

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: P642516

Luminaire Tested: ML5615LSFL409FS1E - 594WB - 900LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642516
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-32)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 594WB - 900LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 5" WHITE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

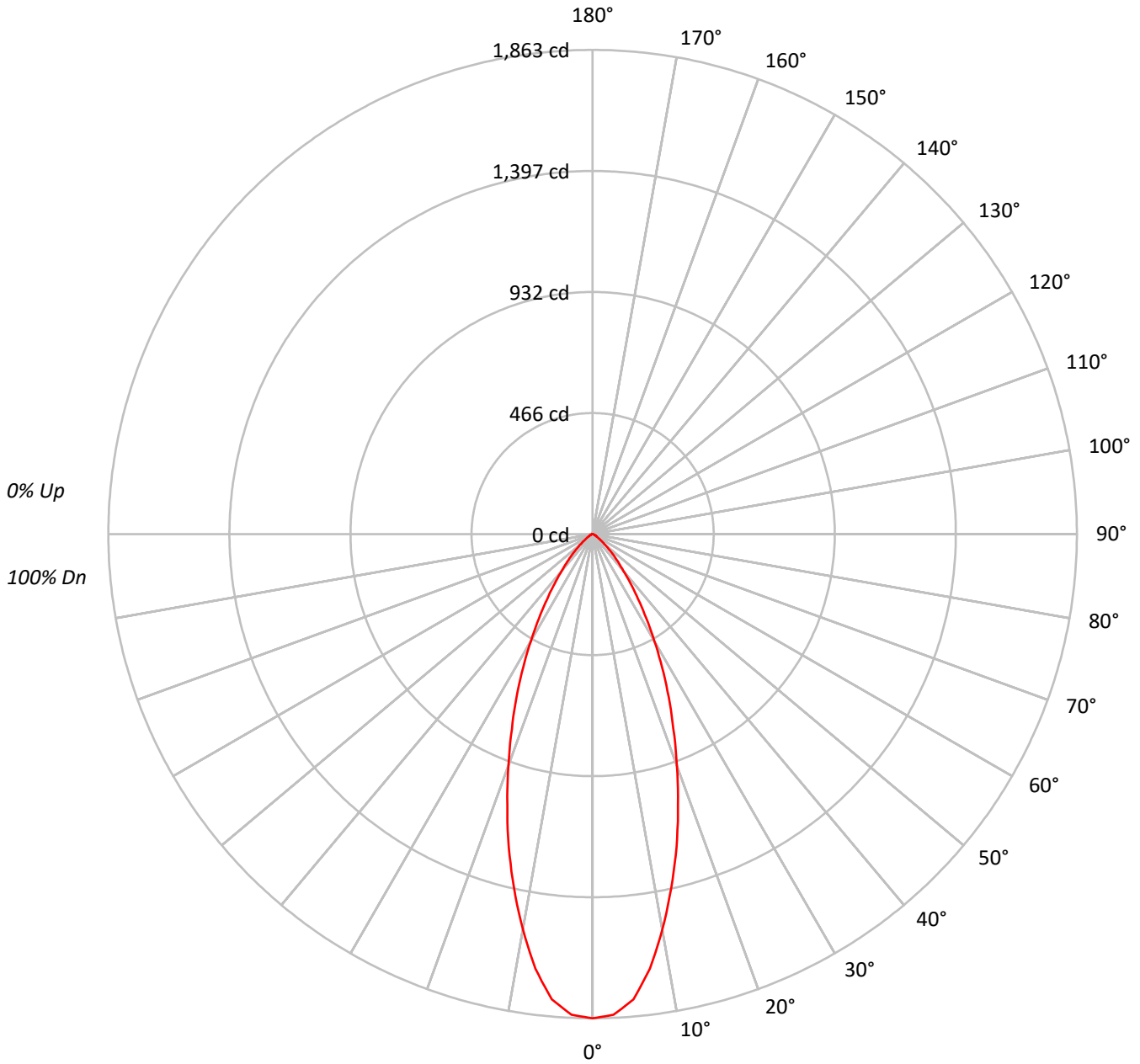
Lumens per Lamp: N/A
Luminaire Lumens: 1149.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P642516
CATALOG NUMBER: ML5615LSFL409FS1E - 594WB - 900LM - 2700K

Luminous Intensity Polar Plot





TEST NUMBER: P642516

CATALOG NUMBER: ML5615LSFL409FS1E - 594WB - 900LM - 2700K

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	86	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	78	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°	147083
5°	142415
10°	123861
15°	101838
20°	79563
25°	60283
30°	43216
35°	29393
40°	18961
45°	12169
50°	7123
55°	3991
60°	2684
65°	1868
70°	1616
75°	1220
80°	909
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12169 cd/sqm



TEST NUMBER: P642516

CATALOG NUMBER: ML5615LSFL409FS1E - 594WB - 900LM - 2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.2	14.2
10°-20°	344.3	30.0
20°-30°	316.8	27.6
30°-40°	193.7	16.9
40°-50°	86.6	7.5
50°-60°	28.7	2.5
60°-70°	10.9	0.9
70°-80°	4.3	0.4
80°-90°	0.5	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°	824.2	71.7
0°-40°	1018.0	88.6
0°-60°	1133.2	98.6
0°-90°	1149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1149.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1863	
5°	1797	163
15°	1246	344
25°	692	317
35°	305	194
45°	109	87
55°	29	29
65°	10	11
75°	4	4
85°	0	1
90°	0	



TEST NUMBER: P642516

CATALOG NUMBER: ML5615LSFL409FS1E - 594WB - 900LM - 2700K

CANDELA DISTRIBUTION (FULL):

	0°
0°	1863.2
2.5°	1851.2
5°	1797.2
7.5°	1686.2
10°	1545.2
12.5°	1396.2
15°	1246.1
17.5°	1092.1
20°	947.1
22.5°	812.1
25°	692.1
27.5°	578.1
30°	474.1
32.5°	383.0
35°	305.0
37.5°	239.0
40°	184.0
42.5°	143.0
45°	109.0
47.5°	81.0
50°	58.0
52.5°	41.0
55°	29.0
57.5°	22.0
60°	17.0
62.5°	14.0
65°	10.0
67.5°	8.0
70°	7.0
72.5°	5.0
75°	4.0
77.5°	3.0
80°	2.0
82.5°	1.0
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)