

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: P643749

Luminaire Tested: ML5615LSWFL559FS1E - 591WB - 900LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643749  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-47)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSWFL559FS1E - 591WB - 900LM - 4000K  
Description: ML56 RR, 55D TIR OPTIC, 5" DEADFRONT TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

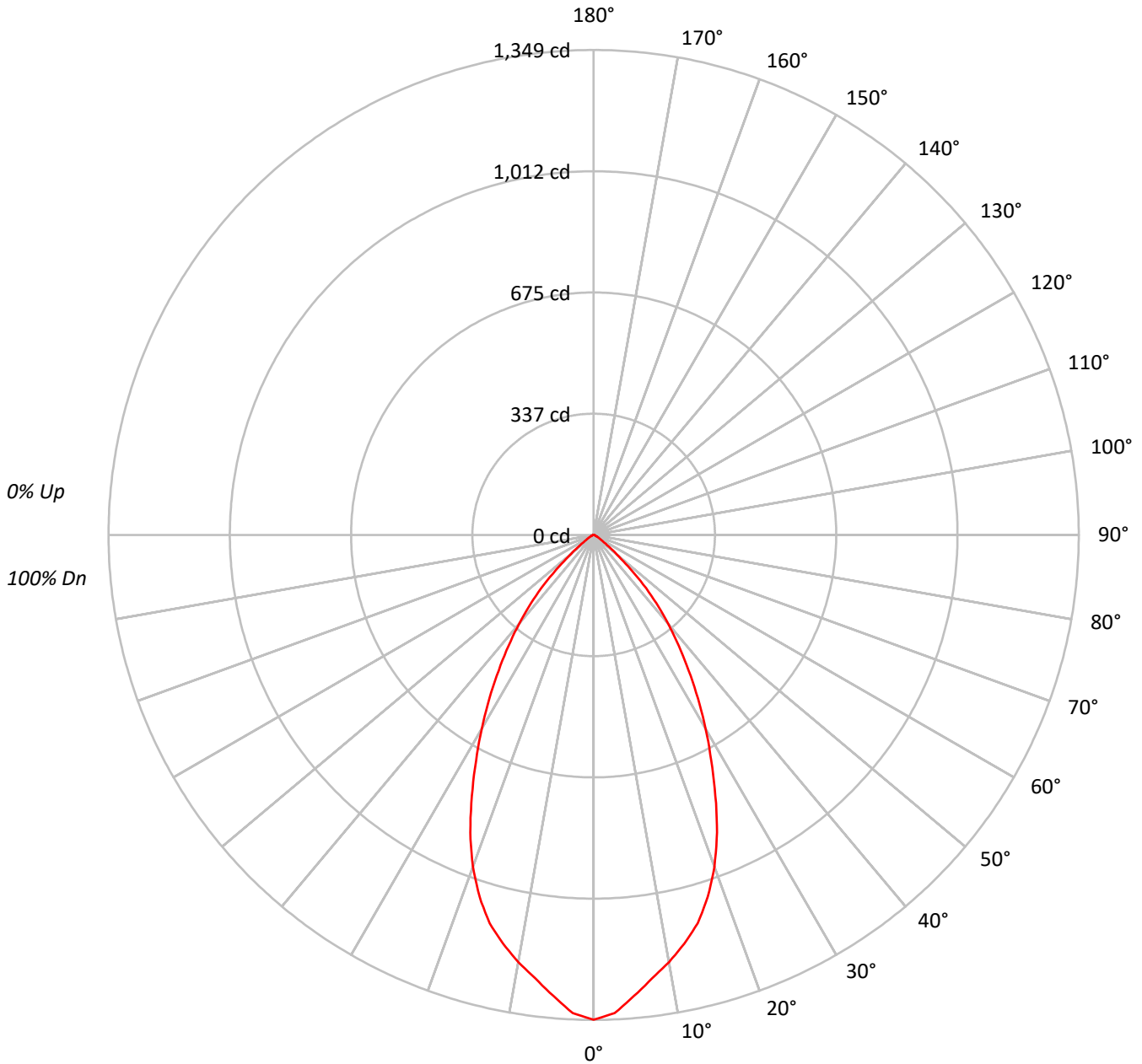
Lumens per Lamp: N/A  
Luminaire Lumens: 1282.3 lumens  
Efficiency: N/A  
Efficacy: 122.1 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.89  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93			93																
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85			85																
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	82	80	78			78																
4	95	87	81	77	94	86	81	76	84	79	76	82	78	75	80	77	74	72			72																
5	90	81	75	70	88	80	74	70	78	73	69	77	72	69	75	71	68	67			67																
6	85	76	69	65	84	75	69	65	73	68	64	72	67	64	71	66	63	62			62																
7	81	71	64	60	79	70	64	60	69	63	59	68	63	59	66	62	59	57			57																
8	76	66	60	56	75	66	60	55	65	59	55	64	59	55	63	58	55	53			53																
9	73	62	56	52	71	62	56	52	61	55	51	60	55	51	59	54	51	50			50																
10	69	59	53	48	68	58	52	48	57	52	48	57	52	48	56	51	48	47			47																

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

	0°
0°	106460
5°	102009
10°	96719
15°	91369
20°	82461
25°	69768
30°	56752
35°	44339
40°	33131
45°	21814
50°	10181
55°	4225
60°	2510
65°	1494
70°	1039
75°	1037
80°	1046
85°	996

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 21814 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.4	9.4
10°-20°	310.9	24.2
20°-30°	366.2	28.6
30°-40°	288.5	22.5
40°-50°	149.4	11.6
50°-60°	33.2	2.6
60°-70°	8.7	0.7
70°-80°	3.6	0.3
80°-90°	1.5	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°	797.4	62.2
0°-40°	1085.9	84.7
0°-60°	1268.5	98.9
0°-90°	1282.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1282.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1349	
5°	1287	120
15°	1118	311
25°	801	366
35°	460	288
45°	195	149
55°	31	33
65°	8	9
75°	3	4
85°	1	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1348.6
2.5°	1331.6
5°	1287.3
7.5°	1244.1
10°	1206.6
12.5°	1164.5
15°	1118.0
17.5°	1055.5
20°	981.6
22.5°	896.4
25°	801.0
27.5°	707.8
30°	622.6
32.5°	539.7
35°	460.1
37.5°	388.6
40°	321.5
42.5°	257.9
45°	195.4
47.5°	129.5
50°	82.9
52.5°	50.0
55°	30.7
57.5°	20.5
60°	15.9
62.5°	11.4
65°	8.0
67.5°	5.7
70°	4.5
72.5°	3.4
75°	3.4
77.5°	3.4
80°	2.3
82.5°	2.3
85°	1.1
87.5°	1.1
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)