

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: P886004

Luminaire Tested: ML104LSFLD2W1E-TIR1D25NFL-TL1SDMW-200LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P886004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-136)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFLD2W1E-TIR1D25NFL-TL1SDMW-200LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) D2W LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

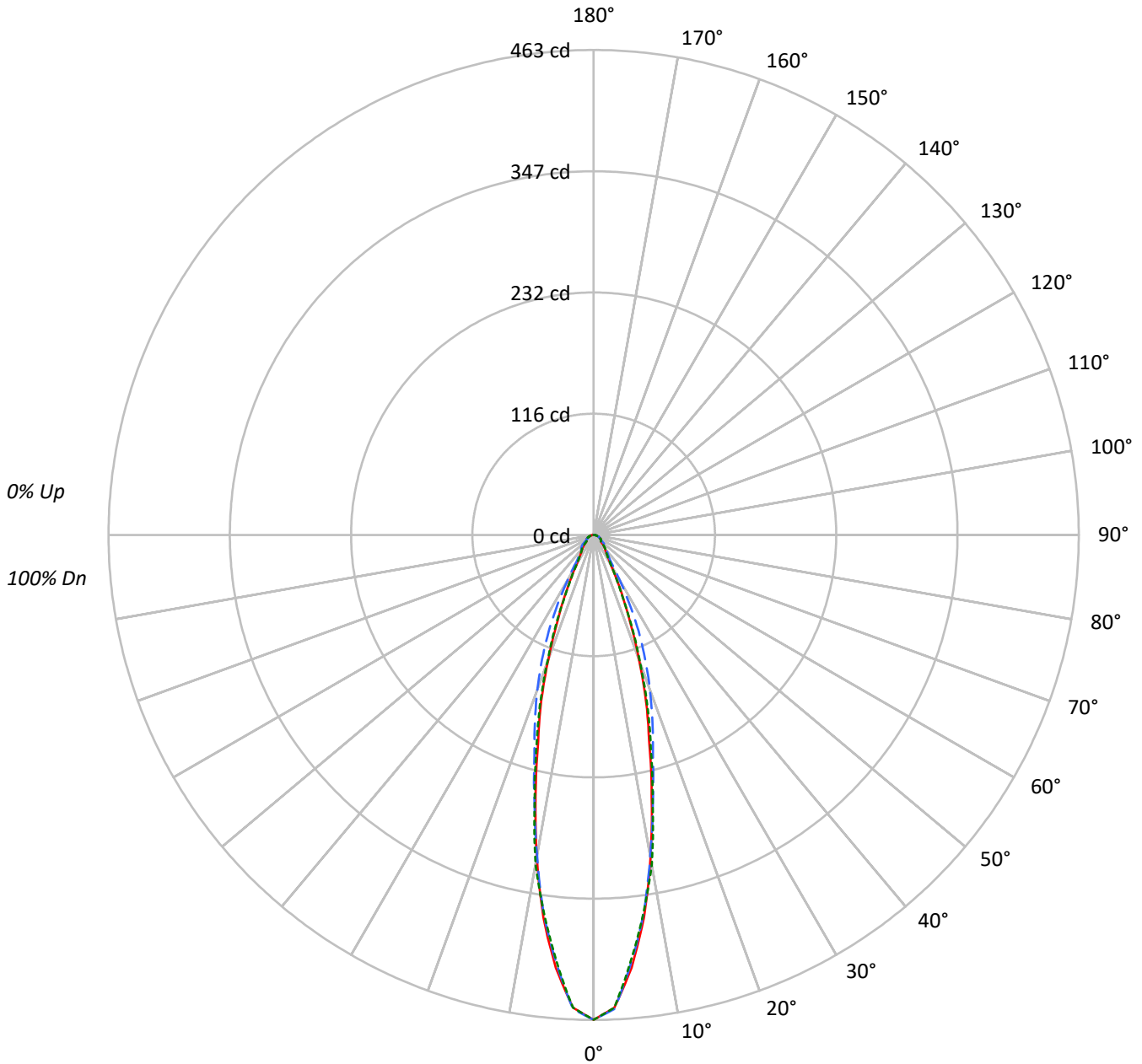
Lumens per Lamp: N/A
Luminaire Lumens: 178.4 lumens
Efficiency: N/A
Efficacy: 55.8 lumens/watt
Spacing Criteria (0/90/45): 0.45 / 0.46 / 0.55
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 3.2
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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	102	98	94	105	100	96	93	97	94	91	94	92	89	91	89	87	86					86			
3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	82	80					80			
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	77	75					75			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71					71			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67					67			
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64					64			
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61					61			
9	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58					58			
10	76	67	61	58	75	66	61	57	65	61	57	65	60	57	64	60	57	56					56			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	717502	717502	717502
5°	645247	638401	634978
10°	491538	489806	502870
15°	327839	350144	338591
20°	208331	258476	212785
25°	113561	173249	110824
30°	58527	87163	58527
35°	39737	46170	40872
40°	33588	39254	34803
45°	25428	35292	26743
50°	21461	30625	21461
55°	22430	22430	22430
60°	24180	22320	24180
65°	22373	22373	22373
70°	22660	22660	22660
75°	19763	19763	19763
80°	19638	19638	19638
85°	19563	10671	19563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 35292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.2	20.3
10°-20°	59.5	33.4
20°-30°	37.6	21.1
30°-40°	15.9	8.9
40°-50°	10.6	6.0
50°-60°	7.6	4.3
60°-70°	6.1	3.4
70°-80°	3.6	2.0
80°-90°	1.2	0.7
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°	133.3	74.7
0°-40°	149.2	83.6
0°-60°	167.5	93.9
0°-90°	178.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	178.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	415	411	410	407	408	36
15°	204	210	218	214	211	57
25°	66	76	101	77	65	32
35°	21	25	24	24	22	14
45°	12	14	16	14	12	9
55°	8	8	8	8	8	7
65°	6	6	6	6	6	6
75°	3	3	3	3	3	4
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°	462.9	462.9	462.9	462.9	462.9
2.5°	451.8	451.8	453.0	451.8	451.8
5°	414.7	411.4	410.3	407.0	408.1
7.5°	368.2	367.1	364.9	364.9	363.8
10°	312.3	313.4	311.2	314.5	319.5
12.5°	255.8	256.4	260.8	263.0	260.3
15°	204.3	210.4	218.2	213.7	211.0
17.5°	166.1	172.2	186.1	175.0	170.5
20°	126.3	137.9	156.7	140.6	129.0
22.5°	91.9	106.3	128.5	107.4	95.8
25°	66.4	75.9	101.3	77.0	64.8
27.5°	46.5	54.3	73.6	54.8	46.0
30°	32.7	41.0	48.7	39.9	32.7
32.5°	25.5	32.1	31.0	31.0	24.9
35°	21.0	24.9	24.4	24.4	21.6
37.5°	18.3	19.9	21.6	20.5	18.8
40°	16.6	17.7	19.4	17.7	17.2
42.5°	14.4	16.1	17.7	16.1	15.0
45°	11.6	13.8	16.1	13.8	12.2
47.5°	9.4	10.5	15.0	11.1	9.4
50°	8.9	8.9	12.7	8.9	8.9
52.5°	8.9	8.9	10.0	8.9	8.9
55°	8.3	8.3	8.3	8.3	8.3
57.5°	7.8	7.8	7.8	7.8	7.8
60°	7.8	7.8	7.2	7.8	7.8
62.5°	6.6	7.2	6.6	7.2	6.6
65°	6.1	6.1	6.1	6.1	6.1
67.5°	5.5	5.5	5.5	5.5	5.5
70°	5.0	5.0	5.0	5.0	5.0
72.5°	3.9	3.9	3.9	4.4	3.9
75°	3.3	3.3	3.3	3.3	3.3
77.5°	2.8	2.8	2.8	2.8	2.8
80°	2.2	2.2	2.2	2.2	2.2
82.5°	1.7	1.7	1.7	1.7	1.7
85°	1.1	1.1	0.6	1.1	1.1
87.5°	0.6	0.6	0.6	0.6	0.6
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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