

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: P640392

Luminaire Tested: ML5609LSVWFL75D2W1E - 591WB - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640392  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-70)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSVWFL75D2W1E - 591WB - 900LM - 3000K  
Description: ML56 RR, 75D TIR OPTIC, 5" DEADFRONT TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1172.7 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.09  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

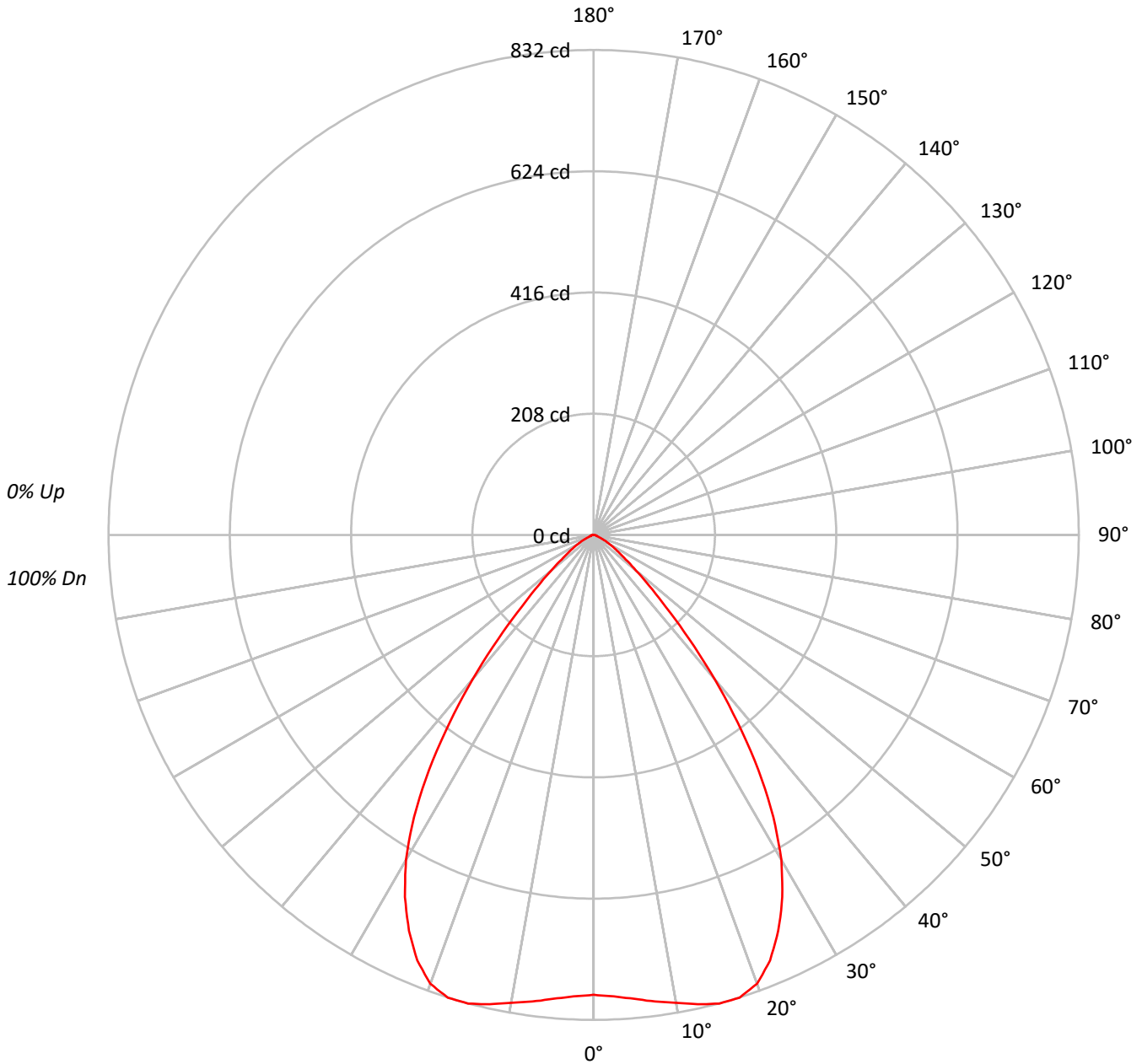
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P640392

CATALOG NUMBER: ML5609LSVWFL75D2W1E - 591WB - 900LM - 3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P640392

CATALOG NUMBER: ML5609LSVWFL75D2W1E - 591WB - 900LM - 3000K

**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	113	110	107	104	110	107	105	103	103	101	99	99	98	96	96	95	94	92			
2	106	101	96	92	104	99	95	91	95	92	89	92	90	87	90	87	85	83			
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76			
4	94	85	79	74	92	84	78	73	82	77	73	80	75	72	78	74	71	69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63			
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58			
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53			
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49			
9	69	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42			

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	43259
5°	43958
10°	45368
15°	47236
20°	47797
25°	45323
30°	40740
35°	32973
40°	23065
45°	13536
50°	8094
55°	5046
60°	3432
65°	1959
70°	1042
75°	911
80°	1010
85°	1384

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13536 cd/sqm



TEST NUMBER: P640392

CATALOG NUMBER: ML5609LSVWFL75D2W1E - 591WB - 900LM - 3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.8	6.5
10°-20°	234.4	20.0
20°-30°	341.5	29.1
30°-40°	303.0	25.8
40°-50°	143.4	12.2
50°-60°	50.1	4.3
60°-70°	16.3	1.4
70°-80°	5.0	0.4
80°-90°	2.2	0.2
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°	652.7	55.7
0°-40°	955.7	81.5
0°-60°	1149.2	98.0
0°-90°	1172.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1172.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	789	
5°	799	77
15°	832	234
25°	749	341
35°	493	303
45°	175	143
55°	53	50
65°	15	16
75°	4	5
85°	2	2
90°	0	



TEST NUMBER: P640392

CATALOG NUMBER: ML5609LSVWFL75D2W1E - 591WB - 900LM - 3000K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	789.1
2.5°	792.4
5°	798.8
7.5°	807.5
10°	815.0
12.5°	824.7
15°	832.3
17.5°	832.3
20°	819.3
22.5°	790.2
25°	749.3
27.5°	700.7
30°	643.6
32.5°	573.5
35°	492.7
37.5°	405.4
40°	322.3
42.5°	241.5
45°	174.6
47.5°	128.3
50°	94.9
52.5°	69.0
55°	52.8
57.5°	41.0
60°	31.3
62.5°	22.6
65°	15.1
67.5°	9.7
70°	6.5
72.5°	5.4
75°	4.3
77.5°	4.3
80°	3.2
82.5°	3.2
85°	2.2
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)