

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: P885855

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMWB-400LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-139)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMWB-400LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

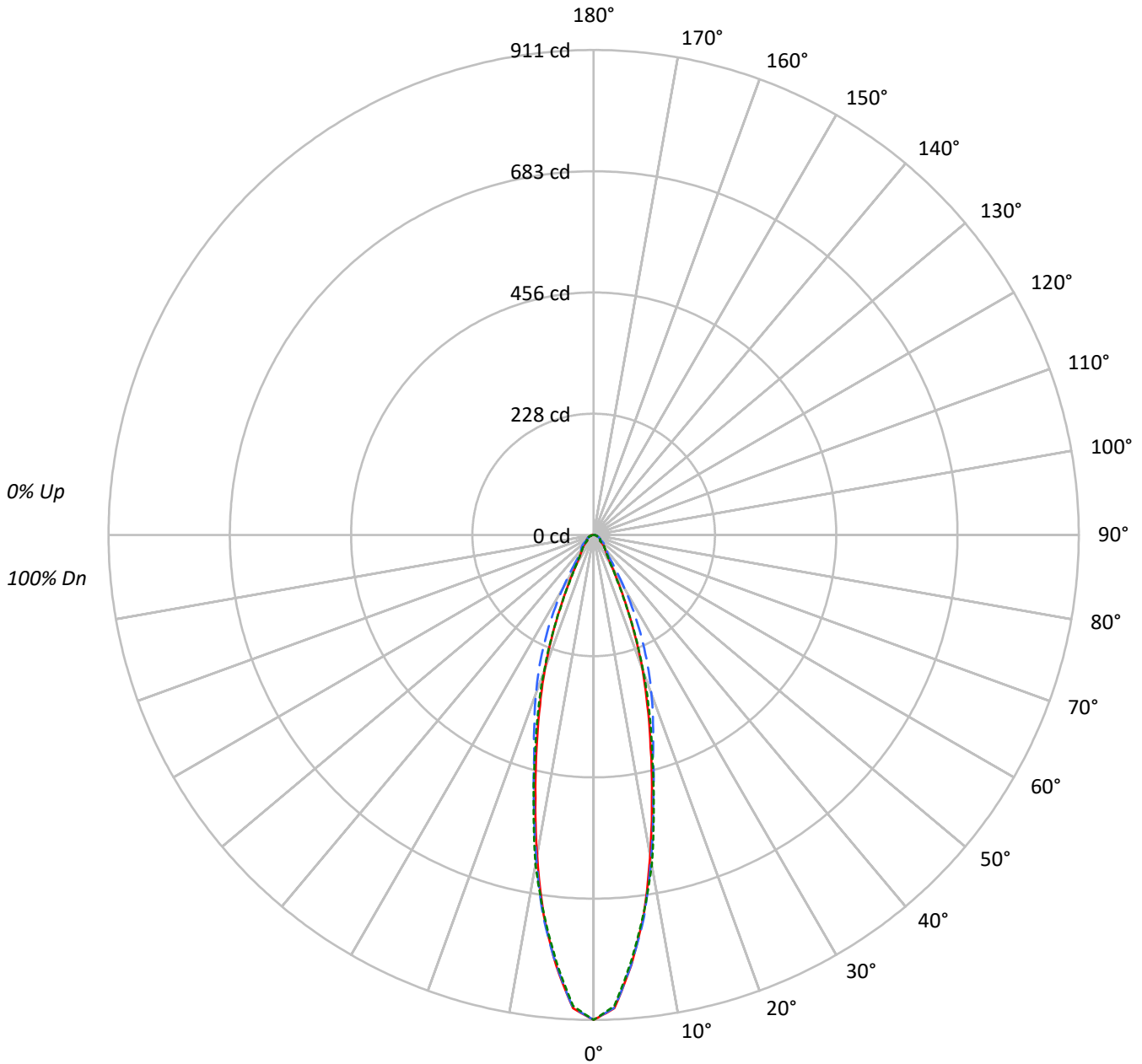
Lumens per Lamp: N/A
Luminaire Lumens: 354.7 lumens
Efficiency: N/A
Efficacy: 59.1 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.56
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6
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



TEST NUMBER: P885855
CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMWB-400LM-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P885855

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMWB-400LM-3500K

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	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	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93			93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86			86
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81			81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76			76
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72			72
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68			68
7	86	77	71	67	84	76	71	67	75	70	67	74	69	66	73	69	66	65			65
8	82	73	68	64	81	73	67	64	72	67	63	71	66	63	70	66	63	62			62
9	79	70	65	61	78	70	64	61	69	64	61	68	63	60	67	63	60	59			59
10	76	67	62	58	75	67	62	58	66	61	58	65	61	58	64	61	58	56			56

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1411910	1411910	1411910
5°	1261709	1259998	1251440
10°	961512	975363	989214
15°	662899	691142	680551
20°	440415	522064	449487
25°	240462	364626	236699
30°	119917	206543	117948
35°	79095	93476	79095
40°	64547	75675	64547
45°	50636	67515	53048
50°	39788	58356	39788
55°	41617	38644	41617
60°	40920	40920	40920
65°	40344	40344	40344
70°	34896	34896	34896
75°	32938	32938	32938
80°	29456	29456	29456
85°	19563	19563	19563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 67515 cd/sqm



TEST NUMBER: P885855

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMWB-400LM-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	20.1
10°-20°	119.4	33.7
20°-30°	79.6	22.4
30°-40°	32.4	9.1
40°-50°	20.5	5.8
50°-60°	13.7	3.9
60°-70°	10.6	3.0
70°-80°	5.8	1.6
80°-90°	1.3	0.4
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°	270.3	76.2
0°-40°	302.7	85.3
0°-60°	336.9	95.0
0°-90°	354.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	354.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	911	911	911	911	911	
5°	811	809	810	808	804	71
15°	413	423	431	432	424	115
25°	141	165	213	168	138	67
35°	42	49	49	48	42	27
45°	23	26	31	28	24	18
55°	15	15	14	15	15	13
65°	11	11	11	11	11	10
75°	6	6	6	6	6	6
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P885855

CATALOG NUMBER: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMWB-400LM-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.9	910.9	910.9	910.9	910.9
2.5°	890.0	891.1	888.9	887.8	885.6
5°	810.9	808.7	809.8	807.6	804.3
7.5°	719.7	717.5	724.1	719.7	717.5
10°	610.9	613.1	619.7	618.6	628.5
12.5°	505.4	512.0	517.5	518.6	520.8
15°	413.1	423.0	430.7	431.8	424.1
17.5°	335.1	352.7	370.3	358.2	346.1
20°	267.0	286.8	316.5	291.2	272.5
22.5°	200.0	223.1	264.8	229.6	203.3
25°	140.6	164.8	213.2	168.1	138.4
27.5°	96.7	113.2	162.6	116.5	93.4
30°	67.0	83.5	115.4	83.5	65.9
32.5°	49.4	64.8	74.7	62.6	50.5
35°	41.8	49.4	49.4	48.3	41.8
37.5°	36.3	39.6	41.8	39.6	36.3
40°	31.9	34.1	37.4	34.1	31.9
42.5°	28.6	30.8	34.1	30.8	28.6
45°	23.1	26.4	30.8	27.5	24.2
47.5°	16.5	20.9	28.6	22.0	16.5
50°	16.5	16.5	24.2	16.5	16.5
52.5°	15.4	15.4	18.7	15.4	15.4
55°	15.4	15.4	14.3	15.4	15.4
57.5°	14.3	14.3	14.3	14.3	14.3
60°	13.2	13.2	13.2	13.2	13.2
62.5°	12.1	12.1	12.1	12.1	12.1
65°	11.0	11.0	11.0	11.0	11.0
67.5°	8.8	9.9	8.8	9.9	9.9
70°	7.7	7.7	7.7	7.7	7.7
72.5°	6.6	6.6	6.6	6.6	6.6
75°	5.5	5.5	5.5	5.5	5.5
77.5°	4.4	4.4	4.4	4.4	4.4
80°	3.3	3.3	3.3	3.3	3.3
82.5°	2.2	2.2	2.2	2.2	2.2
85°	1.1	1.1	1.1	1.1	1.1
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)