

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: P886869

Luminaire Tested: ML412LSFL95FS1E-TIR4D25NFL-TL4RDMW-1020LM-5000K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P886869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-36)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL95FS1E-TIR4D25NFL-TL4RDMW-1020LM-5000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1210.2 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.51
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

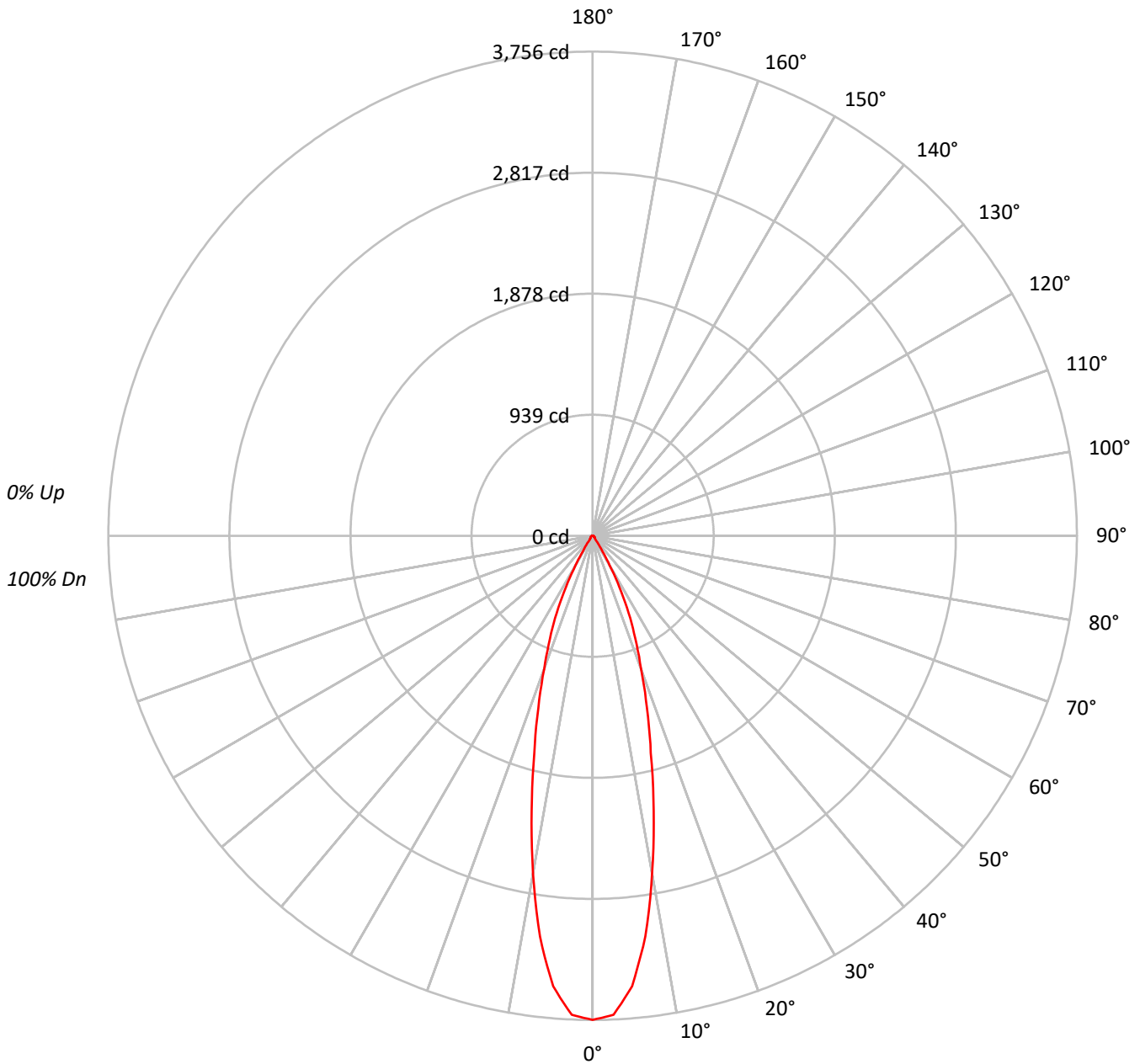
Input Watts (W): 17.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	100	100	99	98	97	95	95	95	92	90																	
	1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95	95	92	92	92	90	90	90	88	86																	
	2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90	90	90	88	88	88	86	86	86	84	82																	
	3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86	86	86	84	84	84	82	82	82	80	79																	
	4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82	82	82	80	80	80	79	79	79	77	76																	
	5	98	91	86	83	96	90	86	82	88	84	82	87	83	81	85	82	80	79	79	79	77	77	77	76	76	76	74	73																	
	6	94	87	82	79	93	86	82	78	85	81	78	84	80	77	82	79	77	76	76	76	74	74	74	73	73	73	71	70																	
	7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73	73	73	71	71	71	70	70	70	69	68																	
	8	88	80	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70	70	70	69	69	69	68	68	68	66	65																	
	9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68	68	68	66	66	66	65	65	65	64	63																	
	10	82	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	66	65	65	65	64	64	64	63	63	63	62	61																	

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	463262
5°	434312
10°	333098
15°	222793
20°	144020
25°	89987
30°	37544
35°	10992
40°	4557
45°	3820
50°	3857
55°	3914
60°	3824
65°	3998
70°	3931
75°	3908
80°	3907
85°	3821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 5090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.1	25.4
10°-20°	488.2	40.3
20°-30°	295.6	24.4
30°-40°	60.0	5.0
40°-50°	17.5	1.4
50°-60°	16.2	1.3
60°-70°	13.4	1.1
70°-80°	8.9	0.7
80°-90°	3.2	0.3
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°	1090.9	90.1
0°-40°	1150.9	95.1
0°-60°	1184.6	97.9
0°-90°	1210.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3756	
5°	3508	307
15°	1745	488
25°	661	296
35°	73	60
45°	22	17
55°	18	16
65°	14	13
75°	8	9
85°	3	3
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	3755.8
2.5°	3719.3
5°	3507.7
7.5°	3134.7
10°	2659.5
12.5°	2185.2
15°	1744.7
17.5°	1400.0
20°	1097.2
22.5°	863.7
25°	661.2
27.5°	446.9
30°	263.6
32.5°	143.2
35°	73.0
37.5°	37.4
40°	28.3
42.5°	24.6
45°	21.9
47.5°	20.1
50°	20.1
52.5°	19.2
55°	18.2
57.5°	17.3
60°	15.5
62.5°	14.6
65°	13.7
67.5°	12.8
70°	10.9
72.5°	10.0
75°	8.2
77.5°	7.3
80°	5.5
82.5°	4.6
85°	2.7
87.5°	1.8
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)