

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: P642480

Luminaire Tested: ML5615LSFL409FS1E - 594SNB - 1200LM - 5000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642480
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-33)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 594SNB - 1200LM - 5000K
Description: ML56 RR, 40D TIR OPTIC, 5" SATIN NICKLE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

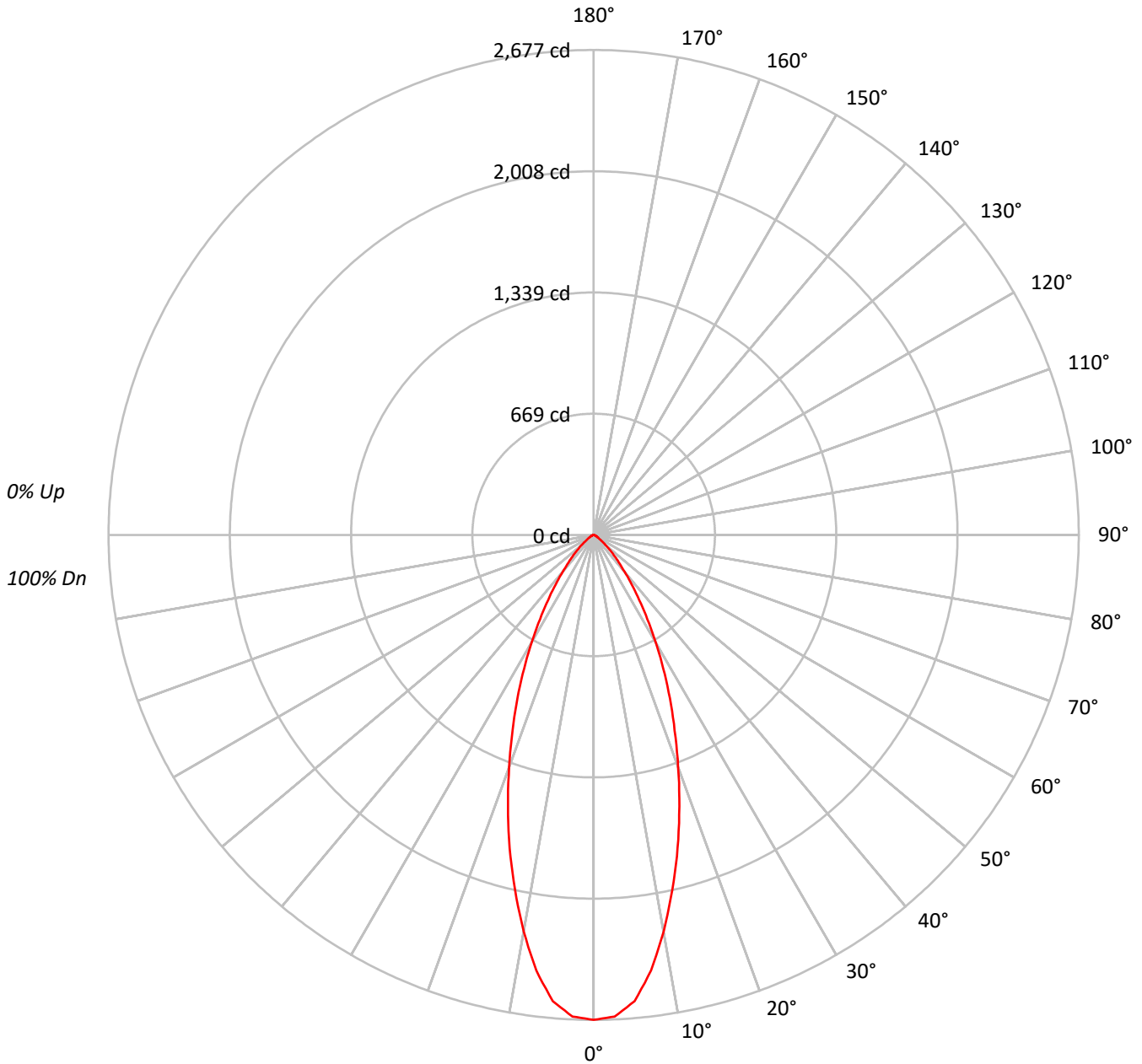
Lumens per Lamp: N/A
Luminaire Lumens: 1651.2 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 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



TEST NUMBER: P642480
CATALOG NUMBER: ML5615LSFL409FS1E - 594SNB - 1200LM - 5000K

Luminous Intensity Polar Plot





TEST NUMBER: P642480

CATALOG NUMBER: ML5615LSFL409FS1E - 594SNB - 1200LM - 5000K

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	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93																			
2	108	103	99	96	106	101	98	95	98	95	92	95	93	90	92	90	89	87																			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81																			
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	79	75	72	71																			
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59																			
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56																			
10	73	64	58	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53																			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	211309
5°	204707
10°	178153
15°	146273
20°	114485
25°	86649
30°	62248
35°	42258
40°	27257
45°	17650
50°	10242
55°	5739
60°	3852
65°	2690
70°	1985
75°	1769
80°	1318
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17650 cd/sqm



TEST NUMBER: P642480

CATALOG NUMBER: ML5615LSFL409FS1E - 594SNB - 1200LM - 5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.6	14.2
10°-20°	494.9	30.0
20°-30°	455.5	27.6
30°-40°	278.6	16.9
40°-50°	124.4	7.5
50°-60°	41.2	2.5
60°-70°	15.4	0.9
70°-80°	5.7	0.3
80°-90°	0.8	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°	1185.0	71.8
0°-40°	1463.6	88.6
0°-60°	1629.3	98.7
0°-90°	1651.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1651.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2677	
5°	2583	235
15°	1790	495
25°	995	456
35°	438	279
45°	158	124
55°	42	41
65°	14	15
75°	6	6
85°	0	1
90°	0	



TEST NUMBER: P642480

CATALOG NUMBER: ML5615LSFL409FS1E - 594SNB - 1200LM - 5000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	2676.8
2.5°	2661.0
5°	2583.3
7.5°	2425.2
10°	2222.5
12.5°	2005.4
15°	1789.8
17.5°	1571.3
20°	1362.8
22.5°	1167.3
25°	994.8
27.5°	830.9
30°	682.9
32.5°	550.6
35°	438.5
37.5°	343.6
40°	264.5
42.5°	204.1
45°	158.1
47.5°	116.4
50°	83.4
52.5°	58.9
55°	41.7
57.5°	31.6
60°	24.4
62.5°	20.1
65°	14.4
67.5°	11.5
70°	8.6
72.5°	7.2
75°	5.8
77.5°	2.9
80°	2.9
82.5°	1.4
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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)