

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: P885923

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1SDSLB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-146)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1SDSLB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

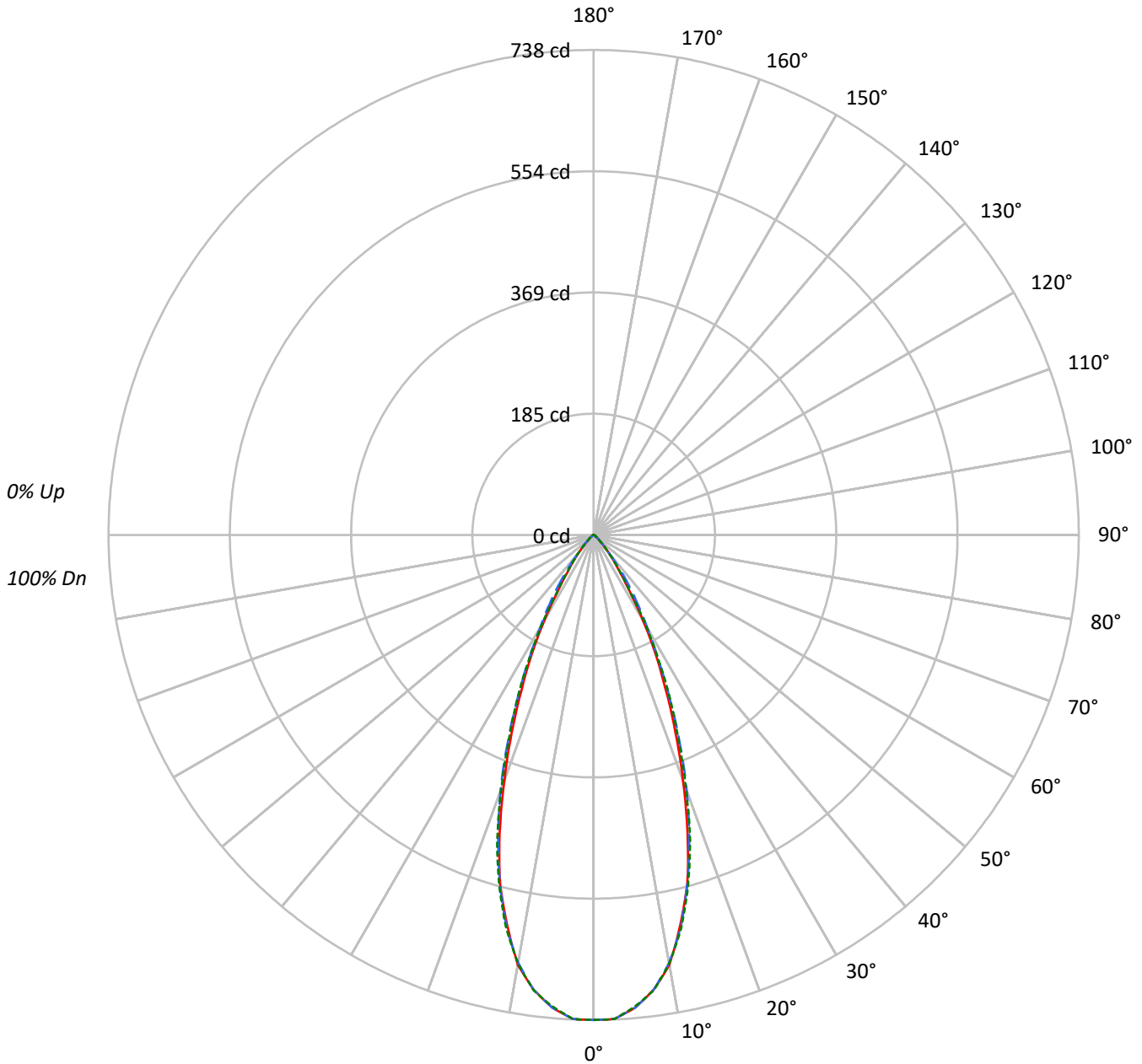
Lumens per Lamp: N/A
Luminaire Lumens: 414.5 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.69 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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



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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	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95								
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89								
3	104	99	94	90	102	97	93	90	95	91	88	92	89	87	90	88	86	84								
4	100	93	88	84	98	92	87	84	90	86	83	88	84	82	86	83	81	79								
5	95	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75								
6	91	83	78	74	90	83	78	74	81	77	73	80	76	73	79	75	73	71								
7	88	79	74	70	86	79	74	70	77	73	70	76	72	69	75	72	69	68								
8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65	64								
9	81	72	67	63	80	71	66	63	71	66	63	70	66	63	69	65	62	61								
10	77	69	64	60	76	68	63	60	68	63	60	67	63	60	66	62	60	58								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1144222	1144222	1144222
5°	1123698	1123698	1120586
10°	1045403	1040681	1042255
15°	882903	882903	889322
20°	655014	683055	676457
25°	441416	467070	468781
30°	266681	290127	284758
35°	132455	174084	138132
40°	72842	78913	74866
45°	30689	39457	32881
50°	19291	16880	19291
55°	13512	8107	13512
60°	9300	3100	9300
65°	7335	3668	7335
70°	4532	0	4532
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 39457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.0	16.2
10°-20°	150.8	36.4
20°-30°	124.0	29.9
30°-40°	53.3	12.9
40°-50°	14.1	3.4
50°-60°	3.7	0.9
60°-70°	1.3	0.3
70°-80°	0.2	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°	341.9	82.5
0°-40°	395.2	95.4
0°-60°	413.0	99.6
0°-90°	414.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	414.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	738	738	738	738	738	
5°	722	721	722	720	720	67
15°	550	550	550	552	554	150
25°	258	264	273	274	274	119
35°	70	77	92	80	73	48
45°	14	16	18	16	15	13
55°	5	4	3	4	5	5
65°	2	1	1	1	2	2
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°	738.2	738.2	738.2	738.2	738.2
2.5°	737.2	738.2	737.2	737.2	737.2
5°	722.2	721.2	722.2	720.2	720.2
7.5°	698.2	697.2	698.2	698.2	699.2
10°	664.2	659.2	661.2	664.2	662.2
12.5°	608.2	612.2	612.2	614.2	614.2
15°	550.2	550.2	550.2	552.2	554.2
17.5°	475.2	477.2	483.2	485.2	488.2
20°	397.1	404.1	414.1	412.1	410.1
22.5°	325.1	329.1	342.1	340.1	337.1
25°	258.1	264.1	273.1	274.1	274.1
27.5°	203.1	209.1	212.1	217.1	212.1
30°	149.0	160.1	162.1	166.1	159.1
32.5°	101.0	111.0	125.0	118.0	105.0
35°	70.0	77.0	92.0	80.0	73.0
37.5°	50.0	53.0	62.0	55.0	52.0
40°	36.0	38.0	39.0	39.0	37.0
42.5°	24.0	25.0	26.0	26.0	25.0
45°	14.0	16.0	18.0	16.0	15.0
47.5°	10.0	10.0	11.0	10.0	10.0
50°	8.0	7.0	7.0	7.0	8.0
52.5°	6.0	5.0	4.0	5.0	6.0
55°	5.0	4.0	3.0	4.0	5.0
57.5°	4.0	3.0	2.0	3.0	4.0
60°	3.0	2.0	1.0	2.0	3.0
62.5°	2.0	2.0	1.0	2.0	2.0
65°	2.0	1.0	1.0	1.0	2.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	0.0	1.0	1.0
72.5°	1.0	0.0	0.0	0.0	1.0
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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