

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: P642564

Luminaire Tested: ML5615LSFL409FS1E - 692H - 900LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642564  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-38)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 692H - 900LM - 4000K  
Description: ML56 RR, 40D TIR OPTIC, 6" HAZE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1298.2 lumens  
Efficiency: N/A  
Efficacy: 123.6 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

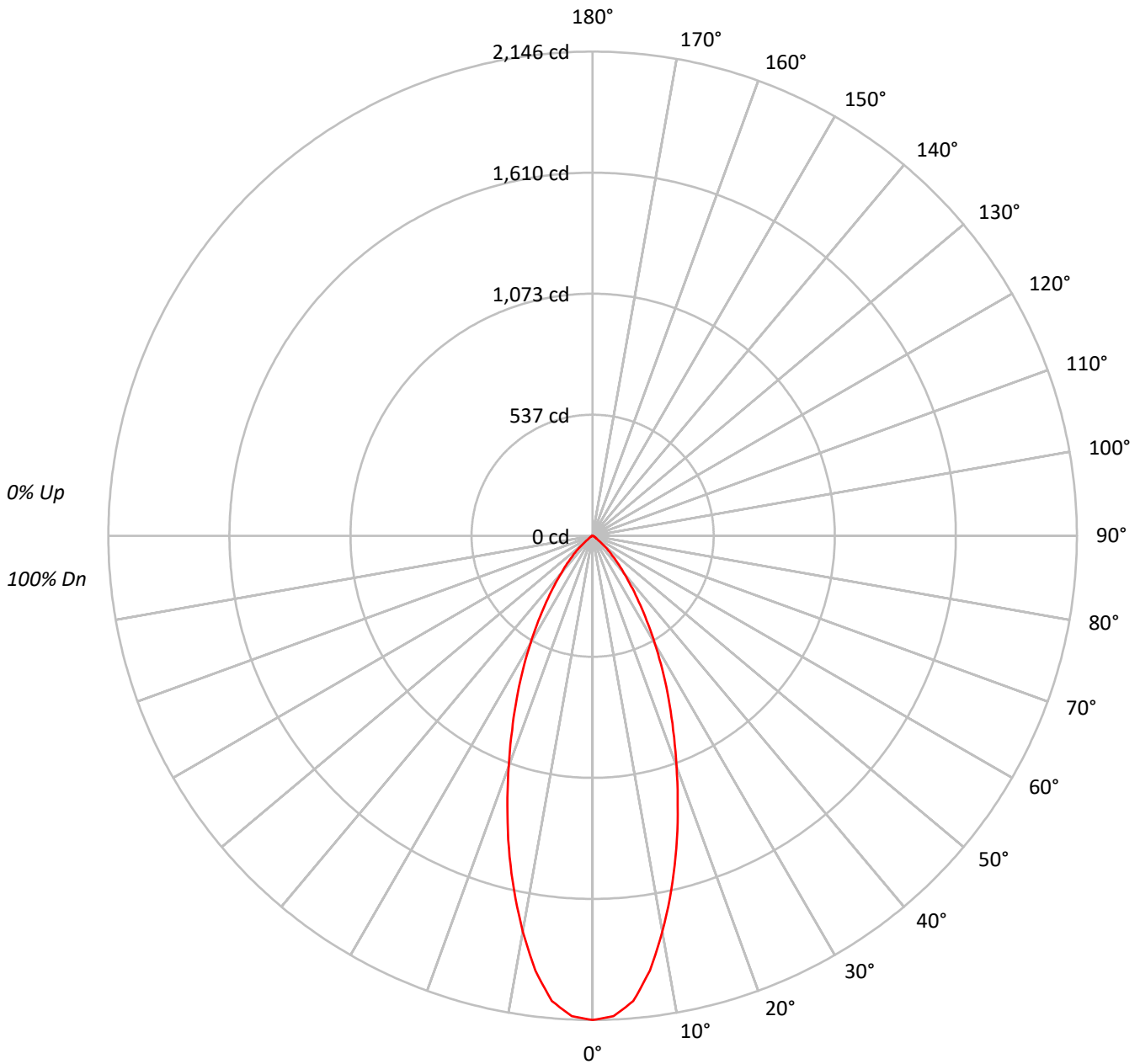
Input Watts (W): 10.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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			
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	86	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	64	59	55	63	58	55	62	58	55	54			

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

	0°
0°	117644
5°	113900
10°	99135
15°	81385
20°	63361
25°	48081
30°	34841
35°	23825
40°	15379
45°	9435
50°	4750
55°	1959
60°	1250
65°	441
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9435 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.0	14.5
10°-20°	396.0	30.5
20°-30°	364.6	28.1
30°-40°	225.8	17.4
40°-50°	97.6	7.5
50°-60°	22.0	1.7
60°-70°	4.1	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°	948.6	73.1
0°-40°	1174.5	90.5
0°-60°	1294.1	99.7
0°-90°	1298.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2146	
5°	2070	188
15°	1434	396
25°	795	365
35°	356	226
45°	122	98
55°	20	22
65°	3	4
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2146.0
2.5°	2131.2
5°	2069.8
7.5°	1943.5
10°	1780.9
12.5°	1609.2
15°	1434.0
17.5°	1254.4
20°	1086.1
22.5°	932.5
25°	794.9
27.5°	667.6
30°	550.4
32.5°	446.9
35°	356.0
37.5°	278.6
40°	214.9
42.5°	166.0
45°	121.7
47.5°	89.8
50°	55.7
52.5°	29.6
55°	20.5
57.5°	15.9
60°	11.4
62.5°	6.8
65°	3.4
67.5°	1.1
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)