

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: P886312

Luminaire Tested: ML204LSFL9FS1E-TIR1D25NFL-TL2SDSL-550LM-3500K

Issue Date: 6/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886312  
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-3500K  
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

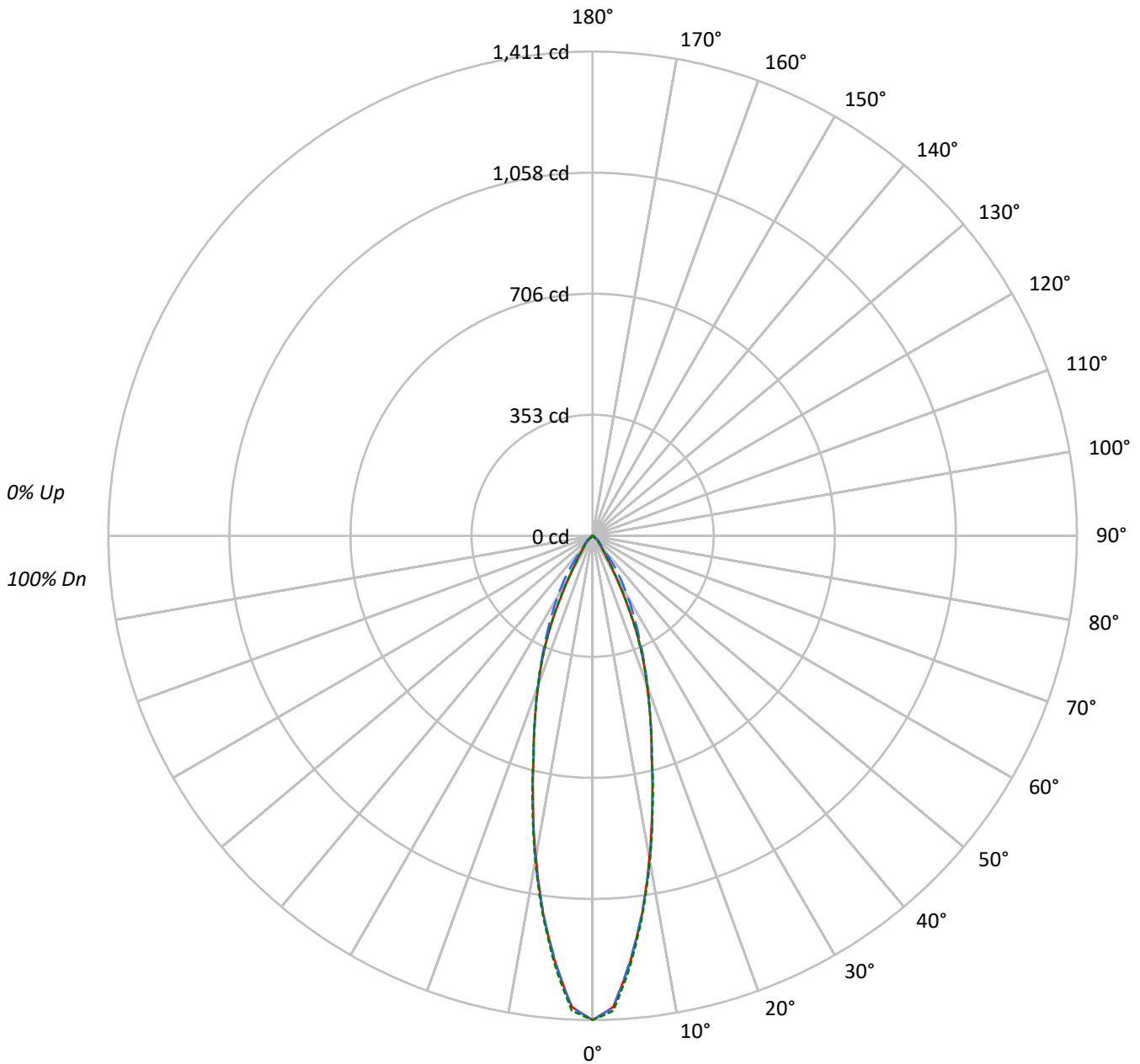
Lumens per Lamp: N/A  
Luminaire Lumens: 509.8 lumens  
Efficiency: N/A  
Efficacy: 64.5 lumens/watt  
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.54  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

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

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

	0°	45°	90°
0°	546684	546684	546684
5°	485641	484396	488947
10°	374826	377777	378210
15°	266055	267339	267339
20°	190267	191999	193318
25°	123735	134724	122837
30°	57363	90339	57363
35°	26775	54070	27295
40°	17806	21094	17300
45°	9371	16385	9974
50°	3195	12238	3195
55°	2162	2905	2162
60°	1627	1627	1627
65°	1009	1009	1009
70°	1246	1246	1246
75°	1647	0	1647
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16385 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.0	21.6
10°-20°	186.7	36.6
20°-30°	137.8	27.0
30°-40°	52.2	10.2
40°-50°	17.2	3.4
50°-60°	3.9	0.8
60°-70°	1.3	0.2
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°	434.6	85.2
0°-40°	486.8	95.5
0°-60°	507.9	99.6
0°-90°	509.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	509.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1411	1411	1411	1411	1411	
5°	1248	1245	1245	1251	1257	110
15°	663	663	666	665	666	187
25°	289	306	315	304	287	129
35°	57	70	114	72	58	41
45°	17	22	30	22	18	14
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°	1410.8	1410.8	1410.8	1410.8	1410.8
2.5°	1374.5	1374.5	1375.6	1378.8	1385.2
5°	1248.5	1245.3	1245.3	1250.6	1257.0
7.5°	1107.5	1106.4	1105.4	1105.4	1112.8
10°	952.6	958.0	960.1	950.5	961.2
12.5°	802.1	793.5	805.3	798.9	807.4
15°	663.2	663.2	666.4	665.4	666.4
17.5°	559.6	560.7	555.4	557.5	556.4
20°	461.4	464.6	465.6	466.7	468.8
22.5°	379.1	383.4	386.6	384.5	375.9
25°	289.4	306.5	315.1	304.4	287.3
27.5°	194.4	226.4	256.3	229.6	200.8
30°	128.2	155.9	201.9	154.9	128.2
32.5°	83.3	102.5	158.1	101.5	82.2
35°	56.6	70.5	114.3	71.6	57.7
37.5°	43.8	50.2	68.4	50.2	43.8
40°	35.2	36.3	41.7	37.4	34.2
42.5°	27.8	28.8	34.2	28.8	26.7
45°	17.1	22.4	29.9	22.4	18.2
47.5°	7.5	12.8	24.6	12.8	7.5
50°	5.3	5.3	20.3	5.3	5.3
52.5°	4.3	4.3	12.8	4.3	4.3
55°	3.2	3.2	4.3	3.2	3.2
57.5°	3.2	2.1	2.1	2.1	3.2
60°	2.1	2.1	2.1	2.1	2.1
62.5°	2.1	1.1	1.1	1.1	2.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	0.0	1.1	1.1
75°	1.1	1.1	0.0	1.1	1.1
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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