

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: P887062

Luminaire Tested: ML412LSFL9FS1E-TIR4D55WFL-TL4RDSL-1200LM-3500K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P887062
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: ML412LSFL9FS1E-TIR4D55WFL-TL4RDSL-1200LM-3500K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

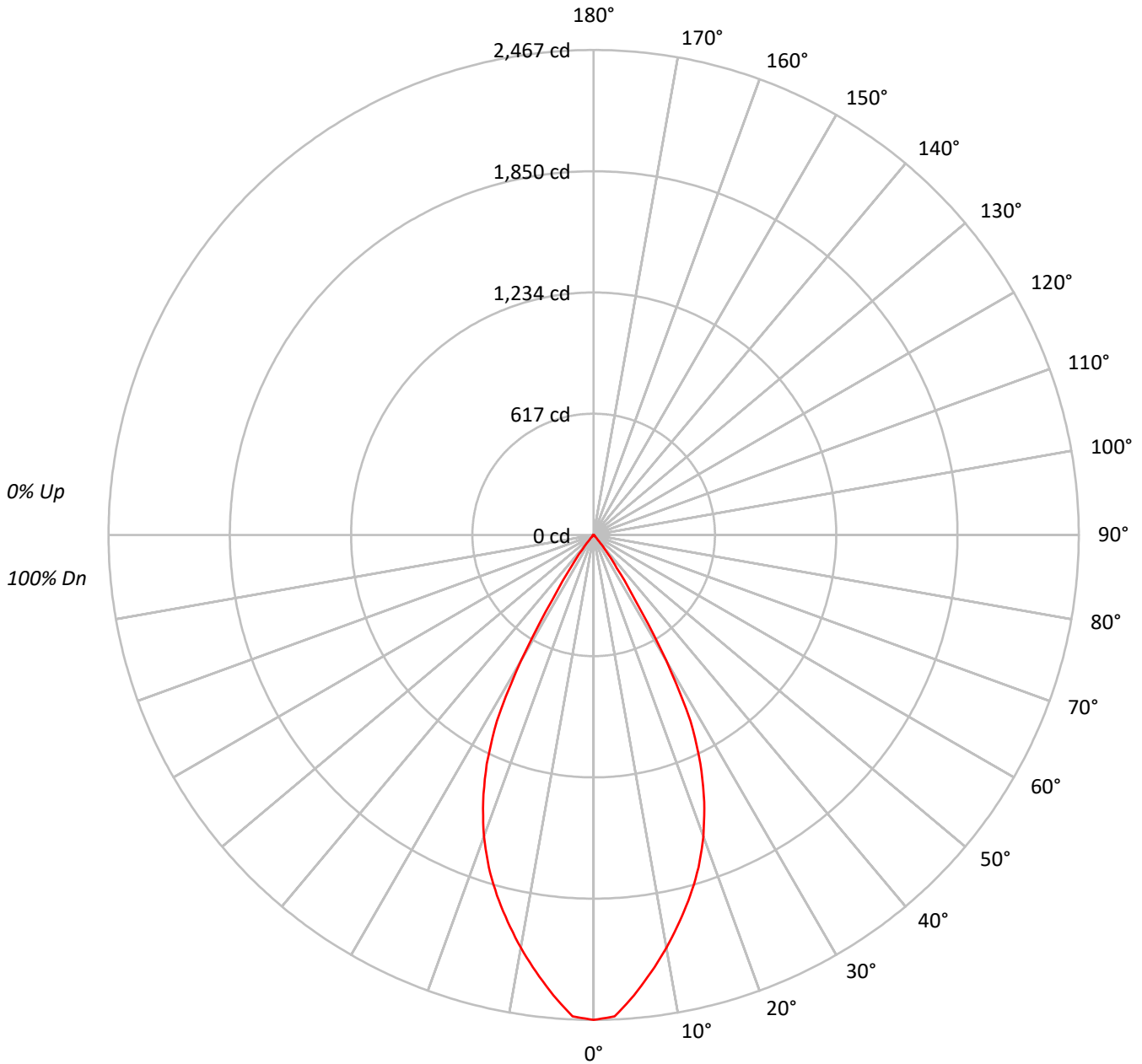
Lumens per Lamp: N/A
Luminaire Lumens: 1495.9 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.77
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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



TEST NUMBER: P887062
CATALOG NUMBER: ML412LSFL9FS1E-TIR4D55WFL-TL4RDSL-1200LM-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P887062

CATALOG NUMBER: ML412LSFL9FS1E-TIR4D55WFL-TL4RDSL-1200LM-3500K

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	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	93	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	60	77	69	64	60	68	63	60	67	63	60	67	63	60	59			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	304306
5°	291093
10°	267092
15°	242509
20°	214167
25°	175061
30°	104883
35°	30974
40°	6698
45°	1675
50°	1228
55°	925
60°	789
65°	613
70°	397
75°	524
80°	781
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1675 cd/sqm



TEST NUMBER: P887062

CATALOG NUMBER: ML412LSFL9FS1E-TIR4D55WFL-TL4RDSL-1200LM-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.5	14.5
10°-20°	529.4	35.4
20°-30°	567.7	38.0
30°-40°	163.1	10.9
40°-50°	10.4	0.7
50°-60°	4.2	0.3
60°-70°	2.4	0.2
70°-80°	1.2	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°	1314.6	87.9
0°-40°	1477.7	98.8
0°-60°	1492.2	99.8
0°-90°	1495.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1495.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2467	
5°	2351	218
15°	1899	529
25°	1286	568
35°	206	163
45°	10	10
55°	4	4
65°	2	2
75°	1	1
85°	0	0
90°	0	



TEST NUMBER: P887062

CATALOG NUMBER: ML412LSFL9FS1E-TIR4D55WFL-TL4RDSL-1200LM-3500K

CANDELA DISTRIBUTION (FULL):

0°	
0°	2467.1
2.5°	2451.1
5°	2351.0
7.5°	2242.3
10°	2132.5
12.5°	2016.3
15°	1899.1
17.5°	1773.3
20°	1631.6
22.5°	1469.6
25°	1286.3
27.5°	1066.8
30°	736.4
32.5°	392.2
35°	205.7
37.5°	102.3
40°	41.6
42.5°	13.9
45°	9.6
47.5°	7.5
50°	6.4
52.5°	5.3
55°	4.3
57.5°	4.3
60°	3.2
62.5°	3.2
65°	2.1
67.5°	2.1
70°	1.1
72.5°	1.1
75°	1.1
77.5°	1.1
80°	1.1
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

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

Scaled Data Report



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

Scaled Data Report



— 0°-180°

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

Scaled Data Report



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

Scaled Data Report



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

Scaled Data Report



(END OF REPORT)