

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: P886057

Luminaire Tested: ML104LSFLD2W1E-TIR1D55WFL-TL1SDSL-200LM-4000K

Issue Date: 6/19/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886057  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-149)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFLD2W1E-TIR1D55WFL-TL1SDSL-200LM-4000K  
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM  
Light Source: (1) D2W LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

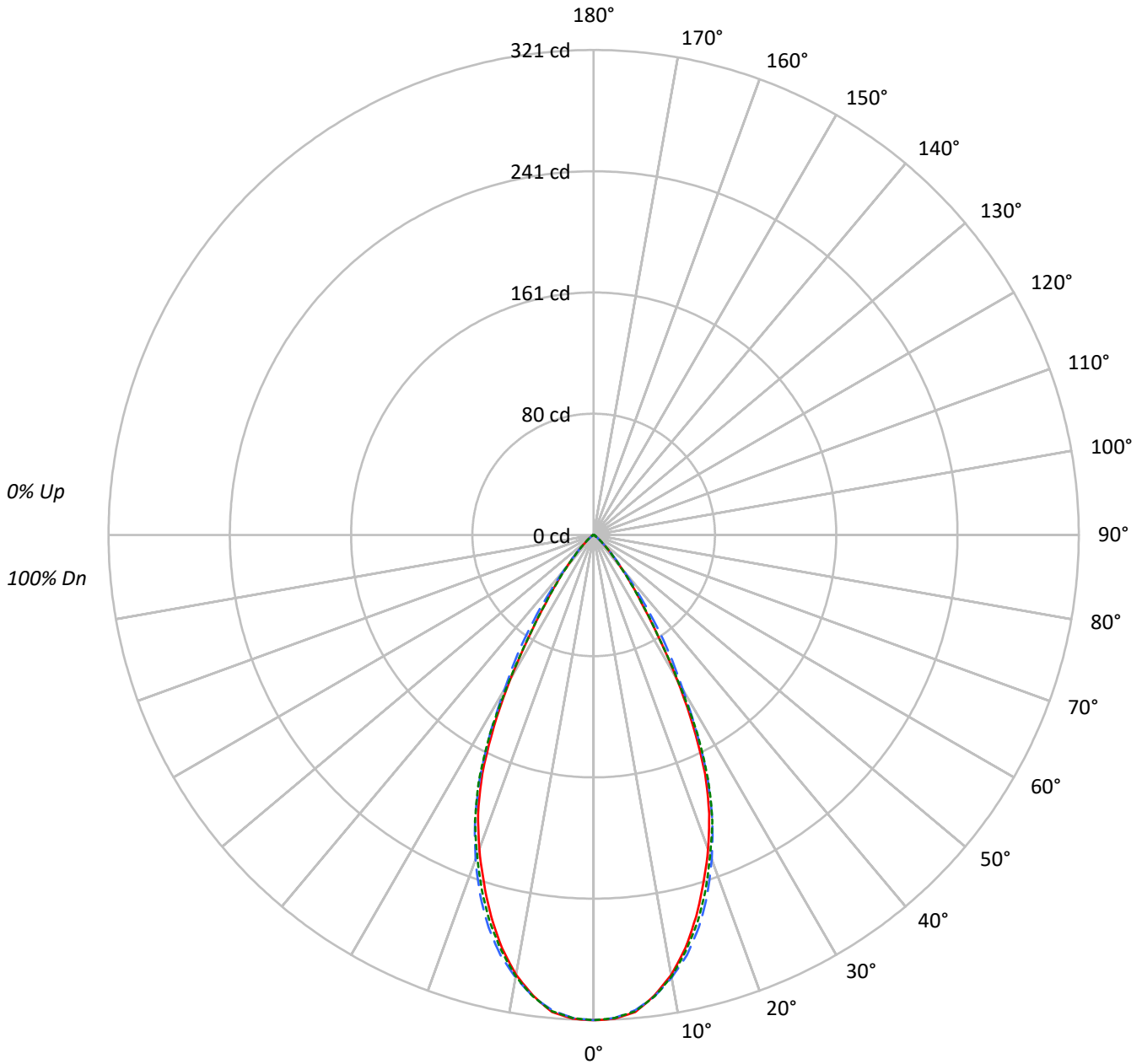
Lumens per Lamp: N/A  
Luminaire Lumens: 236.0 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.83 / 0.8  
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.2  
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									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	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	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88																			
3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84	82																			
4	98	91	86	82	97	90	85	81	88	84	81	86	82	80	84	81	79	77																			
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	72																			
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68																			
7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64																			
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61																			
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	61	58	57																			
10	74	65	60	56	73	65	59	56	64	59	56	63	59	56	62	58	55	54																			

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

	0°	45°	90°
0°	497865	497865	497865
5°	493232	491365	492298
10°	465253	468086	467142
15°	419949	431342	425726
20°	365033	376744	371796
25°	298097	305109	307162
30°	196878	209765	200100
35°	104640	130563	106910
40°	56655	61309	55441
45°	27401	27401	26085
50°	13022	10128	13022
55°	6486	4864	6486
60°	3720	1860	3720
65°	2201	2201	2201
70°	2719	2719	2719
75°	3593	0	3593
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 27401 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.5	12.5
10°-20°	73.9	31.3
20°-30°	79.5	33.7
30°-40°	39.7	16.8
40°-50°	10.4	4.4
50°-60°	2.1	0.9
60°-70°	0.7	0.3
70°-80°	0.2	0.1
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°	182.9	77.5
0°-40°	222.6	94.3
0°-60°	235.1	99.6
0°-90°	236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	236.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	321	321	321	321	321	
5°	317	315	316	316	316	30
15°	262	264	269	267	265	73
25°	174	177	178	180	180	77
35°	55	60	69	60	56	37
45°	12	12	12	12	12	11
55°	2	2	2	2	2	2
65°	1	1	1	1	1	1
75°	1	0	0	0	1	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°	321.2	321.2	321.2	321.2	321.2
2.5°	320.6	320.0	320.0	320.6	320.0
5°	317.0	315.2	315.8	316.4	316.4
7.5°	307.5	307.5	308.1	308.7	308.1
10°	295.6	296.2	297.4	298.0	296.8
12.5°	280.1	281.3	284.9	283.7	281.9
15°	261.7	264.1	268.8	267.0	265.3
17.5°	241.5	245.0	249.8	248.6	246.2
20°	221.3	223.6	228.4	228.4	225.4
22.5°	199.8	202.2	205.2	206.4	205.2
25°	174.3	176.6	178.4	180.2	179.6
27.5°	142.7	146.9	148.1	149.9	148.7
30°	110.0	113.6	117.2	116.6	111.8
32.5°	78.5	82.7	93.4	85.6	79.1
35°	55.3	59.5	69.0	59.5	56.5
37.5°	40.4	39.8	47.0	40.4	39.8
40°	28.0	28.5	30.3	28.0	27.4
42.5°	19.0	18.4	19.6	19.0	18.4
45°	12.5	11.9	12.5	11.9	11.9
47.5°	7.7	7.1	7.1	7.1	7.7
50°	5.4	4.8	4.2	4.8	5.4
52.5°	3.6	3.0	3.0	3.0	3.6
55°	2.4	1.8	1.8	2.4	2.4
57.5°	1.8	1.2	1.2	1.2	1.8
60°	1.2	1.2	0.6	1.2	1.2
62.5°	1.2	0.6	0.6	0.6	1.2
65°	0.6	0.6	0.6	0.6	0.6
67.5°	0.6	0.6	0.6	0.6	0.6
70°	0.6	0.6	0.6	0.6	0.6
72.5°	0.6	0.6	0.0	0.6	0.6
75°	0.6	0.0	0.0	0.0	0.6
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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