

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: P886927

Luminaire Tested: ML412LSFL95FS1E-TIR4D55WFL-TL4RDMW-1020LM-3500K

Issue Date: 7/9/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886927  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-42)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/9/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML412LSFL95FS1E-TIR4D55WFL-TL4RDMW-1020LM-3500K  
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

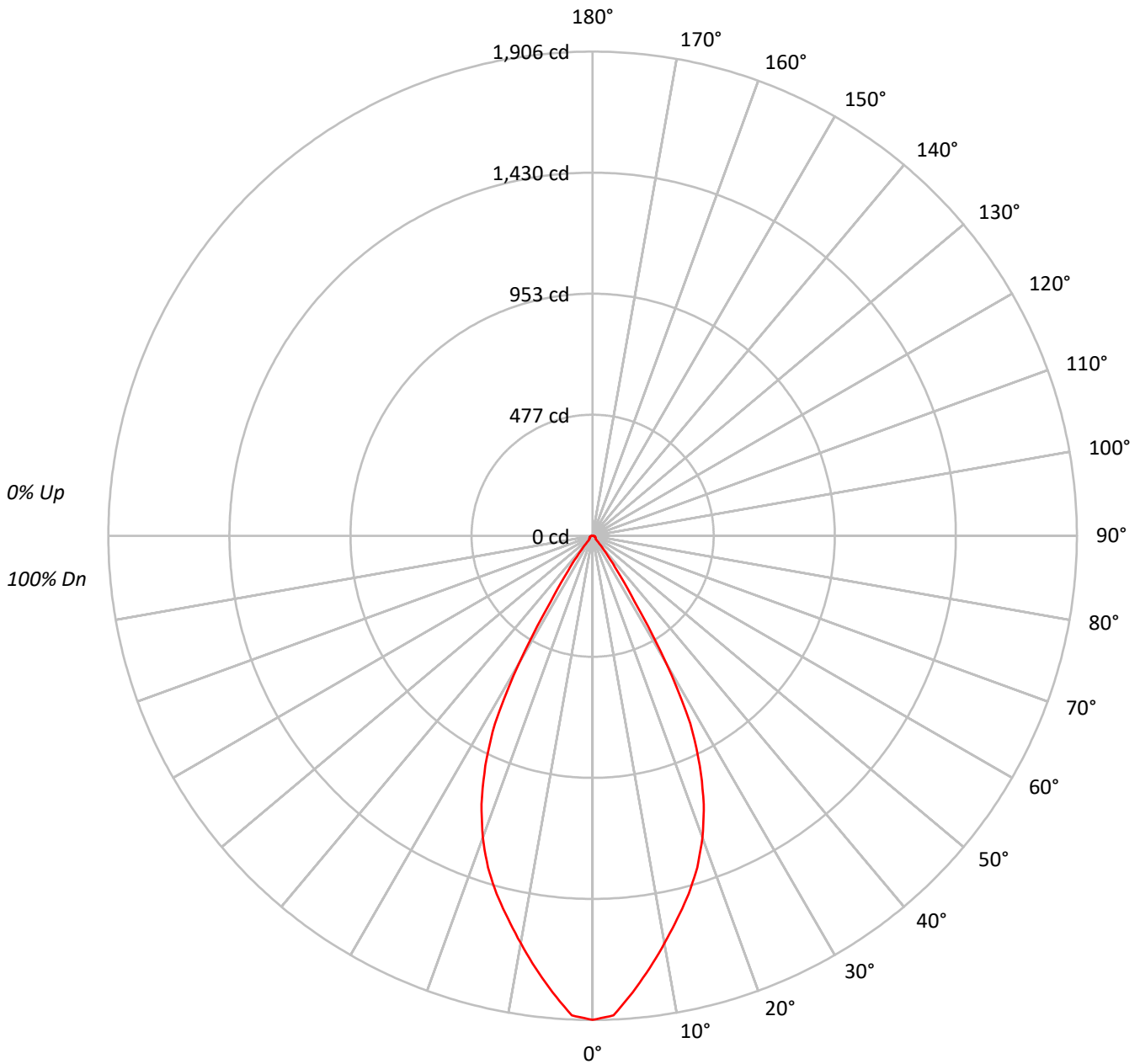
Lumens per Lamp: N/A  
Luminaire Lumens: 1197.6 lumens  
Efficiency: N/A  
Efficacy: 68.0 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.78  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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			
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94			
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88			
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	85	83			
4	99	92	87	83	97	91	86	83	89	85	82	87	83	81	85	82	80	78			
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74			
6	91	82	77	73	89	82	76	73	80	76	72	79	75	72	78	74	71	70			
7	87	78	73	69	85	78	72	69	76	72	68	75	71	68	74	70	68	66			
8	83	74	69	65	82	74	69	65	73	68	65	72	67	64	71	67	64	63			
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60			
10	76	67	62	59	75	67	62	59	66	62	58	66	61	58	65	61	58	57			

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	235035
5°	223440
10°	203967
15°	186335
20°	165902
25°	135906
30°	82708
35°	25252
40°	6586
45°	3053
50°	3205
55°	3226
60°	3281
65°	3415
70°	3318
75°	3574
80°	3552
85°	3538

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 75°  
 Luminance: 3574 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.8	13.9
10°-20°	407.1	34.0
20°-30°	442.1	36.9
30°-40°	131.0	10.9
40°-50°	15.9	1.3
50°-60°	13.5	1.1
60°-70°	11.3	0.9
70°-80°	7.6	0.6
80°-90°	2.5	0.2
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°	1015.9	84.8
0°-40°	1146.9	95.8
0°-60°	1176.3	98.2
0°-90°	1197.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1197.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1906	
5°	1805	167
15°	1459	407
25°	999	442
35°	168	131
45°	18	16
55°	15	13
65°	12	11
75°	8	8
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1905.5
2.5°	1889.7
5°	1804.6
7.5°	1717.0
10°	1628.5
12.5°	1542.6
15°	1459.2
17.5°	1369.1
20°	1263.9
22.5°	1143.0
25°	998.6
27.5°	833.4
30°	580.7
32.5°	307.0
35°	167.7
37.5°	87.6
40°	40.9
42.5°	20.0
45°	17.5
47.5°	16.7
50°	16.7
52.5°	15.9
55°	15.0
57.5°	14.2
60°	13.3
62.5°	12.5
65°	11.7
67.5°	10.0
70°	9.2
72.5°	8.3
75°	7.5
77.5°	5.8
80°	5.0
82.5°	3.3
85°	2.5
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)