

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: P886541

Luminaire Tested: ML310LSFL95FS1E-TIR4D25AWW-TL3SWSL-1000LM-5000K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886541
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-5000K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH WW TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

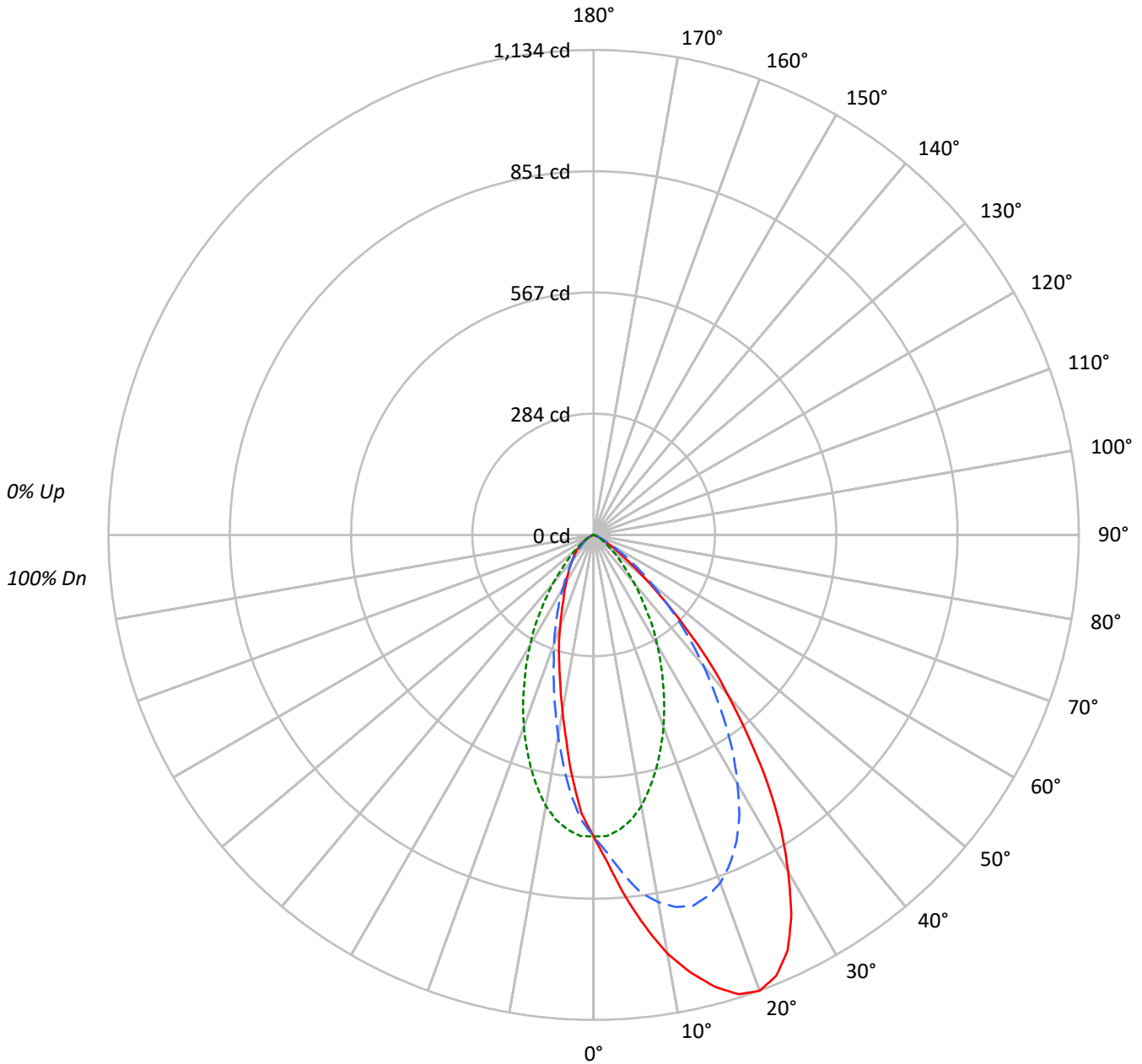
Lumens per Lamp: N/A
Luminaire Lumens: 846.1 lumens
Efficiency: N/A
Efficacy: 62.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 0.81 / 0.99
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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				
RW	70	50	30	10	70	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		
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92		
2	106	101	96	92	104	99	95	91	95	92	89	92	90	87	90	87	85	83		
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76		
4	94	85	79	74	92	84	78	73	82	77	73	80	75	72	78	74	71	69		
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63		
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58		
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53		
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49		
9	70	59	52	48	68	58	52	48	57	52	48	56	51	47	55	51	47	46		
10	66	55	49	44	65	55	49	44	54	48	44	53	48	44	52	47	44	42		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	121365	121365	121365	121365	121365
5°	146776	137492	119651	105267	98525
10°	173900	152530	112552	83452	73135
15°	194951	160022	100863	64045	55397
20°	207926	158698	87459	49613	41897
25°	203766	150121	72856	38024	31620
30°	180789	133658	59083	28497	25554
35°	148832	112502	44950	21929	21046
40°	109645	89748	33161	17041	17761
45°	71314	66955	22310	12836	14881
50°	40350	46861	15245	9592	12137
55°	21499	29726	10119	7597	9819
60°	10161	15948	6889	5821	7268
65°	5135	8150	5135	3871	4279
70°	3172	3726	3172	2115	2115
75°	1397	1397	1397	1397	732
80°	0	1091	1091	0	0
85°	0	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 75162 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	7.8
10°-20°	176.9	20.9
20°-30°	227.0	26.8
30°-40°	195.9	23.1
40°-50°	116.1	13.7
50°-60°	47.4	5.6
60°-70°	14.2	1.7
70°-80°	2.6	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°	469.9	55.5
0°-40°	665.8	78.7
0°-60°	829.3	98.0
0°-90°	846.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	846.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	705	705	705	705	705	
5°	849	795	692	609	570	85
15°	1093	898	566	359	311	309
25°	1072	790	383	200	166	484
35°	708	535	214	104	100	436
45°	293	275	92	53	61	232
55°	72	99	34	25	33	69
65°	13	20	13	10	10	14
75°	2	2	2	2	1	3
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°	704.7	704.7	704.7	704.7	704.7	704.7	704.7	704.7	704.7
2.5°	767.9	761.6	744.7	723.7	704.7	681.5	666.8	658.4	651.0
5°	849.0	836.4	795.3	745.8	692.1	643.6	608.9	582.5	569.9
7.5°	923.8	899.6	843.8	755.3	672.1	602.5	541.4	503.5	486.7
10°	994.4	959.6	872.2	754.2	643.6	550.9	477.2	428.7	418.2
12.5°	1048.1	1010.2	891.2	742.6	605.7	502.5	415.0	375.0	359.2
15°	1093.4	1039.7	897.5	723.7	565.7	445.6	359.2	320.2	310.7
17.5°	1126.1	1055.5	885.9	695.2	521.4	395.0	309.7	278.1	269.7
20°	1134.5	1057.6	865.9	657.3	477.2	346.6	270.7	237.0	228.6
22.5°	1115.5	1036.5	832.2	613.1	430.8	301.3	232.8	203.3	194.9
25°	1072.3	990.2	790.0	564.6	383.4	260.2	200.1	172.8	166.4
27.5°	1000.7	931.2	737.4	513.0	340.2	221.2	170.6	148.5	147.5
30°	909.1	846.9	672.1	462.4	297.1	189.6	143.3	129.6	128.5
32.5°	814.3	764.8	606.7	409.8	258.1	162.2	122.2	113.8	113.8
35°	707.9	674.2	535.1	353.9	213.8	134.8	104.3	99.0	100.1
37.5°	592.0	572.0	463.5	301.3	179.1	110.6	88.5	85.3	88.5
40°	487.7	480.3	399.2	250.7	147.5	91.6	75.8	74.8	79.0
42.5°	394.0	386.6	332.9	208.6	115.9	73.7	62.1	66.4	69.5
45°	292.8	308.6	274.9	164.3	91.6	57.9	52.7	59.0	61.1
47.5°	213.8	232.8	219.1	126.4	74.8	48.5	43.2	51.6	52.7
50°	150.6	171.7	174.9	99.0	56.9	39.0	35.8	44.2	45.3
52.5°	104.3	122.2	135.9	74.8	43.2	30.5	30.5	37.9	37.9
55°	71.6	88.5	99.0	52.7	33.7	23.2	25.3	31.6	32.7
57.5°	46.3	60.0	69.5	39.0	24.2	17.9	21.1	25.3	26.3
60°	29.5	40.0	46.3	27.4	20.0	15.8	16.9	20.0	21.1
62.5°	20.0	27.4	29.5	20.0	14.7	12.6	12.6	15.8	15.8
65°	12.6	17.9	20.0	15.8	12.6	9.5	9.5	11.6	10.5
67.5°	8.4	10.5	12.6	11.6	9.5	7.4	6.3	7.4	6.3
70°	6.3	6.3	7.4	8.4	6.3	5.3	4.2	5.3	4.2
72.5°	4.2	3.2	4.2	5.3	4.2	4.2	3.2	2.1	2.1
75°	2.1	2.1	2.1	3.2	2.1	2.1	2.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0
80°	0.0	0.0	1.1	0.0	1.1	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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