

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: P642639

Luminaire Tested: ML5615LSFL409FS1E - 693TBZB - 900LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642639
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 693TBZB - 900LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

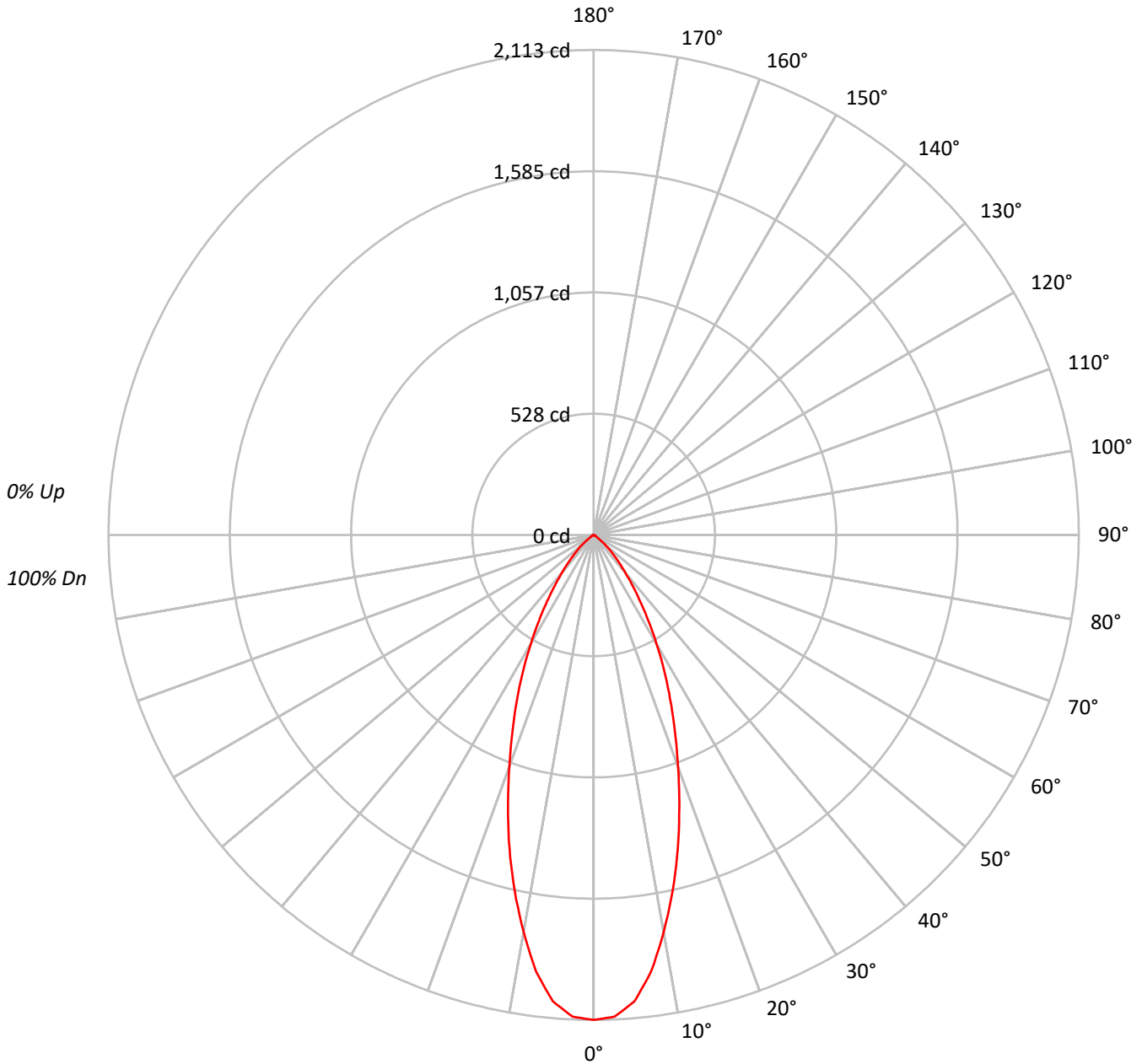
Lumens per Lamp: N/A
Luminaire Lumens: 1284.6 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 10.5
Input Voltage (V): NR
Input Current (A_{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	106	111	109	107	105	105	103	102	101	100	98	98	97	96	94			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82			
4	98	91	85	81	96	90	85	81	87	83	80	85	82	79	84	81	78	77			
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72			
6	89	80	75	70	87	80	74	70	78	73	70	77	72	69	75	72	69	67			
7	85	76	70	66	83	75	70	66	74	69	65	73	68	65	72	68	65	63			
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60			
9	77	68	62	59	76	68	62	58	67	62	58	66	61	58	65	61	58	57			
10	74	65	59	55	73	64	59	55	63	59	55	63	58	55	62	58	55	54			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	115851
5°	112222
10°	97755
15°	80369
20°	62638
25°	47610
30°	34632
35°	23597
40°	15221
45°	9435
50°	4750
55°	1959
60°	1118
65°	441
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9435 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.4	14.4
10°-20°	391.1	30.4
20°-30°	361.2	28.1
30°-40°	224.2	17.5
40°-50°	97.0	7.6
50°-60°	21.6	1.7
60°-70°	4.0	0.3
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°	937.8	73.0
0°-40°	1162.0	90.5
0°-60°	1280.6	99.7
0°-90°	1284.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1284.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2113	
5°	2039	185
15°	1416	391
25°	787	361
35°	353	224
45°	122	97
55°	20	22
65°	3	4
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2113.3
2.5°	2100.8
5°	2039.3
7.5°	1918.8
10°	1756.1
12.5°	1588.9
15°	1416.1
17.5°	1239.8
20°	1073.7
22.5°	922.4
25°	787.1
27.5°	663.1
30°	547.1
32.5°	443.6
35°	352.6
37.5°	277.5
40°	212.7
42.5°	164.9
45°	121.7
47.5°	88.7
50°	55.7
52.5°	29.6
55°	20.5
57.5°	14.8
60°	10.2
62.5°	6.8
65°	3.4
67.5°	1.1
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)