

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: P885718

Luminaire Tested: ML104LSFL95FS1E-TIR1D40FL-TL1SDMW-340LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885718
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-142)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D40FL-TL1SDMW-340LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

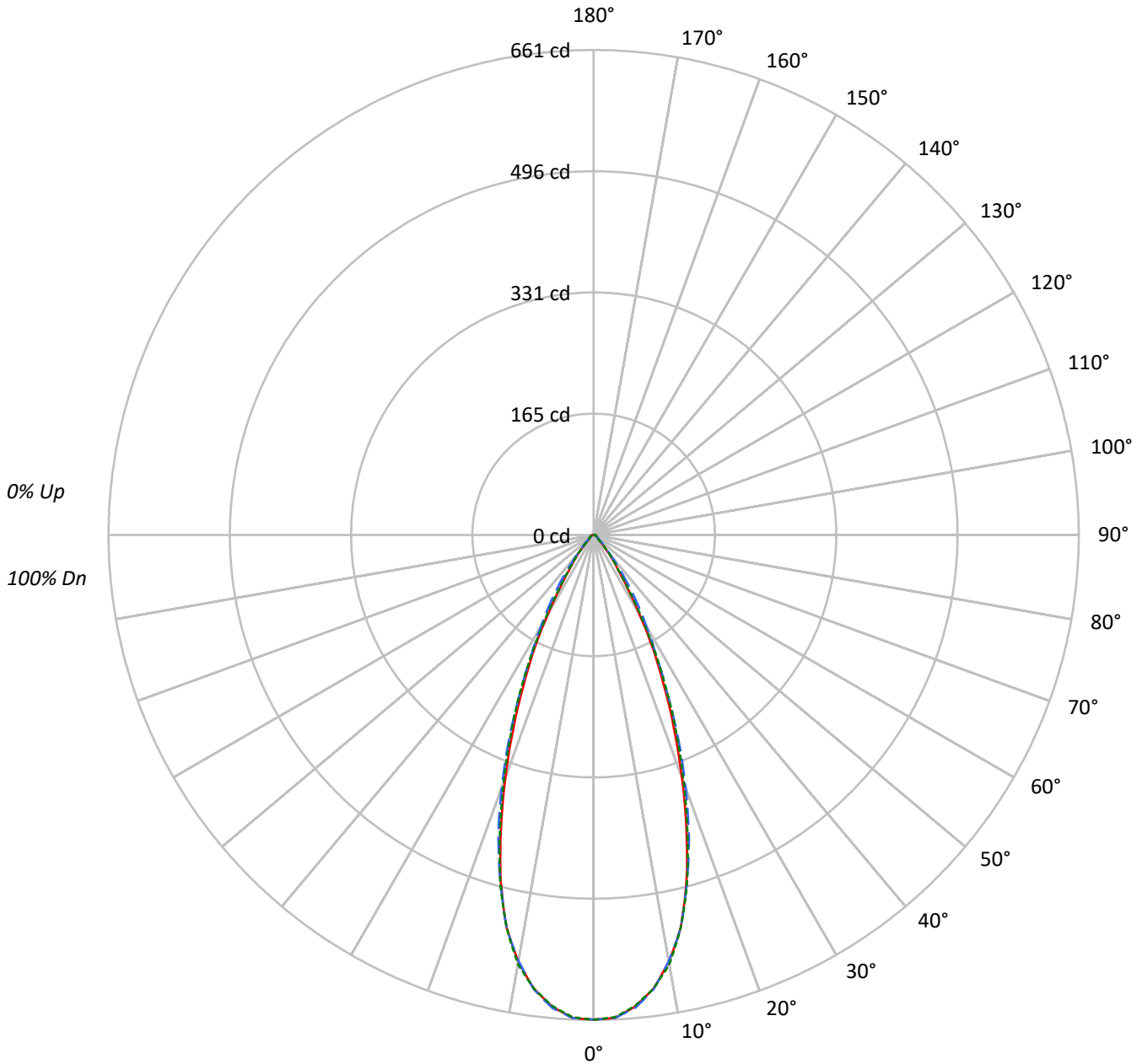
Lumens per Lamp: N/A
Luminaire Lumens: 374.9 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6.1
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	100	100	100	100	100		
	1	114	111	109	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94	94	94	94	94	94		
	2	108	104	100	97	106	102	99	96	99	96	93	96	94	92	93	91	90	88	88	88	88	88	88		
	3	103	97	93	89	102	96	92	88	93	90	87	91	88	86	89	86	84	83	83	83	83	83	83		
	4	99	92	87	83	97	91	86	82	89	84	81	87	83	80	85	82	79	78	78	78	78	78	78		
	5	94	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74	74	74	74	74	74		
	6	90	82	77	73	89	81	76	72	80	75	72	79	75	71	77	74	71	70	70	70	70	70	70		
	7	87	78	73	69	85	77	72	68	76	72	68	75	71	68	74	70	67	66	66	66	66	66	66		
	8	83	74	69	65	82	74	69	65	73	68	65	72	67	64	71	67	64	63	63	63	63	63	63		
	9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60	60	60	60	60	60		
	10	77	68	62	59	76	67	62	59	66	62	59	66	61	58	65	61	58	57	57	57	57	57	57		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1024096	1024096	1024096
5°	1004202	1007002	1002801
10°	929404	927988	935070
15°	784375	787263	788708
20°	578972	604209	590848
25°	386346	404817	406356
30°	222294	256121	235180
35°	108992	151567	114101
40°	60095	71021	63737
45°	25647	39457	25647
50°	19532	21703	19532
55°	17025	17025	17025
60°	16740	16740	16740
65°	16504	16504	16504
70°	16315	16315	16315
75°	16170	16170	16170
80°	16067	16067	16067
85°	16006	16006	16006

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 39457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	16.0
10°-20°	134.1	35.8
20°-30°	108.2	28.9
30°-40°	45.4	12.1
40°-50°	13.1	3.5
50°-60°	5.8	1.5
60°-70°	4.4	1.2
70°-80°	3.1	0.8
80°-90°	0.9	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°	302.3	80.6
0°-40°	347.7	92.7
0°-60°	366.5	97.7
0°-90°	374.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	374.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	661	661	661	661	661	
5°	645	645	647	646	644	60
15°	489	487	491	489	492	133
25°	226	233	237	238	238	104
35°	58	64	80	66	60	40
45°	12	14	18	15	12	11
55°	6	6	6	6	6	6
65°	4	4	4	4	4	4
75°	3	3	3	3	3	3
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°	660.7	660.7	660.7	660.7	660.7
2.5°	658.9	658.9	658.9	659.8	658.0
5°	645.4	645.4	647.2	646.3	644.5
7.5°	623.8	623.8	624.7	624.7	623.8
10°	590.5	591.4	589.6	592.3	594.1
12.5°	548.2	547.3	548.2	549.1	548.2
15°	488.8	487.0	490.6	488.8	491.5
17.5°	420.4	426.7	432.1	428.5	424.9
20°	351.0	356.4	366.3	361.8	358.2
22.5°	286.2	293.4	301.5	299.7	295.2
25°	225.9	233.1	236.7	237.6	237.6
27.5°	174.6	180.9	183.6	187.2	181.8
30°	124.2	133.2	143.1	142.2	131.4
32.5°	84.6	93.6	110.7	99.9	88.2
35°	57.6	63.9	80.1	65.7	60.3
37.5°	42.3	45.9	53.1	46.8	44.1
40°	29.7	32.4	35.1	34.2	31.5
42.5°	19.8	22.5	25.2	23.4	19.8
45°	11.7	14.4	18.0	15.3	11.7
47.5°	9.0	9.9	13.5	9.9	9.0
50°	8.1	8.1	9.0	8.1	8.1
52.5°	7.2	7.2	7.2	7.2	7.2
55°	6.3	6.3	6.3	6.3	6.3
57.5°	5.4	5.4	5.4	5.4	5.4
60°	5.4	5.4	5.4	5.4	5.4
62.5°	4.5	4.5	4.5	4.5	4.5
65°	4.5	4.5	4.5	4.5	4.5
67.5°	3.6	4.5	4.5	4.5	4.5
70°	3.6	3.6	3.6	3.6	3.6
72.5°	3.6	3.6	3.6	3.6	3.6
75°	2.7	2.7	2.7	2.7	2.7
77.5°	2.7	2.7	2.7	2.7	2.7
80°	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	0.9	1.8	1.8
85°	0.9	0.9	0.9	0.9	0.9
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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