

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: P642459

Luminaire Tested: ML5615LSFL409FS1E - 593TBZB - 900LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-31)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 593TBZB - 900LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1263.0 lumens
Efficiency: N/A
Efficacy: 120.3 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

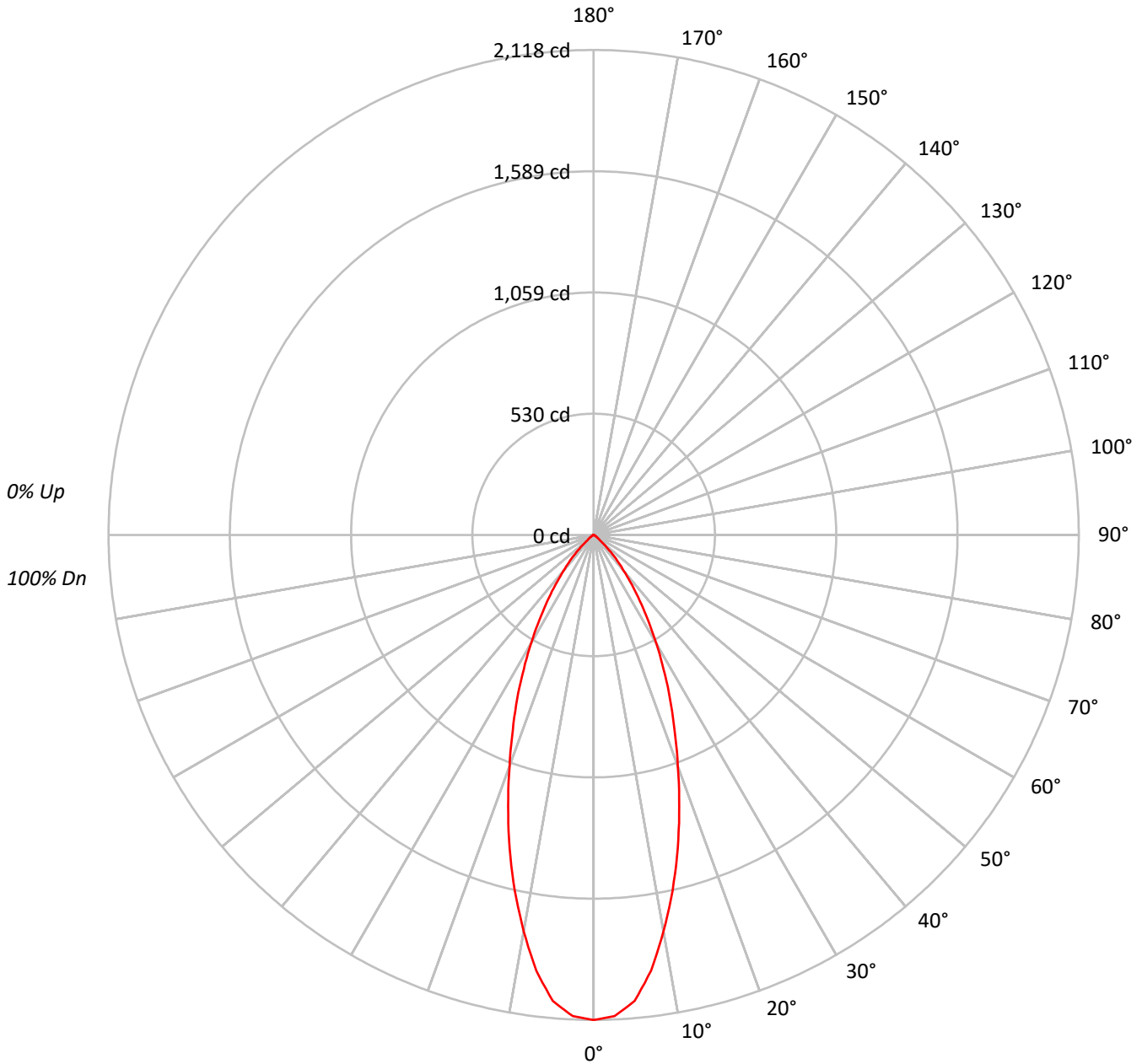
Input Watts (W): 10.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	93	96	94	91	93	91	90	88			
3	103	97	92	89	101	96	91	88	93	89	86	91	88	85	89	86	84	82			
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77			
5	94	86	80	76	92	85	80	76	83	79	75	81	77	74	80	76	74	72			
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68			
7	85	76	71	67	84	76	70	66	74	70	66	73	69	66	72	68	65	64			
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61			
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57			
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	167228
5°	161916
10°	140911
15°	115789
20°	90266
25°	68732
30°	49651
35°	33864
40°	20971
45°	11800
50°	4323
55°	2505
60°	1437
65°	430
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11800 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.6	14.7
10°-20°	391.5	31.0
20°-30°	361.0	28.6
30°-40°	222.1	17.6
40°-50°	82.4	6.5
50°-60°	17.2	1.4
60°-70°	3.1	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°	938.2	74.3
0°-40°	1160.3	91.9
0°-60°	1259.9	99.8
0°-90°	1263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1263.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2118	
5°	2043	186
15°	1417	392
25°	789	361
35°	351	222
45°	106	82
55°	18	17
65°	2	3
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2118.4
2.5°	2103.6
5°	2043.3
7.5°	1919.4
10°	1757.9
12.5°	1590.8
15°	1416.8
17.5°	1241.7
20°	1074.5
22.5°	922.2
25°	789.1
27.5°	660.6
30°	544.7
32.5°	441.2
35°	351.4
37.5°	274.0
40°	203.5
42.5°	153.5
45°	105.7
47.5°	56.9
50°	35.2
52.5°	25.0
55°	18.2
57.5°	12.5
60°	9.1
62.5°	5.7
65°	2.3
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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(END OF REPORT)