

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: P885650

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMB-340LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885650
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-138)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMB-340LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 258.5 lumens
Efficiency: N/A
Efficacy: 42.4 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.54
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')

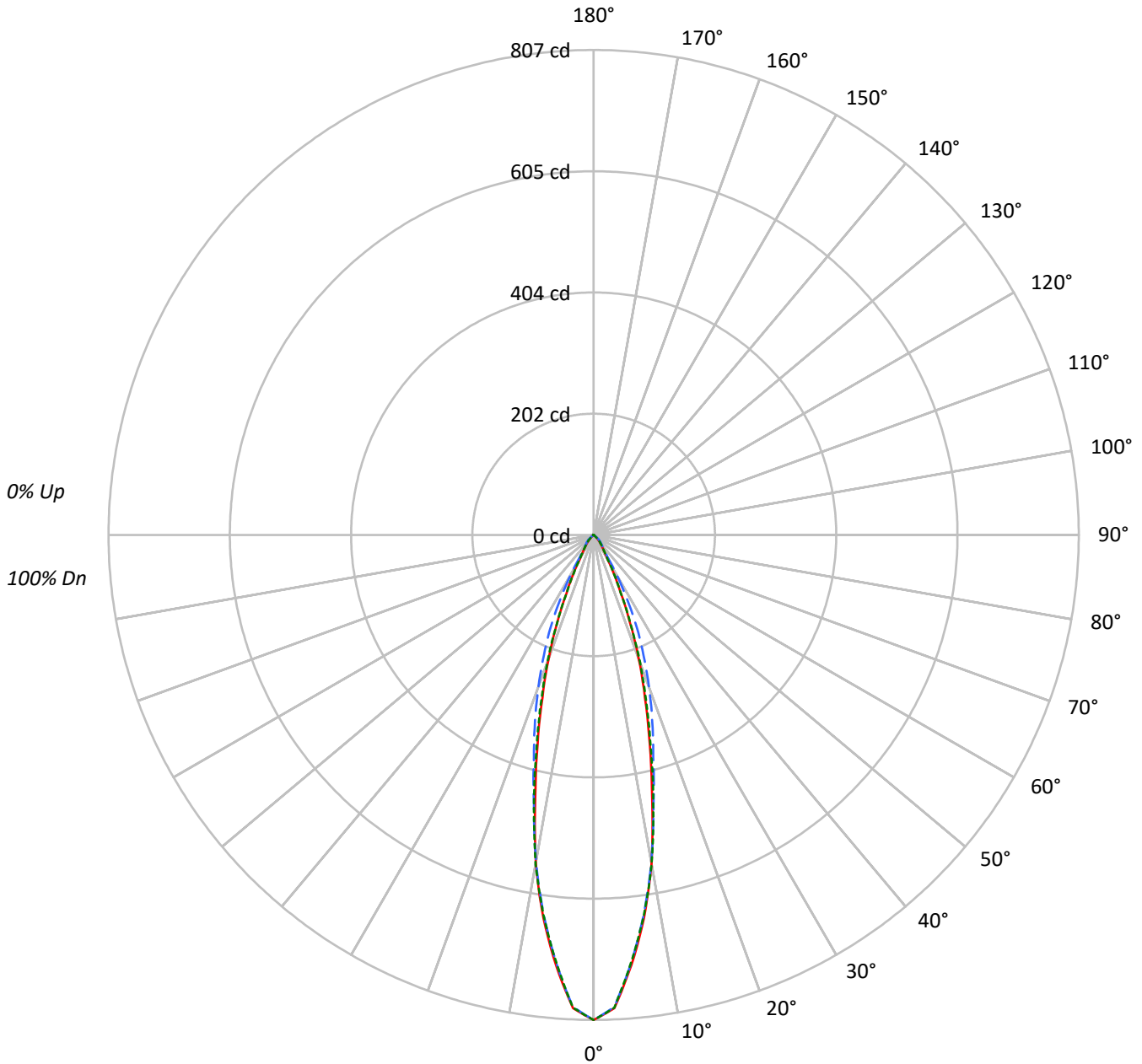
CIE Type: Direct

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									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	115	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96					96														
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91					91														
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87					87														
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	87	84	83					83														
5	98	91	87	83	97	91	86	83	89	85	82	87	84	81	86	83	81	80					80														
6	95	87	83	79	93	87	82	79	85	81	78	84	81	78	83	80	77	76					76														
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73					73														
8	88	80	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70					70														
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68					68														
10	82	75	70	67	81	74	70	67	73	69	67	73	69	66	72	69	66	65					65														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1251173	1251173	1251173
5°	1118874	1112651	1111095
10°	873058	869910	874632
15°	576888	615080	588121
20°	361074	442724	370806
25°	182997	289717	182997
30°	81615	132982	83405
35°	48819	54307	48819
40°	31970	40063	33993
45°	15125	30470	17317
50°	4823	19050	4823
55°	2702	2702	2702
60°	3100	0	3100
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 30470 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	24.5
10°-20°	104.1	40.3
20°-30°	62.2	24.1
30°-40°	20.1	7.8
40°-50°	7.7	3.0
50°-60°	1.0	0.4
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	229.7	88.8
0°-40°	249.7	96.6
0°-60°	258.5	100.0
0°-90°	258.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	258.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	719	721	715	716	714	64
15°	360	370	383	375	366	100
25°	107	125	169	130	107	52
35°	26	31	29	31	26	17
45°	7	10	14	10	8	6
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°
0°	807.2	807.2	807.2	807.2	807.2
2.5°	788.4	787.4	786.4	787.4	787.4
5°	719.1	721.1	715.1	716.1	714.1
7.5°	642.8	640.8	636.9	639.9	638.9
10°	554.7	548.7	552.7	552.7	555.7
12.5°	448.7	457.6	459.6	458.6	458.6
15°	359.5	370.4	383.3	375.4	366.5
17.5°	283.3	301.1	323.9	306.1	290.2
20°	218.9	236.7	268.4	239.7	224.8
22.5°	158.5	180.3	216.9	182.3	160.5
25°	107.0	124.8	169.4	129.8	107.0
27.5°	72.3	85.2	118.9	86.2	71.3
30°	45.6	61.4	74.3	60.4	46.6
32.5°	32.7	43.6	41.6	43.6	33.7
35°	25.8	30.7	28.7	30.7	25.8
37.5°	19.8	22.8	23.8	22.8	20.8
40°	15.8	16.8	19.8	17.8	16.8
42.5°	11.9	13.9	16.8	13.9	12.9
45°	6.9	9.9	13.9	9.9	7.9
47.5°	2.0	5.0	11.9	5.0	2.0
50°	2.0	1.0	7.9	1.0	2.0
52.5°	1.0	1.0	3.0	1.0	1.0
55°	1.0	1.0	1.0	1.0	1.0
57.5°	1.0	0.0	0.0	1.0	1.0
60°	1.0	0.0	0.0	0.0	1.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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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