

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: P886778

Luminaire Tested: ML310LSFLD2W1E-TIR4D25AWW-TL3SWMB-600LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886778
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: ML310LSFLD2W1E-TIR4D25AWW-TL3SWMB-600LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT
Ballast/Driver: -

Summary

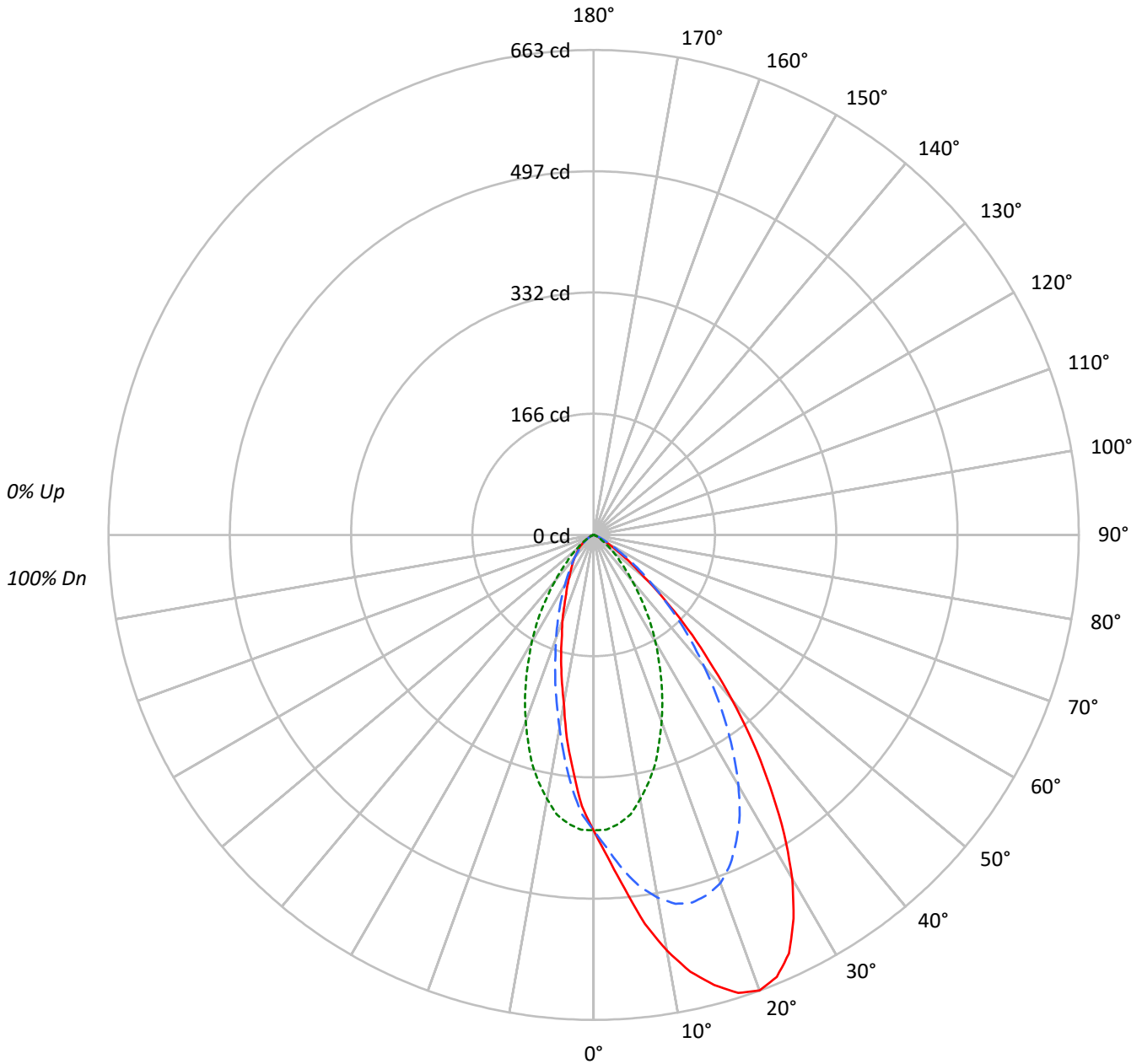
Lumens per Lamp: N/A
Luminaire Lumens: 487.0 lumens
Efficiency: N/A
Efficacy: 51.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 0.8 / 1
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 9.5
Input Voltage (V): NR
Input Current (Ain): 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					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°	69561	69561	69561	69561	69561
5°	83864	79404	68513	59696	55771
10°	100923	88034	64128	46833	40869
15°	113576	92786	57858	36177	30667
20°	121475	92847	49778	27491	22744
25°	119964	87754	41540	20827	16874
30°	107885	78691	33588	15531	13165
35°	88345	66374	25839	11648	10870
40°	66007	52833	18413	9060	9060
45°	44352	39749	12422	6747	7526
50°	24650	27677	8601	5064	6082
55°	13061	17205	5285	3963	4744
60°	6510	9334	3479	3031	3272
65°	3097	4605	2323	1793	2038
70°	1611	1913	1259	957	655
75°	399	865	399	399	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: 44498 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.9	7.8
10°-20°	101.6	20.9
20°-30°	131.1	26.9
30°-40°	113.6	23.3
40°-50°	67.2	13.8
50°-60°	27.1	5.6
60°-70°	7.6	1.6
70°-80°	1.0	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°	270.6	55.6
0°-40°	384.1	78.9
0°-60°	478.5	98.2
0°-90°	487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	487.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	404	404	404	404	404	
5°	485	459	396	345	323	49
15°	637	520	324	203	172	180
25°	631	462	219	110	89	285
35°	420	316	123	55	52	261
45°	182	163	51	28	31	141
55°	44	57	18	13	16	43
65°	8	11	6	4	5	9
75°	1	1	1	1	0	1
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°	403.9	403.9	403.9	403.9	403.9	403.9	403.9	403.9	403.9
2.5°	440.4	434.7	429.1	415.2	403.2	390.6	381.2	373.6	371.1
5°	485.1	480.7	459.3	428.4	396.3	367.3	345.3	330.1	322.6
7.5°	536.2	520.4	485.1	434.7	385.6	340.9	306.8	285.4	280.4
10°	577.1	558.2	503.4	434.7	366.7	313.1	267.8	243.8	233.7
12.5°	611.8	586.6	516.6	428.4	346.5	282.9	233.7	207.3	201.0
15°	637.0	607.4	520.4	416.5	324.5	250.8	202.9	178.9	172.0
17.5°	656.5	618.1	516.0	400.7	297.4	221.8	173.3	152.5	144.3
20°	662.8	619.3	506.6	378.7	271.6	194.1	150.0	129.8	124.1
22.5°	654.0	608.6	487.7	356.6	245.1	168.2	128.5	110.3	104.6
25°	631.3	584.1	461.8	327.6	218.6	144.9	109.6	92.6	88.8
27.5°	591.6	547.5	432.2	298.6	192.2	124.1	92.6	79.4	77.5
30°	542.5	502.8	395.7	268.4	168.9	105.8	78.1	68.7	66.2
32.5°	484.5	452.4	356.0	239.4	145.5	90.1	66.2	59.2	58.6
35°	420.2	397.6	315.7	206.0	122.9	75.0	55.4	51.0	51.7
37.5°	357.9	339.0	274.7	175.2	100.8	61.1	47.9	44.7	45.4
40°	293.6	282.9	235.0	144.9	81.9	49.8	40.3	39.1	40.3
42.5°	232.5	230.0	197.8	120.3	65.5	40.3	34.0	33.4	35.3
45°	182.1	182.7	163.2	96.4	51.0	31.5	27.7	29.6	30.9
47.5°	132.3	140.5	129.2	74.3	41.6	25.8	22.7	25.8	27.1
50°	92.0	104.0	103.3	57.3	32.1	21.4	18.9	22.7	22.7
52.5°	66.8	74.3	78.8	42.8	23.9	17.0	15.8	19.5	18.9
55°	43.5	52.9	57.3	30.9	17.6	12.6	13.2	16.4	15.8
57.5°	29.0	37.2	39.7	21.4	12.6	9.5	10.7	13.2	12.6
60°	18.9	25.2	27.1	15.1	10.1	7.6	8.8	10.1	9.5
62.5°	12.0	17.0	17.6	10.1	7.6	6.3	6.3	7.6	6.9
65°	7.6	10.7	11.3	7.6	5.7	4.4	4.4	5.7	5.0
67.5°	5.0	6.9	6.9	5.0	4.4	3.2	3.2	3.8	3.2
70°	3.2	3.8	3.8	3.8	2.5	2.5	1.9	1.9	1.3
72.5°	1.9	1.9	1.9	1.9	1.3	1.3	1.3	0.6	0.6
75°	0.6	0.6	1.3	0.6	0.6	0.6	0.6	0.0	0.0
77.5°	0.0	0.6	0.6	0.6	0.6	0.6	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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