

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: P885658

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-2700K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P885658  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-136)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-2700K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

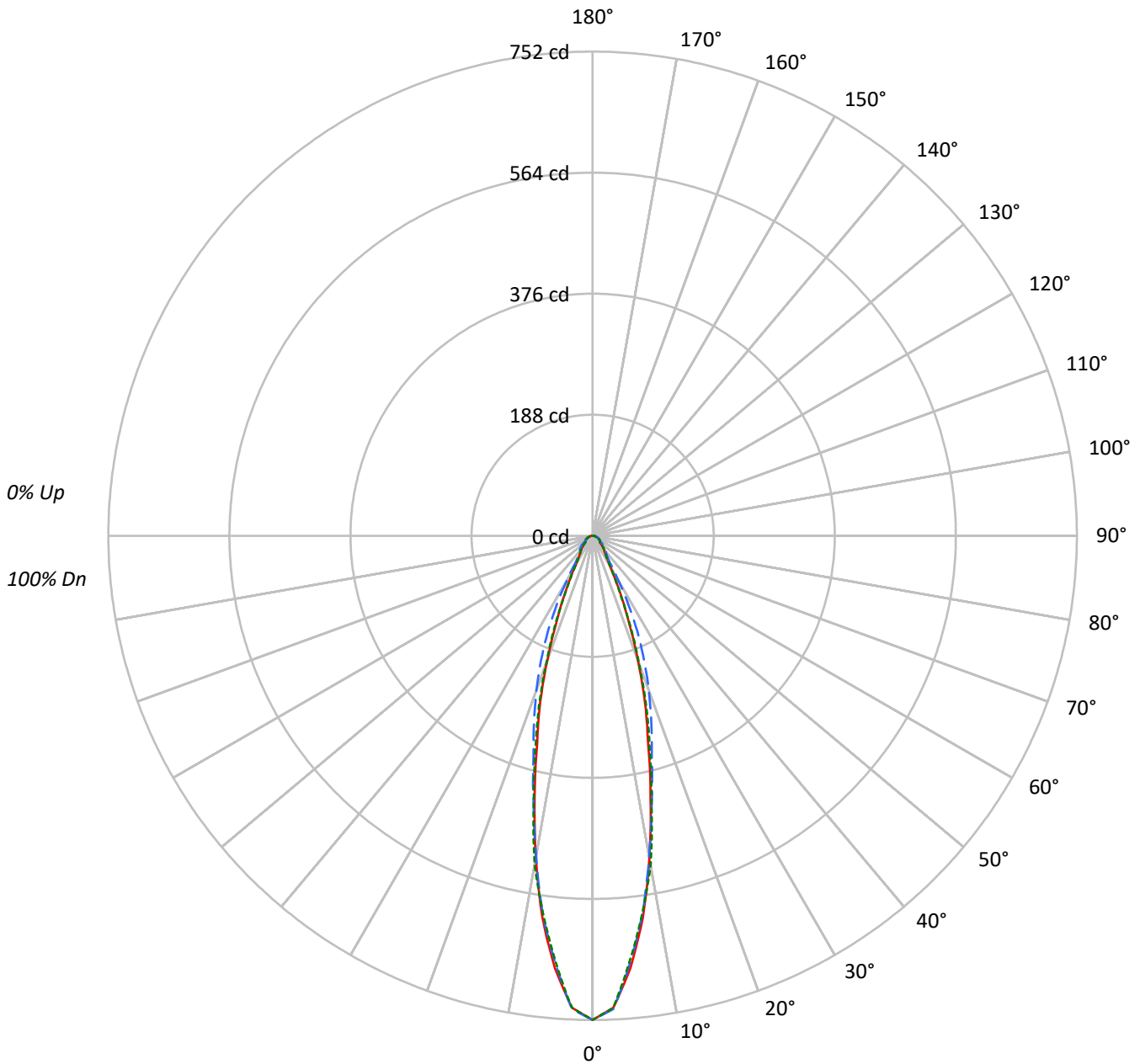
Lumens per Lamp: N/A  
Luminaire Lumens: 289.8 lumens  
Efficiency: N/A  
Efficacy: 47.5 lumens/watt  
Spacing Criteria (0/90/45): 0.45 / 0.46 / 0.55  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

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	98	97	97	95	94	92
	1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92	92	91	89	87	86	86	
	2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86	86	87	84	82	80	80	
	3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	82	80	80	82	79	77	75	75	
	4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	77	75	75	79	75	72	71	71	
	5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	75	71	68	67	67	
	6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67	67	72	68	65	64	64	
	7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64	64	69	65	62	61	61	
	8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61	61	66	62	59	58	58	
	9	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58	58	64	60	57	56	56	
	10	76	67	61	58	75	66	61	58	65	61	57	65	60	57	64	60	57	56	56	64	60	57	56	56	

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

	0°	45°	90°
0°	1165457	1165457	1165457
5°	1048235	1037032	1031431
10°	798454	795620	816868
15°	532598	568704	549929
20°	338311	419796	345734
25°	184536	281508	179919
30°	95039	141753	95039
35°	64714	74932	66417
40°	54632	63737	56453
45°	41430	57213	43403
50°	34724	49916	34724
55°	36482	36482	36482
60°	39060	36270	39060
65°	36310	36310	36310
70°	36709	36709	36709
75°	32340	32340	32340
80°	32134	32134	32134
85°	32012	16006	32012

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 57213 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	20.3
10°-20°	96.7	33.4
20°-30°	61.1	21.1
30°-40°	25.9	8.9
40°-50°	17.3	6.0
50°-60°	12.3	4.3
60°-70°	10.0	3.4
70°-80°	5.9	2.0
80°-90°	1.9	0.7
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°	216.6	74.7
0°-40°	242.4	83.6
0°-60°	272.0	93.9
0°-90°	289.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	289.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	674	668	666	661	663	59
15°	332	342	354	347	343	93
25°	108	123	165	125	105	51
35°	34	40	40	40	35	23
45°	19	22	26	22	20	15
55°	14	14	14	14	14	12
65°	10	10	10	10	10	10
75°	5	5	5	5	5	6
85°	2	2	1	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	751.9	751.9	751.9	751.9	751.9
2.5°	733.9	733.9	735.7	733.9	733.9
5°	673.7	668.3	666.5	661.1	662.9
7.5°	598.1	596.3	592.7	592.7	590.9
10°	507.3	509.1	505.5	510.9	519.0
12.5°	415.5	416.4	423.6	427.2	422.7
15°	331.9	341.8	354.4	347.2	342.7
17.5°	269.8	279.7	302.2	284.2	277.0
20°	205.1	224.0	254.5	228.5	209.6
22.5°	149.3	172.7	208.7	174.5	155.6
25°	107.9	123.2	164.6	125.0	105.2
27.5°	75.6	88.1	119.6	89.0	74.7
30°	53.1	66.6	79.2	64.8	53.1
32.5°	41.4	52.2	50.4	50.4	40.5
35°	34.2	40.5	39.6	39.6	35.1
37.5°	29.7	32.4	35.1	33.3	30.6
40°	27.0	28.8	31.5	28.8	27.9
42.5°	23.4	26.1	28.8	26.1	24.3
45°	18.9	22.5	26.1	22.5	19.8
47.5°	15.3	17.1	24.3	18.0	15.3
50°	14.4	14.4	20.7	14.4	14.4
52.5°	14.4	14.4	16.2	14.4	14.4
55°	13.5	13.5	13.5	13.5	13.5
57.5°	12.6	12.6	12.6	12.6	12.6
60°	12.6	12.6	11.7	12.6	12.6
62.5°	10.8	11.7	10.8	11.7	10.8
65°	9.9	9.9	9.9	9.9	9.9
67.5°	9.0	9.0	9.0	9.0	9.0
70°	8.1	8.1	8.1	8.1	8.1
72.5°	6.3	6.3	6.3	7.2	6.3
75°	5.4	5.4	5.4	5.4	5.4
77.5°	4.5	4.5	4.5	4.5	4.5
80°	3.6	3.6	3.6	3.6	3.6
82.5°	2.7	2.7	2.7	2.7	2.7
85°	1.8	1.8	0.9	1.8	1.8
87.5°	0.9	0.9	0.9	0.9	0.9
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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