

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: P886901

Luminaire Tested: ML412LSFL95FS1E-TIR4D40FL-TL4RDSL-1020LM-3000K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P886901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/9/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL95FS1E-TIR4D40FL-TL4RDSL-1020LM-3000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT
Ballast/Driver: -

Summary

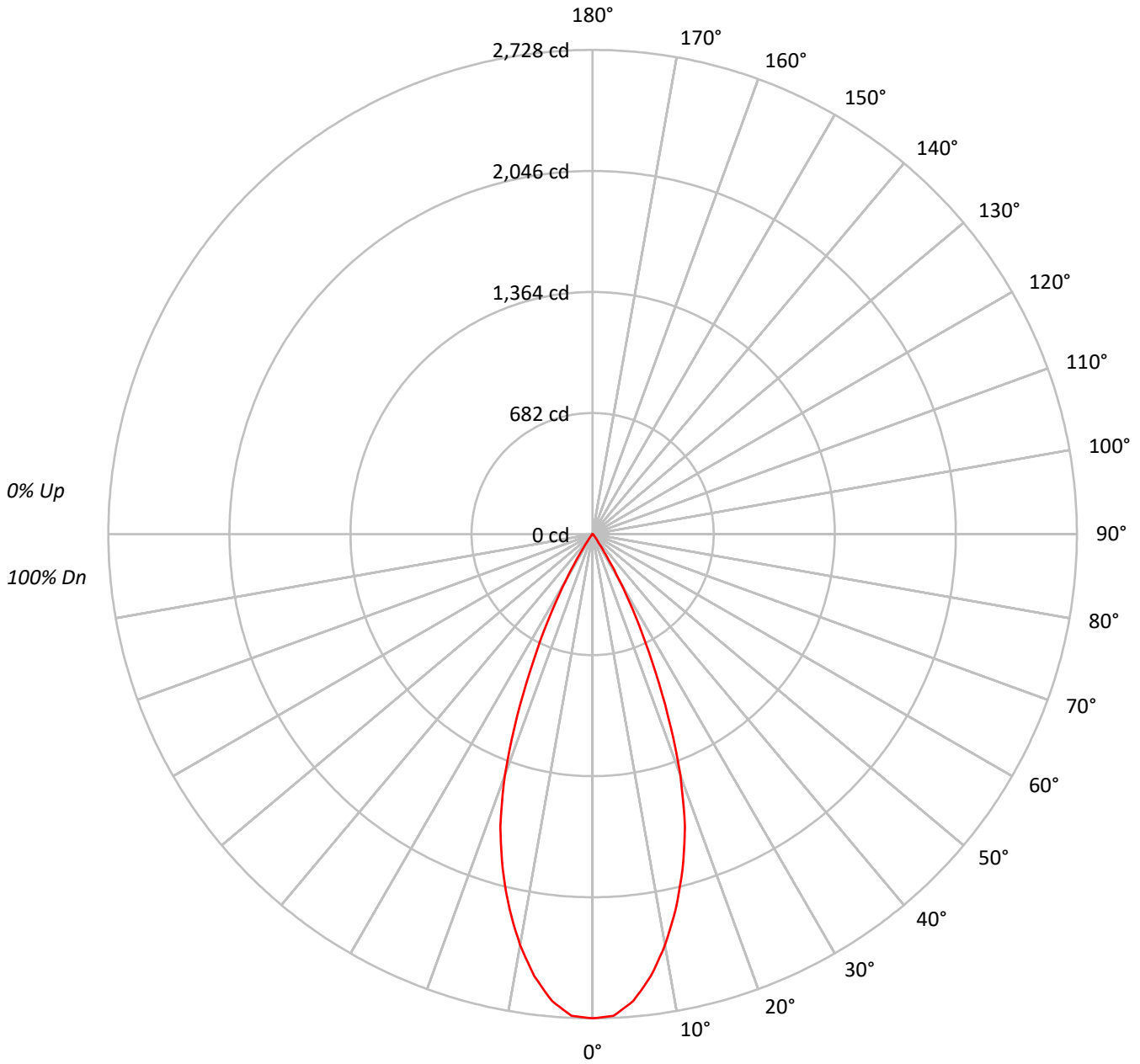
Lumens per Lamp: N/A
Luminaire Lumens: 1210.4 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.63
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	100	100
1	115	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96	96	96	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91	91	91	91
3	106	101	97	94	104	99	96	93	97	94	91	95	92	90	92	90	89	87	87	87	87
4	102	96	92	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83	83	83	83
5	98	92	87	83	97	91	86	83	89	85	82	88	84	82	86	83	81	80	80	80	80
6	95	88	83	79	93	87	82	79	85	82	79	84	81	78	83	80	78	76	76	76	76
7	91	84	79	76	90	83	79	76	82	78	75	81	77	75	80	77	74	73	73	73	73
8	88	81	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70	70	70	70
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68	68	68	68
10	82	74	70	67	81	74	70	67	73	69	66	73	69	66	72	69	66	65	65	65	65

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	336475
5°	326777
10°	294409
15°	249800
20°	189463
25°	107108
30°	42956
35°	8372
40°	2335
45°	977
50°	614
55°	516
60°	395
65°	467
70°	289
75°	381
80°	568
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 977 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.6	20.0
10°-20°	536.0	44.3
20°-30°	365.5	30.2
30°-40°	56.7	4.7
40°-50°	5.0	0.4
50°-60°	2.3	0.2
60°-70°	1.3	0.1
70°-80°	0.8	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°	1144.1	94.5
0°-40°	1200.8	99.2
0°-60°	1208.1	99.8
0°-90°	1210.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2728	
5°	2639	243
15°	1956	536
25°	787	366
35°	56	57
45°	6	5
55°	2	2
65°	2	1
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2727.9
2.5°	2717.4
5°	2639.2
7.5°	2511.8
10°	2350.6
12.5°	2163.5
15°	1956.2
17.5°	1728.8
20°	1443.4
22.5°	1110.4
25°	787.0
27.5°	524.1
30°	301.6
32.5°	139.5
35°	55.6
37.5°	28.2
40°	14.5
42.5°	8.1
45°	5.6
47.5°	4.0
50°	3.2
52.5°	3.2
55°	2.4
57.5°	2.4
60°	1.6
62.5°	1.6
65°	1.6
67.5°	0.8
70°	0.8
72.5°	0.8
75°	0.8
77.5°	0.8
80°	0.8
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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(END OF REPORT)