

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: P640719

Luminaire Tested: ML5612LSFL4097FS1E - 596WB - 900LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640719  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-35)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 596WB - 900LM - 4000K  
Description: ML56 RR, 40D TIR OPTIC, 5" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1418.9 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.7  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

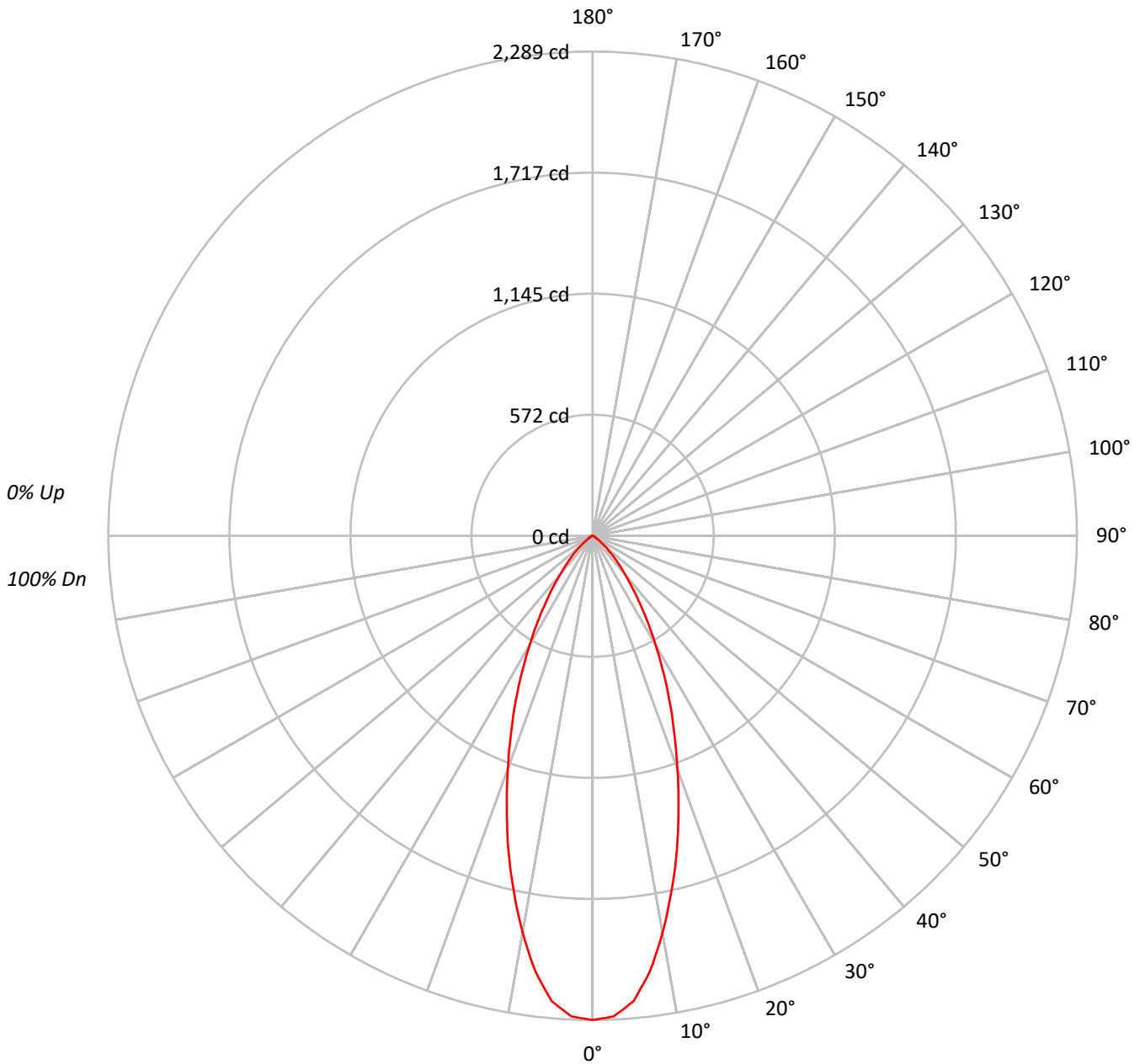
Input Watts (W): 13.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P640719

CATALOG NUMBER: ML5612LSFL4097FS1E - 596WB - 900LM - 4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P640719

CATALOG NUMBER: ML5612LSFL4097FS1E - 596WB - 900LM - 4000K

**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	100	98	97	96	95	94																			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	73	69	76	72	68	75	71	68	67																			
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63																			
8	80	71	65	61	79	71	65	61	69	64	61	68	64	61	67	63	60	59																			
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56																			
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53																			

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

	0°
0°	180664
5°	175062
10°	152710
15°	125776
20°	98322
25°	74812
30°	54300
35°	37314
40°	24433
45°	15797
50°	8990
55°	3757
60°	2542
65°	1382
70°	854
75°	763
80°	546
85°	1087

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15797 cd/sqm



TEST NUMBER: P640719

CATALOG NUMBER: ML5612LSFL4097FS1E - 596WB - 900LM - 4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.8	14.2
10°-20°	425.0	30.0
20°-30°	393.4	27.7
30°-40°	245.8	17.3
40°-50°	111.0	7.8
50°-60°	31.0	2.2
60°-70°	8.5	0.6
70°-80°	2.6	0.2
80°-90°	0.8	0.1
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°	1019.2	71.8
0°-40°	1265.0	89.2
0°-60°	1406.9	99.2
0°-90°	1418.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1418.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2289	
5°	2209	201
15°	1539	425
25°	859	393
35°	387	246
45°	142	111
55°	27	31
65°	7	9
75°	2	3
85°	1	1
90°	0	



TEST NUMBER: P640719

CATALOG NUMBER: ML5612LSFL4097FS1E - 596WB - 900LM - 4000K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2288.6
2.5°	2275.0
5°	2209.2
7.5°	2076.4
10°	1905.1
12.5°	1721.4
15°	1539.0
17.5°	1349.1
20°	1170.4
22.5°	1006.5
25°	858.9
27.5°	718.6
30°	595.7
32.5°	484.0
35°	387.2
37.5°	305.3
40°	237.1
42.5°	183.7
45°	141.5
47.5°	101.8
50°	73.2
52.5°	48.4
55°	27.3
57.5°	19.9
60°	16.1
62.5°	12.4
65°	7.4
67.5°	5.0
70°	3.7
72.5°	2.5
75°	2.5
77.5°	2.5
80°	1.2
82.5°	1.2
85°	1.2
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)