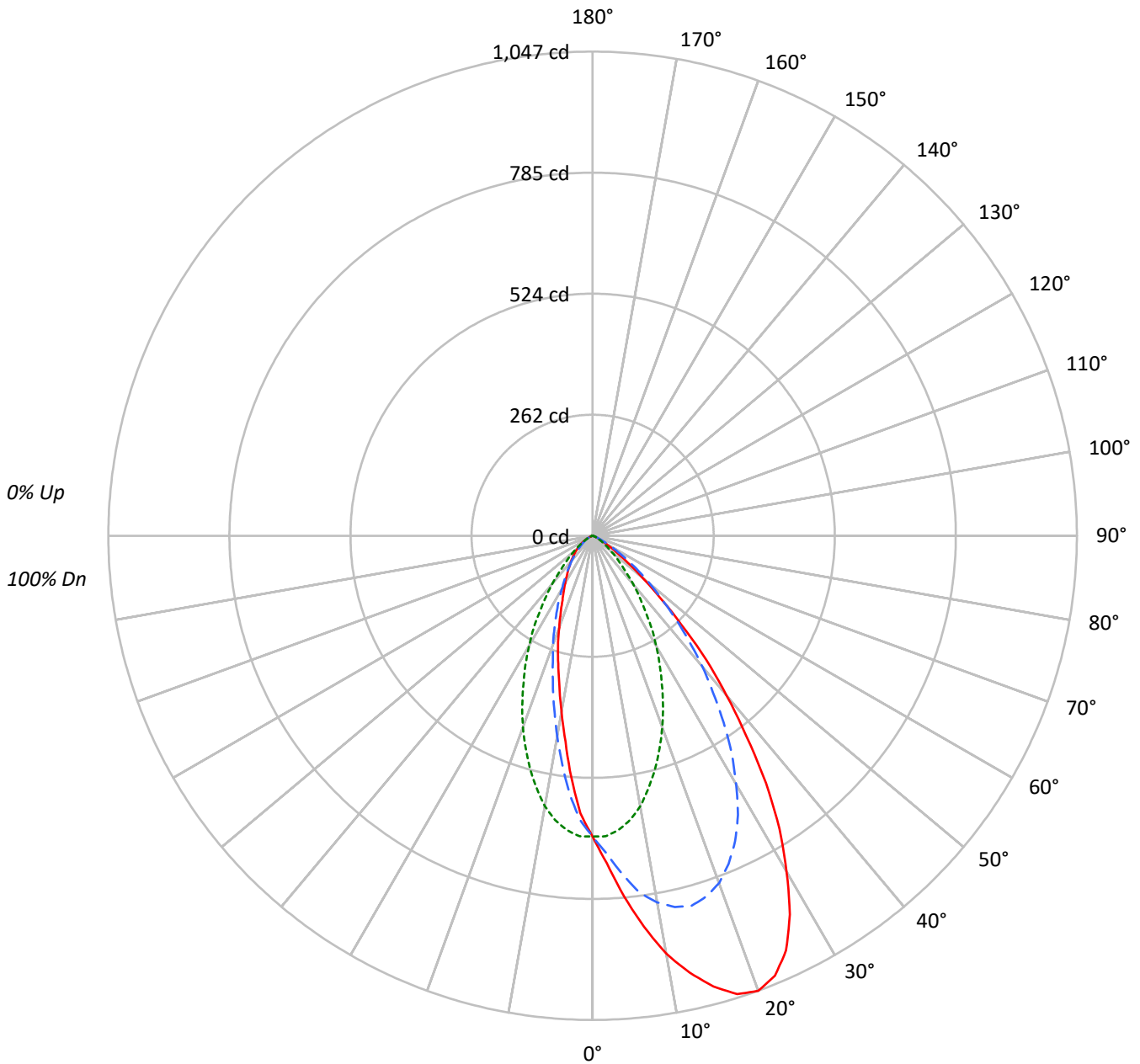
Lumens per Lamp: N/A
Luminaire Lumens: 780.8 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 0.81 / 0.99
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	112014	112014	112014	112014	112014
5°	135452	126894	110419	97142	90918
10°	160487	140760	103878	77017	67486
15°	179921	147684	93072	59106	51136
20°	191889	146455	80715	45782	38671
25°	188050	138548	67250	35098	29188
30°	166828	123336	54509	26290	23585
35°	137353	103819	41481	20226	19427
40°	101192	82824	30598	15737	16389
45°	65834	61791	20605	11837	13737
50°	37242	43244	14066	8869	11200
55°	19847	27444	9338	6996	9038
60°	9369	14742	6372	5373	6682
65°	4768	7539	4768	3545	3953
70°	2921	3424	2921	1964	1964
75°	1264	1264	1264	1264	665
80°	0	992	992	0	0
85°	0	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 69366 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	7.8
10°-20°	163.2	20.9
20°-30°	209.5	26.8
30°-40°	180.8	23.1
40°-50°	107.1	13.7
50°-60°	43.8	5.6
60°-70°	13.1	1.7
70°-80°	2.4	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°	433.7	55.5
0°-40°	614.4	78.7
0°-60°	765.3	98.0
0°-90°	780.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	780.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	650	650	650	650	650	
5°	784	734	639	562	526	79
15°	1009	828	522	332	287	285
25°	990	729	354	185	154	447
35°	653	494	197	96	92	403
45°	270	254	85	49	56	215
55°	66	91	31	23	30	64
65°	12	18	12	9	10	13
75°	2	2	2	2	1	3
85°	0	0	0	0	0	0
90°	0	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°	650.4	650.4	650.4	650.4	650.4	650.4	650.4	650.4	650.4
2.5°	708.7	702.8	687.3	667.9	650.4	629.0	615.4	607.6	600.8
5°	783.5	771.9	734.0	688.3	638.7	594.0	561.9	537.6	525.9
7.5°	852.6	830.2	778.7	697.0	620.2	556.1	499.7	464.7	449.1
10°	917.7	885.6	804.9	696.0	594.0	508.4	440.4	395.7	385.9
12.5°	967.3	932.3	822.4	685.4	559.0	463.7	383.0	346.1	331.5
15°	1009.1	959.5	828.3	667.9	522.0	411.2	331.5	295.5	286.8
17.5°	1039.2	974.1	817.6	641.6	481.2	364.5	285.8	256.6	248.9
20°	1047.0	976.0	799.1	606.6	440.4	319.8	249.8	218.7	211.0
22.5°	1029.5	956.6	768.0	565.8	397.6	278.0	214.8	187.6	179.8
25°	989.6	913.8	729.1	521.1	353.9	240.1	184.7	159.4	153.6
27.5°	923.5	859.4	680.5	473.4	314.0	204.1	157.5	137.1	136.1
30°	838.9	781.6	620.2	426.8	274.1	175.0	132.2	119.6	118.6
32.5°	751.5	705.8	559.9	378.2	238.2	149.7	112.8	105.0	105.0
35°	653.3	622.2	493.8	326.6	197.3	124.4	96.2	91.4	92.4
37.5°	546.3	527.9	427.7	278.0	165.3	102.1	81.7	78.7	81.7
40°	450.1	443.3	368.4	231.4	136.1	84.6	70.0	69.0	72.9
42.5°	363.6	356.8	307.2	192.5	106.9	68.0	57.4	61.2	64.2
45°	270.3	284.8	253.7	151.7	84.6	53.5	48.6	54.4	56.4
47.5°	197.3	214.8	202.2	116.7	69.0	44.7	39.9	47.6	48.6
50°	139.0	158.5	161.4	91.4	52.5	36.0	33.1	40.8	41.8
52.5°	96.2	112.8	125.4	69.0	39.9	28.2	28.2	35.0	35.0
55°	66.1	81.7	91.4	48.6	31.1	21.4	23.3	29.2	30.1
57.5°	42.8	55.4	64.2	36.0	22.4	16.5	19.4	23.3	24.3
60°	27.2	36.9	42.8	25.3	18.5	14.6	15.6	18.5	19.4
62.5°	18.5	25.3	27.2	18.5	13.6	11.7	11.7	14.6	14.6
65°	11.7	16.5	18.5	14.6	11.7	8.7	8.7	10.7	9.7
67.5°	7.8	9.7	11.7	10.7	8.7	6.8	5.8	6.8	5.8
70°	5.8	5.8	6.8	7.8	5.8	4.9	3.9	4.9	3.9
72.5°	3.9	2.9	3.9	4.9	3.9	3.9	2.9	1.9	1.9
75°	1.9	1.9	1.9	2.9	1.9	1.9	1.9	1.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
80°	0.0	0.0	1.0	0.0	1.0	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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— 0°-180° - - 45°-225° - - - - 90°-270°

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