

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: P887095

Luminaire Tested: ML412LSFLD2W1E-TIR4D25NFL-TL4RDMW-600LM-3000K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P887095  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML412LSFLD2W1E-TIR4D25NFL-TL4RDMW-600LM-3000K  
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM  
Light Source: (1) D2W LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

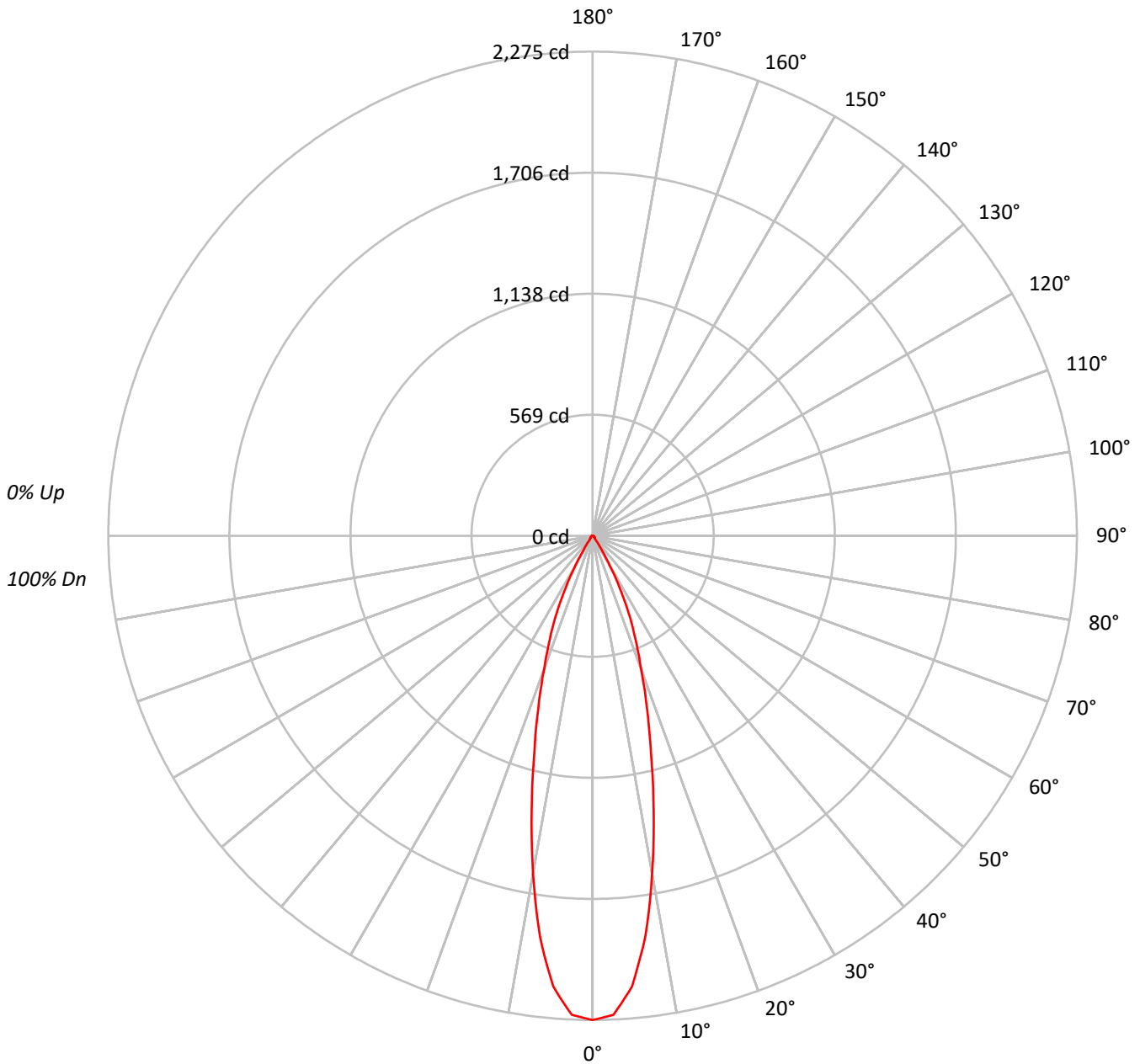
Lumens per Lamp: N/A  
Luminaire Lumens: 733.1 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.51  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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				100															
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95				95															
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90				90															
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86				86															
4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82				82															
5	98	91	86	83	96	90	86	82	88	84	82	87	83	81	85	82	80	79				79															
6	94	87	82	79	93	86	82	78	85	81	78	84	80	77	82	79	77	76				76															
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73				73															
8	88	80	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70				70															
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68				68															
10	82	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	66	65				65															

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

	0°
0°	280636
5°	263111
10°	201788
15°	134976
20°	87250
25°	54520
30°	22746
35°	6656
40°	2753
45°	2320
50°	2341
55°	2387
60°	2319
65°	2422
70°	2380
75°	2383
80°	2344
85°	2406

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 87.5°  
 Luminance: 3111 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	186.0	25.4
10°-20°	295.8	40.3
20°-30°	179.1	24.4
30°-40°	36.3	5.0
40°-50°	10.6	1.4
50°-60°	9.8	1.3
60°-70°	8.1	1.1
70°-80°	5.4	0.7
80°-90°	2.0	0.3
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°	660.9	90.1
0°-40°	697.2	95.1
0°-60°	717.6	97.9
0°-90°	733.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	733.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2275	
5°	2125	186
15°	1057	296
25°	401	179
35°	44	36
45°	13	11
55°	11	10
65°	8	8
75°	5	5
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2275.2
2.5°	2253.1
5°	2125.0
7.5°	1899.0
10°	1611.1
12.5°	1323.8
15°	1057.0
17.5°	848.1
20°	664.7
22.5°	523.2
25°	400.6
27.5°	270.7
30°	159.7
32.5°	86.7
35°	44.2
37.5°	22.7
40°	17.1
42.5°	14.9
45°	13.3
47.5°	12.2
50°	12.2
52.5°	11.6
55°	11.1
57.5°	10.5
60°	9.4
62.5°	8.8
65°	8.3
67.5°	7.7
70°	6.6
72.5°	6.1
75°	5.0
77.5°	4.4
80°	3.3
82.5°	2.8
85°	1.7
87.5°	1.1
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)