

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: P886314

Luminaire Tested: ML204LSFL9FS1E-TIR1D25NFL-TL2SDSL-550LM-5000K

Issue Date: 6/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886314  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-90)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML204LSFL9FS1E-TIR1D25NFL-TL2SDSL-550LM-5000K  
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 554.6 lumens  
Efficiency: N/A  
Efficacy: 70.2 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.54  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

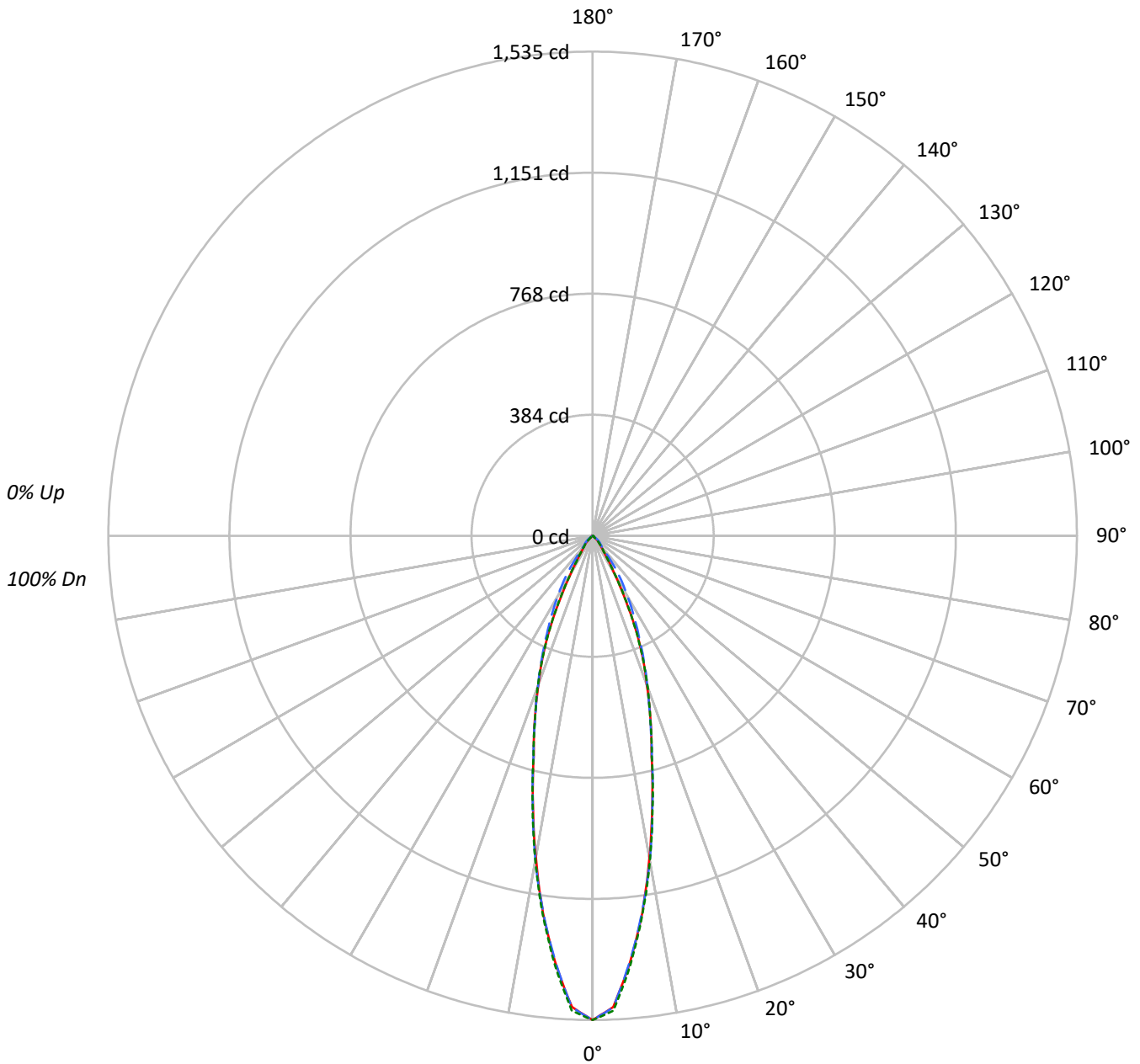
Input Watts (W): 7.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95																			
2	110	105	102	99	107	104	100	98	100	98	96	98	95	94	95	93	92	90																			
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86																			
4	101	94	90	86	99	93	89	85	91	87	84	89	86	84	87	85	83	81																			
5	97	90	85	81	95	89	84	81	87	83	80	85	82	79	84	81	79	77																			
6	93	85	80	77	92	85	80	76	83	79	76	82	78	75	81	77	75	74																			
7	89	82	76	73	88	81	76	73	80	75	72	79	75	72	78	74	72	70																			
8	86	78	73	69	85	77	73	69	76	72	69	76	72	69	75	71	68	67																			
9	83	75	70	66	82	74	70	66	73	69	66	73	69	66	72	68	66	65																			
10	80	72	67	64	79	71	67	63	71	66	63	70	66	63	69	66	63	62																			

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

	0°	45°	90°
0°	594812	594812	594812
5°	528351	527028	531968
10°	407839	411026	411498
15°	289483	290888	290888
20°	207009	208906	210349
25°	134638	146567	133655
30°	62374	98259	62374
35°	29140	58800	29660
40°	19374	22915	18817
45°	10193	17810	10851
50°	3496	13323	3496
55°	2365	3108	2365
60°	1782	1782	1782
65°	1100	1100	1100
70°	1360	1360	1360
75°	1797	0	1797
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 17810 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.7	21.6
10°-20°	203.2	36.6
20°-30°	149.9	27.0
30°-40°	56.8	10.2
40°-50°	18.7	3.4
50°-60°	4.3	0.8
60°-70°	1.4	0.3
70°-80°	0.6	0.1
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°	472.8	85.3
0°-40°	529.6	95.5
0°-60°	552.6	99.6
0°-90°	554.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	554.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1535	1535	1535	1535	1535	
5°	1358	1355	1355	1361	1368	120
15°	722	722	725	724	725	203
25°	315	334	343	331	313	141
35°	62	77	124	78	63	44
45°	19	24	32	24	20	15
55°	4	4	5	4	4	3
65°	1	1	1	1	1	2
75°	1	1	0	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1535.0	1535.0	1535.0	1535.0	1535.0
2.5°	1495.5	1495.5	1496.6	1500.1	1507.1
5°	1358.3	1354.9	1354.9	1360.7	1367.6
7.5°	1205.0	1203.8	1202.6	1202.6	1210.8
10°	1036.5	1042.3	1044.6	1034.2	1045.8
12.5°	872.6	863.3	876.1	869.2	878.4
15°	721.6	721.6	725.1	723.9	725.1
17.5°	608.9	610.0	604.2	606.5	605.4
20°	502.0	505.5	506.6	507.8	510.1
22.5°	412.5	417.1	420.6	418.3	409.0
25°	314.9	333.5	342.8	331.2	312.6
27.5°	211.5	246.3	278.9	249.8	218.4
30°	139.4	169.6	219.6	168.5	139.4
32.5°	90.6	111.5	172.0	110.4	89.5
35°	61.6	76.7	124.3	77.9	62.7
37.5°	47.6	54.6	74.4	54.6	47.6
40°	38.3	39.5	45.3	40.7	37.2
42.5°	30.2	31.4	37.2	31.4	29.0
45°	18.6	24.4	32.5	24.4	19.8
47.5°	8.1	13.9	26.7	13.9	8.1
50°	5.8	5.8	22.1	5.8	5.8
52.5°	4.6	4.6	13.9	4.6	4.6
55°	3.5	3.5	4.6	3.5	3.5
57.5°	3.5	2.3	2.3	2.3	3.5
60°	2.3	2.3	2.3	2.3	2.3
62.5°	2.3	1.2	1.2	1.2	2.3
65°	1.2	1.2	1.2	1.2	1.2
67.5°	1.2	1.2	1.2	1.2	1.2
70°	1.2	1.2	1.2	1.2	1.2
72.5°	1.2	1.2	0.0	1.2	1.2
75°	1.2	1.2	0.0	1.2	1.2
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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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