

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: P887120

Luminaire Tested: ML412LSFLD2W1E-TIR4D55WFL-TL4RDSL-600LM-2700K

Issue Date: 7/9/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P887120  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-43)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/9/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML412LSFLD2W1E-TIR4D55WFL-TL4RDSL-600LM-2700K  
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM  
Light Source: (1) D2W LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

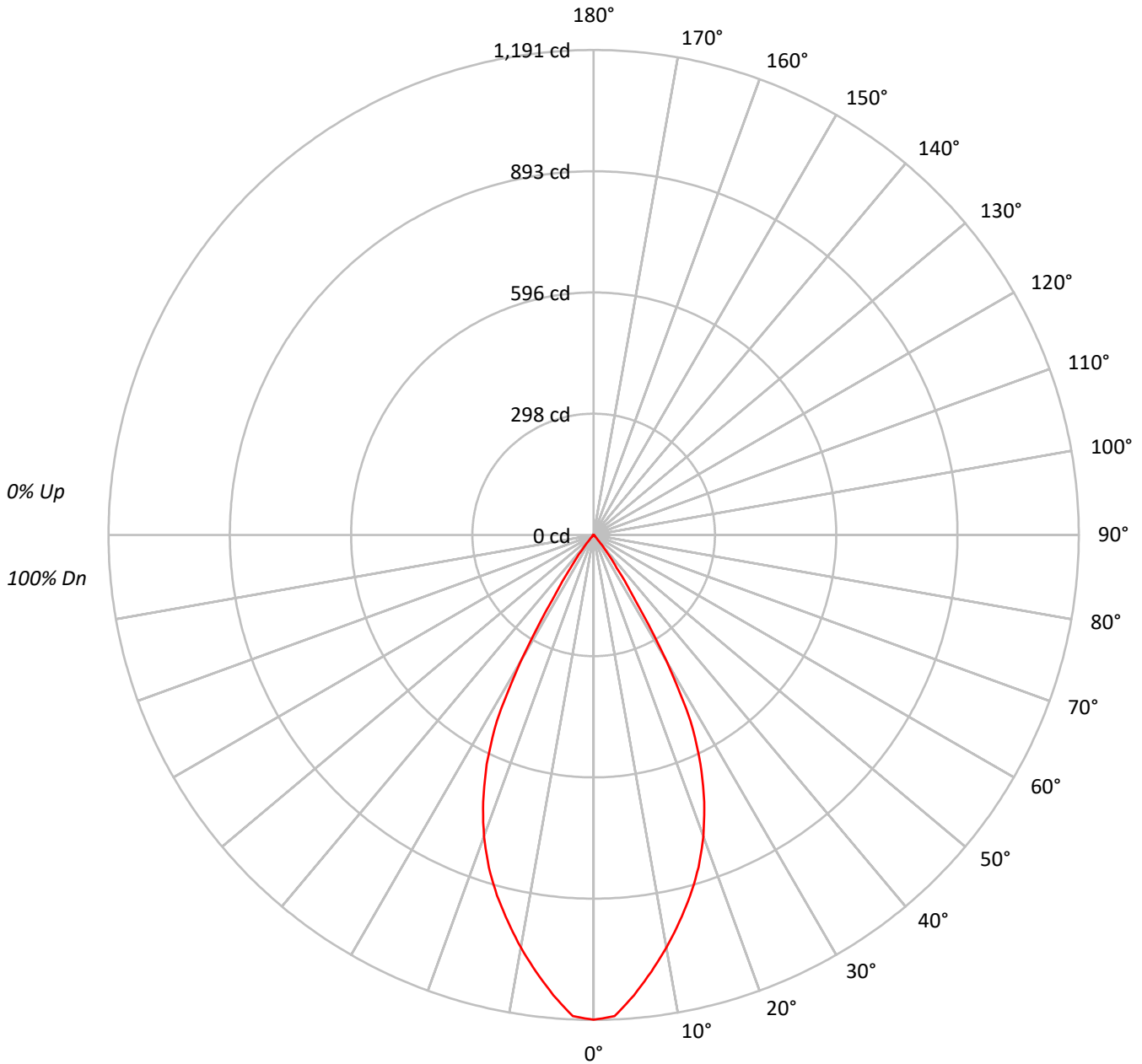
Lumens per Lamp: N/A  
Luminaire Lumens: 721.9 lumens  
Efficiency: N/A  
Efficacy: 76.8 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.77  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	112	109	107	112	109	107	106	105	104	102	102	101	99	98	97	96	95																			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	90																			
3	105	99	94	91	103	98	94	90	95	92	89	93	90	87	90	88	86	85																			
4	100	93	89	85	98	92	88	84	90	86	83	88	85	82	87	84	81	80																			
5	96	88	83	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76																			
6	92	84	79	75	90	83	78	75	82	77	74	80	77	74	79	76	73	72																			
7	88	80	74	71	87	79	74	71	78	73	70	77	73	70	76	72	69	68																			
8	84	76	71	67	83	75	70	67	74	70	67	73	69	66	72	69	66	65																			
9	81	72	67	64	80	72	67	64	71	66	63	70	66	63	69	66	63	62																			
10	78	69	64	61	77	69	64	60	68	63	60	67	63	60	67	63	60	59																			

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

	0°
0°	146855
5°	140483
10°	128893
15°	117034
20°	103355
25°	84489
30°	50619
35°	14952
40°	3236
45°	802
50°	595
55°	452
60°	370
65°	292
70°	180
75°	238
80°	355
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 802 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.0	14.5
10°-20°	255.5	35.4
20°-30°	274.0	38.0
30°-40°	78.7	10.9
40°-50°	5.0	0.7
50°-60°	2.0	0.3
60°-70°	1.1	0.2
70°-80°	0.5	0.1
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
0°-30°	634.4	87.9
0°-40°	713.2	98.8
0°-60°	720.2	99.8
0°-90°	721.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	721.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1191	
5°	1135	105
15°	916	255
25°	621	274
35°	99	79
45°	5	5
55°	2	2
65°	1	1
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1190.6
2.5°	1182.9
5°	1134.6
7.5°	1082.1
10°	1029.1
12.5°	973.1
15°	916.5
17.5°	855.8
20°	787.4
22.5°	709.2
25°	620.8
27.5°	514.8
30°	355.4
32.5°	189.3
35°	99.3
37.5°	49.4
40°	20.1
42.5°	6.7
45°	4.6
47.5°	3.6
50°	3.1
52.5°	2.6
55°	2.1
57.5°	2.1
60°	1.5
62.5°	1.5
65°	1.0
67.5°	1.0
70°	0.5
72.5°	0.5
75°	0.5
77.5°	0.5
80°	0.5
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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(END OF REPORT)