

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: P887054

Luminaire Tested: ML412LSFL9FS1E-TIR4D55WFL-TL4RDMB-1200LM-5000K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P887054
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-44)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/9/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL9FS1E-TIR4D55WFL-TL4RDMB-1200LM-5000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1564.6 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.83 / 0.79
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

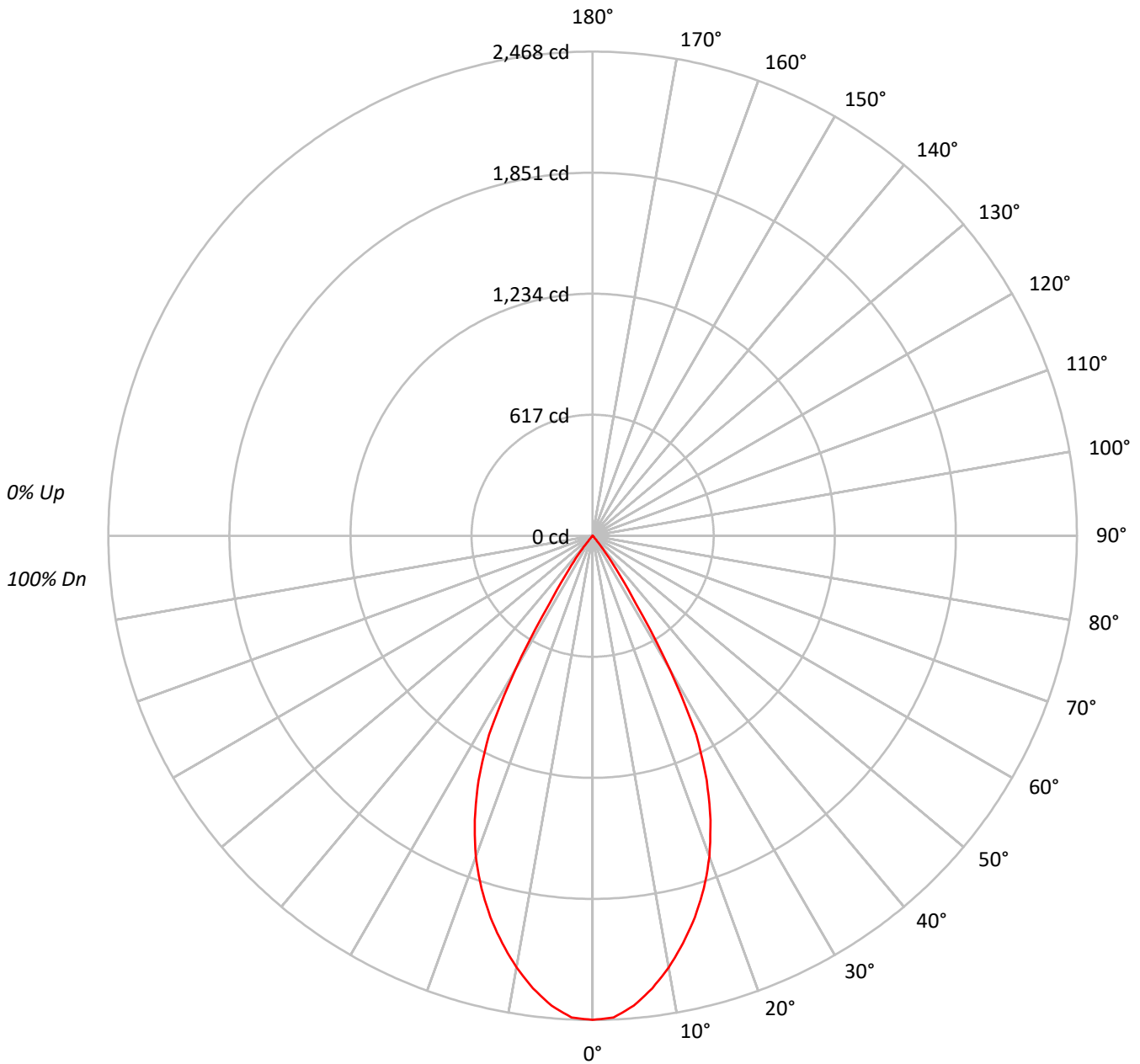
Input Watts (W): 17.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	110	108	106	106	104	103	102	101	99	98	97	97	95																			
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90																			
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	86	85																			
4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82	80																			
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76																			
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72																			
7	88	80	75	71	87	79	74	71	78	74	71	77	73	70	76	73	70	69																			
8	85	76	71	67	84	76	71	67	75	70	67	74	70	67	73	69	66	65																			
9	81	73	67	64	80	72	67	64	71	67	64	71	66	63	70	66	63	62																			
10	78	69	64	61	77	69	64	61	68	64	61	68	63	60	67	63	60	59																			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	304368
5°	297742
10°	279868
15°	257054
20°	228435
25°	187188
30°	112062
35°	31410
40°	5442
45°	209
50°	0
55°	0
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 47.5°
 Luminance: 219 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.0	14.3
10°-20°	560.7	35.8
20°-30°	606.9	38.8
30°-40°	168.6	10.8
40°-50°	4.4	0.3
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	1391.7	88.9
0°-40°	1560.2	99.7
0°-60°	1564.6	100.0
0°-90°	1564.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1564.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2468	
5°	2405	224
15°	2013	561
25°	1375	607
35°	209	169
45°	1	4
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2467.6
2.5°	2457.2
5°	2404.7
7.5°	2326.6
10°	2234.5
12.5°	2127.3
15°	2013.0
17.5°	1884.8
20°	1740.3
22.5°	1568.9
25°	1375.4
27.5°	1143.5
30°	786.8
32.5°	410.3
35°	208.6
37.5°	99.1
40°	33.8
42.5°	4.7
45°	1.2
47.5°	1.2
50°	0.0
52.5°	0.0
55°	0.0
57.5°	0.0
60°	0.0
62.5°	0.0
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
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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