

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: P642445

Luminaire Tested: ML5615LSFL409FS1E - 593SNB - 900LM - 5000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-30)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 593SNB - 900LM - 5000K  
Description: ML56 RR, 40D TIR OPTIC, 5" SATIN NICKLE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

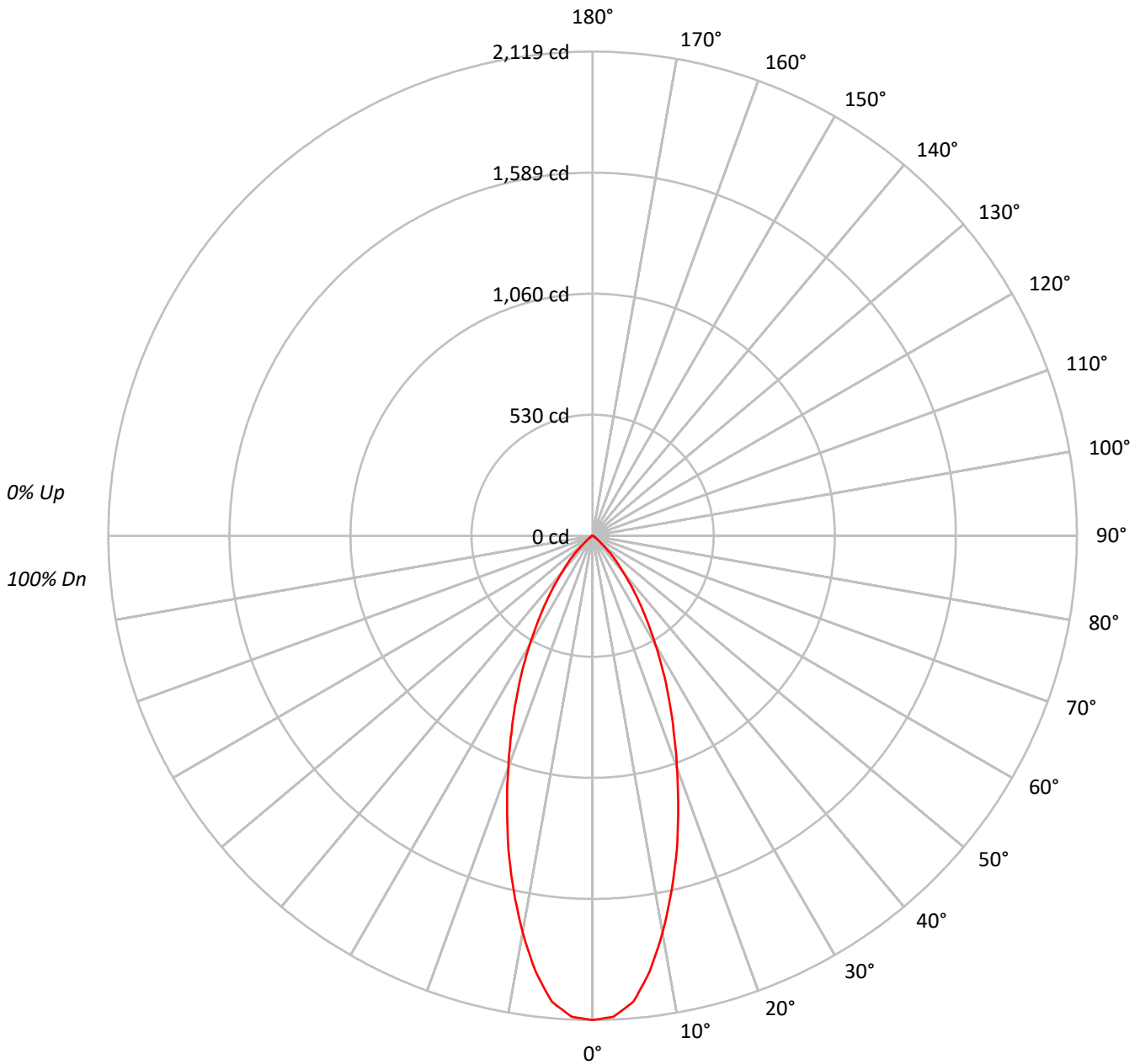
Lumens per Lamp: N/A  
Luminaire Lumens: 1278.2 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

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			100																
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94			94																
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			88																
3	103	97	92	88	101	96	91	88	93	89	86	91	87	85	88	86	84	82			82																
4	98	91	86	82	96	90	85	81	88	83	80	86	82	79	84	81	78	77			77																
5	93	85	80	76	92	85	79	75	83	78	75	81	77	74	80	76	73	72			72																
6	89	81	75	71	88	80	74	70	78	74	70	77	73	69	76	72	69	68			68																
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64			64																
8	81	72	66	62	80	71	66	62	70	65	62	69	65	62	68	64	61	60			60																
9	78	68	63	59	76	68	62	59	67	62	59	66	62	58	65	61	58	57			57																
10	74	65	59	56	73	65	59	56	64	59	56	63	59	55	62	58	55	54			54																

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

	0°
0°	167307
5°	162186
10°	141272
15°	116247
20°	90551
25°	68932
30°	50061
35°	34192
40°	21445
45°	12693
50°	4753
55°	2821
60°	1610
65°	635
70°	254
75°	336
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12693 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.9	14.5
10°-20°	392.5	30.7
20°-30°	362.9	28.4
30°-40°	224.6	17.6
40°-50°	87.6	6.9
50°-60°	19.5	1.5
60°-70°	4.4	0.3
70°-80°	0.7	0.1
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°	941.3	73.6
0°-40°	1165.9	91.2
0°-60°	1273.1	99.6
0°-90°	1278.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1278.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2119	
5°	2047	186
15°	1422	393
25°	791	363
35°	355	225
45°	114	88
55°	20	20
65°	3	4
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2119.4
2.5°	2106.9
5°	2046.7
7.5°	1920.5
10°	1762.4
12.5°	1593.0
15°	1422.4
17.5°	1243.9
20°	1077.9
22.5°	926.7
25°	791.4
27.5°	666.3
30°	549.2
32.5°	445.7
35°	354.8
37.5°	277.4
40°	208.1
42.5°	158.0
45°	113.7
47.5°	67.1
50°	38.7
52.5°	28.4
55°	20.5
57.5°	14.8
60°	10.2
62.5°	8.0
65°	3.4
67.5°	1.1
70°	1.1
72.5°	1.1
75°	1.1
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)