

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: P886871

Luminaire Tested: ML412LSFL95FS1E-TIR4D25NFL-TL4RDSL-1020LM-3000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P886871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-37)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL95FS1E-TIR4D25NFL-TL4RDSL-1020LM-3000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT
Ballast/Driver: -

Summary

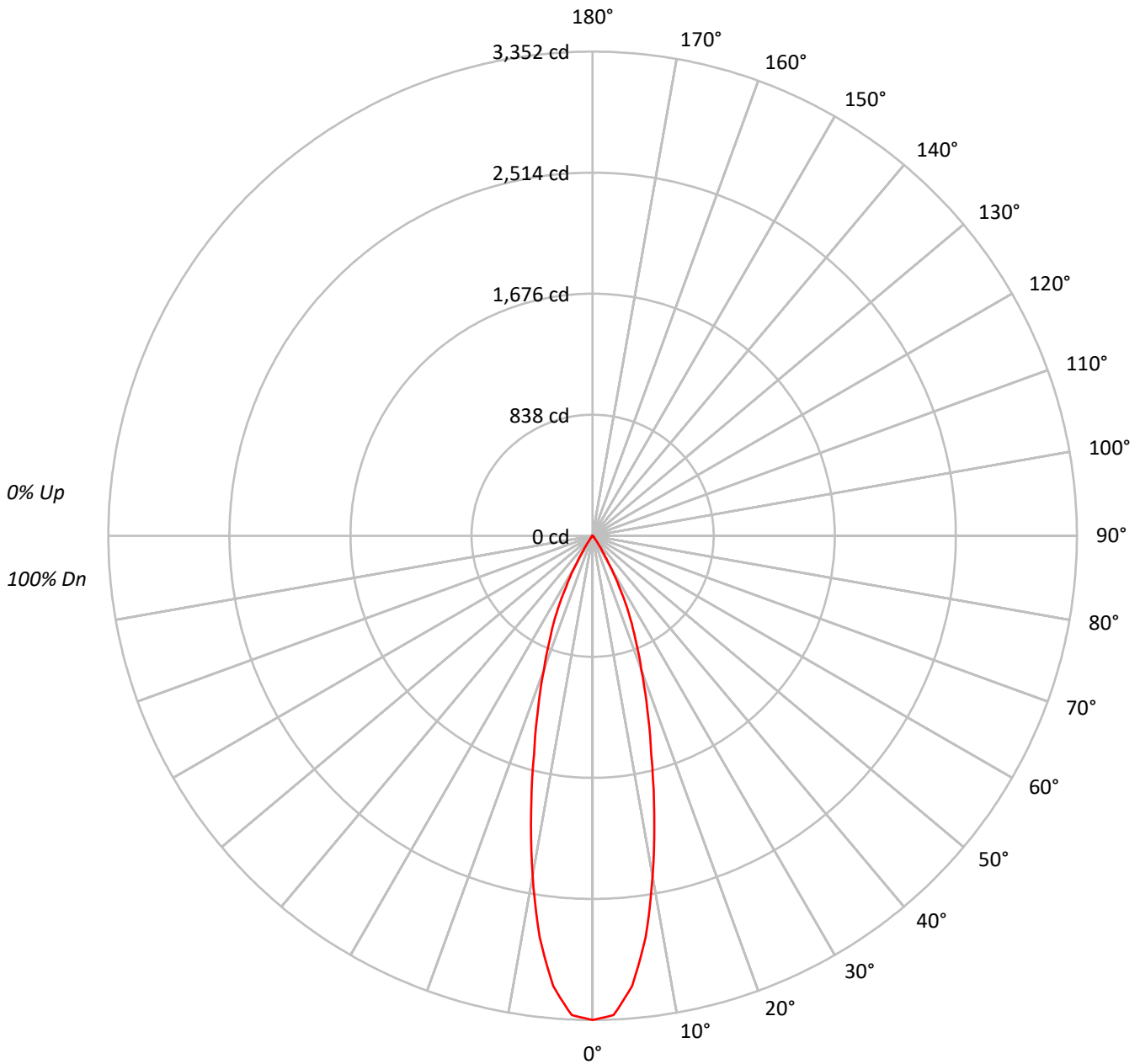
Lumens per Lamp: N/A
Luminaire Lumens: 1041.9 lumens
Efficiency: N/A
Efficacy: 59.2 lumens/watt
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.51
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	413467
5°	387497
10°	299557
15°	200177
20°	129450
25°	80882
30°	33314
35°	8989
40°	2721
45°	1552
50°	921
55°	860
60°	592
65°	467
70°	577
75°	381
80°	568
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1552 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.7	26.4
10°-20°	438.9	42.1
20°-30°	264.9	25.4
30°-40°	50.1	4.8
40°-50°	7.2	0.7
50°-60°	3.3	0.3
60°-70°	1.9	0.2
70°-80°	1.0	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°	978.4	93.9
0°-40°	1028.5	98.7
0°-60°	1038.9	99.7
0°-90°	1041.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1041.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3352	
5°	3130	275
15°	1568	439
25°	594	265
35°	60	50
45°	9	7
55°	4	3
65°	2	2
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	3352.1
2.5°	3321.5
5°	3129.6
7.5°	2804.6
10°	2391.7
12.5°	1967.6
15°	1567.6
17.5°	1256.3
20°	986.2
22.5°	773.3
25°	594.3
27.5°	399.2
30°	233.9
32.5°	124.2
35°	59.7
37.5°	25.8
40°	16.9
42.5°	11.3
45°	8.9
47.5°	6.5
50°	4.8
52.5°	4.0
55°	4.0
57.5°	3.2
60°	2.4
62.5°	2.4
65°	1.6
67.5°	1.6
70°	1.6
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)