

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: P885985

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDSLB-400LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885985
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-152)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDSLB-400LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 437.8 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.84 / 0.81
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

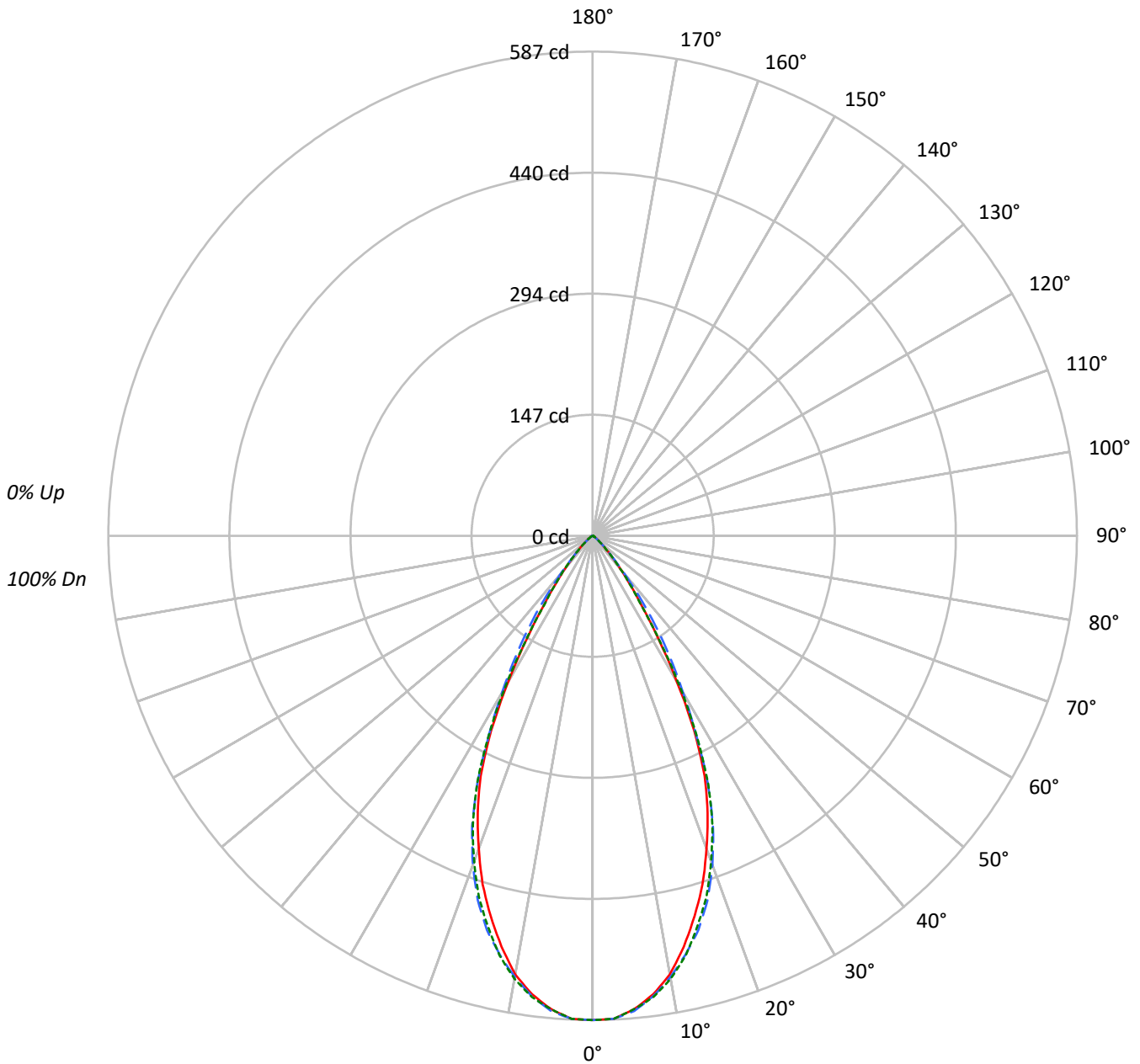
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	108	104	100	97	106	102	99	96	99	96	93	96	94	91	93	91	90	88																			
3	103	97	92	89	101	96	91	88	93	89	86	91	88	85	88	86	84	82																			
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77																			
5	94	86	80	76	92	85	80	76	83	78	75	81	77	74	80	76	74	72																			
6	89	81	75	71	88	80	75	71	78	74	70	77	73	70	76	72	69	68																			
7	85	76	70	66	84	76	70	66	74	69	66	73	69	66	72	68	65	64																			
8	81	72	66	62	80	72	66	62	70	66	62	69	65	62	69	65	62	60																			
9	78	68	63	59	76	68	62	59	67	62	59	66	62	58	65	61	58	57																			
10	74	65	59	56	73	64	59	56	64	59	55	63	58	55	62	58	55	54																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	910169	910169	910169
5°	896531	899954	896531
10°	849764	854958	858420
15°	765760	794003	786942
20°	665570	700045	692787
25°	549162	564213	566094
30°	366015	391609	379797
35°	197737	249584	193574
40°	104610	120190	106836
45°	50636	53048	50636
50°	23873	21220	23873
55°	14863	8918	14863
60°	10230	3410	10230
65°	8069	4034	8069
70°	4985	0	4985
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 53048 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	12.3
10°-20°	135.8	31.0
20°-30°	147.0	33.6
30°-40°	75.1	17.2
40°-50°	19.8	4.5
50°-60°	4.3	1.0
60°-70°	1.5	0.3
70°-80°	0.3	0.1
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°	336.8	76.9
0°-40°	412.0	94.1
0°-60°	436.1	99.6
0°-90°	437.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	437.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	587	587	587	587	587	
5°	576	577	578	577	576	54
15°	477	484	495	492	490	133
25°	321	324	330	333	331	143
35°	104	111	132	114	102	70
45°	23	22	24	22	23	20
55°	6	4	3	4	6	5
65°	2	1	1	1	2	2
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°	587.2	587.2	587.2	587.2	587.2
2.5°	586.1	586.1	586.1	586.1	586.1
5°	576.2	577.3	578.4	577.3	576.2
7.5°	560.8	560.8	563.0	564.1	564.1
10°	539.9	541.0	543.2	545.4	545.4
12.5°	510.2	515.7	520.1	519.0	521.2
15°	477.2	483.8	494.8	491.5	490.4
17.5°	443.1	450.8	462.9	459.6	458.5
20°	403.5	412.3	424.4	421.1	420.0
22.5°	364.0	371.7	381.5	381.5	379.3
25°	321.1	324.4	329.9	333.2	331.0
27.5°	266.1	273.8	271.6	277.1	272.7
30°	204.5	213.3	218.8	217.7	212.2
32.5°	148.4	159.4	173.7	163.8	151.7
35°	104.5	111.1	131.9	114.4	102.3
37.5°	73.7	77.0	92.4	75.9	73.7
40°	51.7	52.8	59.4	52.8	52.8
42.5°	35.2	35.2	37.4	35.2	35.2
45°	23.1	22.0	24.2	22.0	23.1
47.5°	15.4	14.3	14.3	14.3	14.3
50°	9.9	9.9	8.8	8.8	9.9
52.5°	7.7	6.6	5.5	6.6	6.6
55°	5.5	4.4	3.3	4.4	5.5
57.5°	3.3	3.3	2.2	3.3	3.3
60°	3.3	2.2	1.1	2.2	3.3
62.5°	2.2	2.2	1.1	2.2	2.2
65°	2.2	1.1	1.1	1.1	2.2
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	0.0	1.1	1.1
72.5°	1.1	1.1	0.0	0.0	1.1
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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