

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: P640816

Luminaire Tested: ML5612LSFL4097FS1E - 693TBZB - 600LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640816  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-43)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 693TBZB - 600LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

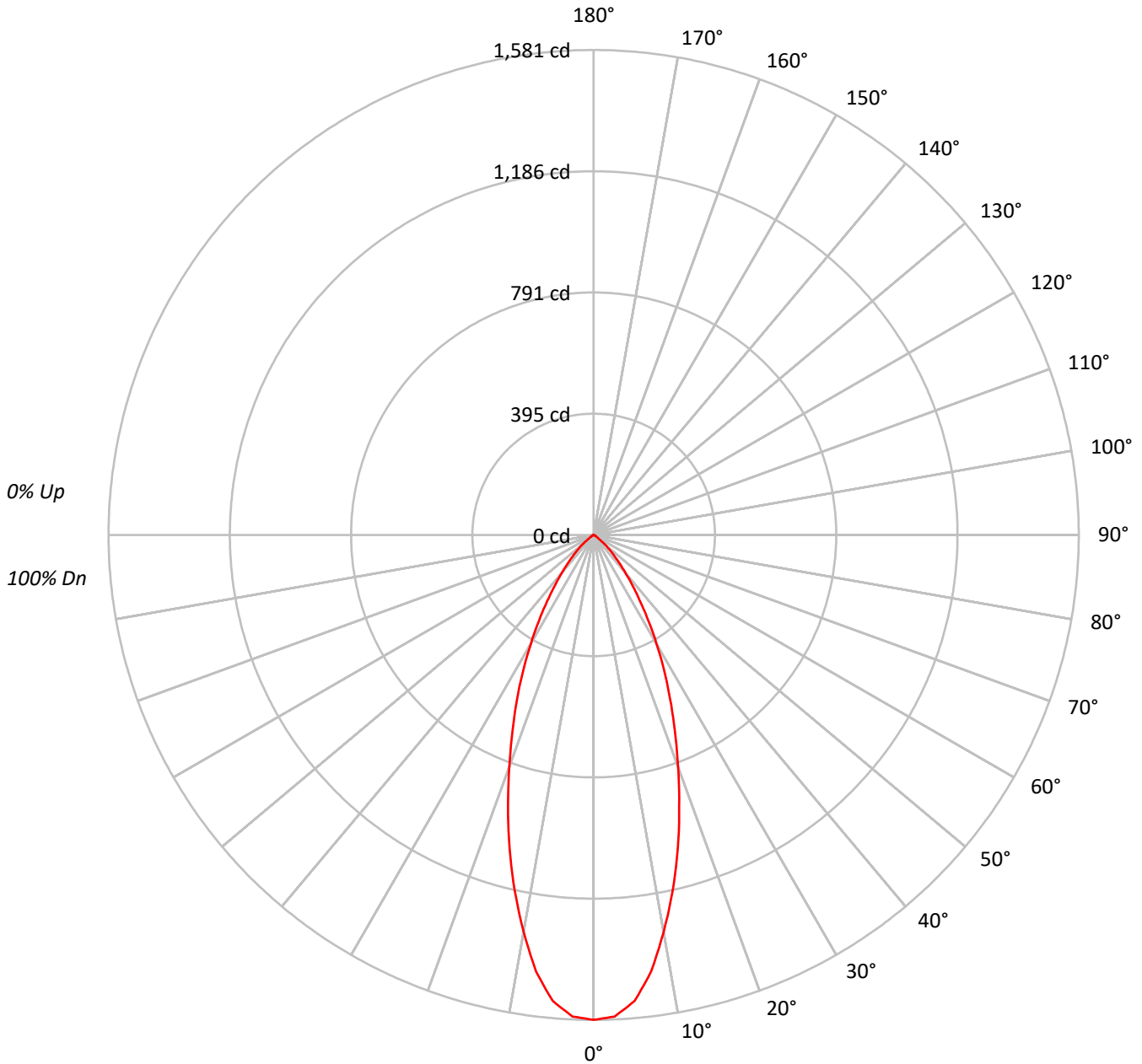
Lumens per Lamp: N/A  
Luminaire Lumens: 961.0 lumens  
Efficiency: N/A  
Efficacy: 93.3 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.3  
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



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### Luminous Intensity Polar Plot





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**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	106	111	109	107	105	105	103	102	101	100	98	98	97	96	94			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82			
4	98	91	85	81	96	90	85	81	87	83	80	85	82	79	84	81	78	77			
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72			
6	89	80	75	70	87	80	74	70	78	73	70	77	72	69	75	72	69	67			
7	85	76	70	66	83	75	70	66	74	69	65	73	68	65	72	68	65	63			
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60			
9	77	68	62	59	76	68	62	58	67	62	58	66	61	58	65	61	58	57			
10	74	65	59	55	73	64	59	55	63	59	55	63	58	55	62	58	55	54			

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

	0°
0°	86660
5°	83948
10°	73128
15°	60120
20°	46857
25°	35615
30°	25903
35°	17654
40°	11386
45°	7055
50°	3556
55°	1462
60°	844
65°	337
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7055 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.7	14.4
10°-20°	292.6	30.4
20°-30°	270.2	28.1
30°-40°	167.7	17.5
40°-50°	72.6	7.6
50°-60°	16.2	1.7
60°-70°	3.0	0.3
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°	701.5	73.0
0°-40°	869.2	90.4
0°-60°	958.0	99.7
0°-90°	961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	961.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1581	
5°	1526	139
15°	1059	293
25°	589	270
35°	264	168
45°	91	73
55°	15	16
65°	3	3
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1580.8
2.5°	1571.5
5°	1525.5
7.5°	1435.3
10°	1313.7
12.5°	1188.6
15°	1059.3
17.5°	927.4
20°	803.2
22.5°	690.0
25°	588.8
27.5°	496.0
30°	409.2
32.5°	331.8
35°	263.8
37.5°	207.6
40°	159.1
42.5°	123.4
45°	91.0
47.5°	66.4
50°	41.7
52.5°	22.1
55°	15.3
57.5°	11.1
60°	7.7
62.5°	5.1
65°	2.6
67.5°	0.9
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

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— 0°-180°

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(END OF REPORT)