

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: P886353

Luminaire Tested: ML204LSFL9FS1E-TIR1D40FL-TL2SDMB-550LM-4000K

Issue Date: 6/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P886353
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-97)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML204LSFL9FS1E-TIR1D40FL-TL2SDMB-550LM-4000K
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

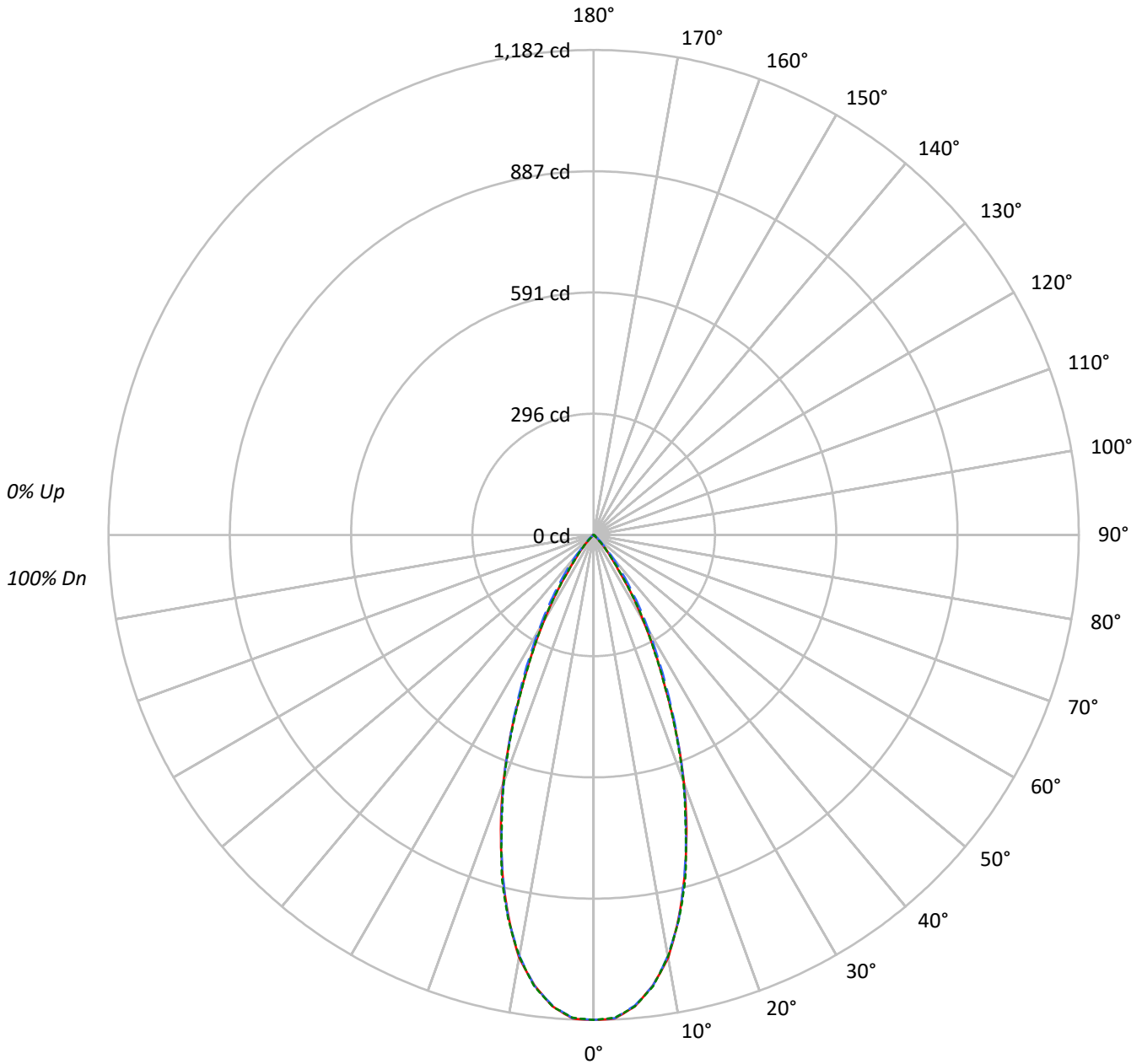
Lumens per Lamp: N/A
Luminaire Lumens: 641.5 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	112	109	107	112	110	108	106	105	104	102	102	101	99	98	97	97	95	95	95	95	95	95		
	2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	90	90	90	90	90	90		
	3	105	99	95	91	103	98	94	90	95	92	89	93	90	88	90	88	86	85	85	85	85	85	85		
	4	100	94	89	85	98	92	88	84	90	87	83	88	85	83	87	84	82	80	80	80	80	80	80		
	5	96	89	83	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76	76	76	76	76	76		
	6	92	84	79	75	91	83	78	75	82	78	74	81	77	74	79	76	73	72	72	72	72	72	72		
	7	88	80	75	71	87	79	74	71	78	74	70	77	73	70	76	72	70	68	68	68	68	68	68		
	8	85	76	71	67	83	76	71	67	75	70	67	74	70	67	73	69	66	65	65	65	65	65	65		
	9	81	73	67	64	80	72	67	64	71	67	64	71	66	63	70	66	63	62	62	62	62	62	62		
	10	78	69	64	61	77	69	64	61	68	64	61	68	63	61	67	63	60	59	59	59	59	59	59		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	114516	114516	114516
5°	112163	111949	112163
10°	102915	102482	102590
15°	85981	85871	86643
20°	66402	66175	65835
25°	44402	45941	44285
30°	27059	29778	27563
35°	12808	17243	13198
40°	6007	8941	5729
45°	1822	3631	1822
50°	497	1326	497
55°	186	186	186
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: 3631 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	16.6
10°-20°	235.6	36.7
20°-30°	195.1	30.4
30°-40°	85.0	13.3
40°-50°	17.8	2.8
50°-60°	1.4	0.2
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°	537.3	83.8
0°-40°	622.3	97.0
0°-60°	641.5	100.0
0°-90°	641.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1153	1154	1151	1152	1153	107
15°	857	855	856	861	864	236
25°	415	426	430	421	414	193
35°	108	128	146	127	112	76
45°	13	20	26	20	13	14
55°	1	1	1	1	1	1
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1182.1	1182.1	1182.1	1182.1	1182.1
2.5°	1179.9	1178.8	1178.8	1178.8	1177.7
5°	1153.4	1154.5	1151.2	1152.3	1153.4
7.5°	1107.0	1107.0	1108.1	1110.3	1109.2
10°	1046.2	1041.8	1041.8	1044.0	1042.9
12.5°	956.7	958.9	958.9	963.3	960.0
15°	857.3	855.1	856.2	860.6	863.9
17.5°	752.3	751.2	746.8	747.9	744.6
20°	644.1	641.9	641.9	637.4	638.6
22.5°	529.2	532.5	530.3	531.4	524.8
25°	415.4	426.4	429.8	420.9	414.3
27.5°	323.7	329.2	341.4	332.5	320.4
30°	241.9	253.0	266.2	255.2	246.4
32.5°	175.7	190.0	202.2	192.2	176.8
35°	108.3	128.2	145.8	127.0	111.6
37.5°	70.7	81.8	103.8	80.6	70.7
40°	47.5	51.9	70.7	53.0	45.3
42.5°	28.7	33.1	42.0	34.2	27.6
45°	13.3	19.9	26.5	19.9	13.3
47.5°	5.5	8.8	17.7	7.7	5.5
50°	3.3	4.4	8.8	4.4	3.3
52.5°	2.2	2.2	3.3	2.2	2.2
55°	1.1	1.1	1.1	1.1	1.1
57.5°	0.0	0.0	1.1	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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