

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: P885972

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMW-400LM-5000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885972
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-148)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMW-400LM-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 523.5 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')

CIE Type: Direct

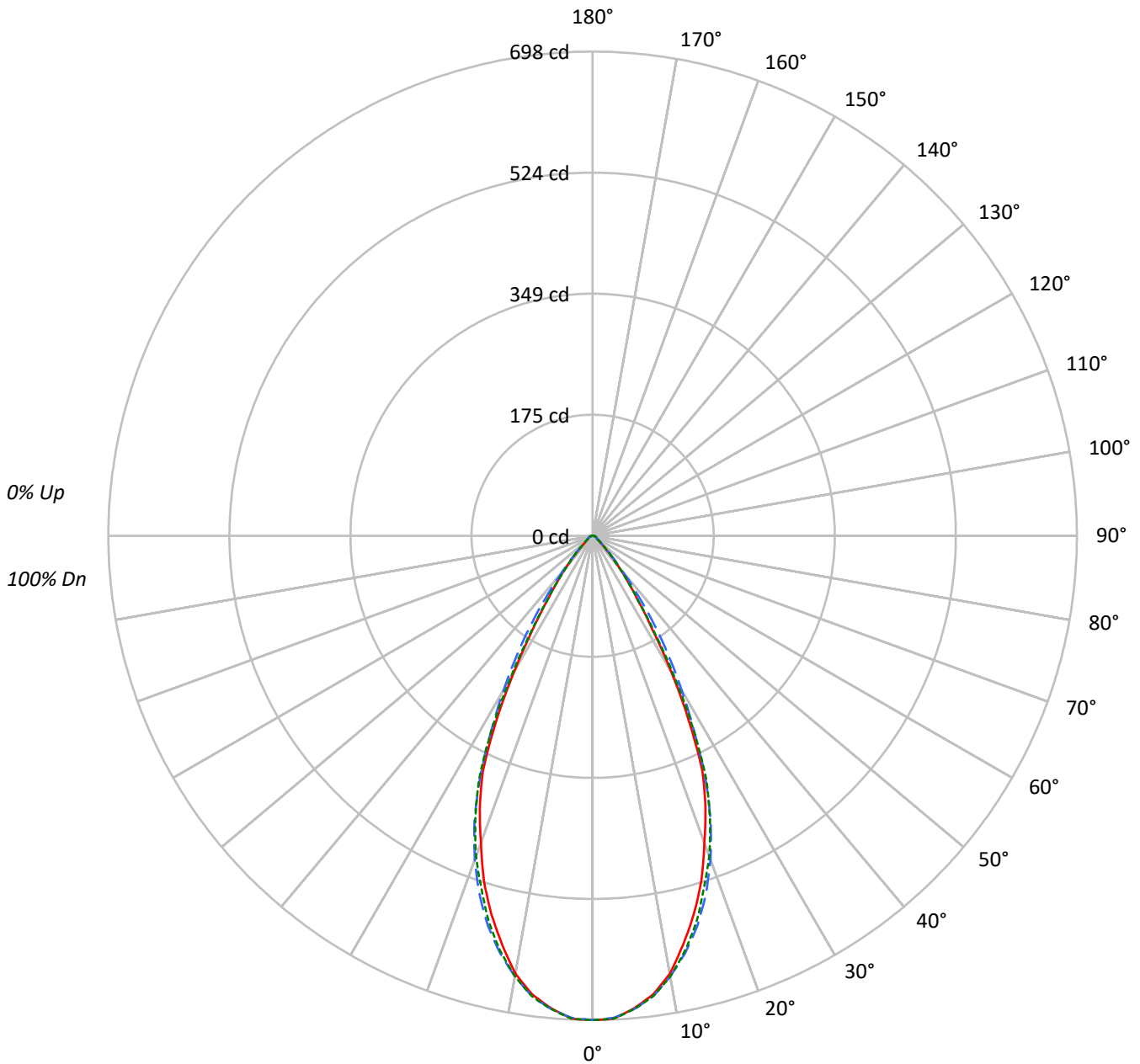
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					70					50					30				
RW	70	50	30	10	70	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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93		
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87		
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81		
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76		
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71		
6	88	80	74	70	87	79	73	69	77	73	69	76	72	68	75	71	68	67		
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63		
8	80	71	65	61	79	71	65	61	69	64	61	68	64	61	68	63	60	59		
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56		
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1082066	1082066	1082066
5°	1063950	1065972	1065972
10°	1008730	1014869	1014869
15°	905369	934574	926230
20°	776251	819138	810561
25°	640319	655882	662552
30°	404854	458369	423468
35°	216470	285347	218930
40°	120999	136782	115739
45°	56993	65542	59843
50°	31348	34483	34483
55°	24592	24592	24592
60°	20150	20150	20150
65°	19072	23840	19072
70°	23566	23566	23566
75°	23356	23356	23356
80°	23208	23208	23208
85°	23120	23120	23120

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 65542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	12.3
10°-20°	160.0	30.6
20°-30°	170.5	32.6
30°-40°	85.3	16.3
40°-50°	24.3	4.6
50°-60°	8.5	1.6
60°-70°	5.9	1.1
70°-80°	3.8	0.7
80°-90°	1.1	0.2
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°	394.6	75.4
0°-40°	480.0	91.7
0°-60°	512.8	98.0
0°-90°	523.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	523.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	698	698	698	698	698	
5°	684	685	685	685	685	64
15°	564	571	582	578	577	157
25°	374	378	384	387	387	164
35°	114	126	151	127	116	77
45°	26	27	30	29	27	23
55°	9	9	9	9	9	8
65°	5	6	6	6	5	6
75°	4	4	4	4	4	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°	698.1	698.1	698.1	698.1	698.1
2.5°	696.8	695.5	695.5	696.8	696.8
5°	683.8	685.1	685.1	685.1	685.1
7.5°	666.9	668.2	669.5	670.8	669.5
10°	640.9	642.2	644.8	647.4	644.8
12.5°	603.2	609.7	616.2	614.9	613.6
15°	564.2	570.7	582.4	578.5	577.2
17.5°	521.3	529.1	542.1	540.8	533.0
20°	470.6	482.3	496.6	492.7	491.4
22.5°	425.1	434.2	444.6	445.9	442.0
25°	374.4	378.3	383.5	387.4	387.4
27.5°	300.3	312.0	315.9	319.8	314.6
30°	226.2	241.8	256.1	252.2	236.6
32.5°	161.2	180.7	201.5	187.2	167.7
35°	114.4	126.1	150.8	127.4	115.7
37.5°	83.2	87.1	104.0	88.4	83.2
40°	59.8	61.1	67.6	61.1	57.2
42.5°	40.3	42.9	45.5	42.9	40.3
45°	26.0	27.3	29.9	28.6	27.3
47.5°	16.9	18.2	19.5	19.5	19.5
50°	13.0	13.0	14.3	15.6	14.3
52.5°	10.4	10.4	11.7	11.7	10.4
55°	9.1	9.1	9.1	9.1	9.1
57.5°	7.8	7.8	7.8	7.8	7.8
60°	6.5	6.5	6.5	6.5	6.5
62.5°	6.5	6.5	6.5	6.5	6.5
65°	5.2	6.5	6.5	6.5	5.2
67.5°	5.2	5.2	5.2	5.2	5.2
70°	5.2	5.2	5.2	5.2	5.2
72.5°	3.9	3.9	3.9	3.9	3.9
75°	3.9	3.9	3.9	3.9	3.9
77.5°	2.6	2.6	2.6	2.6	2.6
80°	2.6	2.6	2.6	2.6	2.6
82.5°	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.3	1.3
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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