

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: P885863

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1SDSLB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-140)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1SDSLB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

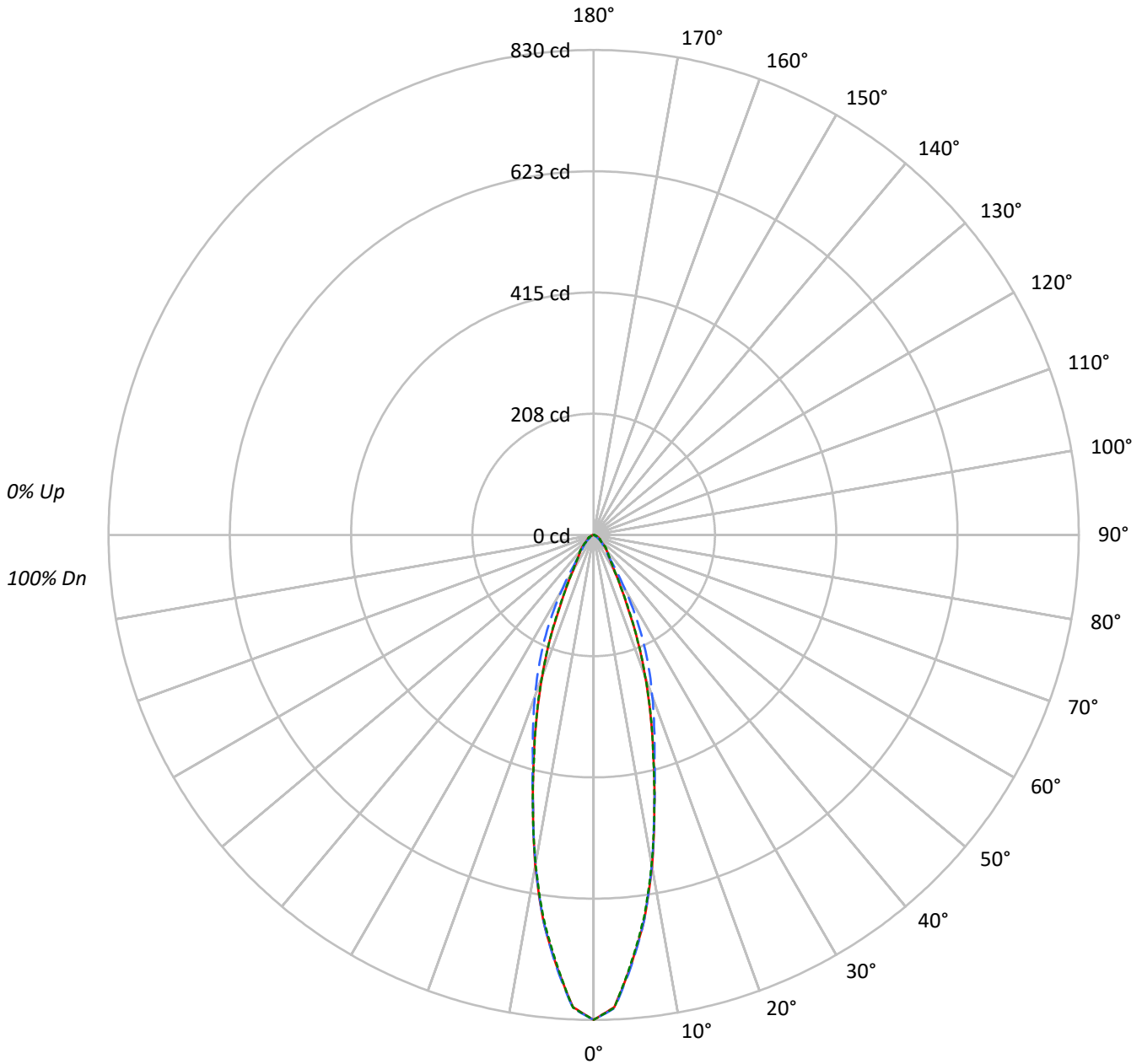
Lumens per Lamp: N/A
Luminaire Lumens: 314.9 lumens
Efficiency: N/A
Efficacy: 52.5 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.56
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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



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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	111	109	107	112	109	107	105	105	104	102	101	100	99	98	97	96	94								
2	109	104	101	98	107	103	99	96	99	97	94	97	94	92	94	92	90	89								
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84								
4	100	93	88	84	98	92	87	83	89	86	82	88	84	81	86	83	81	79								
5	95	88	83	79	94	87	82	78	85	81	78	84	80	77	82	79	76	75								
6	91	83	78	74	90	83	78	74	81	77	73	80	76	73	79	75	72	71								
7	88	79	74	70	86	79	74	70	78	73	70	76	72	69	75	72	69	68								
8	84	76	71	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65								
9	81	73	67	64	80	72	67	64	71	67	64	70	66	63	70	66	63	62								
10	78	70	64	61	77	69	64	61	68	64	61	68	64	61	67	63	61	59								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1286358	1286358	1286358
5°	1148126	1151238	1143458
10°	904851	901703	900129
15°	635299	644927	630485
20°	423920	483301	425569
25°	236015	342051	244566
30°	127076	191509	130656
35°	85150	83258	88934
40°	68796	58679	72842
45°	52609	46033	56993
50°	38582	33760	38582
55°	35131	10809	35131
60°	31000	9300	31000
65°	22006	7335	22006
70°	13596	4532	13596
75°	5989	5989	5989
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 56993 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	20.8
10°-20°	111.4	35.4
20°-30°	76.6	24.3
30°-40°	31.8	10.1
40°-50°	17.2	5.5
50°-60°	7.9	2.5
60°-70°	3.5	1.1
70°-80°	1.0	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°	253.5	80.5
0°-40°	285.3	90.6
0°-60°	310.4	98.6
0°-90°	314.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	314.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	738	736	740	737	735	66
15°	396	398	402	400	393	110
25°	138	160	200	162	143	67
35°	45	49	44	49	47	30
45°	24	22	21	23	26	19
55°	13	8	4	8	13	11
65°	6	3	2	3	6	6
75°	1	1	1	1	1	1
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°	829.9	829.9	829.9	829.9	829.9
2.5°	808.9	809.9	810.9	812.9	809.9
5°	737.9	735.9	739.9	736.9	734.9
7.5°	663.9	663.9	663.9	661.9	659.9
10°	574.9	574.9	572.9	573.9	571.9
12.5°	478.9	475.9	478.9	476.9	479.9
15°	395.9	397.9	401.9	399.9	392.9
17.5°	323.0	331.0	344.0	332.0	325.0
20°	257.0	272.0	293.0	272.0	258.0
22.5°	198.0	215.0	246.0	216.0	198.0
25°	138.0	160.0	200.0	162.0	143.0
27.5°	100.0	113.0	153.0	115.0	101.0
30°	71.0	82.0	107.0	84.0	73.0
32.5°	55.0	64.0	68.0	63.0	56.0
35°	45.0	49.0	44.0	49.0	47.0
37.5°	39.0	38.0	35.0	39.0	41.0
40°	34.0	31.0	29.0	32.0	36.0
42.5°	30.0	27.0	25.0	27.0	31.0
45°	24.0	22.0	21.0	23.0	26.0
47.5°	18.0	16.0	18.0	17.0	18.0
50°	16.0	11.0	14.0	11.0	16.0
52.5°	14.0	9.0	9.0	9.0	14.0
55°	13.0	8.0	4.0	8.0	13.0
57.5°	11.0	7.0	4.0	7.0	11.0
60°	10.0	6.0	3.0	6.0	10.0
62.5°	8.0	4.0	2.0	4.0	8.0
65°	6.0	3.0	2.0	3.0	6.0
67.5°	4.0	2.0	1.0	2.0	4.0
70°	3.0	2.0	1.0	2.0	3.0
72.5°	2.0	1.0	1.0	1.0	2.0
75°	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	0.0	0.0	1.0
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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