

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: P640843

Luminaire Tested: ML5612LSFL4097FS1E - 694TBZB - 1200LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640843  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-45)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 694TBZB - 1200LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE GIMBAL TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

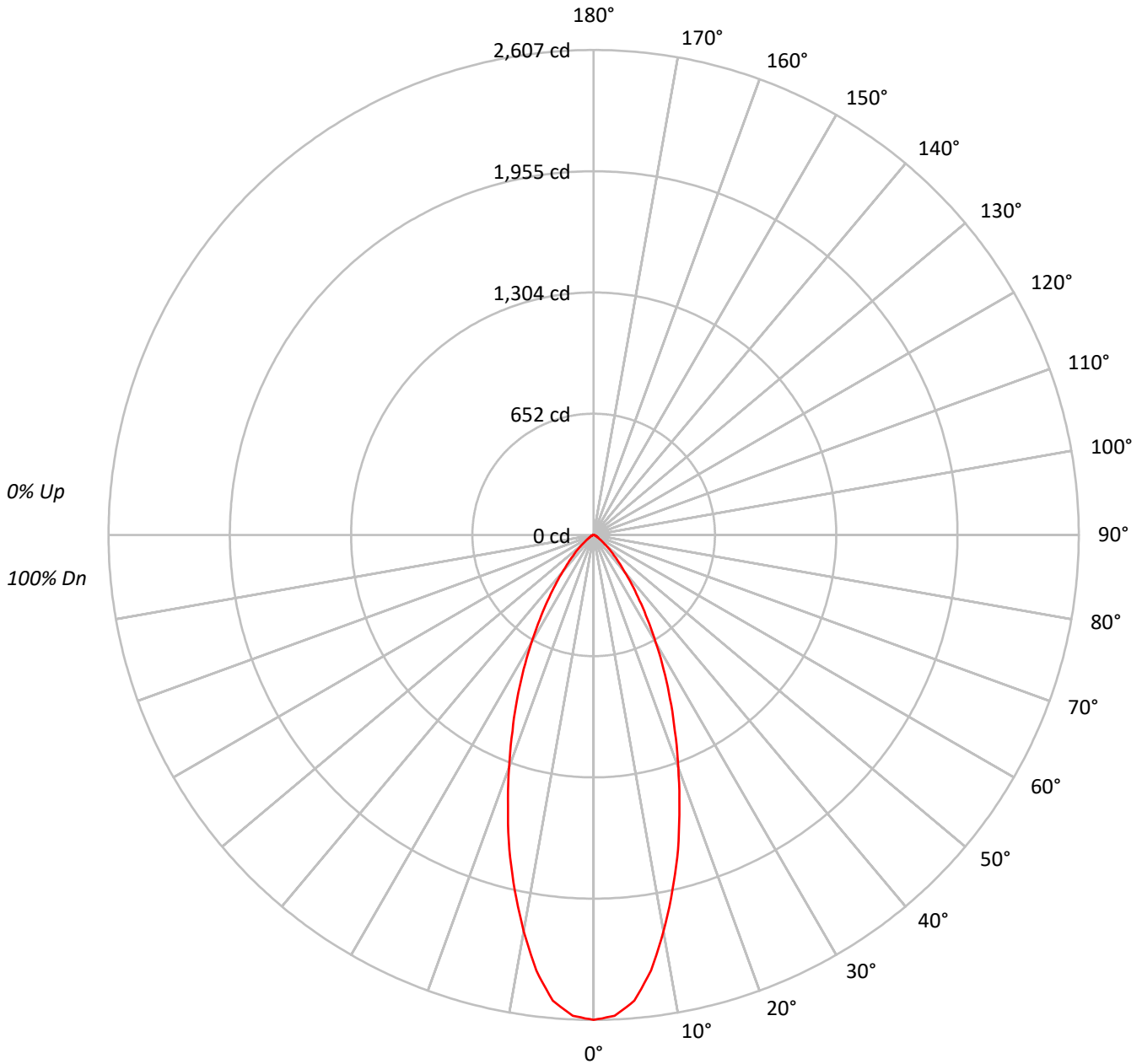
Lumens per Lamp: N/A  
Luminaire Lumens: 1611.8 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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																			
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	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53																			

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

	0°
0°	142922
5°	138322
10°	120422
15°	99405
20°	77514
25°	58757
30°	42228
35°	28770
40°	18578
45°	11900
50°	7019
55°	3871
60°	2598
65°	1816
70°	1346
75°	890
80°	442
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11900 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.4	14.2
10°-20°	482.9	30.0
20°-30°	445.1	27.6
30°-40°	272.7	16.9
40°-50°	122.0	7.6
50°-60°	40.2	2.5
60°-70°	15.0	0.9
70°-80°	5.0	0.3
80°-90°	0.6	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°	1156.3	71.7
0°-40°	1429.0	88.7
0°-60°	1591.3	98.7
0°-90°	1611.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1611.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2607	
5°	2514	228
15°	1752	483
25°	971	445
35°	430	273
45°	154	122
55°	40	40
65°	14	15
75°	4	5
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2607.1
2.5°	2587.5
5°	2513.6
7.5°	2361.5
10°	2163.3
12.5°	1956.7
15°	1751.5
17.5°	1531.0
20°	1328.7
22.5°	1140.3
25°	971.4
27.5°	813.7
30°	667.1
32.5°	538.7
35°	429.9
37.5°	336.4
40°	259.6
42.5°	201.0
45°	153.5
47.5°	114.4
50°	82.3
52.5°	57.2
55°	40.5
57.5°	30.7
60°	23.7
62.5°	19.5
65°	14.0
67.5°	11.2
70°	8.4
72.5°	7.0
75°	4.2
77.5°	2.8
80°	1.4
82.5°	1.4
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

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— 0°-180°

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(END OF REPORT)