

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: P886891

Luminaire Tested: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-3000K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P886891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/9/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-3000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT
Ballast/Driver: -

Summary

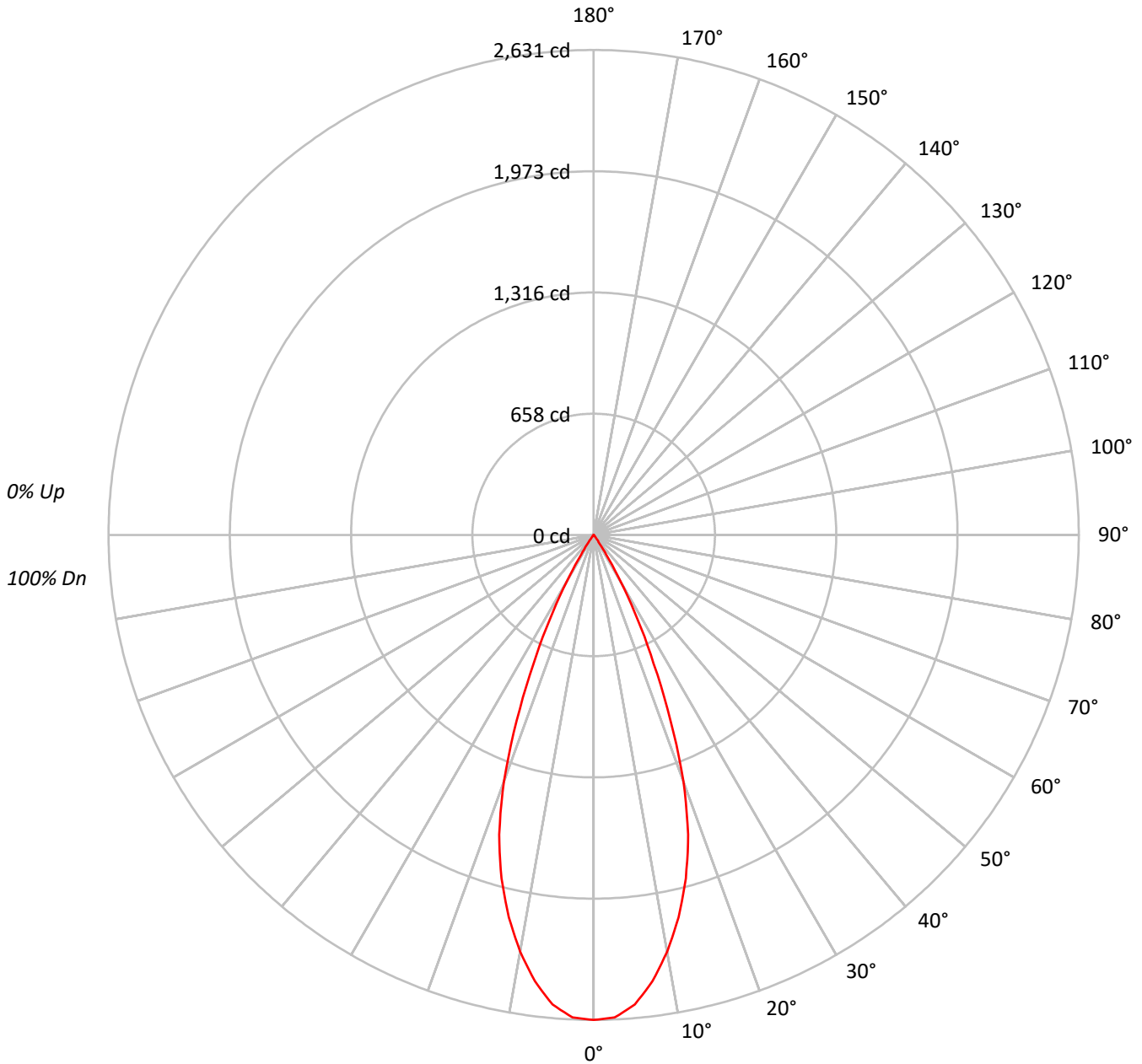
Lumens per Lamp: N/A
Luminaire Lumens: 1173.4 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.64
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P886891
CATALOG NUMBER: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P886891

CATALOG NUMBER: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-3000K

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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	115	112	110	108	112	110	108	107	106	105	103		102	101	100		99	98	97	96
2	110	106	103	100	108	105	102	99	101	99	97		99	97	95		96	94	93	92
3	106	101	97	94	104	100	96	93	97	94	92		95	92	90		93	91	89	88
4	102	96	92	89	101	95	91	88	93	90	87		91	88	86		90	87	85	84
5	99	92	87	84	97	91	87	84	89	86	83		88	85	82		86	84	81	80
6	95	88	83	80	94	87	83	80	86	82	79		85	81	79		83	80	78	77
7	92	84	80	76	90	84	79	76	83	79	76		81	78	75		80	77	75	74
8	88	81	76	73	87	80	76	73	79	75	73		79	75	72		78	74	72	71
9	85	78	73	70	84	77	73	70	77	72	70		76	72	69		75	72	69	68
10	83	75	70	67	82	74	70	67	74	70	67		73	69	67		72	69	67	66

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	324547
5°	316600
10°	287433
15°	246404
20°	186812
25°	104699
30°	41005
35°	6927
40°	1304
45°	140
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: 45°

Luminance: 140 cd/sqm



TEST NUMBER: P886891

CATALOG NUMBER: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.5	20.1
10°-20°	527.4	44.9
20°-30°	358.4	30.5
30°-40°	50.5	4.3
40°-50°	1.5	0.1
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°	1121.4	95.6
0°-40°	1171.9	99.9
0°-60°	1173.4	100.0
0°-90°	1173.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1173.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2631	
5°	2557	236
15°	1930	527
25°	769	358
35°	46	51
45°	1	1
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P886891

CATALOG NUMBER: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-3000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	2631.2
2.5°	2620.7
5°	2557.0
7.5°	2442.5
10°	2294.9
12.5°	2124.8
15°	1929.6
17.5°	1703.9
20°	1423.2
22.5°	1090.2
25°	769.3
27.5°	516.1
30°	287.9
32.5°	127.4
35°	46.0
37.5°	20.2
40°	8.1
42.5°	3.2
45°	0.8
47.5°	0.0
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

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)