

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: P886310

Luminaire Tested: ML204LSFL9FS1E-TIR1D25NFL-TL2SDSL-550LM-2700K

Issue Date: 6/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886310  
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-2700K  
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 477.4 lumens  
Efficiency: N/A  
Efficacy: 60.4 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

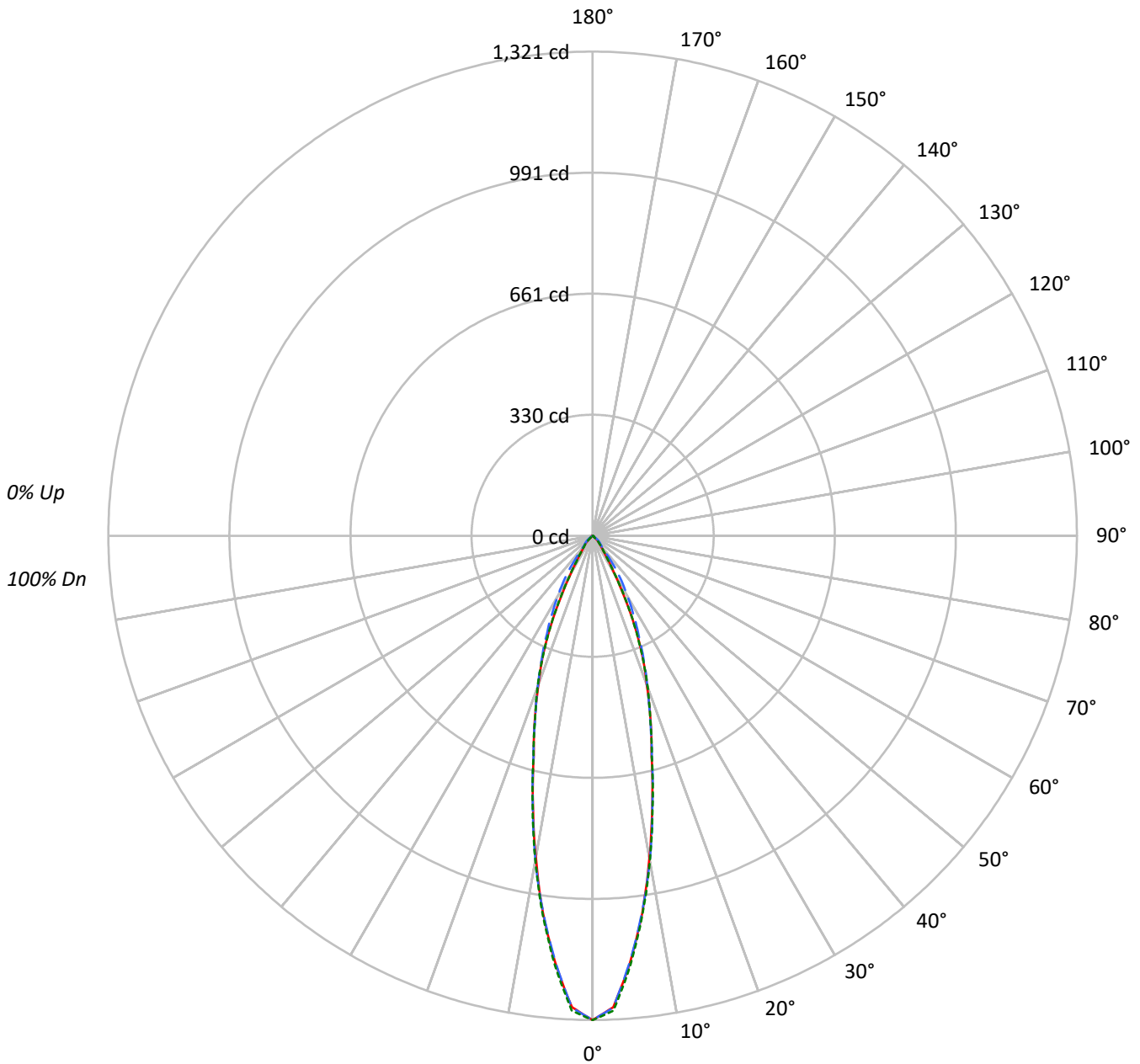
Input Watts (W): 7.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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					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			
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95					95			
2	110	105	102	99	107	104	100	98	100	98	96	98	95	94	95	93	92	90					90			
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86					86			
4	101	94	90	86	99	93	89	85	91	87	84	89	86	84	87	85	83	81					81			
5	97	90	85	81	95	89	84	81	87	83	80	85	82	79	84	81	79	77					77			
6	93	85	80	77	92	85	80	76	83	79	76	82	78	75	81	77	75	74					74			
7	89	82	76	73	88	81	76	73	80	75	72	79	75	72	78	74	72	70					70			
8	86	78	73	69	85	77	73	69	76	72	69	76	72	69	75	71	68	67					67			
9	83	75	70	66	82	74	70	66	73	69	66	73	69	66	72	68	66	65					65			
10	80	72	67	64	79	71	67	63	71	66	63	70	66	63	69	66	63	62					62			

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

	0°	45°	90°
0°	512003	512003	512003
5°	454834	453667	457946
10°	351060	353815	354208
15°	249206	250410	250410
20°	178184	179834	181071
25°	115911	126172	115056
30°	53693	84567	53693
35°	25072	50616	25545
40°	16693	19728	16187
45°	8768	15344	9316
50°	3014	11454	3014
55°	2027	2702	2027
60°	1550	1550	1550
65°	917	917	917
70°	1133	1133	1133
75°	1497	0	1497
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 15344 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.1	21.6
10°-20°	174.9	36.6
20°-30°	129.1	27.0
30°-40°	48.8	10.2
40°-50°	16.1	3.4
50°-60°	3.7	0.8
60°-70°	1.2	0.2
70°-80°	0.5	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°	407.0	85.3
0°-40°	455.9	95.5
0°-60°	475.7	99.6
0°-90°	477.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	477.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1321	1321	1321	1321	1321	
5°	1169	1166	1166	1171	1177	103
15°	621	621	624	623	624	175
25°	271	287	295	285	269	121
35°	53	66	107	67	54	38
45°	16	21	28	21	17	13
55°	3	3	4	3	3	3
65°	1	1	1	1	1	1
75°	1	1	0	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1321.3	1321.3	1321.3	1321.3	1321.3
2.5°	1287.3	1287.3	1288.3	1291.3	1297.3
5°	1169.3	1166.3	1166.3	1171.3	1177.3
7.5°	1037.3	1036.3	1035.3	1035.3	1042.3
10°	892.2	897.2	899.2	890.2	900.2
12.5°	751.2	743.2	754.2	748.2	756.2
15°	621.2	621.2	624.2	623.2	624.2
17.5°	524.1	525.1	520.1	522.1	521.1
20°	432.1	435.1	436.1	437.1	439.1
22.5°	355.1	359.1	362.1	360.1	352.1
25°	271.1	287.1	295.1	285.1	269.1
27.5°	182.0	212.1	240.1	215.1	188.0
30°	120.0	146.0	189.0	145.0	120.0
32.5°	78.0	96.0	148.0	95.0	77.0
35°	53.0	66.0	107.0	67.0	54.0
37.5°	41.0	47.0	64.0	47.0	41.0
40°	33.0	34.0	39.0	35.0	32.0
42.5°	26.0	27.0	32.0	27.0	25.0
45°	16.0	21.0	28.0	21.0	17.0
47.5°	7.0	12.0	23.0	12.0	7.0
50°	5.0	5.0	19.0	5.0	5.0
52.5°	4.0	4.0	12.0	4.0	4.0
55°	3.0	3.0	4.0	3.0	3.0
57.5°	3.0	2.0	2.0	2.0	3.0
60°	2.0	2.0	2.0	2.0	2.0
62.5°	2.0	1.0	1.0	1.0	2.0
65°	1.0	1.0	1.0	1.0	1.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	1.0	1.0	1.0
72.5°	1.0	1.0	0.0	1.0	1.0
75°	1.0	1.0	0.0	1.0	1.0
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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