

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: P885951

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1RDSL-400LM-4000K

Issue Date: 6/19/2024

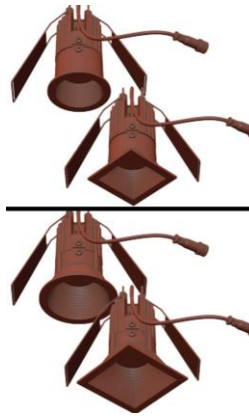
**Test Information**

Test Method: LM-79-2019  
Report Number: P885951  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-131)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/19/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1RDSL-400LM-4000K  
Description: 1IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 455.2 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 0.8 / 0.8 / 0.77  
Luminous Opening: Circular (Dia: 0.08' x H: 0')  
CIE Type: Direct

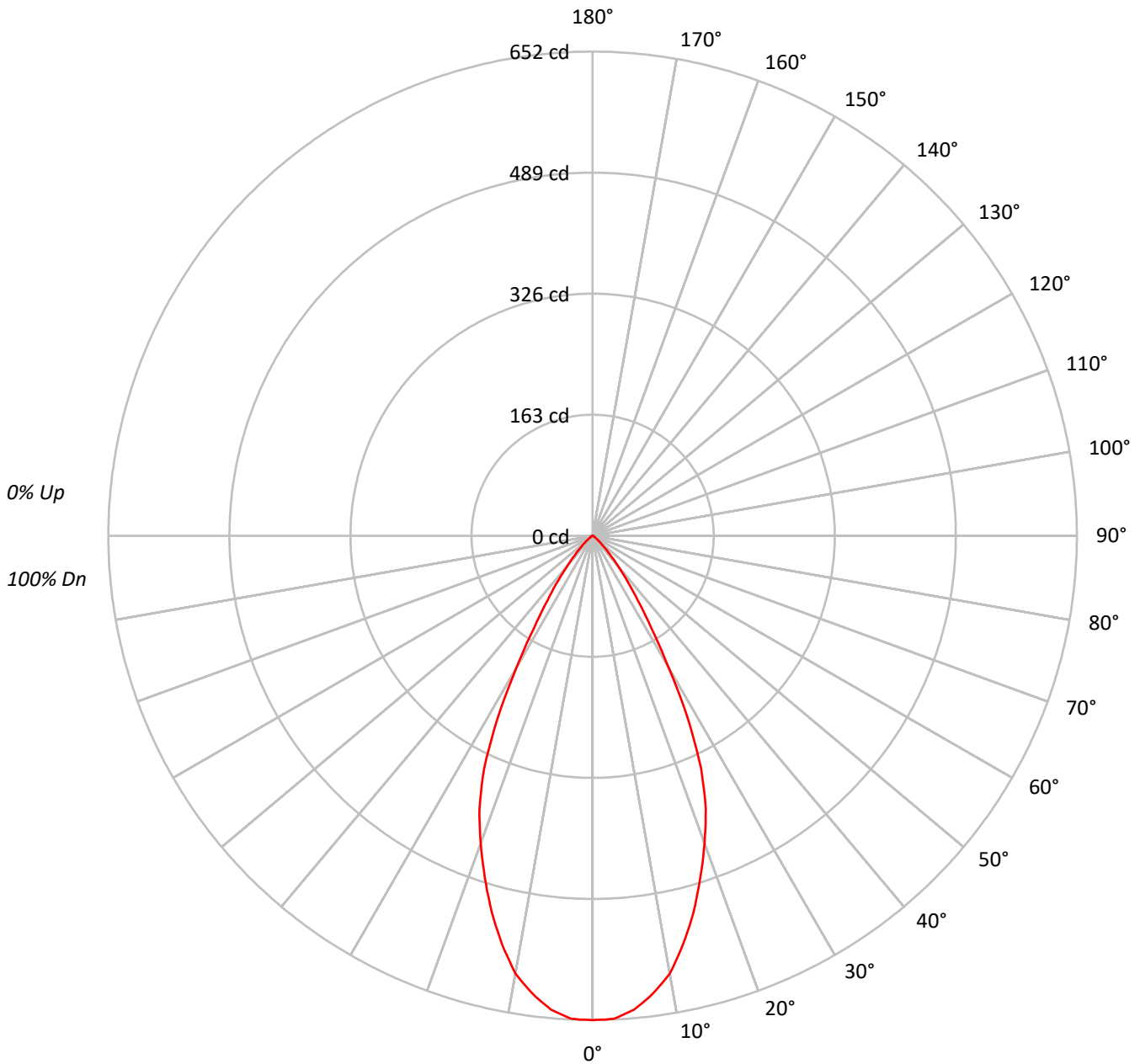
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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	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	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88			
3	103	97	93	89	101	96	92	88	93	90	87	91	88	85	89	86	84	83			
4	99	91	86	82	97	90	85	82	88	84	81	86	83	80	84	81	79	77			
5	94	86	81	76	92	85	80	76	83	79	75	82	78	75	80	77	74	73			
6	90	81	76	72	88	80	75	71	79	74	71	78	73	70	76	73	70	68			
7	86	77	71	67	84	76	71	67	75	70	67	74	69	66	73	69	66	65			
8	82	73	67	63	81	72	67	63	71	66	63	70	66	63	69	65	62	61			
9	78	69	63	60	77	69	63	60	68	63	59	67	62	59	66	62	59	58			
10	75	66	60	57	74	65	60	56	64	60	56	64	59	56	63	59	56	55			

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

	0°
0°	1287341
5°	1269080
10°	1199386
15°	1072047
20°	924928
25°	752348
30°	464430
35°	253935
40°	135770
45°	65310
50°	32238
55°	16172
60°	9078
65°	10741
70°	6924
75°	9150
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 65310 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	13.1
10°-20°	145.8	32.0
20°-30°	152.2	33.4
30°-40°	69.8	15.3
40°-50°	20.2	4.4
50°-60°	4.8	1.0
60°-70°	1.9	0.4
70°-80°	0.8	0.2
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°	357.8	78.6
0°-40°	427.6	93.9
0°-60°	452.6	99.4
0°-90°	455.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	455.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	652	
5°	641	60
15°	525	146
25°	346	152
35°	105	70
45°	23	20
55°	5	5
65°	2	2
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	652.3
2.5°	651.2
5°	640.6
7.5°	621.9
10°	598.5
12.5°	563.3
15°	524.7
17.5°	482.5
20°	440.4
22.5°	398.2
25°	345.5
27.5°	277.6
30°	203.8
32.5°	146.4
35°	105.4
37.5°	76.1
40°	52.7
42.5°	36.3
45°	23.4
47.5°	15.2
50°	10.5
52.5°	7.0
55°	4.7
57.5°	3.5
60°	2.3
62.5°	2.3
65°	2.3
67.5°	1.2
70°	1.2
72.5°	1.2
75°	1.2
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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Scaled Data Report



(END OF REPORT)