

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: P886362

Luminaire Tested: ML204LSFL9FS1E-TIR1D40FL-TL2SDMW-550LM-3500K

Issue Date: 6/20/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886362  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-95)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 6/20/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML204LSFL9FS1E-TIR1D40FL-TL2SDMW-550LM-3500K  
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 648.8 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

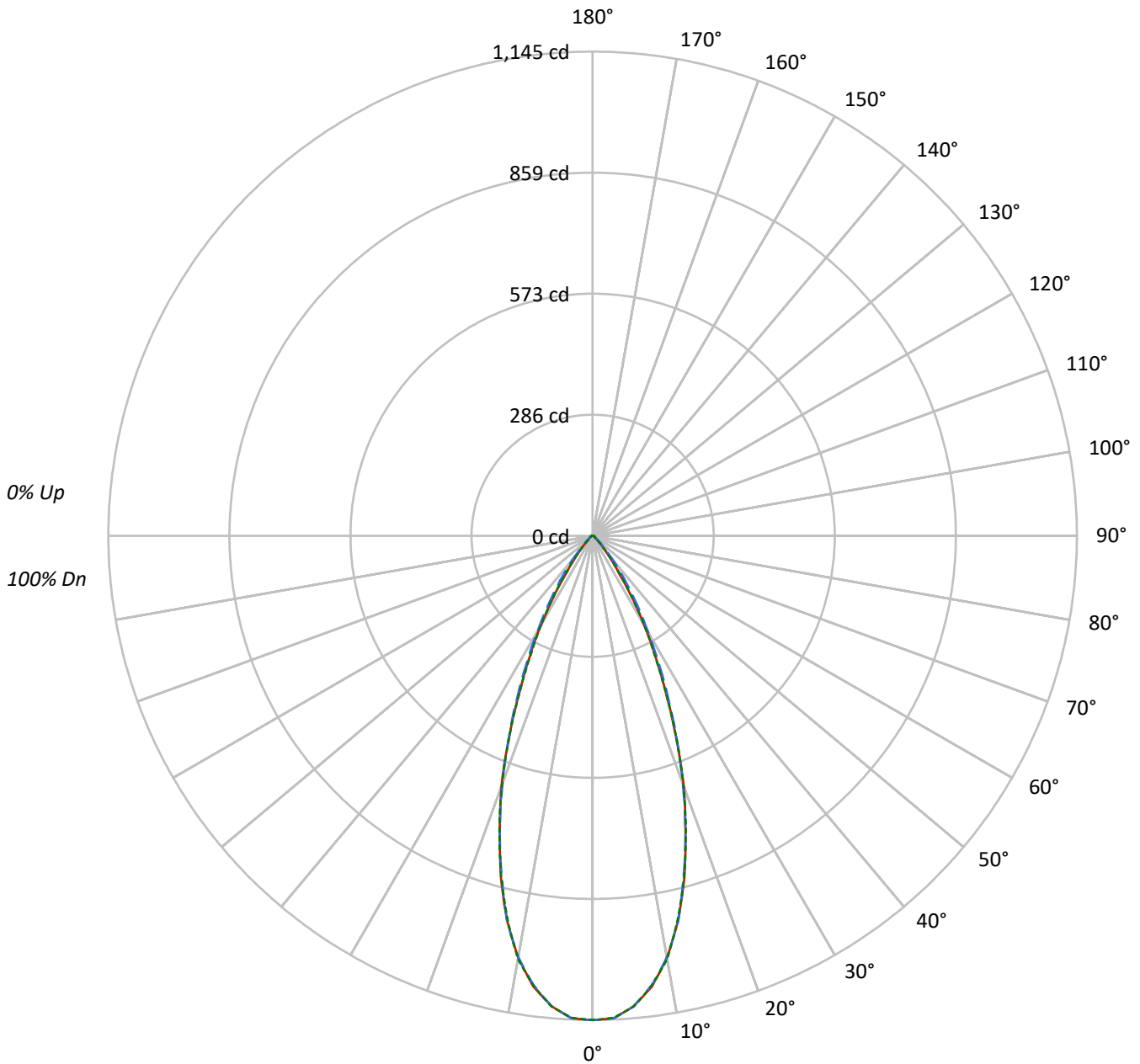
Input Watts (W): 7.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	100	100	100		
	1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94	94	94		
	2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	88	88	88	88	88	88		
	3	104	98	93	90	102	96	92	89	94	90	87	91	89	86	89	87	85	83	83	83	83	83	83		
	4	99	92	87	83	97	91	86	83	89	85	82	87	84	81	85	82	80	78	78	78	78	78	78		
	5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74	74	74	74	74	74		
	6	91	83	77	73	89	82	77	73	80	76	72	79	75	72	78	74	71	70	70	70	70	70	70		
	7	87	78	73	69	86	78	73	69	76	72	68	75	71	68	74	71	68	66	66	66	66	66	66		
	8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63	63	63	63	63	63		
	9	80	71	66	62	79	71	65	62	70	65	62	69	65	62	68	64	61	60	60	60	60	60	60		
	10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57	57	57	57	57	57		

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

	0°	45°	90°
0°	110951	110951	110951
5°	108565	108565	108672
10°	99639	99531	99954
15°	84035	83393	83714
20°	65031	64258	64588
25°	43697	45065	43697
30°	27339	29129	27227
35°	13127	17420	14014
40°	6614	9181	6614
45°	2630	4535	2918
50°	1447	2411	1613
55°	1081	1436	1267
60°	1027	1240	1027
65°	986	1215	986
70°	906	1218	906
75°	1198	1198	1198
80°	1172	1172	1172
85°	1223	1223	1223

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 4535 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.2	15.9
10°-20°	229.2	35.3
20°-30°	191.3	29.5
30°-40°	86.1	13.3
40°-50°	22.7	3.5
50°-60°	7.4	1.1
60°-70°	4.9	0.8
70°-80°	3.1	0.5
80°-90°	1.0	0.2
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°	523.8	80.7
0°-40°	609.9	94.0
0°-60°	639.9	98.6
0°-90°	648.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	648.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1145	1145	1145	1145	1145	
5°	1116	1118	1116	1116	1118	103
15°	838	835	832	832	835	230
25°	409	416	422	417	409	190
35°	111	129	147	131	118	78
45°	19	26	33	26	21	18
55°	6	8	8	8	8	6
65°	4	5	5	5	4	4
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1145.3	1145.3	1145.3	1145.3	1145.3
2.5°	1142.1	1142.1	1142.1	1143.1	1141.0
5°	1116.4	1117.5	1116.4	1116.4	1117.5
7.5°	1074.8	1074.8	1071.6	1072.7	1072.7
10°	1012.9	1010.8	1011.8	1010.8	1016.1
12.5°	932.9	933.9	933.9	936.1	929.7
15°	837.9	834.7	831.5	832.5	834.7
17.5°	729.0	729.0	730.1	727.9	733.3
20°	630.8	626.5	623.3	619.1	626.5
22.5°	515.5	517.7	518.7	515.5	516.6
25°	408.8	416.3	421.6	417.3	408.8
27.5°	322.3	322.3	336.2	326.6	317.0
30°	244.4	250.8	260.4	250.8	243.4
32.5°	174.0	186.8	199.6	187.9	175.0
35°	111.0	129.1	147.3	131.3	118.5
37.5°	75.8	86.5	106.7	87.5	79.0
40°	52.3	57.6	72.6	58.7	52.3
42.5°	34.2	39.5	49.1	39.5	34.2
45°	19.2	25.6	33.1	25.6	21.3
47.5°	11.7	14.9	23.5	16.0	13.9
50°	9.6	11.7	16.0	10.7	10.7
52.5°	8.5	9.6	10.7	9.6	8.5
55°	6.4	7.5	8.5	7.5	7.5
57.5°	6.4	6.4	7.5	6.4	6.4
60°	5.3	6.4	6.4	6.4	5.3
62.5°	5.3	5.3	5.3	5.3	5.3
65°	4.3	5.3	5.3	5.3	4.3
67.5°	4.3	4.3	4.3	4.3	4.3
70°	3.2	4.3	4.3	4.3	3.2
72.5°	3.2	3.2	3.2	3.2	3.2
75°	3.2	3.2	3.2	3.2	3.2
77.5°	2.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1
82.5°	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	1.1
87.5°	0.0	1.1	0.0	1.1	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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