

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: P886527

Luminaire Tested: ML310LSFL95FS1E-TIR4D25AWW-TL3SWMB-1000LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886527
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-24)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D25AWW-TL3SWMB-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 702.8 lumens
Efficiency: N/A
Efficacy: 51.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 0.8 / 1
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

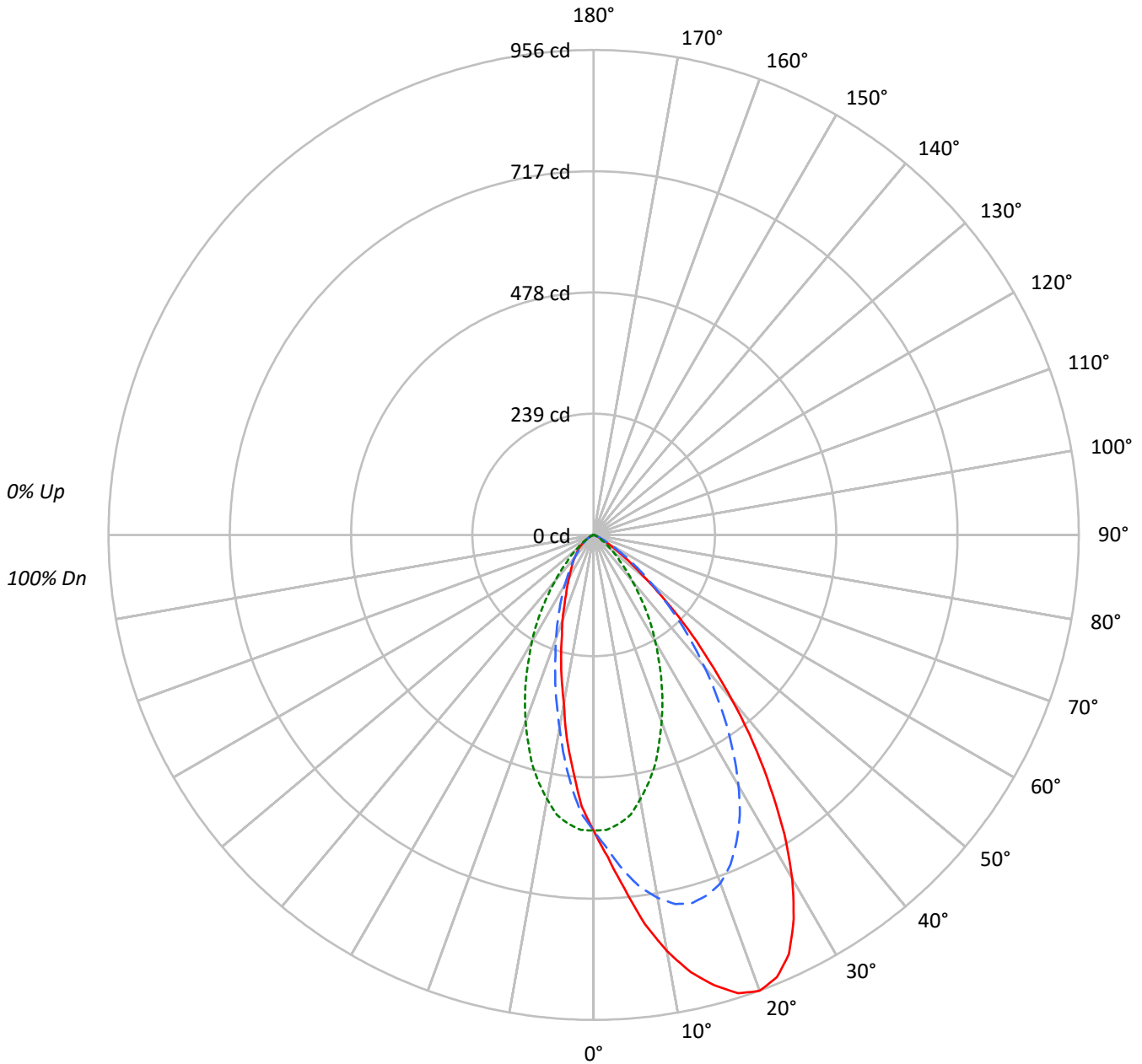
Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	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	66	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	52	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	69	58	52	48	57	52	48	56	51	47	56	51	47	46					46			
10	66	55	49	44	65	55	49	44	54	48	44	53	48	44	52	47	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	100371	100371	100371	100371	100371
5°	121034	114585	98870	86129	80476
10°	145640	127032	92529	67573	58987
15°	163892	133902	83479	52206	44254
20°	175285	133974	71826	39661	32825
25°	173114	126634	59953	30062	24361
30°	155672	113552	48464	22412	18992
35°	127493	95767	37276	16820	15684
40°	95257	76237	26574	13085	13085
45°	63983	57358	17926	9742	10838
50°	35554	39948	12432	7315	8761
55°	18826	24832	7657	5735	6816
60°	9403	13468	4994	4374	4684
65°	4442	6683	3342	2608	2975
70°	2266	2769	1813	1360	906
75°	599	1198	599	599	0
80°	0	0	0	0	0
85°	0	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 64227 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	7.8
10°-20°	146.6	20.9
20°-30°	189.2	26.9
30°-40°	163.9	23.3
40°-50°	97.0	13.8
50°-60°	39.1	5.6
60°-70°	10.9	1.6
70°-80°	1.4	0.2
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°	390.4	55.6
0°-40°	554.3	78.9
0°-60°	690.4	98.2
0°-90°	702.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	702.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	583	583	583	583	583	
5°	700	663	572	498	466	71
15°	919	751	468	293	248	260
25°	911	666	316	158	128	412
35°	606	456	177	80	75	376
45°	263	236	74	40	44	204
55°	63	83	26	19	23	62
65°	11	16	8	6	7	13
75°	1	2	1	1	0	2
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°	582.8	582.8	582.8	582.8	582.8	582.8	582.8	582.8	582.8
2.5°	635.5	627.3	619.1	599.1	581.9	563.7	550.0	539.1	535.5
5°	700.1	693.7	662.8	618.2	571.9	530.0	498.2	476.4	465.5
7.5°	773.7	751.0	700.1	627.3	556.4	491.9	442.8	411.9	404.6
10°	832.8	805.5	726.4	627.3	529.1	451.9	386.4	351.8	337.3
12.5°	882.8	846.4	745.5	618.2	500.0	408.2	337.3	299.1	290.0
15°	919.2	876.4	751.0	601.0	468.2	361.8	292.8	258.2	248.2
17.5°	947.4	891.9	744.6	578.2	429.1	320.0	250.0	220.0	208.2
20°	956.4	893.7	731.0	546.4	391.9	280.0	216.4	187.3	179.1
22.5°	943.7	878.3	703.7	514.6	353.7	242.7	185.5	159.1	150.9
25°	911.0	842.8	666.4	472.8	315.5	209.1	158.2	133.6	128.2
27.5°	853.7	790.1	623.7	430.9	277.3	179.1	133.6	114.6	111.8
30°	782.8	725.5	571.0	387.3	243.7	152.7	112.7	99.1	95.5
32.5°	699.1	652.8	513.7	345.5	210.0	130.0	95.5	85.5	84.6
35°	606.4	573.7	455.5	297.3	177.3	108.2	80.0	73.6	74.6
37.5°	516.4	489.1	396.4	252.7	145.5	88.2	69.1	64.6	65.5
40°	423.7	408.2	339.1	209.1	118.2	71.8	58.2	56.4	58.2
42.5°	335.5	331.8	285.5	173.7	94.6	58.2	49.1	48.2	50.9
45°	262.7	263.7	235.5	139.1	73.6	45.5	40.0	42.7	44.5
47.5°	190.9	202.7	186.4	107.3	60.0	37.3	32.7	37.3	39.1
50°	132.7	150.0	149.1	82.7	46.4	30.9	27.3	32.7	32.7
52.5°	96.4	107.3	113.6	61.8	34.5	24.5	22.7	28.2	27.3
55°	62.7	76.4	82.7	44.5	25.5	18.2	19.1	23.6	22.7
57.5°	41.8	53.6	57.3	30.9	18.2	13.6	15.5	19.1	18.2
60°	27.3	36.4	39.1	21.8	14.5	10.9	12.7	14.5	13.6
62.5°	17.3	24.5	25.5	14.5	10.9	9.1	9.1	10.9	10.0
65°	10.9	15.5	16.4	10.9	8.2	6.4	6.4	8.2	7.3
67.5°	7.3	10.0	10.0	7.3	6.4	4.5	4.5	5.5	4.5
70°	4.5	5.5	5.5	5.5	3.6	3.6	2.7	2.7	1.8
72.5°	2.7	2.7	2.7	2.7	1.8	1.8	1.8	0.9	0.9
75°	0.9	0.9	1.8	0.9	0.9	0.9	0.9	0.0	0.0
77.5°	0.0	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	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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