

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: P886897

Luminaire Tested: ML412LSFL95FS1E-TIR4D40FL-TL4RDMW-1020LM-3500K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P886897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-39)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/9/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL95FS1E-TIR4D40FL-TL4RDMW-1020LM-3500K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT
Ballast/Driver: -

Summary

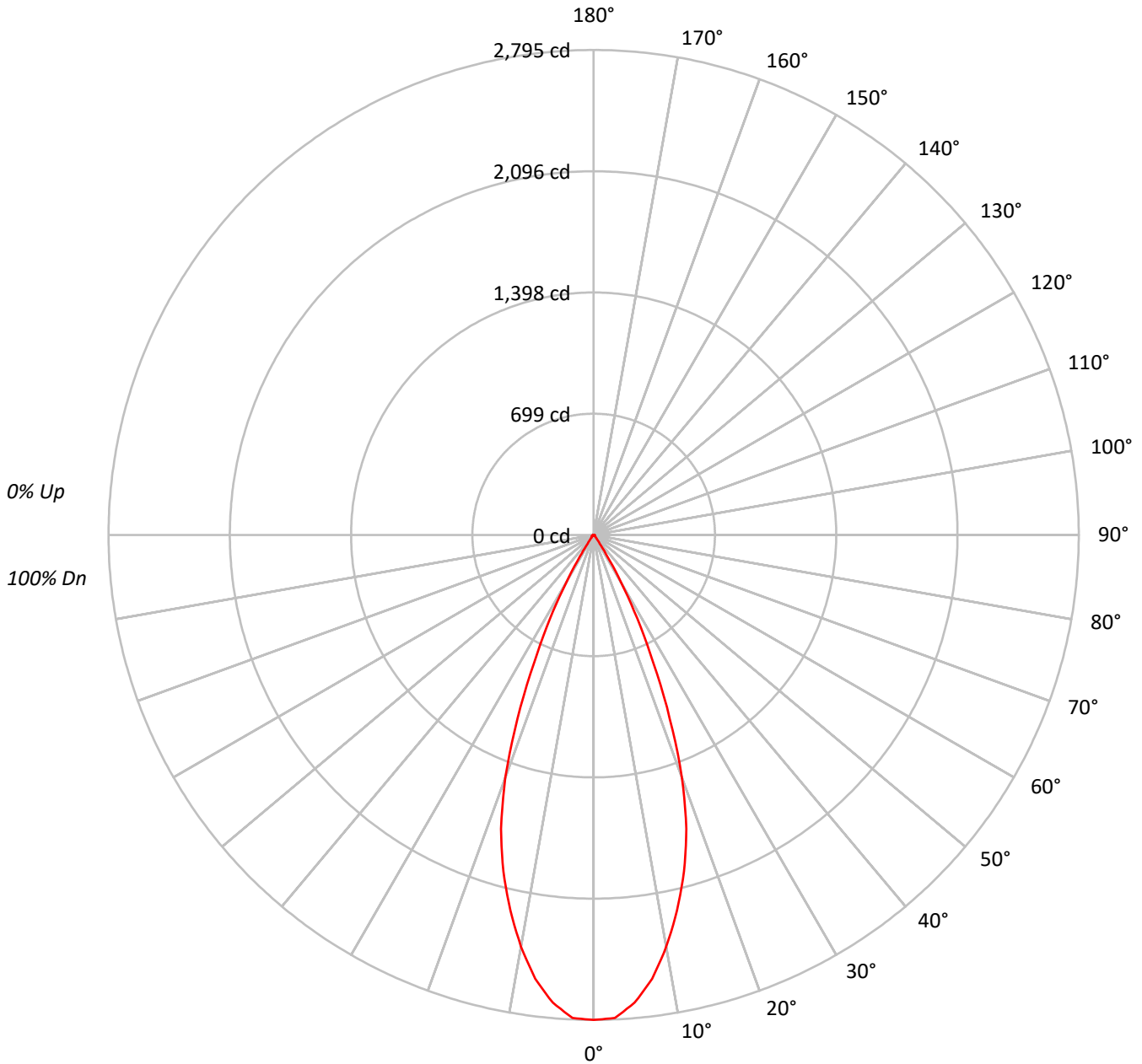
Lumens per Lamp: N/A
Luminaire Lumens: 1272.7 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.64
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95	95	95
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90	90	90	90
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86	86	86	86
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82	82	82	82
5	97	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78	78	78	78
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75	75	75	75
7	90	83	78	74	89	82	78	74	81	77	74	80	76	73	79	76	73	72	72	72	72
8	87	79	74	71	86	79	74	71	78	74	71	77	73	70	76	73	70	69	69	69	69
9	84	76	71	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66	66	66	66
10	81	73	69	65	80	73	68	65	72	68	65	71	68	65	71	67	65	64	64	64	64

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	344776
5°	335036
10°	301774
15°	256479
20°	195134
25°	110483
30°	44608
35°	8929
40°	3220
45°	2337
50°	2245
55°	2344
60°	2467
65°	2452
70°	2416
75°	2383
80°	2344
85°	2406

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 57.5°
 Luminance: 2502 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.8	19.6
10°-20°	550.3	43.2
20°-30°	377.4	29.7
30°-40°	60.0	4.7
40°-50°	10.9	0.9
50°-60°	9.9	0.8
60°-70°	8.3	0.7
70°-80°	5.3	0.4
80°-90°	1.8	0.1
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°	1176.5	92.4
0°-40°	1236.5	97.2
0°-60°	1257.4	98.8
0°-90°	1272.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1272.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2795	
5°	2706	249
15°	2008	550
25°	812	377
35°	59	60
45°	13	11
55°	11	10
65°	8	8
75°	5	5
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2795.2
2.5°	2786.9
5°	2705.9
7.5°	2579.8
10°	2409.4
12.5°	2217.3
15°	2008.5
17.5°	1775.5
20°	1486.6
22.5°	1145.8
25°	811.8
27.5°	542.8
30°	313.2
32.5°	144.5
35°	59.3
37.5°	32.6
40°	20.0
42.5°	15.0
45°	13.4
47.5°	12.5
50°	11.7
52.5°	11.7
55°	10.9
57.5°	10.9
60°	10.0
62.5°	9.2
65°	8.4
67.5°	7.5
70°	6.7
72.5°	5.8
75°	5.0
77.5°	4.2
80°	3.3
82.5°	2.5
85°	1.7
87.5°	0.8
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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