

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: P886301

Luminaire Tested: ML204LSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-3000K

Issue Date: 6/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886301  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-89)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML204LSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-3000K  
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

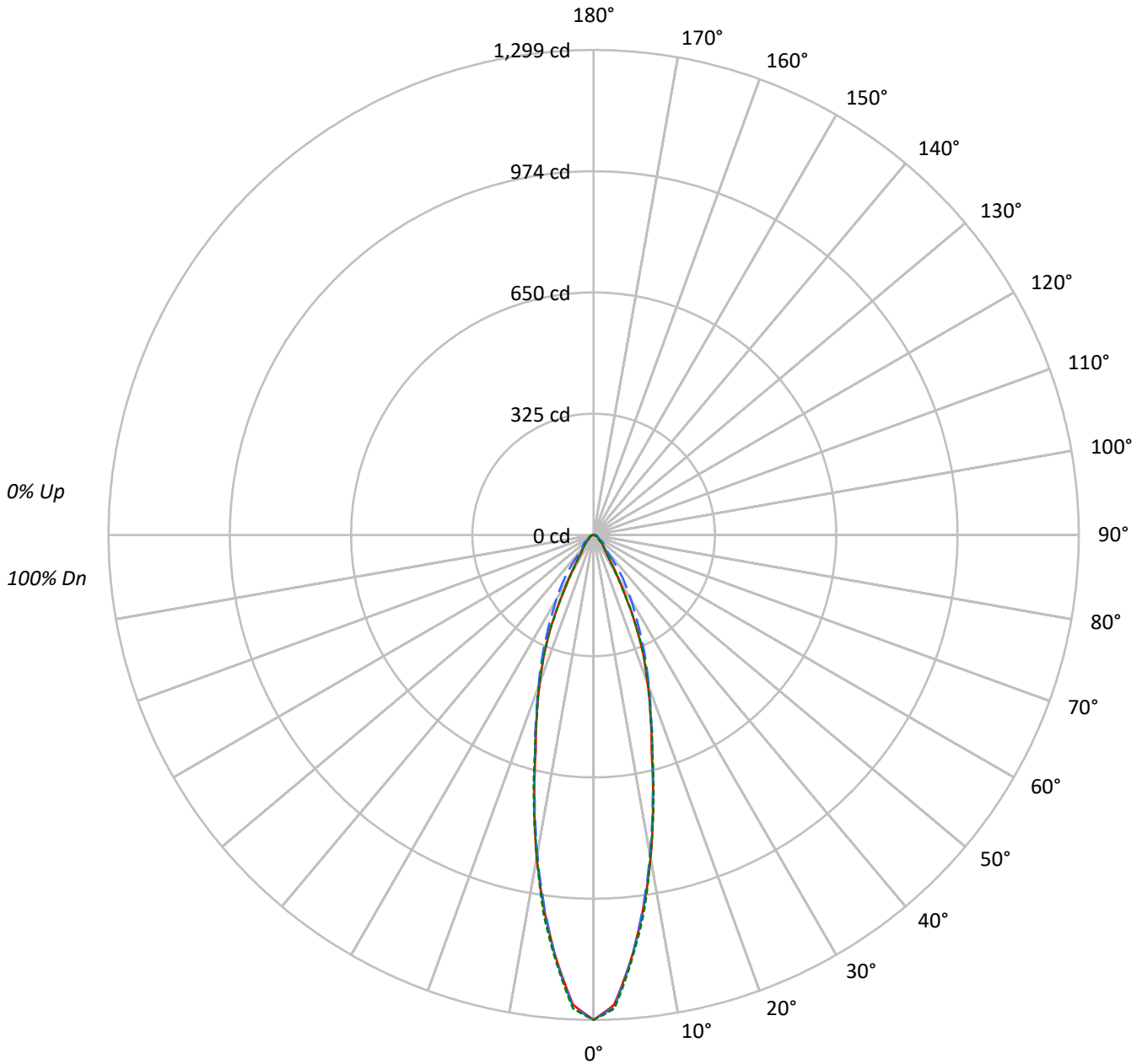
Lumens per Lamp: N/A  
Luminaire Lumens: 513.1 lumens  
Efficiency: N/A  
Efficacy: 64.9 lumens/watt  
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.55  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.9  
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



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### Luminous Intensity Polar Plot





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**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	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82																			
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77																			
5	94	86	81	77	92	85	80	76	83	79	76	82	78	75	80	77	74	73																			
6	90	82	76	72	89	81	76	72	79	75	71	78	74	71	77	73	70	69																			
7	86	78	72	68	85	77	72	68	76	71	68	75	70	67	74	70	67	66																			
8	83	74	69	65	82	73	68	65	72	68	64	71	67	64	71	67	64	63																			
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60																			
10	77	68	62	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57																			

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

	0°	45°	90°
0°	503362	503362	503362
5°	444565	444993	446976
10°	345630	341971	344017
15°	240461	243750	243750
20°	173854	177689	175586
25°	113987	128139	113987
30°	55483	89221	53649
35°	27863	57665	27390
40°	20891	25596	20891
45°	16440	22085	15837
50°	10610	19954	10610
55°	10472	11147	10472
60°	10385	10385	10385
65°	9444	9444	9444
70°	8157	9404	8157
75°	7785	7785	7785
80°	6918	6918	6918
85°	4446	4446	4446

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 22085 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	19.6
10°-20°	170.4	33.2
20°-30°	129.2	25.2
30°-40°	54.3	10.6
40°-50°	25.6	5.0
50°-60°	14.8	2.9
60°-70°	10.5	2.0
70°-80°	5.6	1.1
80°-90°	1.8	0.4
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°	400.4	78.0
0°-40°	454.7	88.6
0°-60°	495.1	96.5
0°-90°	513.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	513.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1143	1140	1144	1143	1149	101
15°	599	601	608	607	608	170
25°	267	288	300	288	267	119
35°	59	74	122	73	58	42
45°	30	33	40	33	29	22
55°	16	16	16	16	16	14
65°	10	10	10	10	10	10
75°	5	5	5	5	5	5
85°	1	2	1	2	1	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1299.0	1299.0	1299.0	1299.0	1299.0
2.5°	1259.7	1262.8	1264.9	1270.1	1270.1
5°	1142.9	1139.8	1144.0	1142.9	1149.1
7.5°	1012.7	1013.8	1008.6	1014.8	1024.1
10°	878.4	870.1	869.1	873.2	874.3
12.5°	734.7	730.6	729.6	729.6	739.9
15°	599.4	601.4	607.6	606.6	607.6
17.5°	505.3	511.5	511.5	508.4	505.3
20°	421.6	426.8	430.9	426.8	425.8
22.5°	346.2	358.6	363.8	360.7	348.3
25°	266.6	288.3	299.7	288.3	266.6
27.5°	181.9	218.0	242.8	217.0	181.9
30°	124.0	150.9	199.4	148.8	119.9
32.5°	81.6	102.3	160.2	102.3	82.7
35°	58.9	74.4	121.9	73.4	57.9
37.5°	48.6	57.9	76.5	56.8	48.6
40°	41.3	44.4	50.6	45.5	41.3
42.5°	36.2	38.2	44.4	39.3	36.2
45°	30.0	33.1	40.3	33.1	28.9
47.5°	18.6	25.8	36.2	25.8	18.6
50°	17.6	17.6	33.1	17.6	17.6
52.5°	16.5	16.5	24.8	16.5	16.5
55°	15.5	15.5	16.5	15.5	15.5
57.5°	14.5	14.5	14.5	14.5	14.5
60°	13.4	13.4	13.4	13.4	13.4
62.5°	11.4	12.4	12.4	12.4	11.4
65°	10.3	10.3	10.3	10.3	10.3
67.5°	9.3	9.3	9.3	9.3	9.3
70°	7.2	8.3	8.3	8.3	7.2
72.5°	6.2	6.2	6.2	7.2	6.2
75°	5.2	5.2	5.2	5.2	5.2
77.5°	4.1	4.1	4.1	4.1	4.1
80°	3.1	3.1	3.1	3.1	3.1
82.5°	2.1	3.1	2.1	3.1	2.1
85°	1.0	2.1	1.0	2.1	1.0
87.5°	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report







— 0°-180°    - - 45°-225°    - - - - 90°-270°

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