

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: P885669

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDSL-340LM-3000K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885669  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-137)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDSL-340LM-3000K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 288.2 lumens  
Efficiency: N/A  
Efficacy: 47.2 lumens/watt  
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.55  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

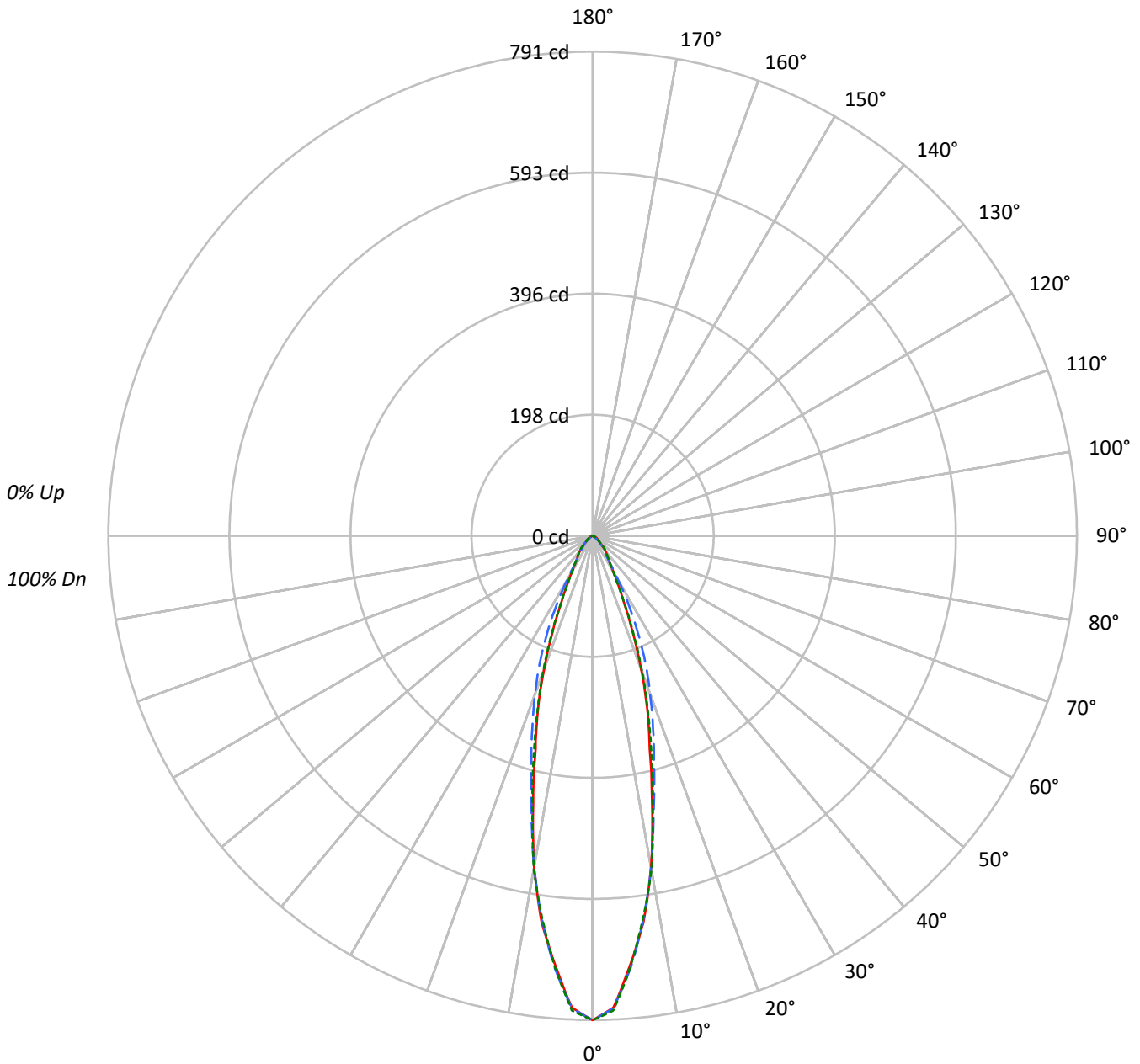
Input Watts (W): 6.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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					100			
1	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95					95			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89					89			
3	104	99	94	91	102	97	93	90	95	91	88	92	89	87	90	88	86	84					84			
4	100	93	88	85	98	92	88	84	90	86	83	88	85	82	86	83	81	80					80			
5	96	88	83	79	94	88	83	79	86	82	78	84	81	78	83	80	77	76					76			
6	92	84	79	75	91	83	78	75	82	78	74	81	77	74	79	76	73	72					72			
7	88	80	75	71	87	80	75	71	78	74	71	77	73	70	76	73	70	69					69			
8	85	77	71	68	84	76	71	68	75	71	67	74	70	67	73	70	67	66					66			
9	82	73	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63					63			
10	79	71	66	62	78	70	65	62	69	65	62	69	65	62	68	64	62	60					60			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1226683	1226683	1226683
5°	1094602	1103315	1100359
10°	865660	865660	870067
15°	577851	619894	595984
20°	381198	452126	388785
25°	209506	299123	214295
30°	118843	149091	115442
35°	81365	72661	83258
40°	66165	54834	68189
45°	45156	40991	45156
50°	31589	27008	31589
55°	25402	9999	25402
60°	20150	8680	20150
65°	13570	6969	13570
70°	8611	4079	8611
75°	5390	5390	5390
80°	8034	0	8034
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 45156 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.6	21.7
10°-20°	105.1	36.5
20°-30°	67.6	23.5
30°-40°	28.3	9.8
40°-50°	14.9	5.2
50°-60°	5.9	2.0
60°-70°	2.7	0.9
70°-80°	1.1	0.4
80°-90°	0.1	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
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0°-30°	235.2	81.6
0°-40°	263.6	91.5
0°-60°	284.3	98.7
0°-90°	288.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	288.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	704	704	709	705	707	63
15°	360	375	386	379	371	101
25°	122	136	175	139	125	59
35°	43	45	38	44	44	28
45°	21	19	19	20	21	16
55°	9	6	4	6	9	8
65°	4	3	2	3	4	4
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°	791.4	791.4	791.4	791.4	791.4
2.5°	771.7	773.6	772.7	773.6	776.4
5°	703.5	704.4	709.1	705.3	707.2
7.5°	637.0	633.3	633.3	634.2	630.5
10°	550.0	546.3	550.0	548.2	552.8
12.5°	448.1	453.7	460.2	458.4	453.7
15°	360.1	375.1	386.3	378.9	371.4
17.5°	296.5	305.9	327.4	310.6	299.3
20°	231.1	245.1	274.1	249.8	235.7
22.5°	172.1	189.9	225.4	192.7	175.9
25°	122.5	135.6	174.9	139.4	125.3
27.5°	89.8	98.2	128.2	100.1	87.0
30°	66.4	74.8	83.3	73.0	64.5
32.5°	51.4	58.0	52.4	56.1	52.4
35°	43.0	44.9	38.4	44.0	44.0
37.5°	37.4	34.6	31.8	34.6	38.4
40°	32.7	28.1	27.1	29.0	33.7
42.5°	27.1	24.3	22.5	24.3	28.1
45°	20.6	18.7	18.7	19.6	20.6
47.5°	15.0	12.2	15.9	13.1	15.9
50°	13.1	8.4	11.2	8.4	13.1
52.5°	11.2	7.5	6.5	7.5	11.2
55°	9.4	5.6	3.7	5.6	9.4
57.5°	7.5	4.7	2.8	4.7	7.5
60°	6.5	3.7	2.8	3.7	6.5
62.5°	4.7	2.8	1.9	3.7	4.7
65°	3.7	2.8	1.9	2.8	3.7
67.5°	2.8	1.9	0.9	1.9	2.8
70°	1.9	1.9	0.9	1.9	1.9
72.5°	1.9	0.9	0.9	0.9	1.9
75°	0.9	0.9	0.9	0.9	0.9
77.5°	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.0	0.9	0.9
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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