

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: P885721

Luminaire Tested: ML104LSFL95FS1E-TIR1D40FL-TL1SDMW-340LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885721
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-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT
Ballast/Driver: -

Summary

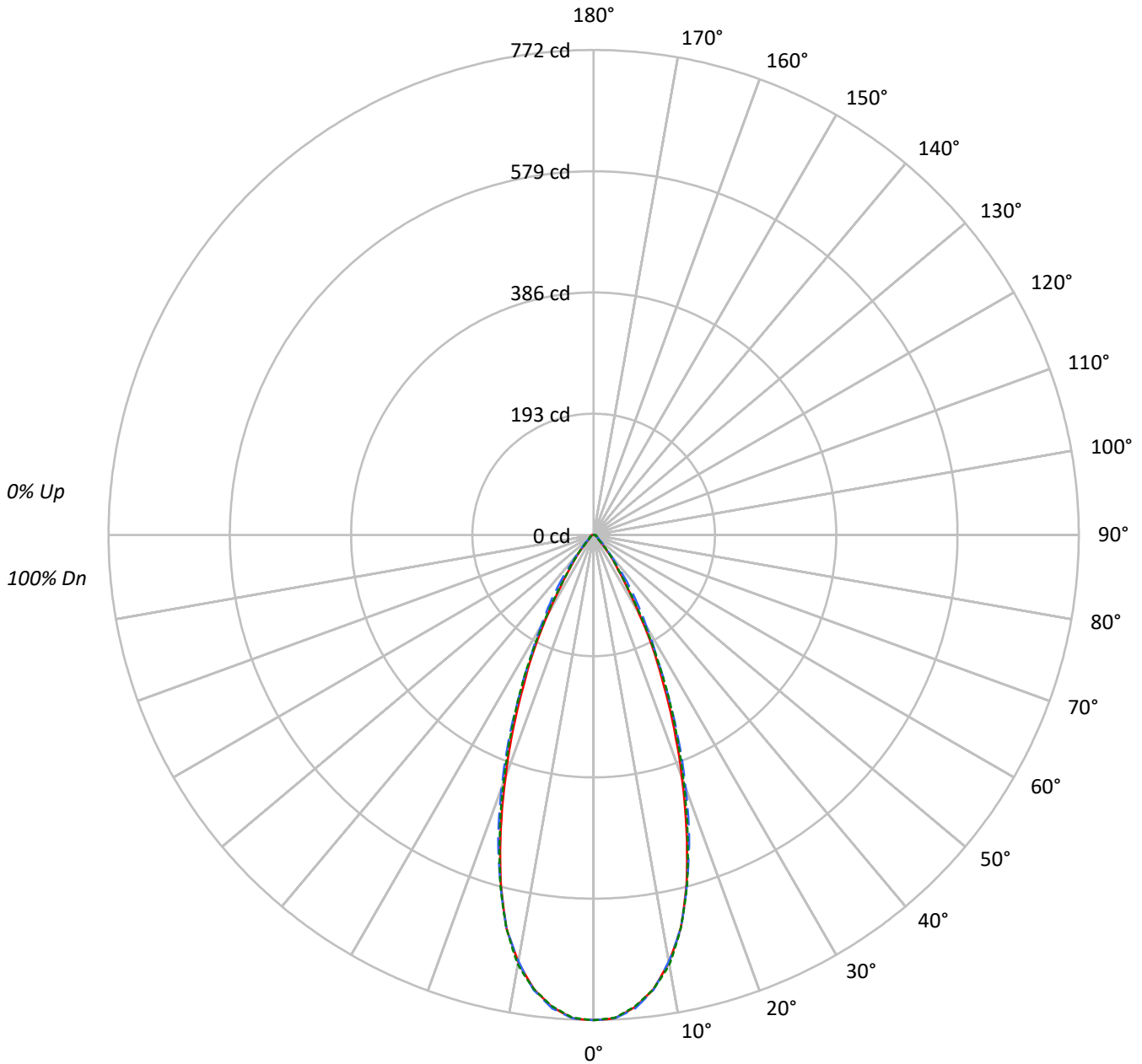
Lumens per Lamp: N/A
Luminaire Lumens: 438.4 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1197232	1197232	1197232
5°	1173954	1177222	1172399
10°	1086482	1084908	1093093
15°	916923	920292	922058
20°	676952	706478	690808
25°	451678	473398	475108
30°	259880	299434	274914
35°	127536	177301	133402
40°	70212	82959	74461
45°	30031	46033	30031
50°	22908	25320	22908
55°	19998	19998	19998
60°	19530	19530	19530
65°	19439	19439	19439
70°	19034	19034	19034
75°	19164	19164	19164
80°	18745	18745	18745
85°	19563	19563	19563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 46033 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	16.0
10°-20°	156.8	35.8
20°-30°	126.6	28.9
30°-40°	53.0	12.1
40°-50°	15.3	3.5
50°-60°	6.7	1.5
60°-70°	5.2	1.2
70°-80°	3.6	0.8
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°	353.4	80.6
0°-40°	406.5	92.7
0°-60°	428.5	97.7
0°-90°	438.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	438.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	754	754	757	756	754	70
15°	571	569	574	571	575	156
25°	264	273	277	278	278	121
35°	67	75	94	77	70	47
45°	14	17	21	18	14	13
55°	7	7	7	7	7	7
65°	5	5	5	5	5	5
75°	3	3	3	3	3	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°	772.4	772.4	772.4	772.4	772.4
2.5°	770.3	770.3	770.3	771.4	769.3
5°	754.5	754.5	756.6	755.6	753.5
7.5°	729.3	729.3	730.3	730.3	729.3
10°	690.3	691.4	689.3	692.4	694.5
12.5°	640.9	639.8	640.9	641.9	640.9
15°	571.4	569.3	573.5	571.4	574.6
17.5°	491.4	498.8	505.1	500.9	496.7
20°	410.4	416.7	428.3	423.0	418.8
22.5°	334.6	343.1	352.5	350.4	345.2
25°	264.1	272.6	276.8	277.8	277.8
27.5°	204.2	211.5	214.7	218.9	212.6
30°	145.2	155.7	167.3	166.3	153.6
32.5°	98.9	109.4	129.4	116.8	103.1
35°	67.4	74.7	93.7	76.8	70.5
37.5°	49.5	53.7	62.1	54.7	51.6
40°	34.7	37.9	41.0	40.0	36.8
42.5°	23.2	26.3	29.5	27.4	23.2
45°	13.7	16.8	21.0	17.9	13.7
47.5°	10.5	11.6	15.8	11.6	10.5
50°	9.5	9.5	10.5	9.5	9.5
52.5°	8.4	8.4	8.4	8.4	8.4
55°	7.4	7.4	7.4	7.4	7.4
57.5°	6.3	6.3	6.3	6.3	6.3
60°	6.3	6.3	6.3	6.3	6.3
62.5°	5.3	5.3	5.3	5.3	5.3
65°	5.3	5.3	5.3	5.3	5.3
67.5°	4.2	5.3	5.3	5.3	5.3
70°	4.2	4.2	4.2	4.2	4.2
72.5°	4.2	4.2	4.2	4.2	4.2
75°	3.2	3.2	3.2	3.2	3.2
77.5°	3.2	3.2	3.2	3.2	3.2
80°	2.1	2.1	2.1	2.1	2.1
82.5°	2.1	2.1	1.1	2.1	2.1
85°	1.1	1.1	1.1	1.1	1.1
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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