

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: P885656

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMBB-340LM-4000K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885656  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-141)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMBB-340LM-4000K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK BAFFLED TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

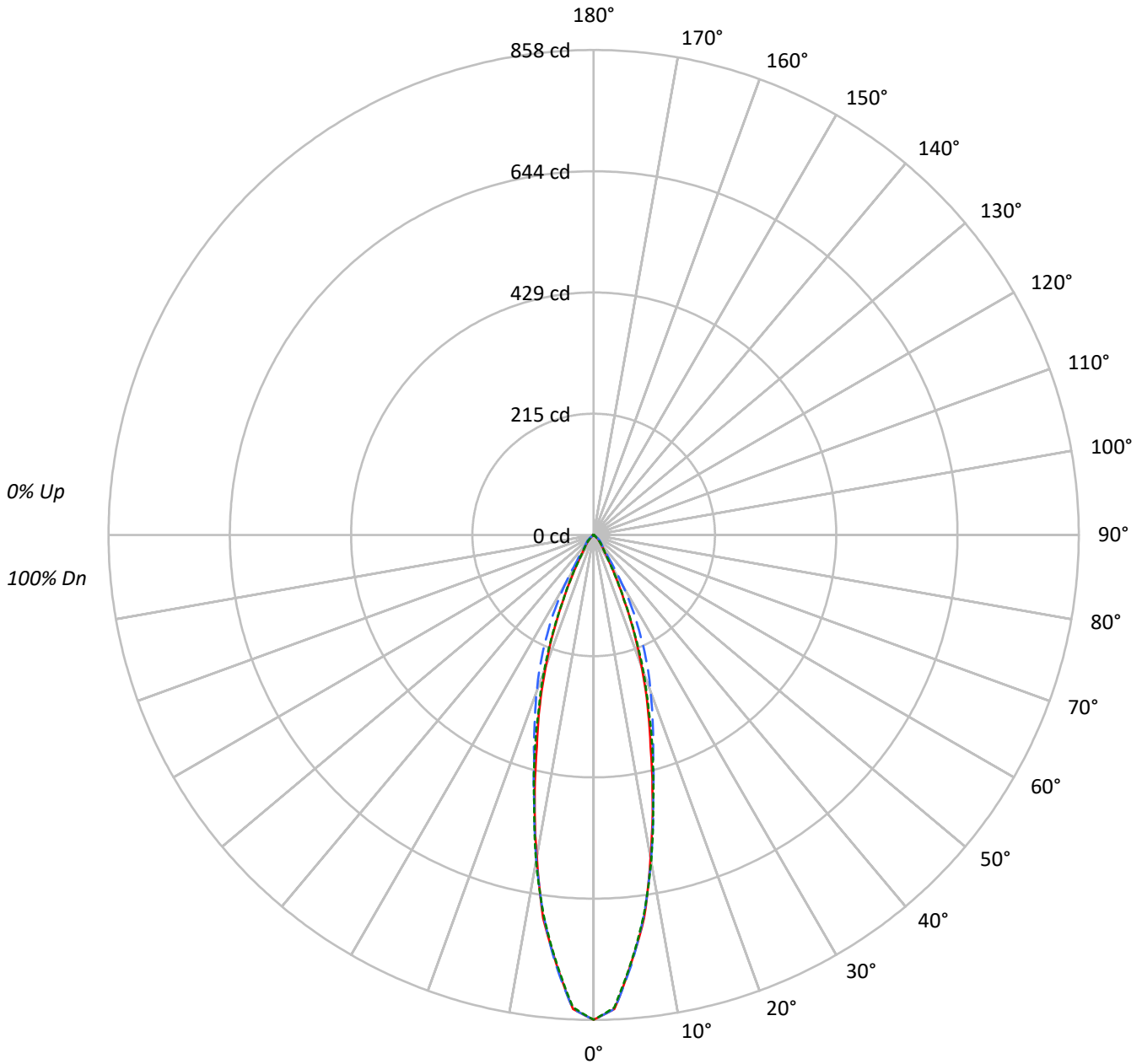
Lumens per Lamp: N/A  
Luminaire Lumens: 286.7 lumens  
Efficiency: N/A  
Efficacy: 47.0 lumens/watt  
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.55  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

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	100	99	98	97	95	
	1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95	94	92	91	91	91	
	2	110	106	102	100	108	104	101	98	101	99	96	98	96	94	95	94	92	91	91	90	88	87	87	87	
	3	106	100	96	93	104	99	95	92	96	93	91	94	92	89	92	90	88	87	87	86	84	83	83	83	
	4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	89	86	84	83	83	82	80	79	79	79	
	5	98	91	86	83	96	90	86	82	88	84	81	87	83	81	85	82	80	79	79	77	75	75	75	75	
	6	94	87	82	78	93	86	81	78	85	81	78	83	80	77	82	79	77	75	75	74	72	72	72	72	
	7	91	83	78	75	89	82	78	75	81	77	74	80	77	74	79	76	73	72	72	71	70	69	69	69	
	8	87	80	75	71	86	79	75	71	78	74	71	77	73	71	76	73	70	69	69	68	67	67	67	67	
	9	84	77	72	68	83	76	72	68	75	71	68	74	71	68	74	70	68	67	67	66	65	65	65	65	
	10	82	74	69	66	81	73	69	66	73	68	66	72	68	65	71	68	65	64	64	63	62	62	62	62	

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

	0°	45°	90°
0°	1329449	1329449	1329449
5°	1183757	1188736	1180489
10°	912248	918859	922164
15°	622301	652629	645890
20°	408414	484951	422435
25°	216176	333328	219939
30°	99871	181128	98081
35°	53928	65849	53928
40°	36219	44717	38445
45°	23017	34634	23017
50°	5064	25320	5064
55°	2973	2973	2973
60°	3410	0	3410
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: 34634 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	23.5
10°-20°	112.3	39.2
20°-30°	72.7	25.3
30°-40°	23.6	8.2
40°-50°	9.3	3.2
50°-60°	1.5	0.5
60°-70°	0.1	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°	252.2	88.0
0°-40°	275.8	96.2
0°-60°	286.6	100.0
0°-90°	286.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	286.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	761	764	764	759	759	67
15°	388	398	407	405	402	109
25°	126	152	195	153	129	61
35°	28	36	35	35	28	19
45°	10	12	16	13	10	7
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	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	857.7	857.7	857.7	857.7	857.7
2.5°	839.8	837.7	839.8	836.7	836.7
5°	760.8	764.0	764.0	758.7	758.7
7.5°	683.9	681.8	679.7	675.4	678.6
10°	579.6	577.4	583.8	586.9	585.9
12.5°	481.6	481.6	485.8	495.3	486.8
15°	387.8	398.3	406.7	404.6	402.5
17.5°	317.2	327.7	346.7	336.1	323.5
20°	247.6	266.6	294.0	270.8	256.1
22.5°	186.5	208.6	245.5	211.8	189.7
25°	126.4	151.7	194.9	152.8	128.6
27.5°	83.2	100.1	148.6	103.3	85.4
30°	55.8	69.5	101.2	68.5	54.8
32.5°	36.9	50.6	59.0	49.5	37.9
35°	28.5	35.8	34.8	34.8	28.5
37.5°	22.1	26.3	26.3	25.3	23.2
40°	17.9	19.0	22.1	19.0	19.0
42.5°	13.7	15.8	19.0	15.8	14.8
45°	10.5	11.6	15.8	12.6	10.5
47.5°	3.2	7.4	13.7	7.4	3.2
50°	2.1	2.1	10.5	2.1	2.1
52.5°	2.1	1.1	5.3	1.1	2.1
55°	1.1	1.1	1.1	1.1	1.1
57.5°	1.1	1.1	1.1	1.1	1.1
60°	1.1	0.0	0.0	1.1	1.1
62.5°	1.1	0.0	0.0	0.0	1.1
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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