

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: P640813

Luminaire Tested: ML5612LSFL4097FS1E - 693TBZB - 1200LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640813  
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 - 1200LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

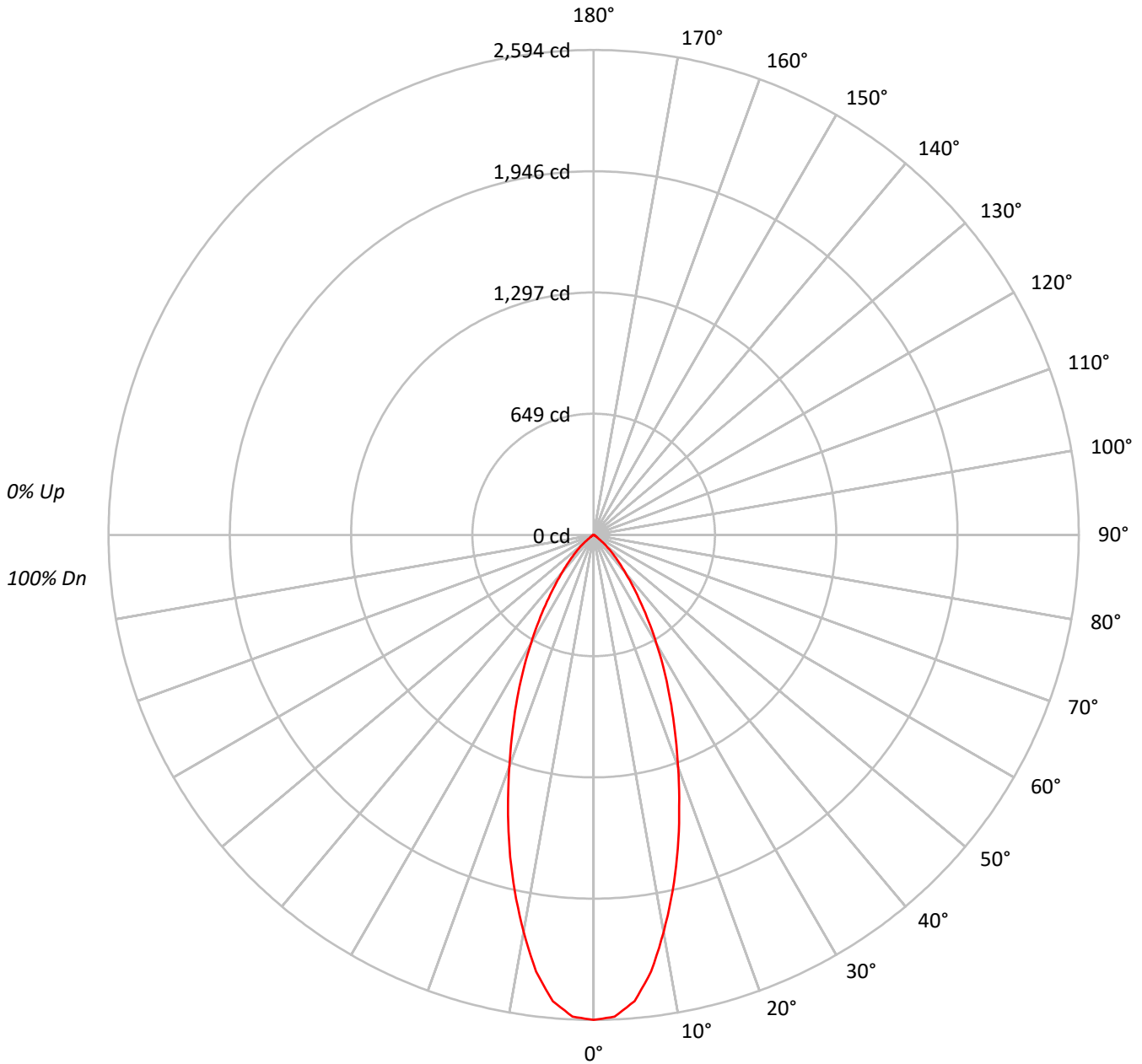
Lumens per Lamp: N/A  
Luminaire Lumens: 1576.9 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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				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°	142204
5°	137756
10°	119999
15°	98650
20°	76890
25°	58437
30°	42507
35°	28964
40°	18685
45°	11583
50°	5833
55°	2399
60°	1381
65°	545
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11583 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.6	14.4
10°-20°	480.1	30.4
20°-30°	443.4	28.1
30°-40°	275.2	17.5
40°-50°	119.1	7.6
50°-60°	26.5	1.7
60°-70°	5.0	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°	1151.1	73.0
0°-40°	1426.3	90.5
0°-60°	1571.9	99.7
0°-90°	1576.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1576.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2594	
5°	2503	228
15°	1738	480
25°	966	443
35°	433	275
45°	149	119
55°	25	26
65°	4	5
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2594.0
2.5°	2578.7
5°	2503.3
7.5°	2355.3
10°	2155.7
12.5°	1950.4
15°	1738.2
17.5°	1521.8
20°	1318.0
22.5°	1132.3
25°	966.1
27.5°	814.0
30°	671.5
32.5°	544.5
35°	432.8
37.5°	340.7
40°	261.1
42.5°	202.4
45°	149.4
47.5°	108.9
50°	68.4
52.5°	36.3
55°	25.1
57.5°	18.1
60°	12.6
62.5°	8.4
65°	4.2
67.5°	1.4
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)