

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: P886303

Luminaire Tested: ML204LSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-4000K

Issue Date: 6/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P886303
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-89)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML204LSFL9FS1E-TIR1D25NFL-TL2SDMW-550LM-4000K
Description: 2IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

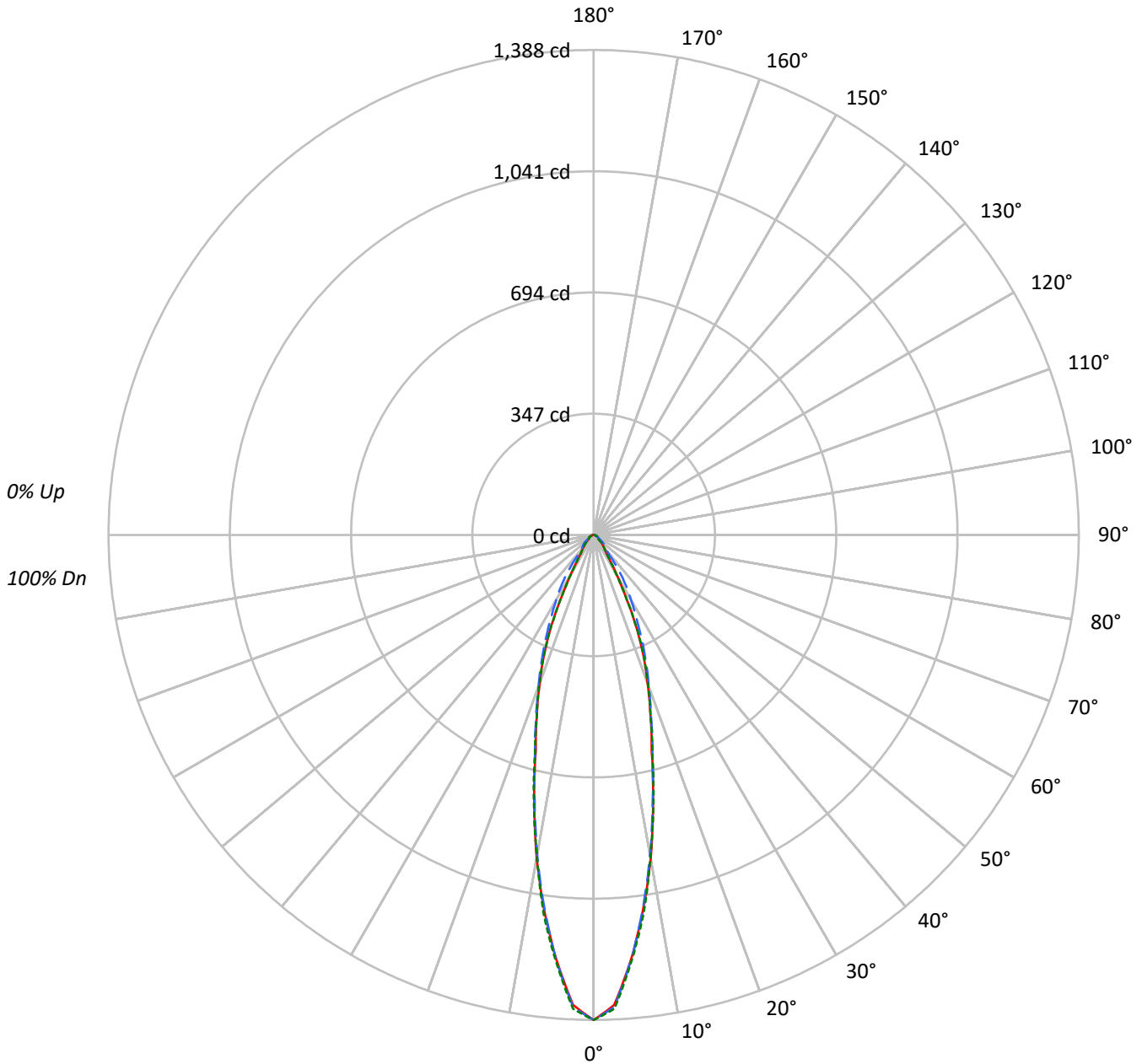
Lumens per Lamp: N/A
Luminaire Lumens: 548.4 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.55
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 7.9
Input Voltage (V): NR
Input Current (A_{in}): 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	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87		
	3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82	82	82	82	82	82		
	4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77	77	77	77	77	77		
	5	94	86	81	77	92	85	80	76	83	79	76	82	78	75	80	77	74	73	73	73	73	73	73		
	6	90	82	76	72	89	81	76	72	79	75	71	78	74	71	77	73	70	69	69	69	69	69	69		
	7	86	78	72	68	85	77	72	68	76	71	68	75	70	67	74	70	67	66	66	66	66	66	66		
	8	83	74	69	65	82	73	68	65	72	68	64	71	67	64	71	67	64	63	63	63	63	63	63		
	9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60	60	60	60	60	60		
	10	77	68	62	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°	538043	538043	538043
5°	475216	475644	477823
10°	369436	365540	367704
15°	257029	260559	260559
20°	185854	189937	187669
25°	121854	136947	121854
30°	59331	95395	57318
35°	29802	61638	29282
40°	22358	27366	22358
45°	17536	23619	16933
50°	11333	21280	11333
55°	11215	11958	11215
60°	11160	11160	11160
65°	10086	10086	10086
70°	8724	9970	8724
75°	8235	8235	8235
80°	7364	7364	7364
85°	4891	4891	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 23619 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.7	19.6
10°-20°	182.2	33.2
20°-30°	138.2	25.2
30°-40°	58.0	10.6
40°-50°	27.4	5.0
50°-60°	15.8	2.9
60°-70°	11.2	2.0
70°-80°	6.0	1.1
80°-90°	1.9	0.4
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°	428.0	78.0
0°-40°	486.1	88.6
0°-60°	529.3	96.5
0°-90°	548.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	548.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1222	1218	1223	1222	1228	108
15°	641	643	650	648	650	182
25°	285	308	320	308	285	128
35°	63	80	130	78	62	45
45°	32	35	43	35	31	23
55°	17	17	18	17	17	15
65°	11	11	11	11	11	11
75°	6	6	6	6	6	6
85°	1	2	1	2	1	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1388.5	1388.5	1388.5	1388.5	1388.5
2.5°	1346.6	1349.9	1352.1	1357.6	1357.6
5°	1221.7	1218.4	1222.8	1221.7	1228.4
7.5°	1082.6	1083.7	1078.1	1084.8	1094.7
10°	938.9	930.1	929.0	933.4	934.5
12.5°	785.4	781.0	779.9	779.9	790.9
15°	640.7	642.9	649.5	648.4	649.5
17.5°	540.2	546.8	546.8	543.5	540.2
20°	450.7	456.2	460.6	456.2	455.1
22.5°	370.1	383.3	388.8	385.5	372.3
25°	285.0	308.2	320.3	308.2	285.0
27.5°	194.4	233.1	259.6	232.0	194.4
30°	132.6	161.3	213.2	159.1	128.1
32.5°	87.3	109.4	171.2	109.4	88.4
35°	63.0	79.5	130.3	78.4	61.9
37.5°	51.9	61.9	81.7	60.8	51.9
40°	44.2	47.5	54.1	48.6	44.2
42.5°	38.7	40.9	47.5	42.0	38.7
45°	32.0	35.3	43.1	35.3	30.9
47.5°	19.9	27.6	38.7	27.6	19.9
50°	18.8	18.8	35.3	18.8	18.8
52.5°	17.7	17.7	26.5	17.7	17.7
55°	16.6	16.6	17.7	16.6	16.6
57.5°	15.5	15.5	15.5	15.5	15.5
60°	14.4	14.4	14.4	14.4	14.4
62.5°	12.2	13.3	13.3	13.3	12.2
65°	11.0	11.0	11.0	11.0	11.0
67.5°	9.9	9.9	9.9	9.9	9.9
70°	7.7	8.8	8.8	8.8	7.7
72.5°	6.6	6.6	6.6	7.7	6.6
75°	5.5	5.5	5.5	5.5	5.5
77.5°	4.4	4.4	4.4	4.4	4.4
80°	3.3	3.3	3.3	3.3	3.3
82.5°	2.2	3.3	2.2	3.3	2.2
85°	1.1	2.2	1.1	2.2	1.1
87.5°	1.1	1.1	1.1	1.1	1.1
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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