

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: P640769

Luminaire Tested: ML5612LSFL4097FS1E - 692W - 1200LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640769  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-39)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 692W - 1200LM - 4000K  
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

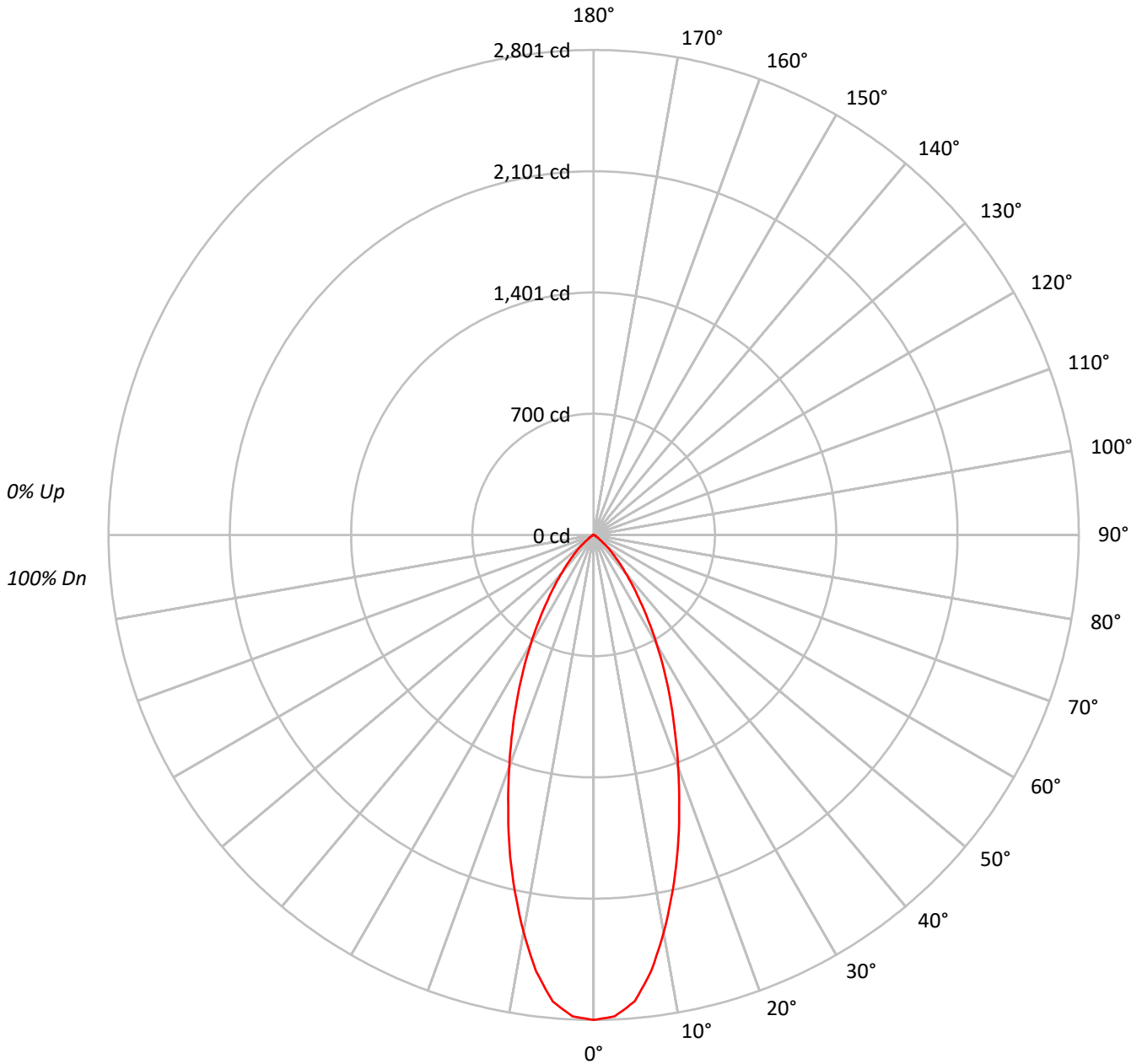
Lumens per Lamp: N/A  
Luminaire Lumens: 1719.1 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.5  
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



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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	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	98	96	95	94	94	94	94	94	94		
	2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87		
	3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81	81	81	81	81	81		
	4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76	76	76	76	76	76		
	5	93	85	79	75	91	84	79	75	82	78	74	80	76	73	79	75	73	71	71	71	71	71	71		
	6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67	67	67	67	67	67		
	7	84	75	70	65	83	75	69	65	73	69	65	72	68	65	71	67	64	63	63	63	63	63	63		
	8	81	71	66	62	79	71	65	61	70	65	61	69	64	61	68	64	61	59	59	59	59	59	59		
	9	77	68	62	58	76	67	62	58	66	61	58	65	61	58	65	60	57	56	56	56	56	56	56		
	10	74	64	59	55	73	64	58	55	63	58	55	62	58	55	62	57	54	53	53	53	53	53	53		

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

	0°
0°	153573
5°	148877
10°	129718
15°	106533
20°	83161
25°	63258
30°	45874
35°	31434
40°	20403
45°	12683
50°	6652
55°	3011
60°	1974
65°	1167
70°	721
75°	635
80°	947
85°	943

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12683 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.8	14.3
10°-20°	518.4	30.2
20°-30°	479.4	27.9
30°-40°	298.0	17.3
40°-50°	130.9	7.6
50°-60°	32.2	1.9
60°-70°	9.4	0.5
70°-80°	3.8	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°	1243.6	72.3
0°-40°	1541.7	89.7
0°-60°	1704.8	99.2
0°-90°	1719.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1719.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2801	
5°	2705	246
15°	1877	518
25°	1046	479
35°	470	298
45°	164	131
55°	32	32
65°	9	9
75°	3	4
85°	2	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2801.4
2.5°	2783.4
5°	2705.4
7.5°	2541.8
10°	2330.3
12.5°	2105.2
15°	1877.1
17.5°	1641.5
20°	1425.5
22.5°	1224.4
25°	1045.8
27.5°	879.3
30°	724.7
32.5°	588.2
35°	469.7
37.5°	369.1
40°	285.1
42.5°	220.6
45°	163.6
47.5°	121.5
50°	78.0
52.5°	42.0
55°	31.5
57.5°	24.0
60°	18.0
62.5°	13.5
65°	9.0
67.5°	4.5
70°	4.5
72.5°	4.5
75°	3.0
77.5°	3.0
80°	3.0
82.5°	1.5
85°	1.5
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

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— 0°-180°

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(END OF REPORT)