

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: P642709

Luminaire Tested: ML5615LSNFL259FS1E - 591WB - 1500LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSNFL259FS1E - 591WB - 1500LM - 4000K  
Description: ML56 RR, 25D TIR OPTIC, 5" DEADFRONT TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

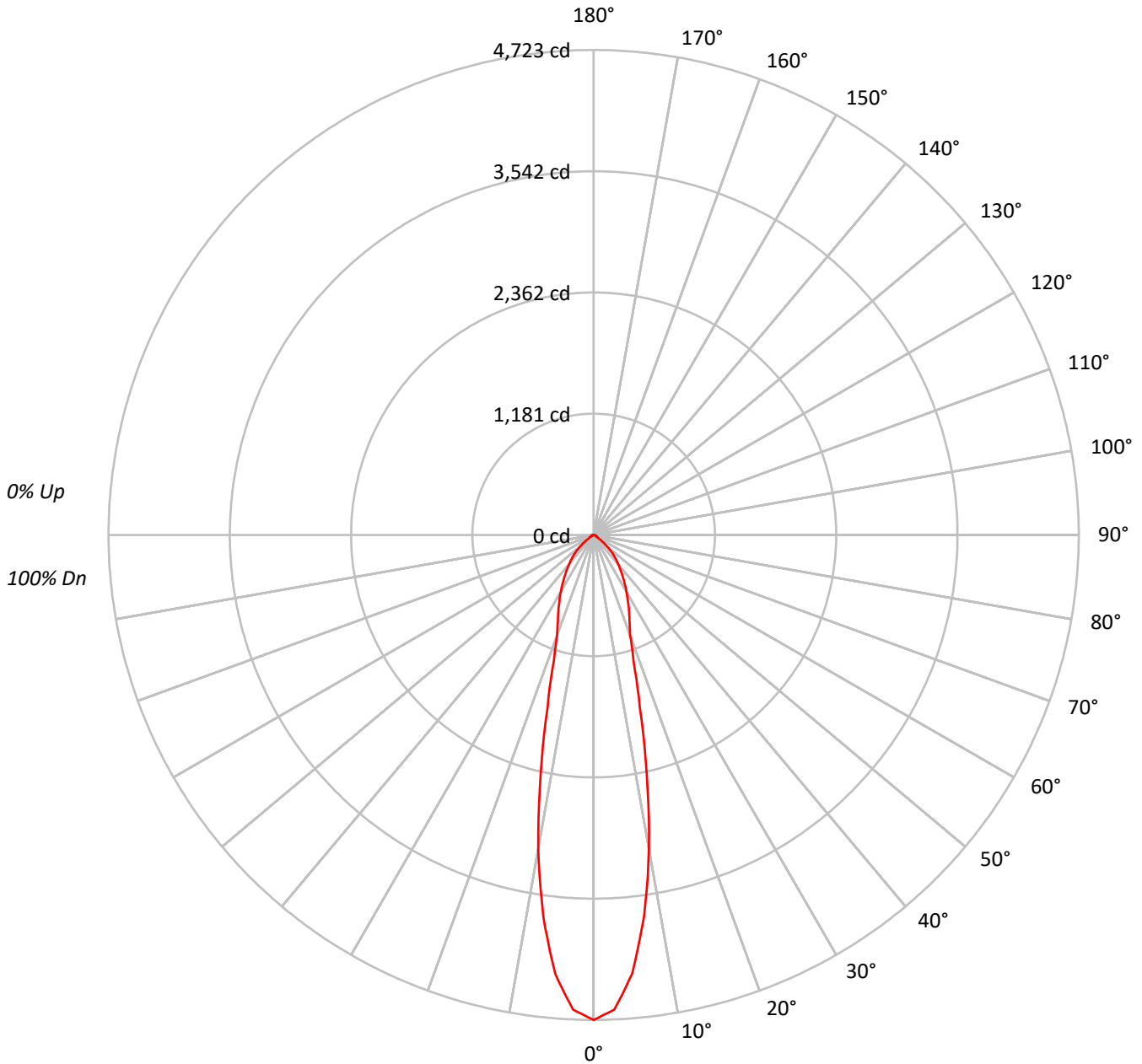
Lumens per Lamp: N/A  
Luminaire Lumens: 1877.2 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.44  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.1  
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																			
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93																			
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86																			
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80																			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75																			
5	92	84	78	74	90	83	77	73	81	76	73	79	75	72	78	74	71	70																			
6	88	79	73	69	86	78	72	68	77	72	68	75	71	67	74	70	67	66																			
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62																			
8	80	71	65	61	79	70	64	61	69	64	60	68	63	60	67	63	60	58																			
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56																			
10	73	64	58	55	72	64	58	55	63	58	54	62	58	54	61	57	54	53																			

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

	0°
0°	372854
5°	339950
10°	248765
15°	141631
20°	87199
25°	70848
30°	58347
35°	47375
40°	38273
45°	30600
50°	19981
55°	8767
60°	5589
65°	4950
70°	4501
75°	4301
80°	4819
85°	4800

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 30600 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	370.8	19.8
10°-20°	498.9	26.6
20°-30°	374.6	20.0
30°-40°	308.9	16.5
40°-50°	206.0	11.0
50°-60°	69.9	3.7
60°-70°	26.9	1.4
70°-80°	15.2	0.8
80°-90°	6.2	0.3
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°	1244.3	66.3
0°-40°	1553.1	82.7
0°-60°	1829.0	97.4
0°-90°	1877.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1877.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4723	
5°	4290	371
15°	1733	499
25°	813	375
35°	492	309
45°	274	206
55°	64	70
65°	26	27
75°	14	15
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	4723.2
2.5°	4626.0
5°	4290.0
7.5°	3750.6
10°	3103.4
12.5°	2382.0
15°	1733.0
17.5°	1285.6
20°	1038.0
22.5°	908.9
25°	813.4
27.5°	721.5
30°	640.1
32.5°	562.3
35°	491.6
37.5°	427.9
40°	371.4
42.5°	320.1
45°	274.1
47.5°	214.0
50°	162.7
52.5°	111.4
55°	63.7
57.5°	42.4
60°	35.4
62.5°	31.8
65°	26.5
67.5°	23.0
70°	19.5
72.5°	15.9
75°	14.1
77.5°	12.4
80°	10.6
82.5°	8.8
85°	5.3
87.5°	3.5
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)