

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: P885960

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMB-400LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885960
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-150)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMB-400LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 415.6 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')

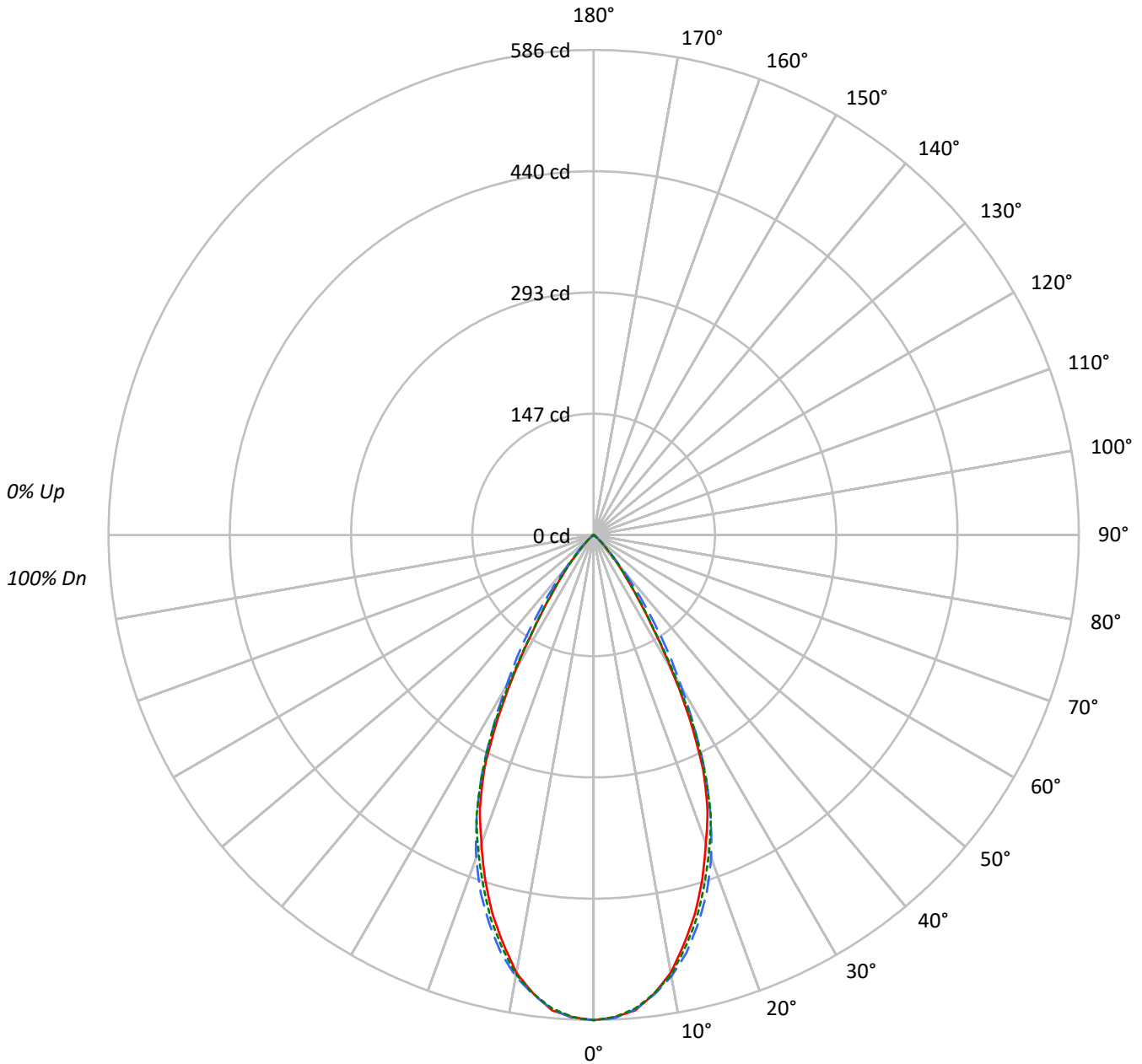
CIE Type: Direct

Input Watts (W): 6
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									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	89																			
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	85	83																			
4	99	92	87	83	97	91	86	82	89	85	81	87	83	80	85	82	79	78																			
5	94	87	81	77	93	86	81	77	84	79	76	82	78	75	81	77	75	73																			
6	90	82	76	72	89	81	76	72	79	75	71	78	74	71	77	73	70	69																			
7	86	77	72	68	85	77	71	68	75	71	67	74	70	67	73	69	66	65																			
8	82	73	68	64	81	73	67	64	72	67	63	71	66	63	70	66	63	62																			
9	79	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	60	58																			
10	75	66	61	57	74	66	60	57	65	60	57	64	60	57	63	59	56	55																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	908929	908929	908929
5°	897153	895442	893730
10°	845199	852124	848662
15°	759502	780684	770093
20°	653859	684704	672003
25°	535309	546597	544716
30°	336125	377470	347938
35°	172570	228580	178626
40°	86602	104408	86602
45°	36169	43403	36169
50°	10610	15915	13263
55°	2973	5945	2973
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: 43403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	12.9
10°-20°	133.8	32.2
20°-30°	142.1	34.2
30°-40°	68.5	16.5
40°-50°	15.8	3.8
50°-60°	1.7	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°	329.6	79.3
0°-40°	398.1	95.8
0°-60°	415.6	100.0
0°-90°	415.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	415.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	586	586	586	586	586	
5°	577	576	576	576	574	54
15°	473	480	486	484	480	131
25°	313	315	320	326	318	138
35°	91	100	121	101	94	61
45°	16	18	20	18	16	14
55°	1	1	2	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°	586.4	586.4	586.4	586.4	586.4
2.5°	583.1	583.1	584.2	584.2	583.1
5°	576.6	575.5	575.5	575.5	574.4
7.5°	559.0	559.0	560.1	561.2	559.0
10°	537.0	538.1	541.4	539.2	539.2
12.5°	505.2	509.6	517.2	515.1	510.7
15°	473.3	479.9	486.5	484.3	479.9
17.5°	436.0	443.7	453.6	449.2	443.7
20°	396.4	403.0	415.1	410.7	407.4
22.5°	359.1	362.4	369.0	369.0	370.1
25°	313.0	315.2	319.6	326.2	318.5
27.5°	251.5	259.2	264.7	266.9	261.4
30°	187.8	199.9	210.9	207.6	194.4
32.5°	132.9	146.1	165.8	151.6	135.1
35°	91.2	99.9	120.8	101.0	94.4
37.5°	62.6	68.1	82.4	68.1	64.8
40°	42.8	46.1	51.6	46.1	42.8
42.5°	27.5	29.7	31.8	29.7	27.5
45°	16.5	17.6	19.8	17.6	16.5
47.5°	8.8	9.9	11.0	9.9	8.8
50°	4.4	5.5	6.6	5.5	5.5
52.5°	2.2	3.3	3.3	3.3	3.3
55°	1.1	1.1	2.2	1.1	1.1
57.5°	0.0	0.0	1.1	1.1	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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