

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: P642698

Luminaire Tested: ML5615LSFL409FS1E - 696WB - 900LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-46)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 696WB - 900LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 6" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

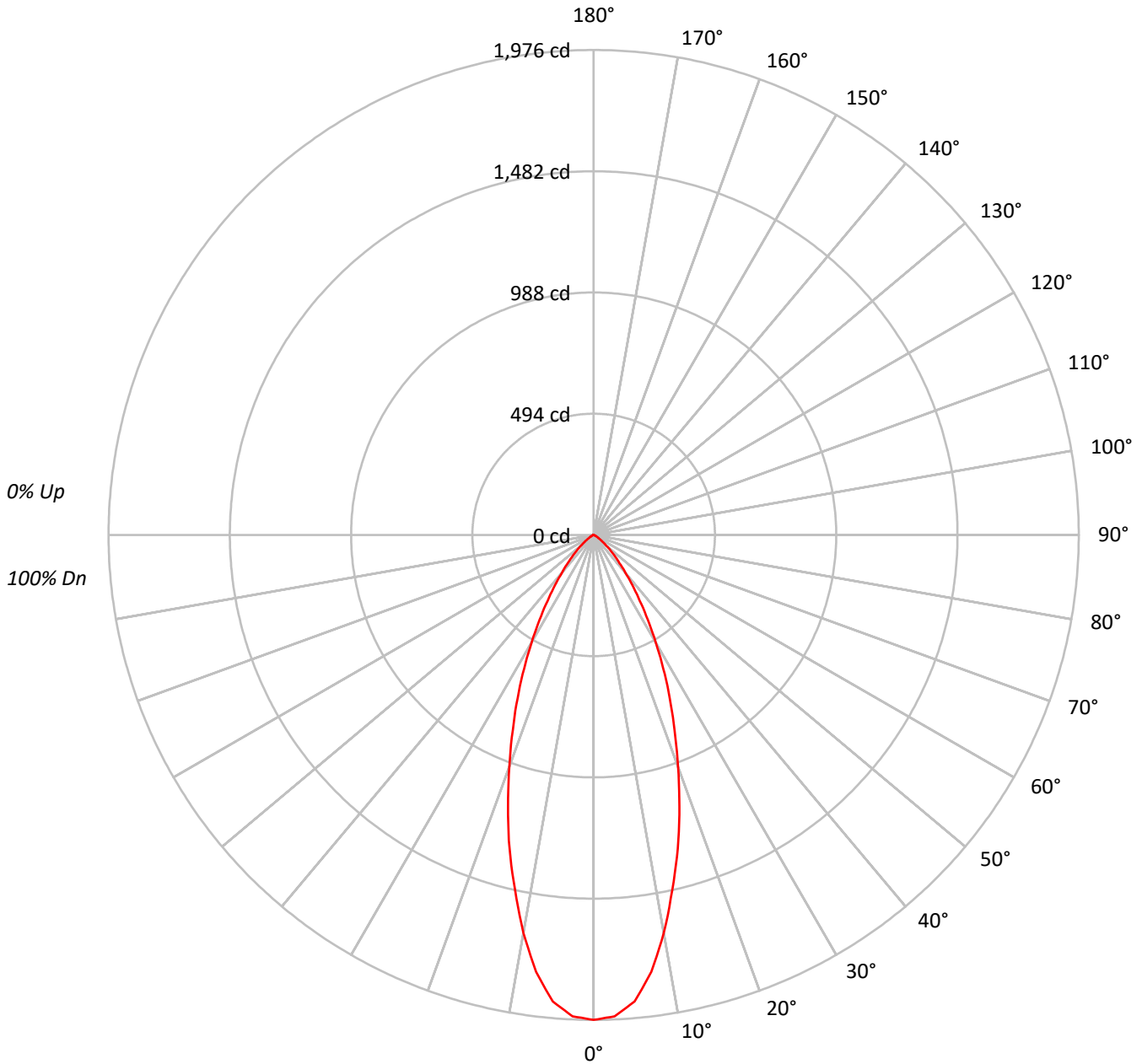
Lumens per Lamp: N/A  
Luminaire Lumens: 1219.3 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.5  
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	100	100	100
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94	94	94	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81	81	81	81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76	76	76	76
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	71	71
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66	66	66	66
7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	63	63	63	63
8	80	71	65	61	79	70	65	61	69	64	61	68	64	61	67	63	60	59	59	59	59
9	77	67	62	58	76	67	61	58	66	61	57	65	60	57	64	60	57	56	56	56	56
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53	53	53	53

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

	0°
0°	108319
5°	105013
10°	91648
15°	75159
20°	58589
25°	44331
30°	31954
35°	21911
40°	14363
45°	9334
50°	5492
55°	3030
60°	1732
65°	960
70°	513
75°	233
80°	347
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9334 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.5	14.2
10°-20°	365.5	30.0
20°-30°	336.0	27.6
30°-40°	208.1	17.1
40°-50°	95.2	7.8
50°-60°	30.9	2.5
60°-70°	8.0	0.7
70°-80°	1.7	0.1
80°-90°	0.4	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°	875.0	71.8
0°-40°	1083.1	88.8
0°-60°	1209.2	99.2
0°-90°	1219.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1219.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1976	
5°	1908	174
15°	1324	366
25°	733	336
35°	327	208
45°	120	95
55°	32	31
65°	7	8
75°	1	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1975.9
2.5°	1963.2
5°	1908.3
7.5°	1795.3
10°	1646.4
12.5°	1479.5
15°	1324.3
17.5°	1159.5
20°	1004.3
22.5°	860.7
25°	732.9
27.5°	613.6
30°	504.8
32.5°	409.7
35°	327.4
37.5°	258.7
40°	200.7
42.5°	156.3
45°	120.4
47.5°	89.8
50°	64.4
52.5°	45.4
55°	31.7
57.5°	22.2
60°	15.8
62.5°	11.6
65°	7.4
67.5°	4.2
70°	3.2
72.5°	2.1
75°	1.1
77.5°	1.1
80°	1.1
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)