

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: P886290

Luminaire Tested: ML204LSFL9FS1E-TIR1D25NFL-TL2SDMB-550LM-2700K

Issue Date: 6/20/2024

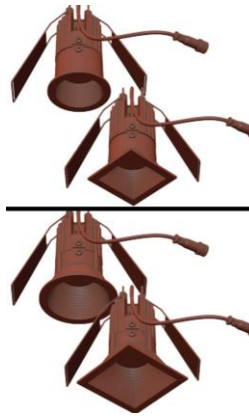
**Test Information**

Test Method: LM-79-2019  
Report Number: P886290  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-91)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML204LSFL9FS1E-TIR1D25NFL-TL2SDMB-550LM-2700K  
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 433.2 lumens  
Efficiency: N/A  
Efficacy: 54.8 lumens/watt  
Spacing Criteria (0/90/45): 0.46 / 0.46 / 0.53  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

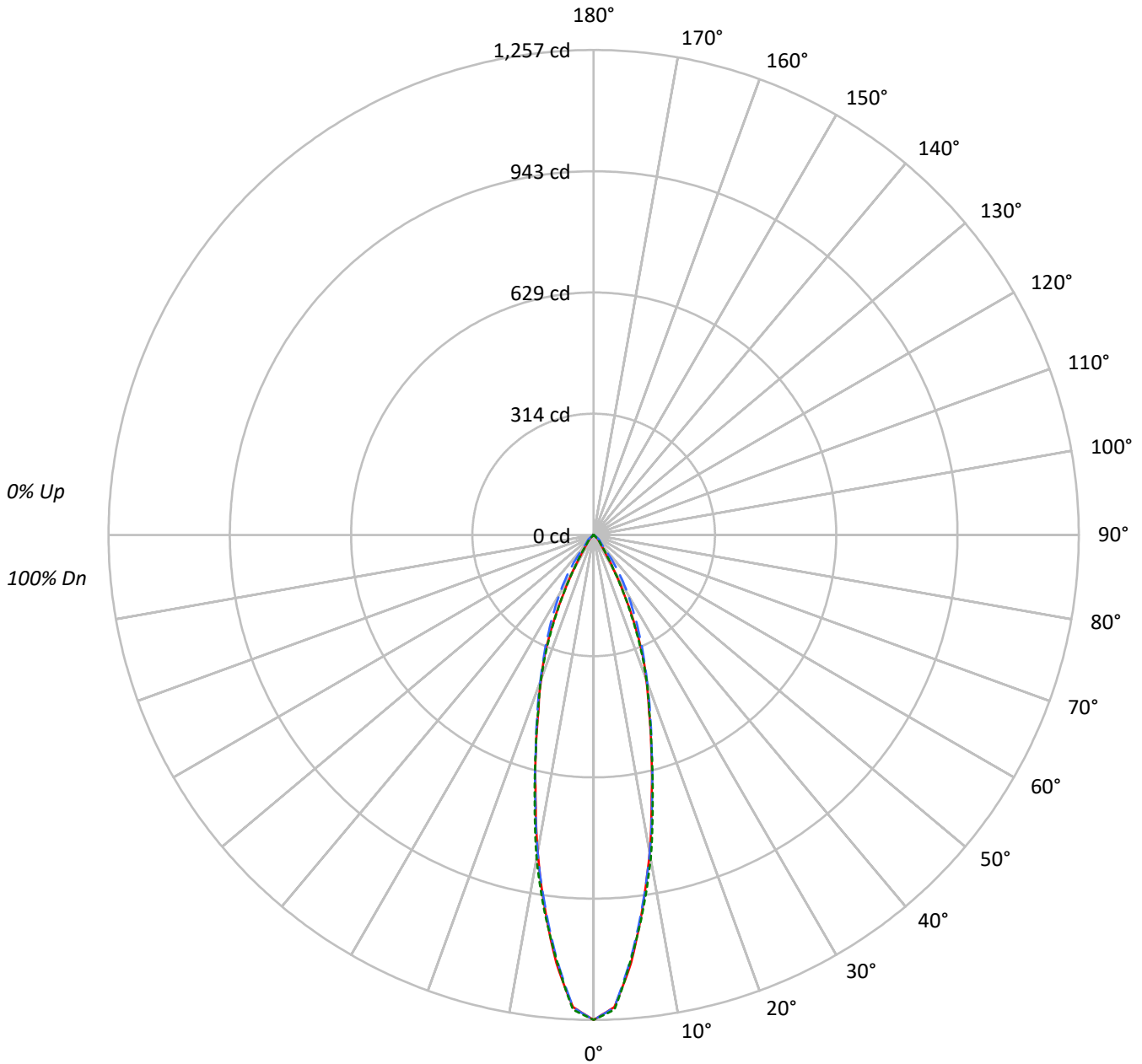
Input Watts (W): 7.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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

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

	0°	45°	90°
0°	487048	487048	487048
5°	433245	428578	430134
10°	328396	329183	335085
15°	231635	232838	232437
20°	164246	166308	164659
25°	102699	117236	99707
30°	45684	79243	44789
35°	19395	45933	20341
40°	11634	18210	11634
45°	6576	12604	5480
50°	603	9645	603
55°	0	2027	676
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12604 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.2	22.4
10°-20°	162.1	37.4
20°-30°	117.7	27.2
30°-40°	42.3	9.8
40°-50°	12.4	2.9
50°-60°	1.5	0.4
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	377.0	87.0
0°-40°	419.3	96.8
0°-60°	433.2	100.0
0°-90°	433.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	433.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1114	1104	1102	1111	1106	97
15°	577	577	580	573	579	161
25°	240	265	274	257	233	109
35°	41	56	97	56	43	30
45°	12	16	23	16	10	8
55°	0	1	3	1	1	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1224.9	1221.9	1225.9	1226.9	1231.9
5°	1113.8	1103.8	1101.8	1110.8	1105.8
7.5°	972.7	973.7	968.7	979.7	980.7
10°	834.6	835.6	836.6	840.6	851.6
12.5°	694.5	697.5	698.5	696.5	705.5
15°	577.4	577.4	580.4	573.4	579.4
17.5°	476.3	480.4	485.4	479.4	478.4
20°	398.3	401.3	403.3	402.3	399.3
22.5°	327.2	333.2	335.2	327.2	316.2
25°	240.2	265.2	274.2	257.2	233.2
27.5°	163.1	197.1	220.2	190.1	161.1
30°	102.1	131.1	177.1	131.1	100.1
32.5°	62.0	82.1	136.1	85.1	65.0
35°	41.0	56.0	97.1	56.0	43.0
37.5°	30.0	39.0	57.0	39.0	31.0
40°	23.0	27.0	36.0	28.0	23.0
42.5°	18.0	21.0	27.0	21.0	17.0
45°	12.0	16.0	23.0	16.0	10.0
47.5°	2.0	9.0	20.0	8.0	5.0
50°	1.0	1.0	16.0	3.0	1.0
52.5°	1.0	1.0	9.0	1.0	1.0
55°	0.0	1.0	3.0	1.0	1.0
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
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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