

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: P640652

Luminaire Tested: ML5612LSFL4097FS1E - 593WB - 600LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640652  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-28)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 593WB - 600LM - 3000K  
Description: ML56 RR, 40D TIR OPTIC, 5" WHITE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

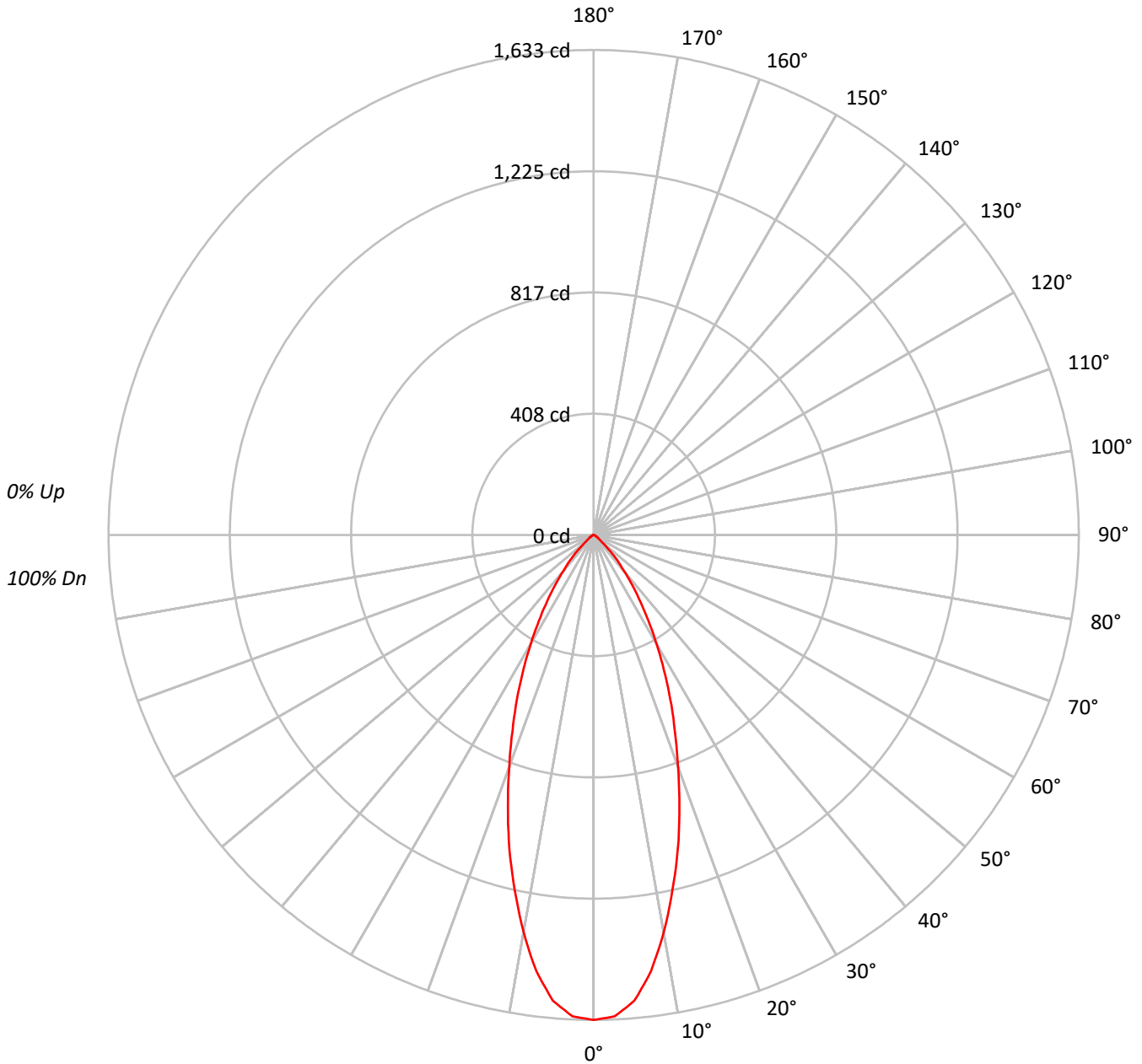
Lumens per Lamp: N/A  
Luminaire Lumens: 993.6 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.3  
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: P640652  
CATALOG NUMBER: ML5612LSFL4097FS1E - 593WB - 600LM - 3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P640652

CATALOG NUMBER: ML5612LSFL4097FS1E - 593WB - 600LM - 3000K

**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	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87			
3	103	96	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81			
4	98	90	85	81	96	89	84	80	87	83	79	85	82	79	83	80	78	76			
5	93	85	79	75	92	84	79	75	82	78	74	81	77	73	79	76	73	71			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67			
7	85	76	70	66	83	75	69	66	74	69	65	73	68	65	71	67	64	63			
8	81	72	66	62	80	71	66	62	70	65	61	69	64	61	68	64	61	60			
9	77	68	62	58	76	67	62	58	66	62	58	66	61	58	65	61	58	56			
10	74	65	59	55	73	64	59	55	63	58	55	63	58	55	62	58	55	53			

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

	0°
0°	128926
5°	124775
10°	108896
15°	89506
20°	69743
25°	53184
30°	38512
35°	26299
40°	16406
45°	9768
50°	3869
55°	2532
60°	1800
65°	1139
70°	1016
75°	1068
80°	1182
85°	1540

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9768 cd/sqm



TEST NUMBER: P640652

CATALOG NUMBER: ML5612LSFL4097FS1E - 593WB - 600LM - 3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.2	14.4
10°-20°	302.4	30.4
20°-30°	279.4	28.1
30°-40°	172.7	17.4
40°-50°	67.0	6.7
50°-60°	17.2	1.7
60°-70°	6.7	0.7
70°-80°	3.5	0.3
80°-90°	1.5	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°	725.0	73.0
0°-40°	897.7	90.4
0°-60°	981.9	98.8
0°-90°	993.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	993.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1633	
5°	1575	143
15°	1095	302
25°	611	279
35°	273	173
45°	88	67
55°	18	17
65°	6	7
75°	4	3
85°	2	2
90°	0	



TEST NUMBER: P640652

CATALOG NUMBER: ML5612LSFL4097FS1E - 593WB - 600LM - 3000K

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1633.2
2.5°	1622.7
5°	1574.6
7.5°	1481.0
10°	1358.5
12.5°	1225.6
15°	1095.2
17.5°	959.6
20°	830.2
22.5°	713.8
25°	610.6
27.5°	511.7
30°	422.5
32.5°	342.0
35°	272.9
37.5°	214.3
40°	159.2
42.5°	121.6
45°	87.5
47.5°	49.0
50°	31.5
52.5°	23.6
55°	18.4
57.5°	14.0
60°	11.4
62.5°	8.7
65°	6.1
67.5°	4.4
70°	4.4
72.5°	3.5
75°	3.5
77.5°	2.6
80°	2.6
82.5°	1.7
85°	1.7
87.5°	0.9
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)