

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: P640611

Luminaire Tested: ML5612LSFL4097FS1E - 593BB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640611  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-29)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 593BB - 900LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" BLACK BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1208.9 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

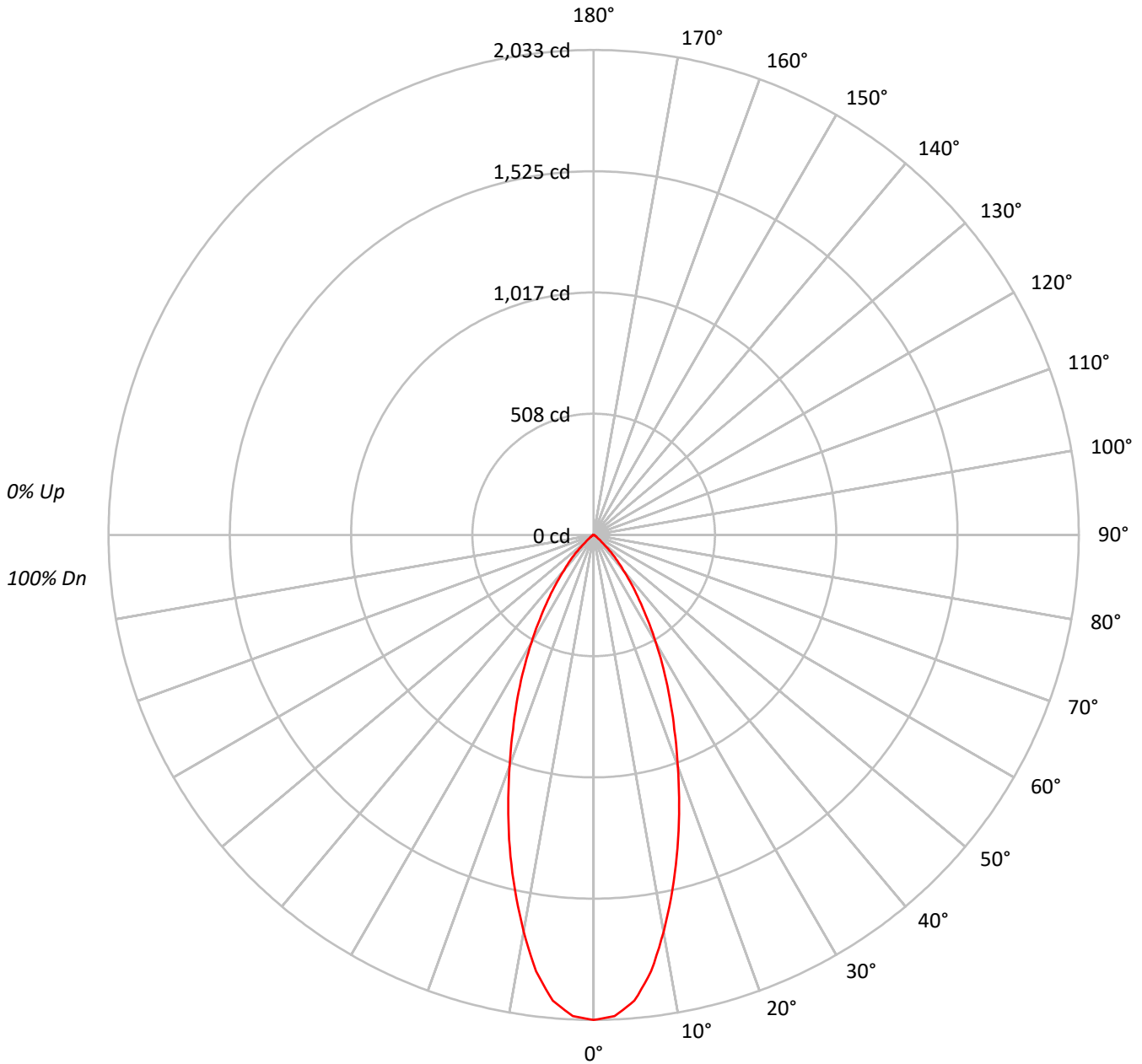
Input Watts (W): 13.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P640611

CATALOG NUMBER: ML5612LSFL4097FS1E - 593BB - 900LM - 2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P640611

CATALOG NUMBER: ML5612LSFL4097FS1E - 593BB - 900LM - 2700K

**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	108	104	100	97	106	102	99	96	99	96	93	96	94	92	93	91	90	88			
3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84	82			
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77			
5	94	86	80	76	92	85	80	76	83	79	75	81	78	74	80	77	74	72			
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68			
7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64			
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61			
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57			
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54			

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

	0°
0°	160503
5°	155323
10°	135324
15°	111016
20°	86502
25°	65727
30°	47582
35°	32101
40°	19920
45°	11454
50°	4028
55°	2257
60°	1200
65°	411
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11454 cd/sqm



TEST NUMBER: P640611

CATALOG NUMBER: ML5612LSFL4097FS1E - 593BB - 900LM - 2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.3	14.7
10°-20°	375.4	31.1
20°-30°	345.8	28.6
30°-40°	211.5	17.5
40°-50°	79.1	6.5
50°-60°	16.1	1.3
60°-70°	2.8	0.2
70°-80°	0.0	0.0
80°-90°	0.0	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°	899.4	74.4
0°-40°	1110.9	91.9
0°-60°	1206.1	99.8
0°-90°	1208.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1208.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2033	
5°	1960	178
15°	1358	375
25°	755	346
35°	333	212
45°	103	79
55°	16	16
65°	2	3
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P640611

CATALOG NUMBER: ML5612LSFL4097FS1E - 593BB - 900LM - 2700K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2033.2
2.5°	2019.1
5°	1960.1
7.5°	1845.4
10°	1688.2
12.5°	1524.4
15°	1358.4
17.5°	1190.2
20°	1029.7
22.5°	883.4
25°	754.6
27.5°	633.3
30°	522.0
32.5°	420.4
35°	333.1
37.5°	261.0
40°	193.3
42.5°	146.3
45°	102.6
47.5°	55.7
50°	32.8
52.5°	24.0
55°	16.4
57.5°	12.0
60°	7.6
62.5°	5.5
65°	2.2
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
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)