

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: P642628

Luminaire Tested: ML5615LSFL409FS1E - 693TBZB - 1200LM - 3500K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642628
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 - 1200LM - 3500K
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

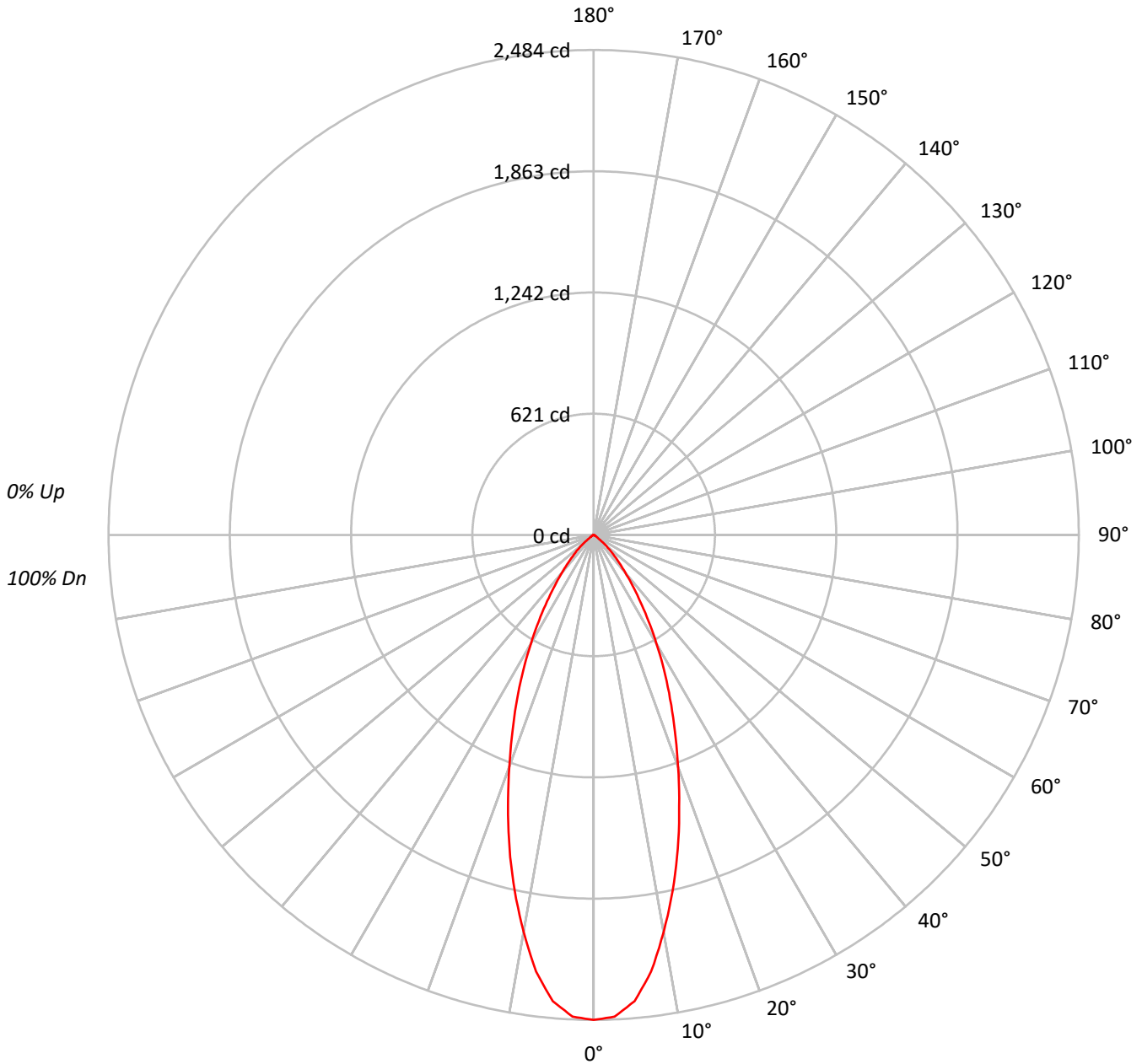
Lumens per Lamp: N/A
Luminaire Lumens: 1510.0 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P642628
CATALOG NUMBER: ML5615LSFL409FS1E - 693TBZB - 1200LM - 3500K

Luminous Intensity Polar Plot





TEST NUMBER: P642628

CATALOG NUMBER: ML5615LSFL409FS1E - 693TBZB - 1200LM - 3500K

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				100															
1	114	111	109	106	111	109	107	105	105	103	102	101	100	98	98	97	96	94				94															
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88				88															
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82				82															
4	98	91	85	81	96	90	85	81	87	83	80	85	82	79	84	81	78	77				77															
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72				72															
6	89	80	75	70	87	80	74	70	78	73	70	77	72	69	75	72	69	67				67															
7	85	76	70	66	83	75	70	66	74	69	65	73	68	65	72	68	65	63				63															
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60				60															
9	77	68	62	59	76	68	62	58	67	62	58	66	61	58	65	61	58	57				57															
10	74	65	59	55	73	64	59	55	63	59	55	63	58	55	62	58	55	54				54															

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	136179
5°	131917
10°	114911
15°	94467
20°	73629
25°	55963
30°	40709
35°	27740
40°	17891
45°	11094
50°	5586
55°	2303
60°	1316
65°	519
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11094 cd/sqm



TEST NUMBER: P642628

CATALOG NUMBER: ML5615LSFL409FS1E - 693TBZB - 1200LM - 3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.9	14.4
10°-20°	459.8	30.4
20°-30°	424.6	28.1
30°-40°	263.5	17.5
40°-50°	114.1	7.6
50°-60°	25.4	1.7
60°-70°	4.7	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°	1102.3	73.0
0°-40°	1365.9	90.5
0°-60°	1505.3	99.7
0°-90°	1510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1510.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2484	
5°	2397	218
15°	1664	460
25°	925	425
35°	414	264
45°	143	114
55°	24	25
65°	4	5
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P642628

CATALOG NUMBER: ML5615LSFL409FS1E - 693TBZB - 1200LM - 3500K

CANDELA DISTRIBUTION (FULL):

0°	
0°	2484.1
2.5°	2469.4
5°	2397.2
7.5°	2255.5
10°	2064.3
12.5°	1867.7
15°	1664.5
17.5°	1457.3
20°	1262.1
22.5°	1084.3
25°	925.2
27.5°	779.4
30°	643.1
32.5°	521.4
35°	414.5
37.5°	326.2
40°	250.0
42.5°	193.9
45°	143.1
47.5°	104.3
50°	65.5
52.5°	34.8
55°	24.1
57.5°	17.4
60°	12.0
62.5°	8.0
65°	4.0
67.5°	1.3
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

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)