

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: P642614

Luminaire Tested: ML5615LSFL409FS1E - 693SNB - 1200LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642614
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-42)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 693SNB - 1200LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 6" SATIN NICKLE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1636.2 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.7
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

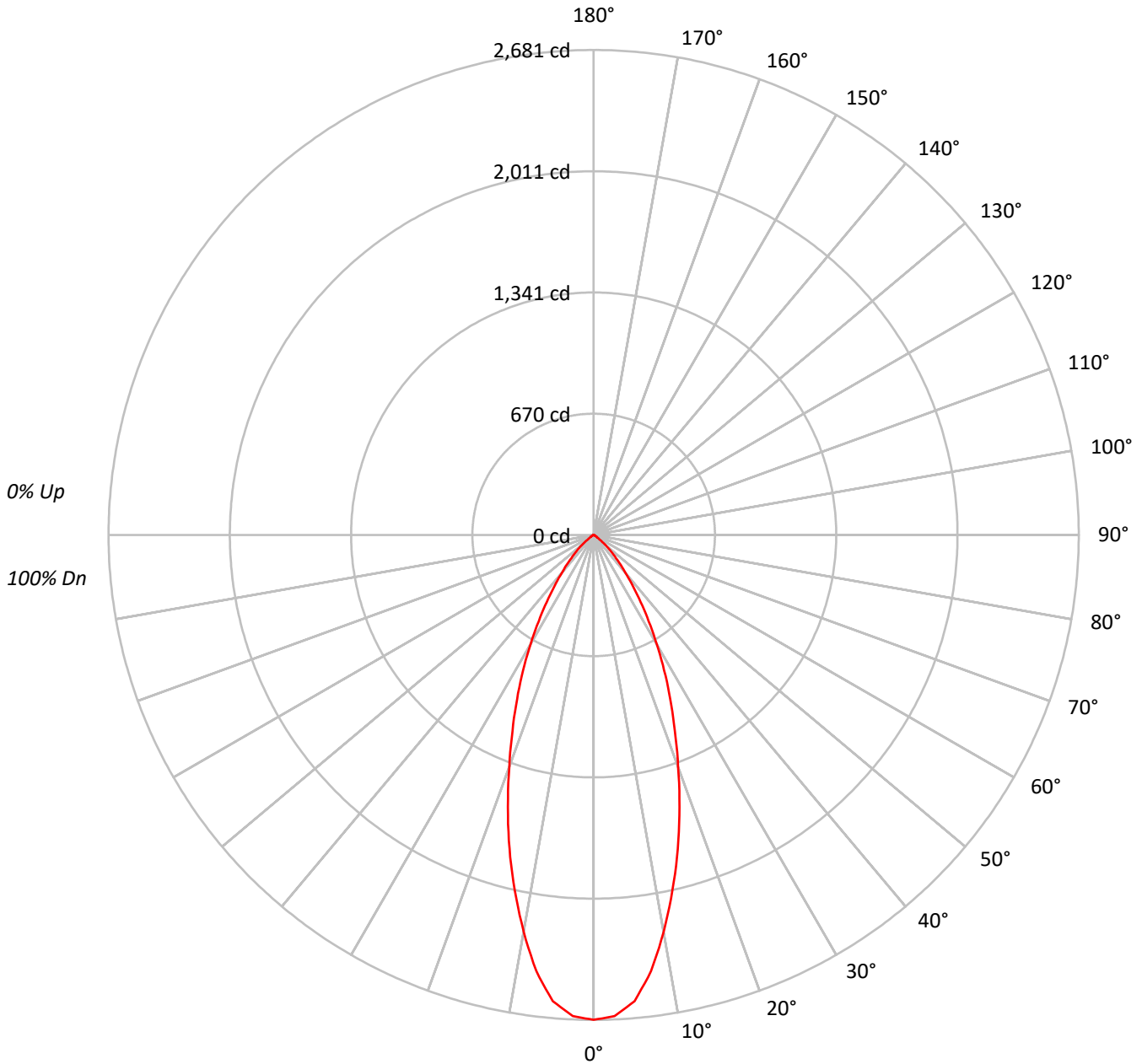
Input Watts (W): 13.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	114	111	109	106	111	109	107	105	105	103	101	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	80	78	76																			
5	93	85	80	75	92	84	79	75	82	78	74	81	77	74	79	76	73	72																			
6	89	80	74	70	87	79	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	58	76	67	62	58	67	62	58	66	61	58	65	61	58	56																			
10	74	65	59	55	73	64	59	55	63	58	55	63	58	55	62	58	55	53																			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	146951
5°	142362
10°	123985
15°	101993
20°	79574
25°	60572
30°	44083
35°	30236
40°	19565
45°	12048
50°	6507
55°	2475
60°	1579
65°	558
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12048 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.1	14.4
10°-20°	496.5	30.3
20°-30°	459.2	28.1
30°-40°	286.3	17.5
40°-50°	125.1	7.6
50°-60°	28.7	1.8
60°-70°	5.2	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°	1190.8	72.8
0°-40°	1477.1	90.3
0°-60°	1631.0	99.7
0°-90°	1636.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1636.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2681	
5°	2587	235
15°	1797	497
25°	1001	459
35°	452	286
45°	155	125
55°	26	29
65°	4	5
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2680.6
2.5°	2661.9
5°	2587.0
7.5°	2431.7
10°	2227.3
12.5°	2012.9
15°	1797.1
17.5°	1577.0
20°	1364.0
22.5°	1171.2
25°	1001.4
27.5°	843.2
30°	696.4
32.5°	565.5
35°	451.8
37.5°	354.0
40°	273.4
42.5°	211.5
45°	155.4
47.5°	115.1
50°	76.3
52.5°	38.8
55°	25.9
57.5°	20.1
60°	14.4
62.5°	8.6
65°	4.3
67.5°	1.4
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)