

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: P640338

Luminaire Tested: ML5609LSFL40D2W1E - 693WB - 900LM - 3000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P640338
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5609LSFL40D2W1E - 693WB - 900LM - 3000K
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE BAFFLE TRIM
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

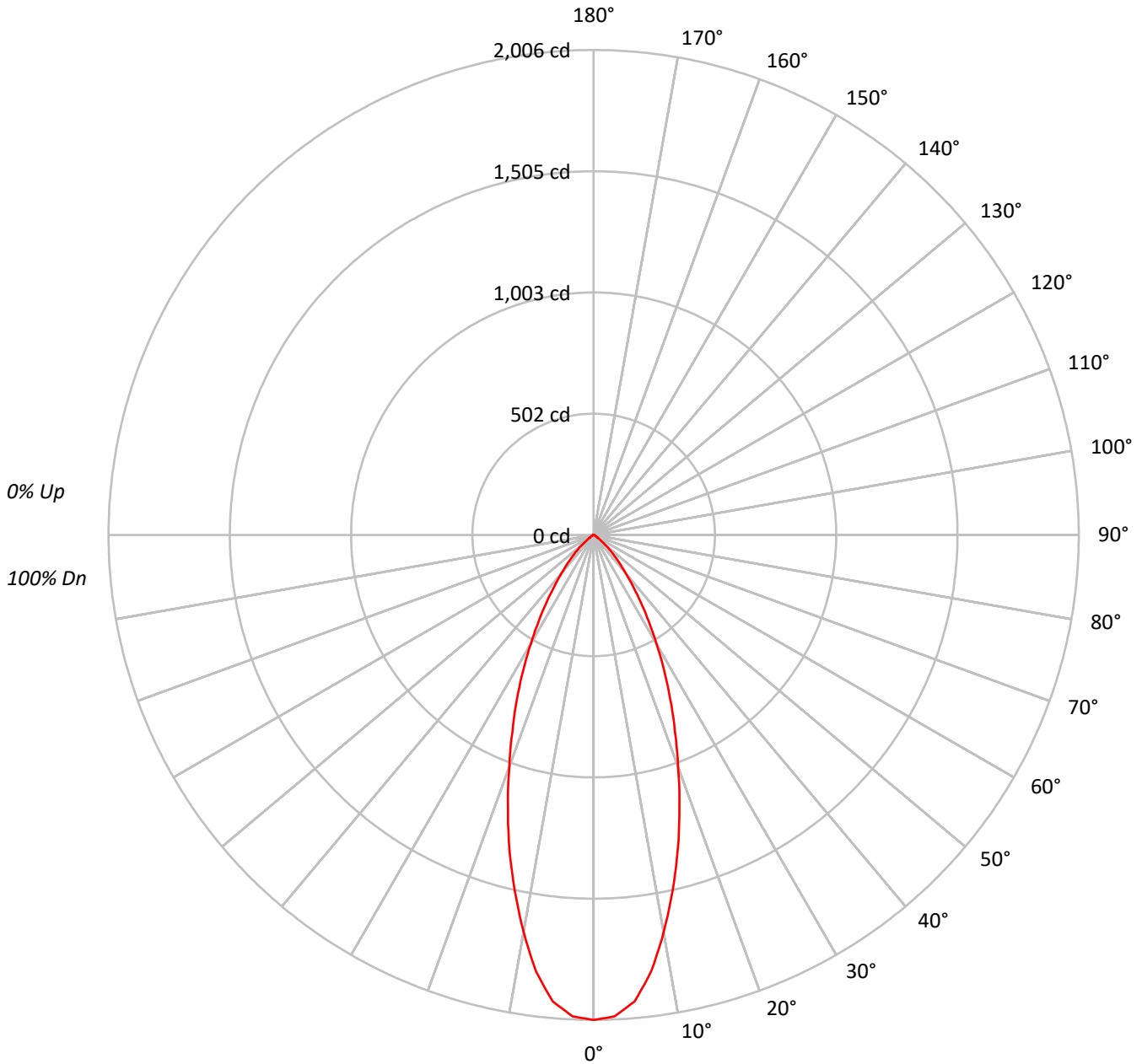
Lumens per Lamp: N/A
Luminaire Lumens: 1233.0 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 11.8
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: P640338
CATALOG NUMBER: ML5609LSFL40D2W1E - 693WB - 900LM - 3000K

Luminous Intensity Polar Plot





TEST NUMBER: P640338

CATALOG NUMBER: ML5609LSFL40D2W1E - 693WB - 900LM - 3000K

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	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	79	75	82	77	74	80	76	73	79	75	73	71																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																			
7	84	75	70	65	83	75	69	65	73	69	65	72	68	65	71	67	64	63																			
8	81	71	66	62	79	71	65	61	70	65	61	69	64	61	68	64	61	59																			
9	77	68	62	58	76	67	62	58	66	61	58	65	61	58	65	60	57	56																			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	55	62	57	54	53																			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	109975
5°	106598
10°	92828
15°	76351
20°	59552
25°	45384
30°	32891
35°	22580
40°	14656
45°	9109
50°	4870
55°	2064
60°	1414
65°	843
70°	513
75°	466
80°	695
85°	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9109 cd/sqm



TEST NUMBER: P640338

CATALOG NUMBER: ML5609LSFL40D2W1E - 693WB - 900LM - 3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.0	14.3
10°-20°	371.6	30.1
20°-30°	343.6	27.9
30°-40°	214.0	17.4
40°-50°	94.2	7.6
50°-60°	23.0	1.9
60°-70°	6.7	0.5
70°-80°	2.7	0.2
80°-90°	1.2	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°	891.2	72.3
0°-40°	1105.2	89.6
0°-60°	1222.4	99.1
0°-90°	1233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1233.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2006	
5°	1937	176
15°	1345	372
25°	750	344
35°	337	214
45°	118	94
55°	22	23
65°	6	7
75°	2	3
85°	1	1
90°	0	



TEST NUMBER: P640338

CATALOG NUMBER: ML5609LSFL40D2W1E - 693WB - 900LM - 3000K

CANDELA DISTRIBUTION (FULL):

0°	
0°	2006.1
2.5°	1993.2
5°	1937.1
7.5°	1821.8
10°	1667.6
12.5°	1507.0
15°	1345.3
17.5°	1179.3
20°	1020.8
22.5°	877.5
25°	750.3
27.5°	629.5
30°	519.6
32.5°	422.6
35°	337.4
37.5°	265.2
40°	204.8
42.5°	158.5
45°	117.5
47.5°	87.3
50°	57.1
52.5°	30.2
55°	21.6
57.5°	17.2
60°	12.9
62.5°	9.7
65°	6.5
67.5°	3.2
70°	3.2
72.5°	3.2
75°	2.2
77.5°	2.2
80°	2.2
82.5°	1.1
85°	1.1
87.5°	1.1
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)