

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: P885926

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1SDSLB-400LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-146)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1SDSLB-400LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 484.6 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.69 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

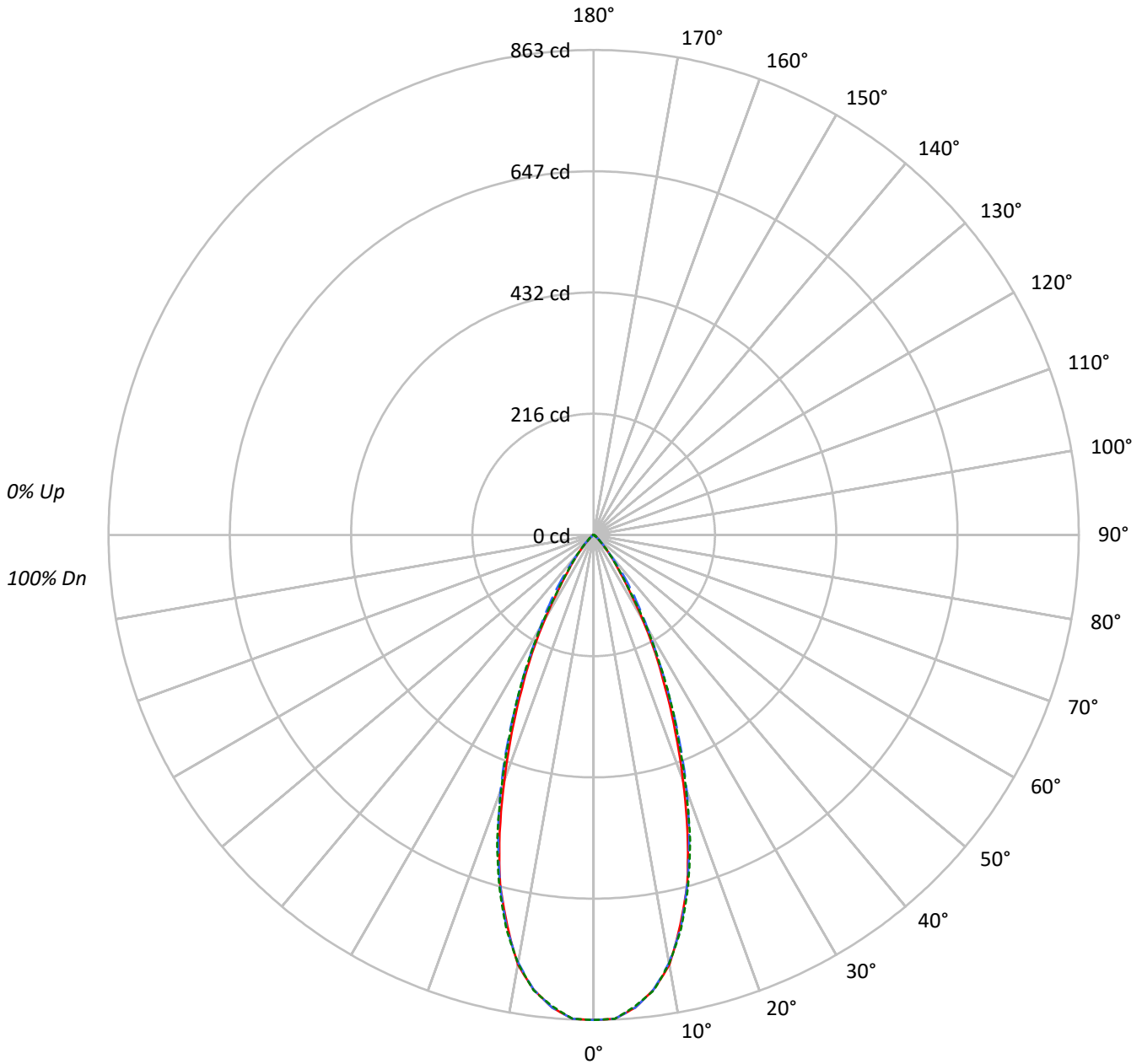
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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								
1	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95								
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89								
3	104	99	94	90	102	97	93	90	95	91	88	92	89	87	90	88	86	84								
4	100	93	88	84	98	92	87	84	90	86	83	88	84	82	86	83	81	79								
5	95	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75								
6	91	83	78	74	90	83	78	74	81	77	73	80	76	73	79	75	73	71								
7	88	79	74	70	86	79	74	70	77	73	70	76	72	69	75	72	69	68								
8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65	64								
9	81	72	67	63	80	71	66	63	71	66	63	70	66	63	69	65	62	61								
10	77	69	64	60	76	68	63	60	68	63	60	67	63	60	66	62	60	58								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1337819	1337819	1337819
5°	1313833	1313833	1310099
10°	1222312	1216646	1218535
15°	1032140	1032140	1039682
20°	765859	798684	790932
25°	515984	546084	547965
30°	311963	339168	332904
35°	154973	203603	161596
40°	85185	92267	87613
45°	35950	46252	38361
50°	22667	19773	22667
55°	15674	9458	15674
60°	10850	3720	10850
65°	8436	4401	8436
70°	5438	0	5438
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 46252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	16.2
10°-20°	176.3	36.4
20°-30°	145.0	29.9
30°-40°	62.4	12.9
40°-50°	16.5	3.4
50°-60°	4.3	0.9
60°-70°	1.6	0.3
70°-80°	0.2	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°	399.7	82.5
0°-40°	462.1	95.3
0°-60°	482.9	99.6
0°-90°	484.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	484.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	863	863	863	863	863	
5°	844	843	844	842	842	78
15°	643	643	643	646	648	175
25°	302	309	319	320	320	139
35°	82	90	108	94	85	56
45°	16	19	21	19	18	16
55°	6	5	4	5	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°	863.1	863.1	863.1	863.1	863.1
2.5°	861.9	863.1	861.9	861.9	861.9
5°	844.4	843.2	844.4	842.0	842.0
7.5°	816.3	815.1	816.3	816.3	817.5
10°	776.6	770.7	773.0	776.6	774.2
12.5°	711.1	715.7	715.7	718.1	718.1
15°	643.2	643.2	643.2	645.6	647.9
17.5°	555.5	557.9	564.9	567.2	570.7
20°	464.3	472.5	484.2	481.8	479.5
22.5°	380.1	384.8	400.0	397.6	394.1
25°	301.7	308.7	319.3	320.4	320.4
27.5°	237.4	244.4	247.9	253.8	247.9
30°	174.3	187.1	189.5	194.1	186.0
32.5°	118.1	129.8	146.2	138.0	122.8
35°	81.9	90.1	107.6	93.6	85.4
37.5°	58.5	62.0	72.5	64.3	60.8
40°	42.1	44.4	45.6	45.6	43.3
42.5°	28.1	29.2	30.4	30.4	29.2
45°	16.4	18.7	21.1	18.7	17.5
47.5°	11.7	11.7	12.9	11.7	11.7
50°	9.4	8.2	8.2	8.2	9.4
52.5°	7.0	5.8	4.7	5.8	7.0
55°	5.8	4.7	3.5	4.7	5.8
57.5°	4.7	3.5	2.3	3.5	4.7
60°	3.5	2.3	1.2	2.3	3.5
62.5°	2.3	2.3	1.2	2.3	2.3
65°	2.3	1.2	1.2	1.2	2.3
67.5°	1.2	1.2	1.2	1.2	1.2
70°	1.2	1.2	0.0	1.2	1.2
72.5°	1.2	0.0	0.0	0.0	1.2
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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