

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: P887000

Luminaire Tested: ML412LSFL9FS1E-TIR4D25NFL-TL4RDSL-1200LM-2700K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P887000
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: ML412LSFL9FS1E-TIR4D25NFL-TL4RDSL-1200LM-2700K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

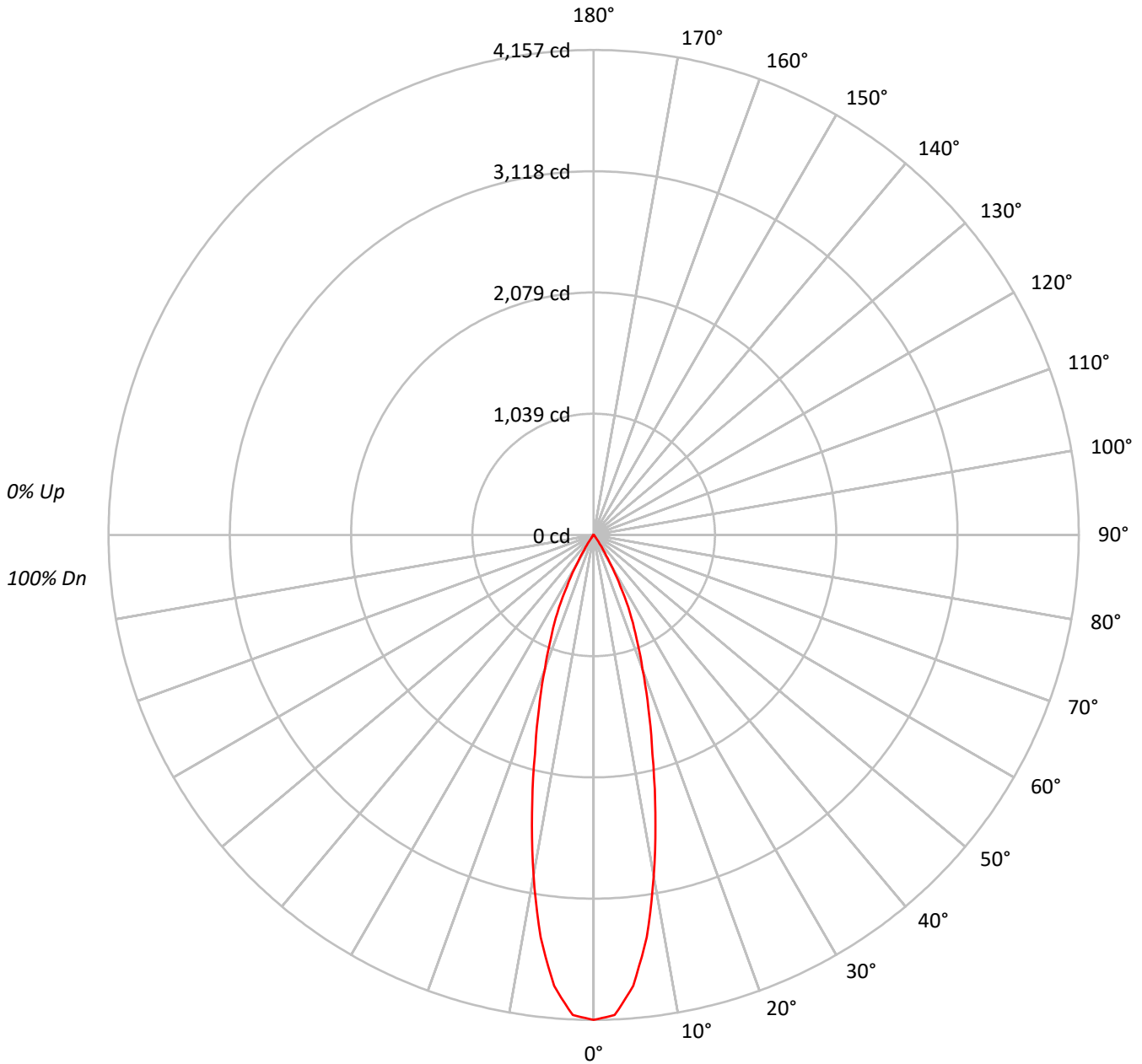
Lumens per Lamp: N/A
Luminaire Lumens: 1292.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.51
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: ML412LSFL9FS1E-TIR4D25NFL-TL4RD5L-1200LM-2700K

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

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	512723
5°	480508
10°	371474
15°	248230
20°	160520
25°	100303
30°	41304
35°	11143
40°	3381
45°	1919
50°	1151
55°	1075
60°	740
65°	584
70°	721
75°	477
80°	710
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1919 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.6	26.4
10°-20°	544.2	42.1
20°-30°	328.5	25.4
30°-40°	62.1	4.8
40°-50°	8.9	0.7
50°-60°	4.1	0.3
60°-70°	2.3	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°	1213.3	93.9
0°-40°	1275.4	98.7
0°-60°	1288.3	99.7
0°-90°	1292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1292.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	4157	
5°	3881	341
15°	1944	544
25°	737	328
35°	74	62
45°	11	9
55°	5	4
65°	2	2
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	4156.8
2.5°	4118.8
5°	3880.8
7.5°	3477.8
10°	2965.9
12.5°	2439.9
15°	1943.9
17.5°	1557.9
20°	1222.9
22.5°	959.0
25°	737.0
27.5°	495.0
30°	290.0
32.5°	154.0
35°	74.0
37.5°	32.0
40°	21.0
42.5°	14.0
45°	11.0
47.5°	8.0
50°	6.0
52.5°	5.0
55°	5.0
57.5°	4.0
60°	3.0
62.5°	3.0
65°	2.0
67.5°	2.0
70°	2.0
72.5°	1.0
75°	1.0
77.5°	1.0
80°	1.0
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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(END OF REPORT)