

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: P885959

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMB-400LM-3000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885959
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-3000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 392.7 lumens
Efficiency: N/A
Efficacy: 65.4 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

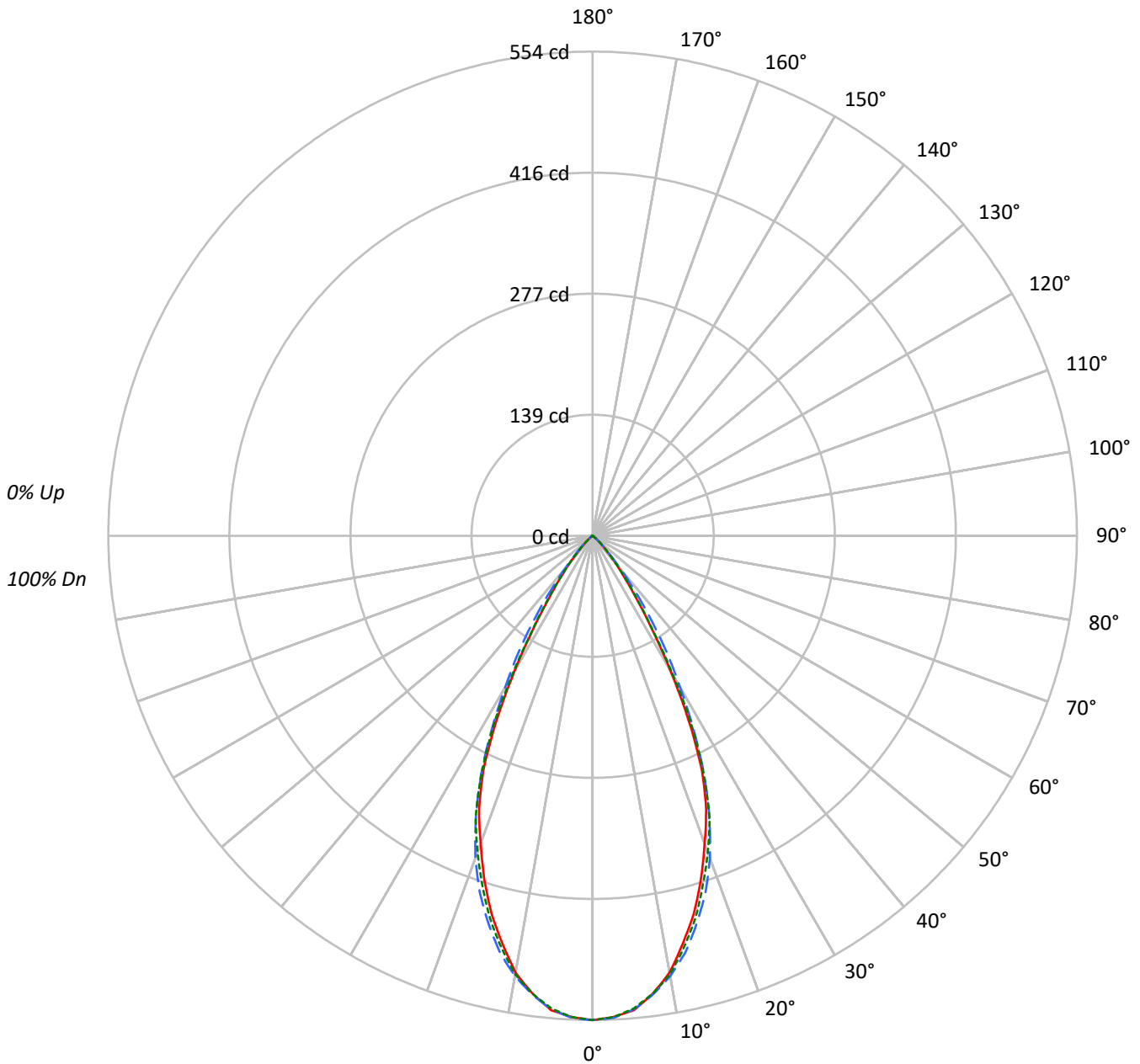
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	859019	859019	859019
5°	847674	846119	844563
10°	798768	805221	802074
15°	717780	737678	727729
20°	617900	647096	635055
25°	505893	516497	514786
30°	317690	356708	328787
35°	162920	216092	168786
40°	81948	98742	81948
45°	34196	40991	34196
50°	10128	14951	12539
55°	2702	5675	2702
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: 40991 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	12.9
10°-20°	126.4	32.2
20°-30°	134.3	34.2
30°-40°	64.7	16.5
40°-50°	14.9	3.8
50°-60°	1.6	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°	311.5	79.3
0°-40°	376.2	95.8
0°-60°	392.7	100.0
0°-90°	392.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	392.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	545	544	544	544	543	51
15°	447	454	460	458	454	124
25°	296	298	302	308	301	130
35°	86	94	114	96	89	58
45°	16	17	19	17	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°	554.2	554.2	554.2	554.2	554.2
2.5°	551.1	551.1	552.1	552.1	551.1
5°	544.8	543.8	543.8	543.8	542.8
7.5°	528.2	528.2	529.3	530.3	528.2
10°	507.5	508.5	511.6	509.6	509.6
12.5°	477.4	481.5	488.8	486.7	482.6
15°	447.3	453.5	459.7	457.7	453.5
17.5°	412.0	419.3	428.6	424.5	419.3
20°	374.6	380.9	392.3	388.1	385.0
22.5°	339.4	342.5	348.7	348.7	349.7
25°	295.8	297.8	302.0	308.2	301.0
27.5°	237.7	244.9	250.1	252.2	247.0
30°	177.5	188.9	199.3	196.1	183.7
32.5°	125.6	138.0	156.7	143.2	127.6
35°	86.1	94.4	114.2	95.5	89.2
37.5°	59.2	64.3	77.8	64.3	61.2
40°	40.5	43.6	48.8	43.6	40.5
42.5°	25.9	28.0	30.1	28.0	25.9
45°	15.6	16.6	18.7	16.6	15.6
47.5°	8.3	9.3	10.4	9.3	8.3
50°	4.2	5.2	6.2	5.2	5.2
52.5°	2.1	3.1	3.1	3.1	3.1
55°	1.0	1.0	2.1	1.0	1.0
57.5°	0.0	0.0	1.0	1.0	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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