

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: P642518

Luminaire Tested: ML5615LSFL409FS1E - 594WB - 900LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642518  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-32)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 594WB - 900LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 5" WHITE GIMBAL TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

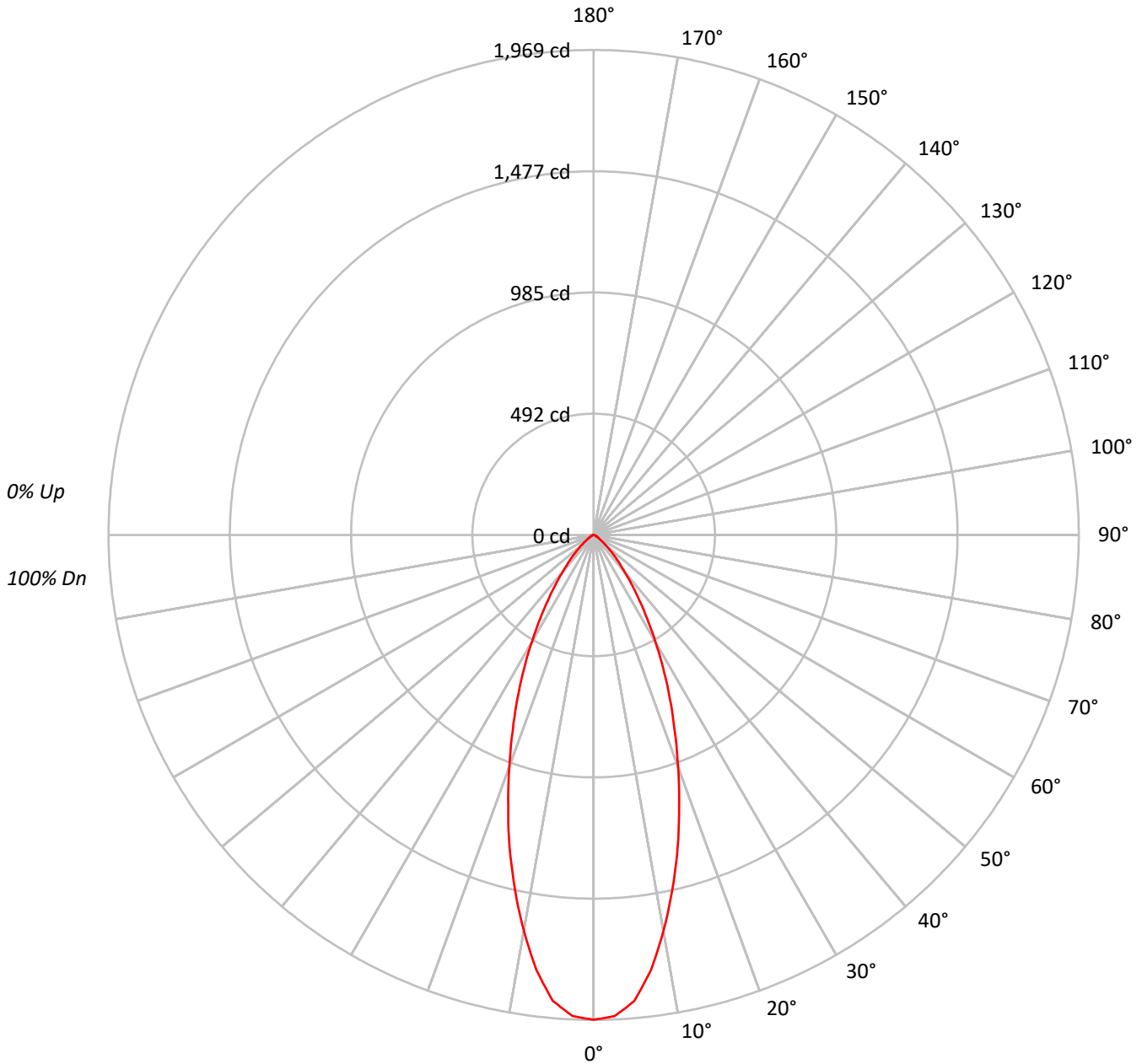
Lumens per Lamp: N/A  
Luminaire Lumens: 1214.0 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.5  
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									
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	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93																			
2	108	103	99	96	106	101	98	95	98	95	92	95	93	90	92	90	89	87																			
3	103	96	91	87	101	95	90	87	92	88	85	90	86	84	87	85	83	81																			
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71																			
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59																			
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56																			
10	73	64	58	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53																			

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

	0°
0°	155403
5°	150474
10°	130867
15°	107600
20°	84066
25°	63689
30°	45659
35°	31060
40°	20033
45°	12861
50°	7528
55°	4211
60°	2842
65°	1980
70°	1708
75°	1281
80°	955
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12861 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.4	14.2
10°-20°	363.7	30.0
20°-30°	334.7	27.6
30°-40°	204.7	16.9
40°-50°	91.5	7.5
50°-60°	30.3	2.5
60°-70°	11.5	0.9
70°-80°	4.6	0.4
80°-90°	0.6	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°	870.9	71.7
0°-40°	1075.5	88.6
0°-60°	1197.3	98.6
0°-90°	1214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1214.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1969	
5°	1899	172
15°	1317	364
25°	731	335
35°	322	205
45°	115	91
55°	31	30
65°	11	11
75°	4	5
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1968.6
2.5°	1955.9
5°	1898.9
7.5°	1781.6
10°	1632.6
12.5°	1475.1
15°	1316.6
17.5°	1153.9
20°	1000.7
22.5°	858.0
25°	731.2
27.5°	610.8
30°	500.9
32.5°	404.7
35°	322.3
37.5°	252.5
40°	194.4
42.5°	151.1
45°	115.2
47.5°	85.6
50°	61.3
52.5°	43.3
55°	30.6
57.5°	23.2
60°	18.0
62.5°	14.8
65°	10.6
67.5°	8.5
70°	7.4
72.5°	5.3
75°	4.2
77.5°	3.2
80°	2.1
82.5°	1.1
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)