

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: P887052

Luminaire Tested: ML412LSFL9FS1E-TIR4D55WFL-TL4RDMB-1200LM-3500K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P887052
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-3500K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1431.9 lumens
Efficiency: N/A
Efficacy: 81.4 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

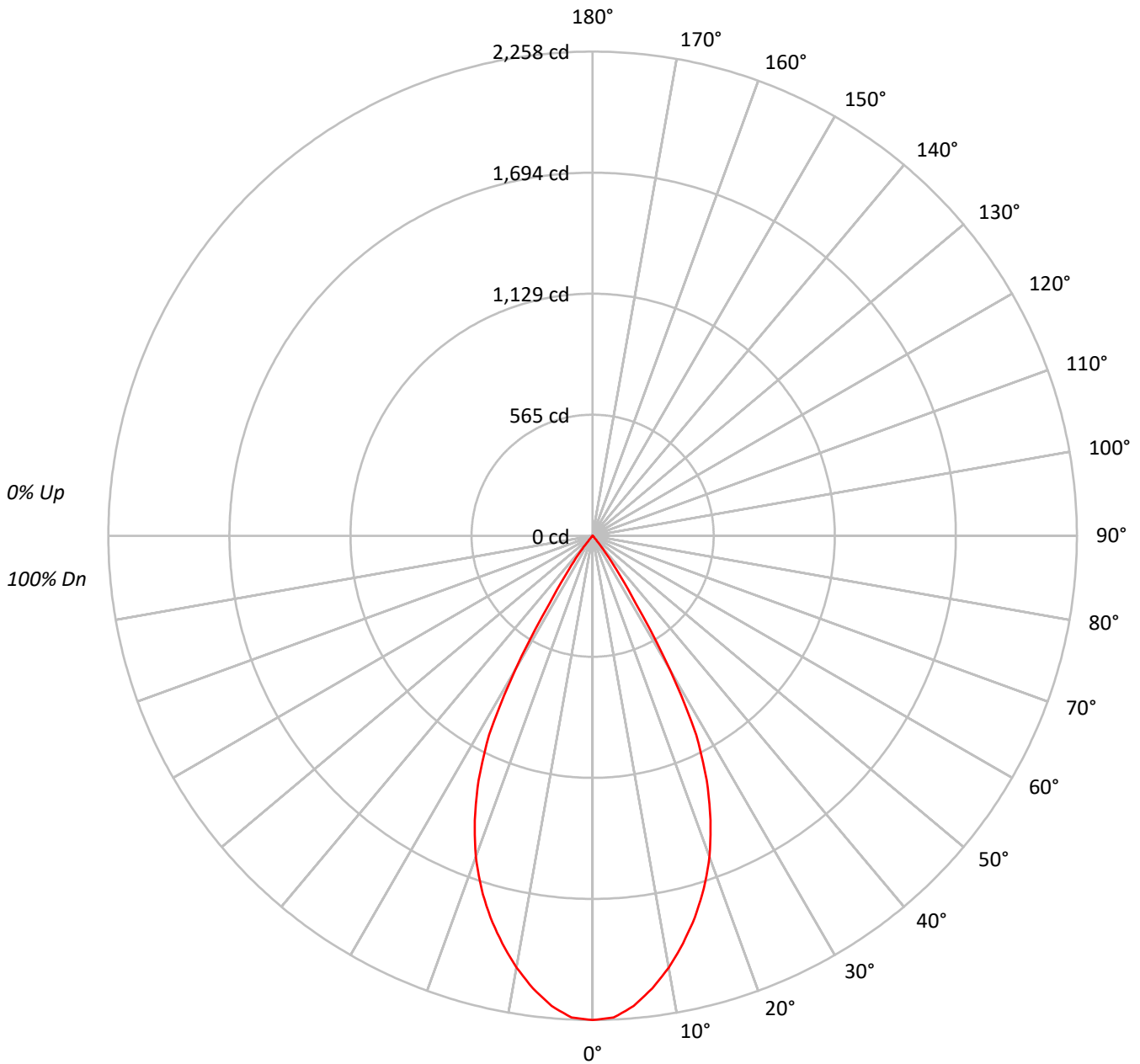
Input Watts (W): 17.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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			100
1	114	112	109	107	112	110	108	106	106	104	103	102	101	99	98	97	97	95			95
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90			90
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	86	85			85
4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82	80			80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76			76
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72			72
7	88	80	75	71	87	79	74	71	78	74	71	77	73	70	76	73	70	69			69
8	85	76	71	67	84	76	71	67	75	70	67	74	70	67	73	69	66	65			65
9	81	73	67	64	80	72	67	64	71	67	64	71	66	63	70	66	63	62			62
10	78	69	64	61	77	69	64	61	68	64	61	68	63	60	67	63	60	59			59

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	278551
5°	272484
10°	256121
15°	235243
20°	209047
25°	171305
30°	102548
35°	28745
40°	4975
45°	192
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: 201 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.0	14.3
10°-20°	513.2	35.8
20°-30°	555.4	38.8
30°-40°	154.3	10.8
40°-50°	4.0	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°	1273.6	88.9
0°-40°	1427.9	99.7
0°-60°	1431.9	100.0
0°-90°	1431.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2258	
5°	2201	205
15°	1842	513
25°	1259	555
35°	191	154
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°	2258.3
2.5°	2248.7
5°	2200.7
7.5°	2129.2
10°	2044.9
12.5°	1946.8
15°	1842.2
17.5°	1724.9
20°	1592.6
22.5°	1435.8
25°	1258.7
27.5°	1046.5
30°	720.0
32.5°	375.5
35°	190.9
37.5°	90.7
40°	30.9
42.5°	4.3
45°	1.1
47.5°	1.1
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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