

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: P640868

Luminaire Tested: ML5612LSFL4097FS1E - 694WB - 900LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640868  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-44)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 694WB - 900LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE GIMBAL TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1326.8 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

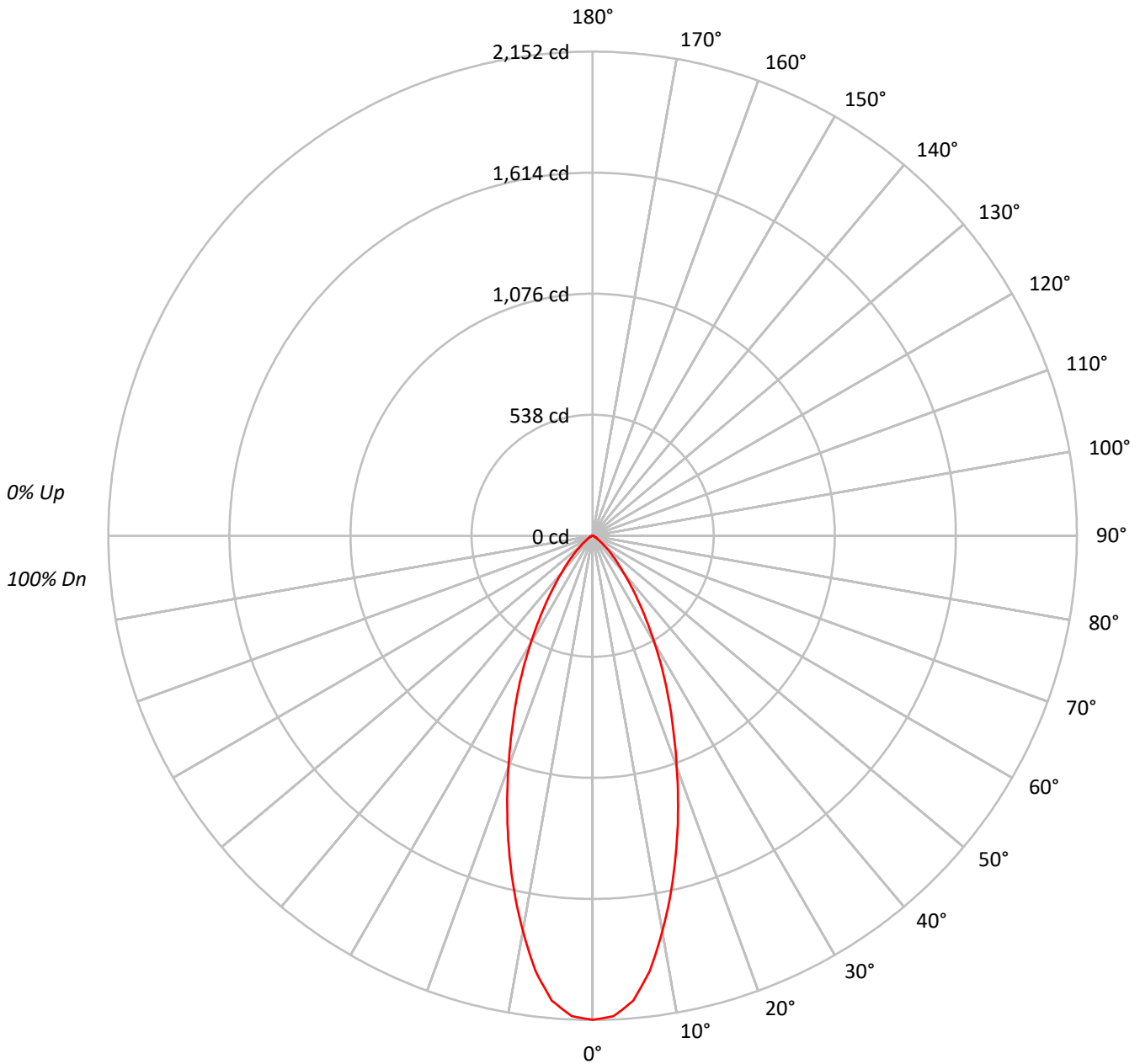
Input Watts (W): 13.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P640868

CATALOG NUMBER: ML5612LSFL4097FS1E - 694WB - 900LM - 3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P640868

CATALOG NUMBER: ML5612LSFL4097FS1E - 694WB - 900LM - 3500K

**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																			
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93																			
2	108	103	99	96	106	101	98	95	98	95	92	95	93	91	92	90	89	87																			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81																			
4	97	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	84	78	74	82	77	73	80	76	73	79	75	72	71																			
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59																			
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56																			
10	73	64	58	55	72	63	58	54	63	58	54	62	57	54	61	57	54	53																			

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

	0°
0°	117946
5°	114142
10°	99352
15°	81601
20°	63700
25°	48329
30°	34740
35°	23610
40°	15178
45°	9830
50°	5706
55°	3192
60°	2149
65°	1492
70°	1106
75°	974
80°	379
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9830 cd/sqm



TEST NUMBER: P640868

CATALOG NUMBER: ML5612LSFL4097FS1E - 694WB - 900LM - 3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.5	14.2
10°-20°	397.6	30.0
20°-30°	366.1	27.6
30°-40°	224.0	16.9
40°-50°	100.2	7.6
50°-60°	33.1	2.5
60°-70°	12.3	0.9
70°-80°	4.4	0.3
80°-90°	0.5	0.0
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°	952.2	71.8
0°-40°	1176.2	88.7
0°-60°	1309.6	98.7
0°-90°	1326.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1326.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2152	
5°	2074	188
15°	1438	398
25°	799	366
35°	353	224
45°	127	100
55°	33	33
65°	12	12
75°	5	4
85°	0	0
90°	0	



TEST NUMBER: P640868

CATALOG NUMBER: ML5612LSFL4097FS1E - 694WB - 900LM - 3500K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2151.5
2.5°	2137.6
5°	2074.2
7.5°	1949.7
10°	1784.8
12.5°	1614.2
15°	1437.8
17.5°	1262.5
20°	1091.9
22.5°	937.4
25°	799.0
27.5°	669.9
30°	548.8
32.5°	442.7
35°	352.8
37.5°	276.7
40°	212.1
42.5°	166.0
45°	126.8
47.5°	93.4
50°	66.9
52.5°	47.3
55°	33.4
57.5°	25.4
60°	19.6
62.5°	16.1
65°	11.5
67.5°	9.2
70°	6.9
72.5°	5.8
75°	4.6
77.5°	2.3
80°	1.2
82.5°	1.2
85°	0.0
87.5°	0.0
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

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)