

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: P886895

Luminaire Tested: ML412LSFL95FS1E-TIR4D40FL-TL4RDMW-1020LM-2700K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P886895
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-2700K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

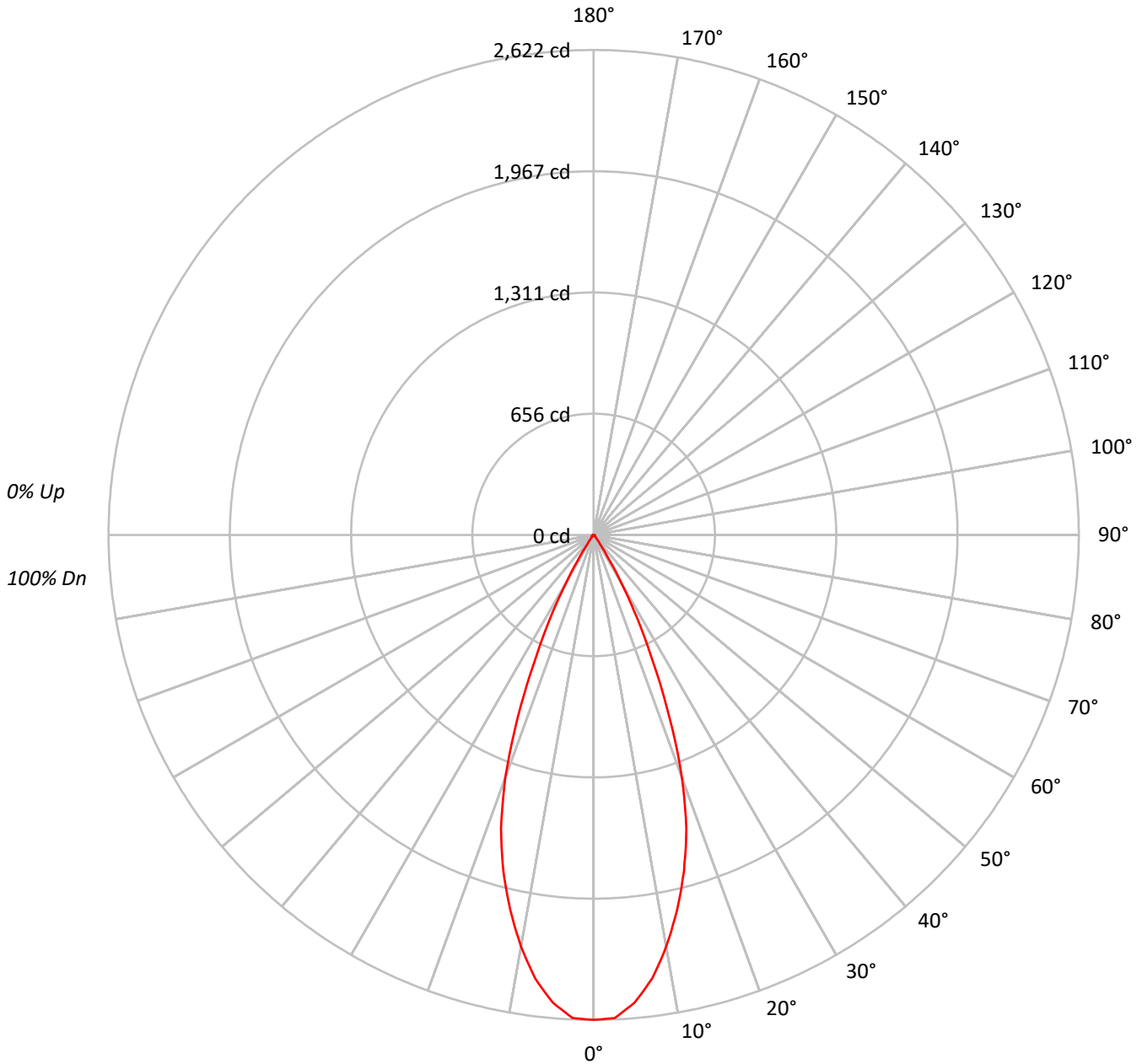
Lumens per Lamp: N/A
Luminaire Lumens: 1193.7 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.64
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	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°	323375
5°	314235
10°	283036
15°	240568
20°	183018
25°	103624
30°	41831
35°	8372
40°	3027
45°	2180
50°	2111
55°	2193
60°	2319
65°	2277
70°	2272
75°	2240
80°	2202
85°	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 57.5°
 Luminance: 2342 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.4	19.6
10°-20°	516.1	43.2
20°-30°	354.0	29.7
30°-40°	56.3	4.7
40°-50°	10.2	0.9
50°-60°	9.3	0.8
60°-70°	7.7	0.6
70°-80°	5.0	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°	1103.5	92.4
0°-40°	1159.7	97.2
0°-60°	1179.3	98.8
0°-90°	1193.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1193.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2622	
5°	2538	233
15°	1884	516
25°	761	354
35°	56	56
45°	12	10
55°	10	9
65°	8	8
75°	5	5
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2621.7
2.5°	2613.9
5°	2537.9
7.5°	2419.6
10°	2259.8
12.5°	2079.7
15°	1883.9
17.5°	1665.3
20°	1394.3
22.5°	1074.7
25°	761.4
27.5°	509.1
30°	293.7
32.5°	135.5
35°	55.6
37.5°	30.5
40°	18.8
42.5°	14.1
45°	12.5
47.5°	11.7
50°	11.0
52.5°	11.0
55°	10.2
57.5°	10.2
60°	9.4
62.5°	8.6
65°	7.8
67.5°	7.0
70°	6.3
72.5°	5.5
75°	4.7
77.5°	3.9
80°	3.1
82.5°	2.3
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)