

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: P887050

Luminaire Tested: ML412LSFL9FS1E-TIR4D55WFL-TL4RDMB-1200LM-2700K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P887050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-44)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/9/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL9FS1E-TIR4D55WFL-TL4RDMB-1200LM-2700K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

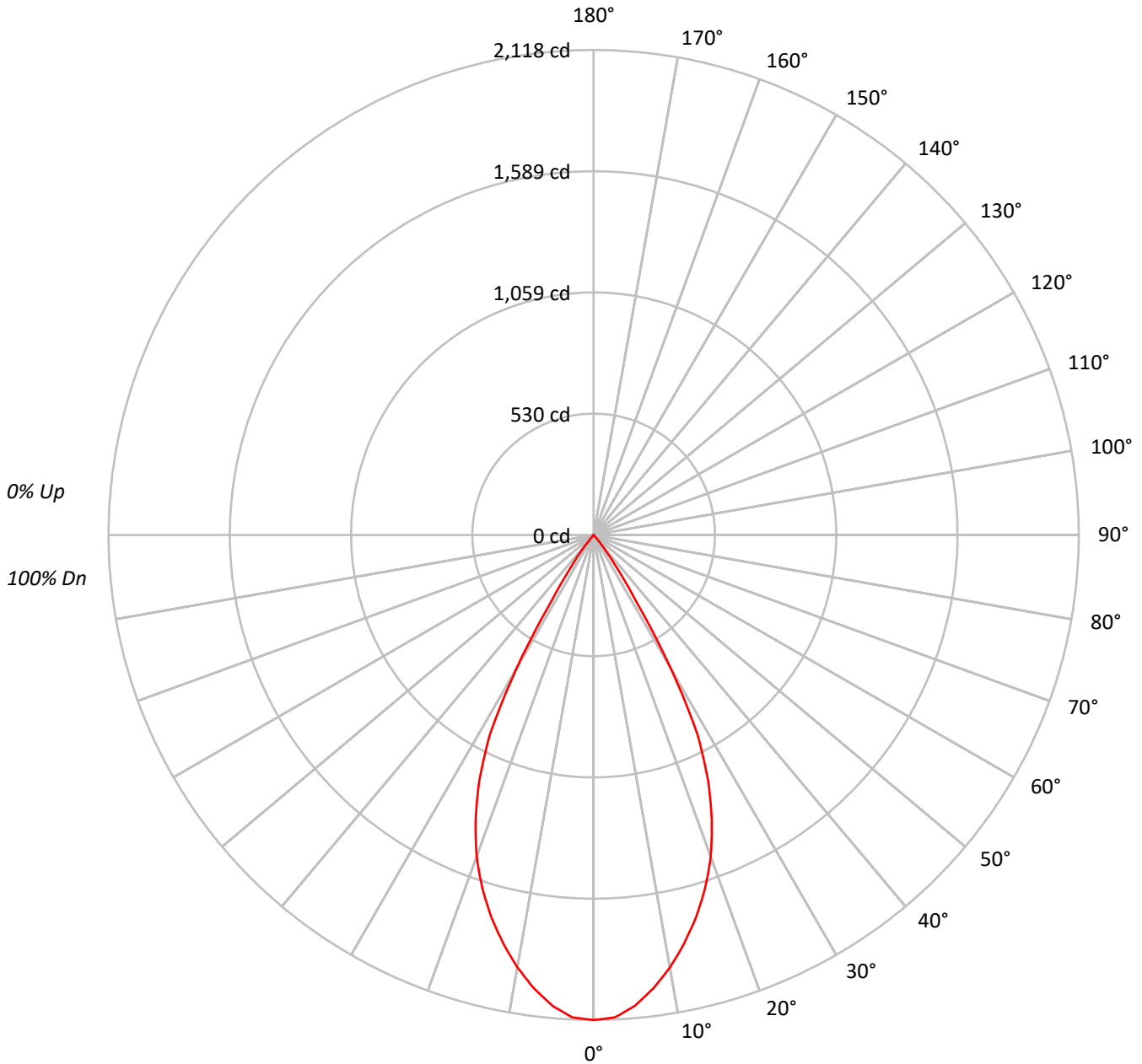
Lumens per Lamp: N/A
Luminaire Lumens: 1343.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.83 / 0.79
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 17.6
Input Voltage (V): NR
Input Current (A_{in}): 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	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	110	108	106	106	104	103		102	101	99		98	97	97	95
2	109	105	102	99	107	103	100	97	100	98	95		97	95	93		95	93	91	90
3	105	99	95	91	103	98	94	91	95	92	89		93	90	88		91	88	86	85
4	100	94	89	85	99	93	88	85	91	87	84		89	85	83		87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79		85	81	78		83	80	78	76
6	92	84	79	75	91	84	79	75	82	78	75		81	77	74		80	76	74	72
7	88	80	75	71	87	79	74	71	78	74	71		77	73	70		76	73	70	69
8	85	76	71	67	84	76	71	67	75	70	67		74	70	67		73	69	66	65
9	81	73	67	64	80	72	67	64	71	67	64		71	66	63		70	66	63	62
10	78	69	64	61	77	69	64	61	68	64	61		68	63	60		67	63	60	59

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	261258
5°	255570
10°	240226
15°	220647
20°	196079
25°	160676
30°	96181
35°	26968
40°	4669
45°	174
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: 47.5°
 Luminance: 183 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.3	14.3
10°-20°	481.3	35.8
20°-30°	520.9	38.8
30°-40°	144.7	10.8
40°-50°	3.8	0.3
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°	1194.5	88.9
0°-40°	1339.2	99.7
0°-60°	1343.0	100.0
0°-90°	1343.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2118	
5°	2064	192
15°	1728	481
25°	1181	521
35°	179	145
45°	1	4
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2118.1
2.5°	2109.1
5°	2064.1
7.5°	1997.0
10°	1918.0
12.5°	1825.9
15°	1727.9
17.5°	1617.8
20°	1493.8
22.5°	1346.7
25°	1180.6
27.5°	981.5
30°	675.3
32.5°	352.2
35°	179.1
37.5°	85.0
40°	29.0
42.5°	4.0
45°	1.0
47.5°	1.0
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

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— 0°-180°

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