

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: P642550

Luminaire Tested: ML5615LSFL409FS1E - 691WB - 900LM - 5000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642550  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 691WB - 900LM - 5000K  
Description: ML56 RR, 40D TIR OPTIC, 6" DEADFRONT TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

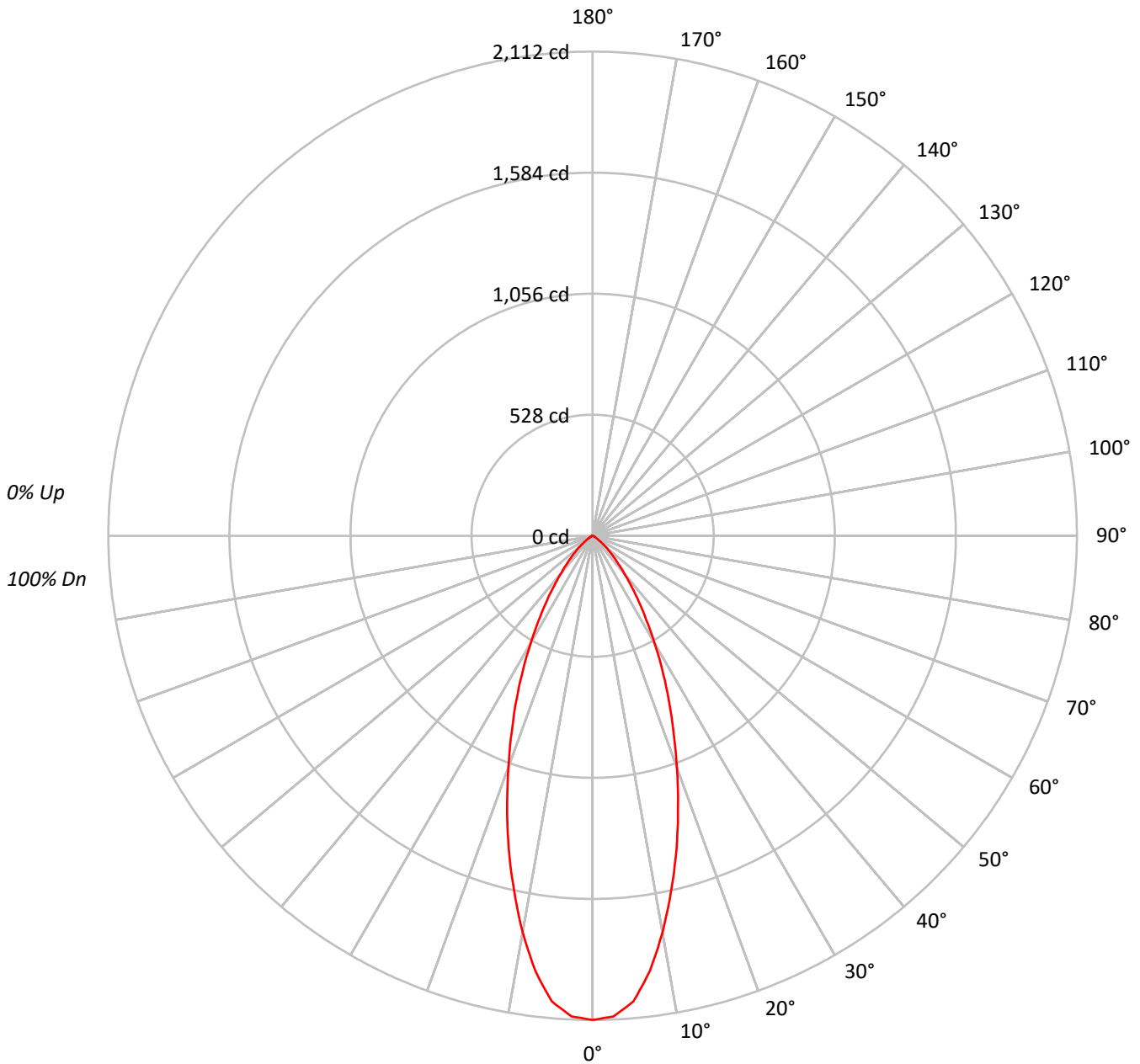
Lumens per Lamp: N/A  
Luminaire Lumens: 1302.1 lumens  
Efficiency: N/A  
Efficacy: 124.0 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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

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

	0°
0°	115775
5°	112211
10°	97755
15°	80188
20°	62597
25°	47374
30°	34176
35°	23503
40°	15372
45°	10048
50°	5910
55°	3154
60°	1743
65°	1038
70°	545
75°	233
80°	347
85°	692

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10048 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.2	14.2
10°-20°	390.6	30.0
20°-30°	358.9	27.6
30°-40°	222.7	17.1
40°-50°	101.9	7.8
50°-60°	32.0	2.5
60°-70°	8.2	0.6
70°-80°	1.8	0.1
80°-90°	0.7	0.1
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°	934.7	71.8
0°-40°	1157.4	88.9
0°-60°	1291.3	99.2
0°-90°	1302.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1302.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2112	
5°	2039	185
15°	1413	391
25°	783	359
35°	351	223
45°	130	102
55°	33	32
65°	8	8
75°	1	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2111.9
2.5°	2098.3
5°	2039.1
7.5°	1914.1
10°	1756.1
12.5°	1584.5
15°	1412.9
17.5°	1238.9
20°	1073.0
22.5°	919.5
25°	783.2
27.5°	654.7
30°	539.9
32.5°	437.6
35°	351.2
37.5°	277.3
40°	214.8
42.5°	167.1
45°	129.6
47.5°	95.5
50°	69.3
52.5°	47.7
55°	33.0
57.5°	21.6
60°	15.9
62.5°	11.4
65°	8.0
67.5°	4.5
70°	3.4
72.5°	2.3
75°	1.1
77.5°	1.1
80°	1.1
82.5°	1.1
85°	1.1
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)