

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: P886896

Luminaire Tested: ML412LSFL95FS1E-TIR4D40FL-TL4RDMW-1020LM-3000K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P886896
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-3000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3000K CCT
Ballast/Driver: -

Summary

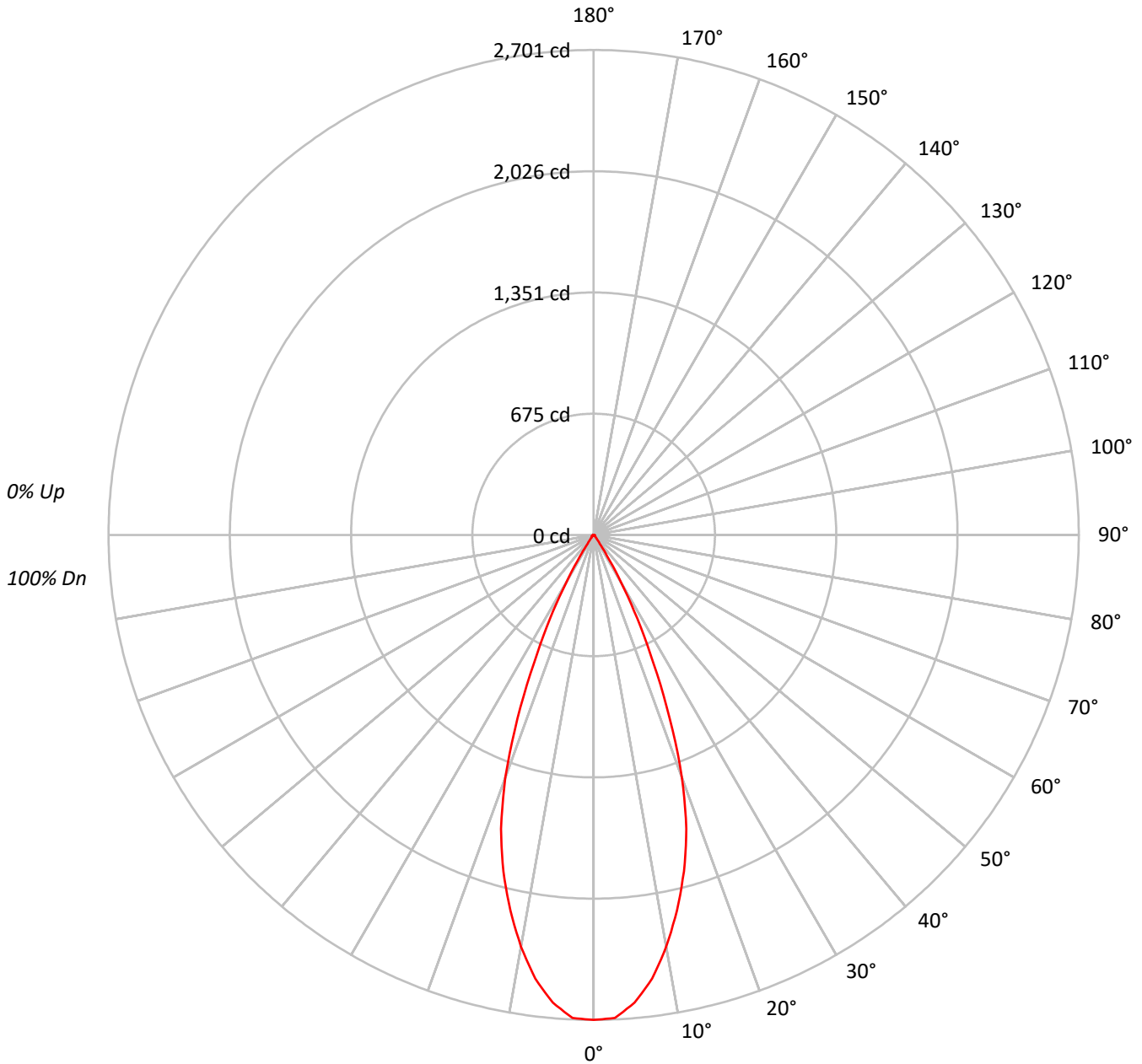
Lumens per Lamp: N/A
Luminaire Lumens: 1229.8 lumens
Efficiency: N/A
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.64
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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									
RC	80									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																
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95			95																
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90			90																
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86			86																
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82			82																
5	97	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78			78																
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75			75																
7	90	83	78	74	89	82	78	74	81	77	74	80	76	73	79	76	73	72			72																
8	87	79	74	71	86	79	74	71	78	74	71	77	73	70	76	73	70	69			69																
9	84	76	71	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66			66																
10	81	73	69	65	80	73	68	65	72	68	65	71	68	65	71	67	65	64			64																

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	333157
5°	323731
10°	291603
15°	247834
20°	188544
25°	106754
30°	43098
35°	8628
40°	3124
45°	2250
50°	2168
55°	2258
60°	2393
65°	2364
70°	2344
75°	2288
80°	2273
85°	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 57.5°
 Luminance: 2410 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.4	19.6
10°-20°	531.7	43.2
20°-30°	364.7	29.7
30°-40°	58.0	4.7
40°-50°	10.5	0.9
50°-60°	9.6	0.8
60°-70°	8.0	0.7
70°-80°	5.1	0.4
80°-90°	1.7	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°	1136.8	92.4
0°-40°	1194.8	97.2
0°-60°	1214.9	98.8
0°-90°	1229.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1229.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2701	
5°	2615	240
15°	1941	532
25°	784	365
35°	57	58
45°	13	11
55°	10	10
65°	8	8
75°	5	5
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2701.0
2.5°	2692.9
5°	2614.6
7.5°	2492.8
10°	2328.2
12.5°	2142.5
15°	1940.8
17.5°	1715.7
20°	1436.4
22.5°	1107.2
25°	784.4
27.5°	524.5
30°	302.6
32.5°	139.6
35°	57.3
37.5°	31.5
40°	19.4
42.5°	14.5
45°	12.9
47.5°	12.1
50°	11.3
52.5°	11.3
55°	10.5
57.5°	10.5
60°	9.7
62.5°	8.9
65°	8.1
67.5°	7.3
70°	6.5
72.5°	5.6
75°	4.8
77.5°	4.0
80°	3.2
82.5°	2.4
85°	1.6
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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(END OF REPORT)