

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: P642377

Luminaire Tested: ML5615LSFL409FS1E - 592H - 1500LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-26)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 592H - 1500LM - 3000K  
Description: ML56 RR, 40D TIR OPTIC, 5" HAZE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

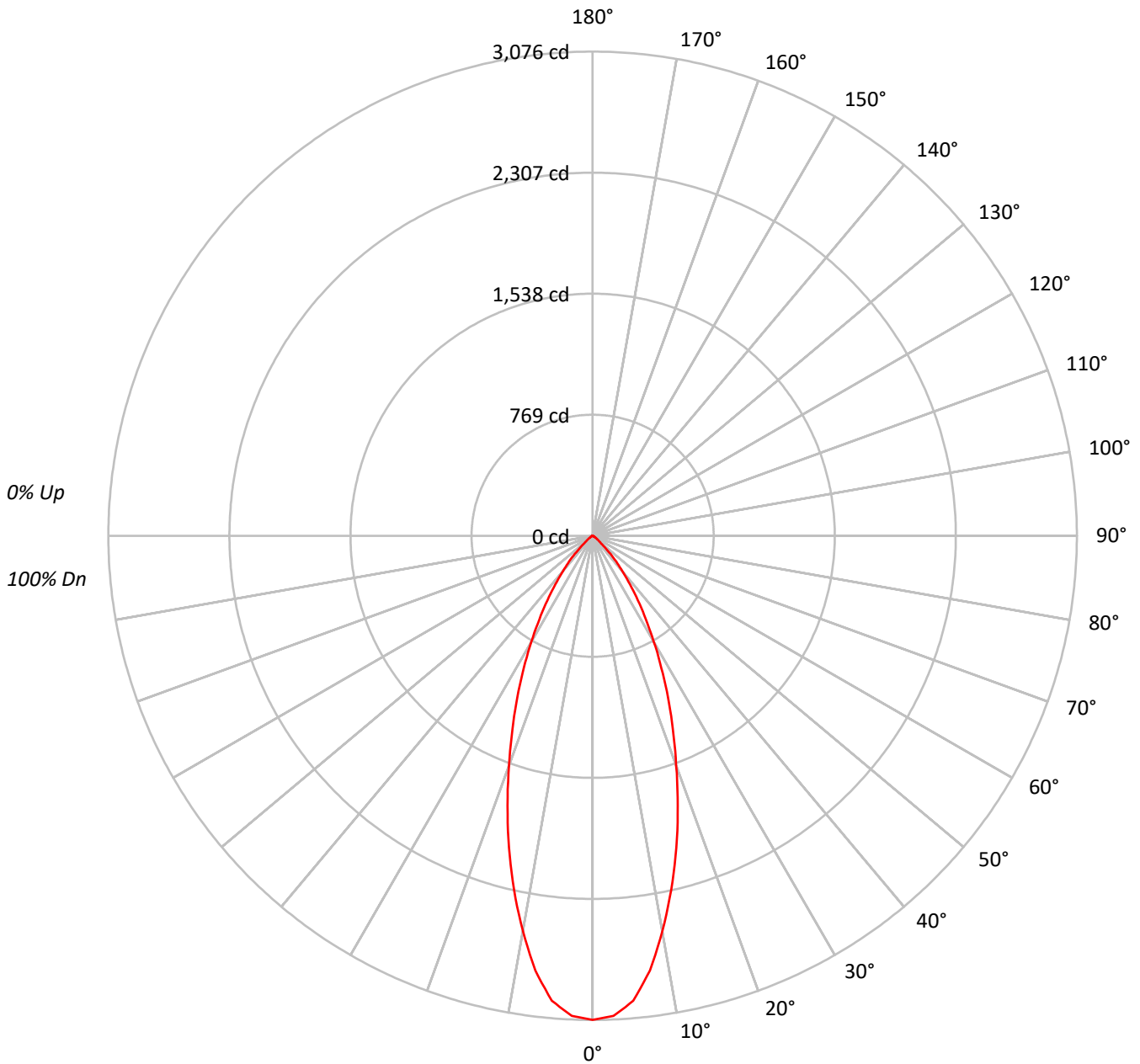
Lumens per Lamp: N/A  
Luminaire Lumens: 1816.9 lumens  
Efficiency: N/A  
Efficacy: 106.3 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

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				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	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	107	111	109	107	105	105	103	102		101	100	99		98	97	96	94
2	108	104	100	97	106	102	99	96	99	96	94		96	94	92		93	91	90	88
3	103	97	92	89	101	96	91	88	93	90	87		91	88	85		89	86	84	82
4	98	91	86	82	97	90	85	81	88	84	80		86	82	80		84	81	79	77
5	94	86	80	76	92	85	80	76	83	79	75		82	78	75		80	77	74	72
6	89	81	75	71	88	80	75	71	79	74	70		77	73	70		76	72	70	68
7	85	77	71	67	84	76	70	67	75	70	66		73	69	66		72	69	66	64
8	82	72	67	63	80	72	67	63	71	66	63		70	65	62		69	65	62	61
9	78	69	63	59	77	68	63	59	67	63	59		67	62	59		66	62	59	57
10	75	65	60	56	74	65	60	56	64	59	56		63	59	56		63	59	56	55

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

	0°
0°	242791
5°	234970
10°	204485
15°	167701
20°	130329
25°	98495
30°	70853
35°	48242
40°	29998
45°	16422
50°	6091
55°	3523
60°	2021
65°	598
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16422 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.4	14.8
10°-20°	567.0	31.2
20°-30°	518.3	28.5
30°-40°	316.3	17.4
40°-50°	117.0	6.4
50°-60°	24.6	1.4
60°-70°	4.3	0.2
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°	1354.7	74.6
0°-40°	1671.0	92.0
0°-60°	1812.6	99.8
0°-90°	1816.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1816.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3076	
5°	2965	269
15°	2052	567
25°	1131	518
35°	501	316
45°	147	117
55°	26	25
65°	3	4
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3075.6
2.5°	3053.2
5°	2965.2
7.5°	2786.1
10°	2551.0
12.5°	2304.7
15°	2052.0
17.5°	1797.7
20°	1551.4
22.5°	1329.1
25°	1130.8
27.5°	945.2
30°	777.3
32.5°	628.6
35°	500.6
37.5°	388.6
40°	291.1
42.5°	220.7
45°	147.1
47.5°	80.0
50°	49.6
52.5°	36.8
55°	25.6
57.5°	17.6
60°	12.8
62.5°	8.0
65°	3.2
67.5°	0.0
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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Scaled Data Report



(END OF REPORT)