

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: P642361

Luminaire Tested: ML5615LSFL409FS1E - 591WB - 1500LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642361
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-24)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 591WB - 1500LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

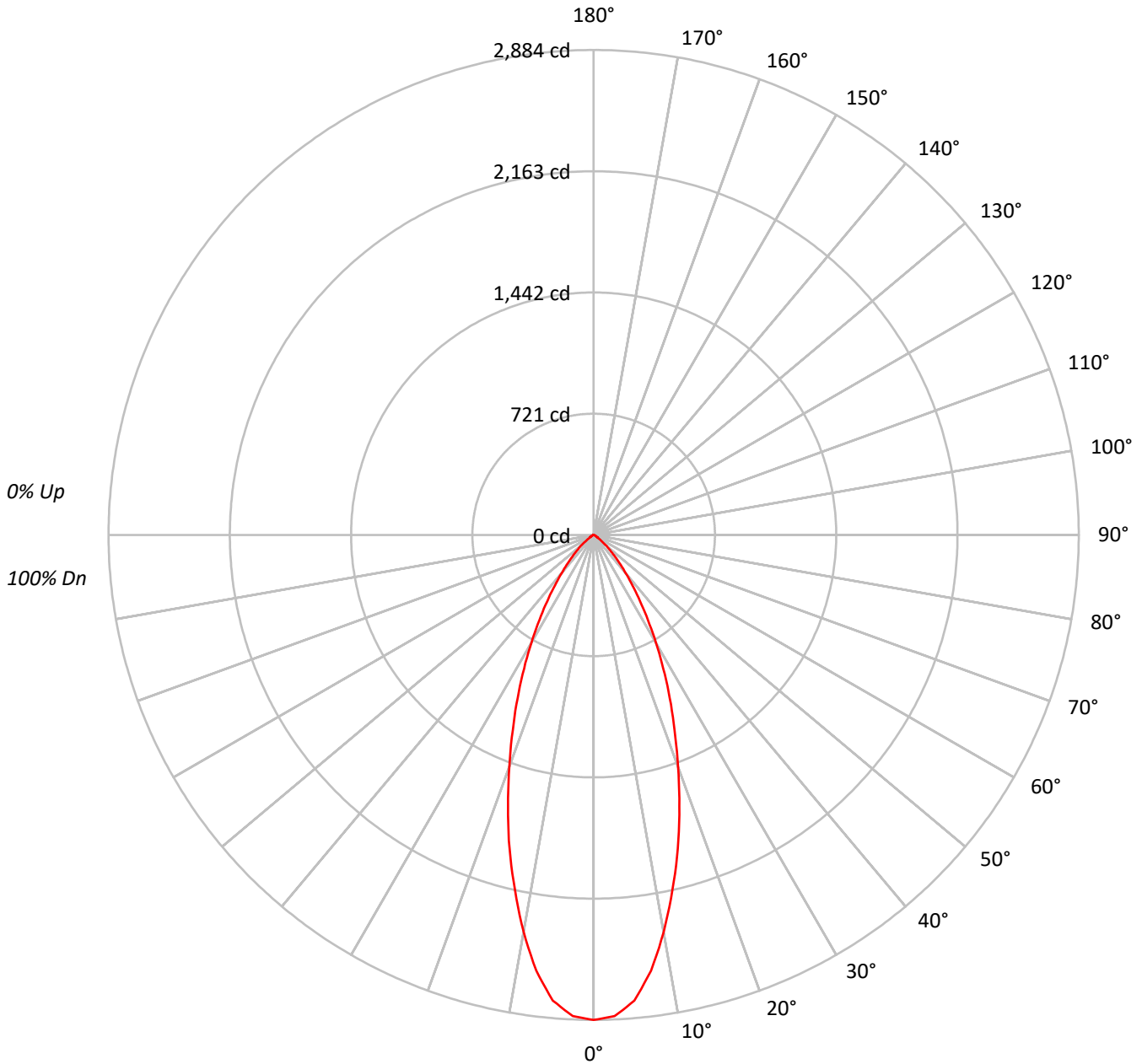
Lumens per Lamp: N/A
Luminaire Lumens: 1772.6 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 17.1
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	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87			
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	81			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71			
6	88	80	74	70	87	79	73	69	77	73	69	76	72	69	75	71	68	67			
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63			
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	63	60	59			
9	77	67	62	58	76	67	62	58	66	61	58	65	61	57	64	60	57	56			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	54	61	57	54	53			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	227689
5°	220302
10°	192189
15°	157951
20°	123045
25°	93181
30°	67462
35°	46305
40°	30286
45°	19090
50°	11077
55°	4707
60°	3189
65°	2036
70°	1085
75°	946
80°	1409
85°	1449

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.8	14.3
10°-20°	533.6	30.1
20°-30°	490.6	27.7
30°-40°	304.6	17.2
40°-50°	136.5	7.7
50°-60°	38.0	2.1
60°-70°	11.5	0.6
70°-80°	3.5	0.2
80°-90°	1.7	0.1
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°	1276.9	72.0
0°-40°	1581.5	89.2
0°-60°	1755.9	99.1
0°-90°	1772.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2884	
5°	2780	253
15°	1933	534
25°	1070	491
35°	480	305
45°	171	136
55°	34	38
65°	11	11
75°	3	3
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2884.3
2.5°	2864.1
5°	2780.1
7.5°	2613.8
10°	2397.6
12.5°	2162.8
15°	1932.7
17.5°	1693.3
20°	1464.7
22.5°	1256.3
25°	1069.8
27.5°	895.6
30°	740.1
32.5°	598.6
35°	480.5
37.5°	377.8
40°	293.9
42.5°	227.0
45°	171.0
47.5°	125.9
50°	90.2
52.5°	56.0
55°	34.2
57.5°	26.4
60°	20.2
62.5°	15.5
65°	10.9
67.5°	7.8
70°	4.7
72.5°	3.1
75°	3.1
77.5°	3.1
80°	3.1
82.5°	1.6
85°	1.6
87.5°	1.6
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)