

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: P885661

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-136)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT
Ballast/Driver: -

Summary

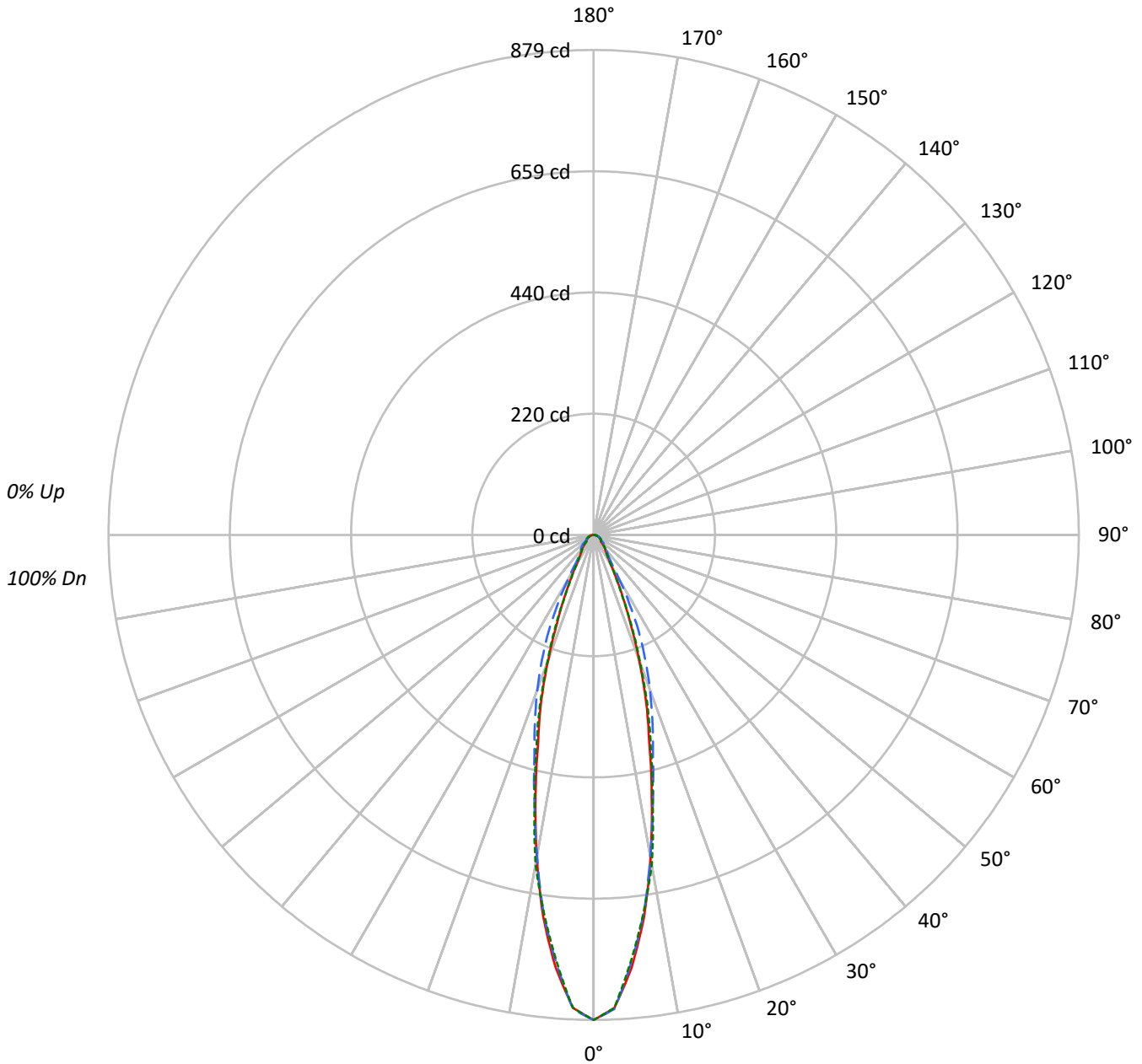
Lumens per Lamp: N/A
Luminaire Lumens: 338.8 lumens
Efficiency: N/A
Efficacy: 55.5 lumens/watt
Spacing Criteria (0/90/45): 0.45 / 0.46 / 0.55
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6.1
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										
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								
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92								
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86								
3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	82	80								
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	77	75								
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71								
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67								
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64								
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61								
9	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58								
10	76	67	61	58	75	66	61	58	65	61	57	65	60	57	64	60	57	56								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1362619	1362619	1362619
5°	1225456	1212386	1205851
10°	933496	930191	954902
15°	622622	664825	642841
20°	395548	490889	404126
25°	215834	329053	210361
30°	110968	165557	110968
35°	75689	87610	77581
40°	63737	74461	65963
45°	48444	66858	50636
50°	40511	58356	40511
55°	42697	42697	42697
60°	45570	42470	45570
65°	42545	42545	42545
70°	43053	43053	43053
75°	37729	37729	37729
80°	37490	37490	37490
85°	37347	19563	37347

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 66858 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	20.3
10°-20°	113.0	33.4
20°-30°	71.4	21.1
30°-40°	30.2	8.9
40°-50°	20.2	6.0
50°-60°	14.4	4.2
60°-70°	11.7	3.4
70°-80°	6.9	2.0
80°-90°	2.2	0.7
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°	253.2	74.7
0°-40°	283.4	83.6
0°-60°	318.0	93.9
0°-90°	338.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	338.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	788	781	779	773	775	69
15°	388	400	414	406	401	109
25°	126	144	192	146	123	60
35°	40	47	46	46	41	26
45°	22	26	30	26	23	18
55°	16	16	16	16	16	14
65°	12	12	12	12	12	12
75°	6	6	6	6	6	7
85°	2	2	1	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	879.1	879.1	879.1	879.1	879.1
2.5°	858.1	858.1	860.2	858.1	858.1
5°	787.6	781.3	779.2	772.9	775.0
7.5°	699.3	697.2	693.0	693.0	690.9
10°	593.1	595.2	591.0	597.3	606.7
12.5°	485.8	486.9	495.3	499.5	494.2
15°	388.0	399.6	414.3	405.9	400.6
17.5°	315.5	327.0	353.3	332.3	323.9
20°	239.8	261.8	297.6	267.1	245.0
22.5°	174.6	201.9	244.0	204.0	181.9
25°	126.2	144.1	192.4	146.2	123.0
27.5°	88.3	103.1	139.9	104.1	87.3
30°	62.0	77.8	92.5	75.7	62.0
32.5°	48.4	61.0	58.9	58.9	47.3
35°	40.0	47.3	46.3	46.3	41.0
37.5°	34.7	37.9	41.0	38.9	35.8
40°	31.5	33.6	36.8	33.6	32.6
42.5°	27.3	30.5	33.6	30.5	28.4
45°	22.1	26.3	30.5	26.3	23.1
47.5°	17.9	20.0	28.4	21.0	17.9
50°	16.8	16.8	24.2	16.8	16.8
52.5°	16.8	16.8	18.9	16.8	16.8
55°	15.8	15.8	15.8	15.8	15.8
57.5°	14.7	14.7	14.7	14.7	14.7
60°	14.7	14.7	13.7	14.7	14.7
62.5°	12.6	13.7	12.6	13.7	12.6
65°	11.6	11.6	11.6	11.6	11.6
67.5°	10.5	10.5	10.5	10.5	10.5
70°	9.5	9.5	9.5	9.5	9.5
72.5°	7.4	7.4	7.4	8.4	7.4
75°	6.3	6.3	6.3	6.3	6.3
77.5°	5.3	5.3	5.3	5.3	5.3
80°	4.2	4.2	4.2	4.2	4.2
82.5°	3.2	3.2	3.2	3.2	3.2
85°	2.1	2.1	1.1	2.1	2.1
87.5°	1.1	1.1	1.1	1.1	1.1
90°	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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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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