

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: P640335

Luminaire Tested: ML5609LSFL40D2W1E - 693TBZB - 900LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P640335
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: ML5609LSFL40D2W1E - 693TBZB - 900LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

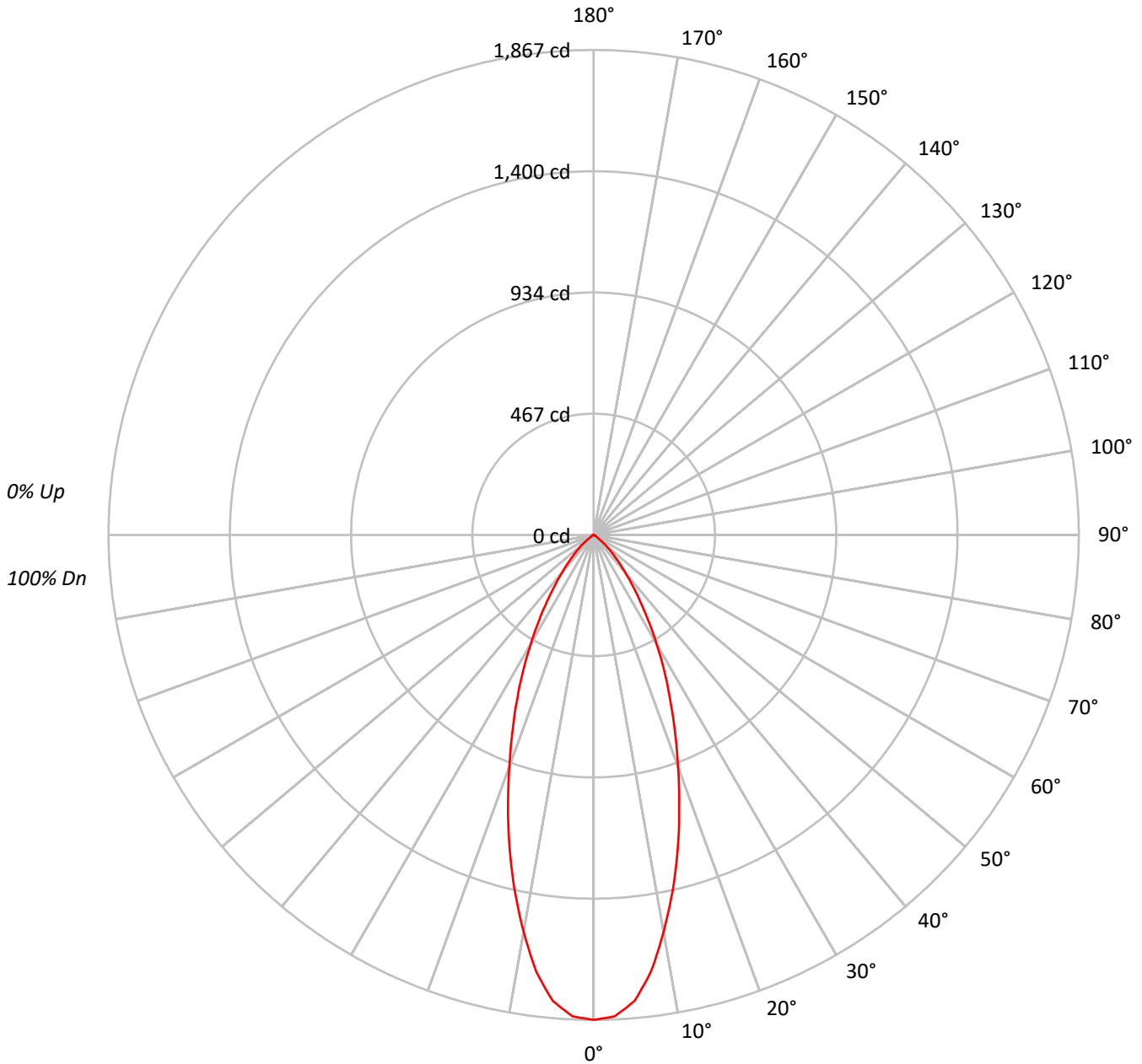
Lumens per Lamp: N/A
Luminaire Lumens: 1134.7 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 11.8
Input Voltage (V): NR
Input Current (Ain): 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: P640335
CATALOG NUMBER: ML5609LSFL40D2W1E - 693TBZB - 900LM - 2700K

Luminous Intensity Polar Plot





TEST NUMBER: P640335

CATALOG NUMBER: ML5609LSFL40D2W1E - 693TBZB - 900LM - 2700K

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	106	111	109	107	105	105	103	102	101	100	98	98	97	96	94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82
4	98	91	85	81	96	90	85	81	87	83	80	85	82	79	84	81	78	77
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72
6	89	80	75	70	87	80	74	70	78	73	70	77	72	69	75	72	69	67
7	85	76	70	66	83	75	70	66	74	69	65	73	68	65	72	68	65	63
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60
9	77	68	62	59	76	68	62	58	67	62	58	66	61	58	65	61	58	57
10	74	65	59	55	73	64	59	55	63	59	55	63	58	55	62	58	55	54

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	102333
5°	99130
10°	86349
15°	70988
20°	55328
25°	42051
30°	30587
35°	20840
40°	13447
45°	8334
50°	4196
55°	1730
60°	987
65°	389
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8334 cd/sqm



TEST NUMBER: P640335

CATALOG NUMBER: ML5609LSFL40D2W1E - 693TBZB - 900LM - 2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	14.4
10°-20°	345.5	30.4
20°-30°	319.1	28.1
30°-40°	198.0	17.5
40°-50°	85.7	7.6
50°-60°	19.1	1.7
60°-70°	3.5	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°	828.3	73.0
0°-40°	1026.4	90.5
0°-60°	1131.1	99.7
0°-90°	1134.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1134.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1867	
5°	1801	164
15°	1251	345
25°	695	319
35°	311	198
45°	108	86
55°	18	19
65°	3	4
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P640335

CATALOG NUMBER: ML5609LSFL40D2W1E - 693TBZB - 900LM - 2700K

CANDELA DISTRIBUTION (FULL):

	0°
0°	1866.7
2.5°	1855.6
5°	1801.4
7.5°	1694.9
10°	1551.2
12.5°	1403.5
15°	1250.8
17.5°	1095.1
20°	948.4
22.5°	814.8
25°	695.2
27.5°	585.7
30°	483.2
32.5°	391.8
35°	311.4
37.5°	245.1
40°	187.9
42.5°	145.7
45°	107.5
47.5°	78.4
50°	49.2
52.5°	26.1
55°	18.1
57.5°	13.1
60°	9.0
62.5°	6.0
65°	3.0
67.5°	1.0
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)