

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: P886537

Luminaire Tested: ML310LSFL95FS1E-TIR4D25AWW-TL3SWSL-1000LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886537
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-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

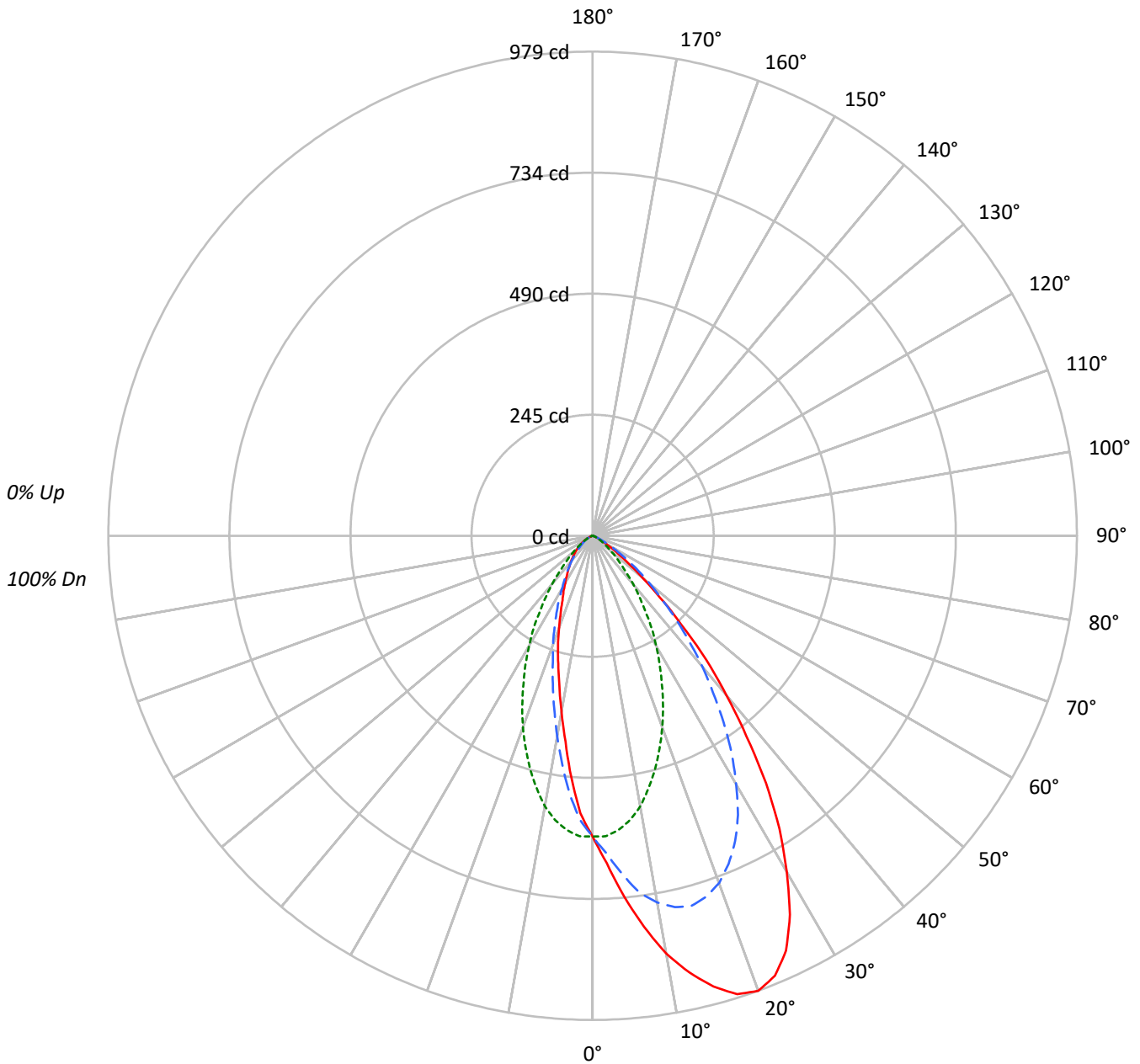
Lumens per Lamp: N/A
Luminaire Lumens: 730.2 lumens
Efficiency: N/A
Efficacy: 53.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 0.81 / 0.99
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	104746	104746	104746	104746	104746
5°	126687	118665	103262	90849	85023
10°	150082	131649	97146	72015	63114
15°	168260	138110	87045	55272	47820
20°	179445	136962	75473	42813	36160
25°	175870	129579	62880	32818	27288
30°	156030	115342	50989	24580	22054
35°	128439	97091	38811	18922	18165
40°	94627	77473	28620	14726	15333
45°	61548	57797	19266	11082	12836
50°	34831	40431	13155	8279	10476
55°	18556	25672	8738	6546	8467
60°	8783	13778	5959	4994	6269
65°	4442	7050	4442	3342	3708
70°	2769	3223	2769	1813	1813
75°	1198	1198	1198	1198	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: 64884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	7.8
10°-20°	152.7	20.9
20°-30°	195.9	26.8
30°-40°	169.0	23.2
40°-50°	100.2	13.7
50°-60°	40.9	5.6
60°-70°	12.3	1.7
70°-80°	2.2	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°	405.6	55.5
0°-40°	574.6	78.7
0°-60°	715.7	98.0
0°-90°	730.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	730.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	608	608	608	608	608	
5°	733	686	597	526	492	74
15°	944	775	488	310	268	267
25°	926	682	331	173	144	418
35°	611	462	185	90	86	377
45°	253	237	79	46	53	201
55°	62	86	29	22	28	60
65°	11	17	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°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2
2.5°	662.8	657.3	642.8	624.6	608.2	588.2	575.5	568.2	561.8
5°	732.8	721.9	686.4	643.7	597.3	555.5	525.5	502.8	491.8
7.5°	797.3	776.4	728.2	651.9	580.0	520.0	467.3	434.6	420.0
10°	858.2	828.2	752.8	650.9	555.5	475.5	411.8	370.0	360.9
12.5°	904.6	871.9	769.1	640.9	522.8	433.7	358.2	323.7	310.0
15°	943.7	897.3	774.6	624.6	488.2	384.6	310.0	276.4	268.2
17.5°	971.9	911.0	764.6	600.0	450.0	340.9	267.3	240.0	232.7
20°	979.1	912.8	747.3	567.3	411.8	299.1	233.6	204.6	197.3
22.5°	962.8	894.6	718.2	529.1	371.8	260.0	200.9	175.5	168.2
25°	925.5	854.6	681.9	487.3	330.9	224.6	172.7	149.1	143.6
27.5°	863.7	803.7	636.4	442.7	293.7	190.9	147.3	128.2	127.3
30°	784.6	730.9	580.0	399.1	256.4	163.6	123.6	111.8	110.9
32.5°	702.8	660.0	523.7	353.7	222.7	140.0	105.5	98.2	98.2
35°	610.9	581.8	461.8	305.5	184.6	116.4	90.0	85.5	86.4
37.5°	510.9	493.7	400.0	260.0	154.6	95.5	76.4	73.6	76.4
40°	420.9	414.6	344.6	216.4	127.3	79.1	65.5	64.5	68.2
42.5°	340.0	333.7	287.3	180.0	100.0	63.6	53.6	57.3	60.0
45°	252.7	266.4	237.3	141.8	79.1	50.0	45.5	50.9	52.7
47.5°	184.6	200.9	189.1	109.1	64.5	41.8	37.3	44.5	45.5
50°	130.0	148.2	150.9	85.5	49.1	33.6	30.9	38.2	39.1
52.5°	90.0	105.5	117.3	64.5	37.3	26.4	26.4	32.7	32.7
55°	61.8	76.4	85.5	45.5	29.1	20.0	21.8	27.3	28.2
57.5°	40.0	51.8	60.0	33.6	20.9	15.5	18.2	21.8	22.7
60°	25.5	34.5	40.0	23.6	17.3	13.6	14.5	17.3	18.2
62.5°	17.3	23.6	25.5	17.3	12.7	10.9	10.9	13.6	13.6
65°	10.9	15.5	17.3	13.6	10.9	8.2	8.2	10.0	9.1
67.5°	7.3	9.1	10.9	10.0	8.2	6.4	5.5	6.4	5.5
70°	5.5	5.5	6.4	7.3	5.5	4.5	3.6	4.5	3.6
72.5°	3.6	2.7	3.6	4.5	3.6	3.6	2.7	1.8	1.8
75°	1.8	1.8	1.8	2.7	1.8	1.8	1.8	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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— 0°-180° - - 45°-225° - - - - 90°-270°

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