

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: P885722

Luminaire Tested: ML104LSFL95FS1E-TIR1D40FL-TL1SDMW-340LM-5000K

Issue Date: 6/19/2024

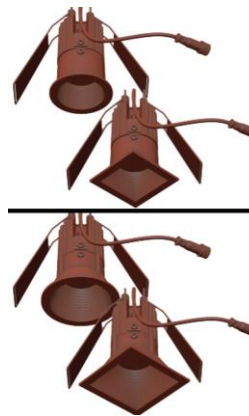
Test Information

Test Method: LM-79-2019
Report Number: P885722
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-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 487.2 lumens
Efficiency: N/A
Efficacy: 79.9 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

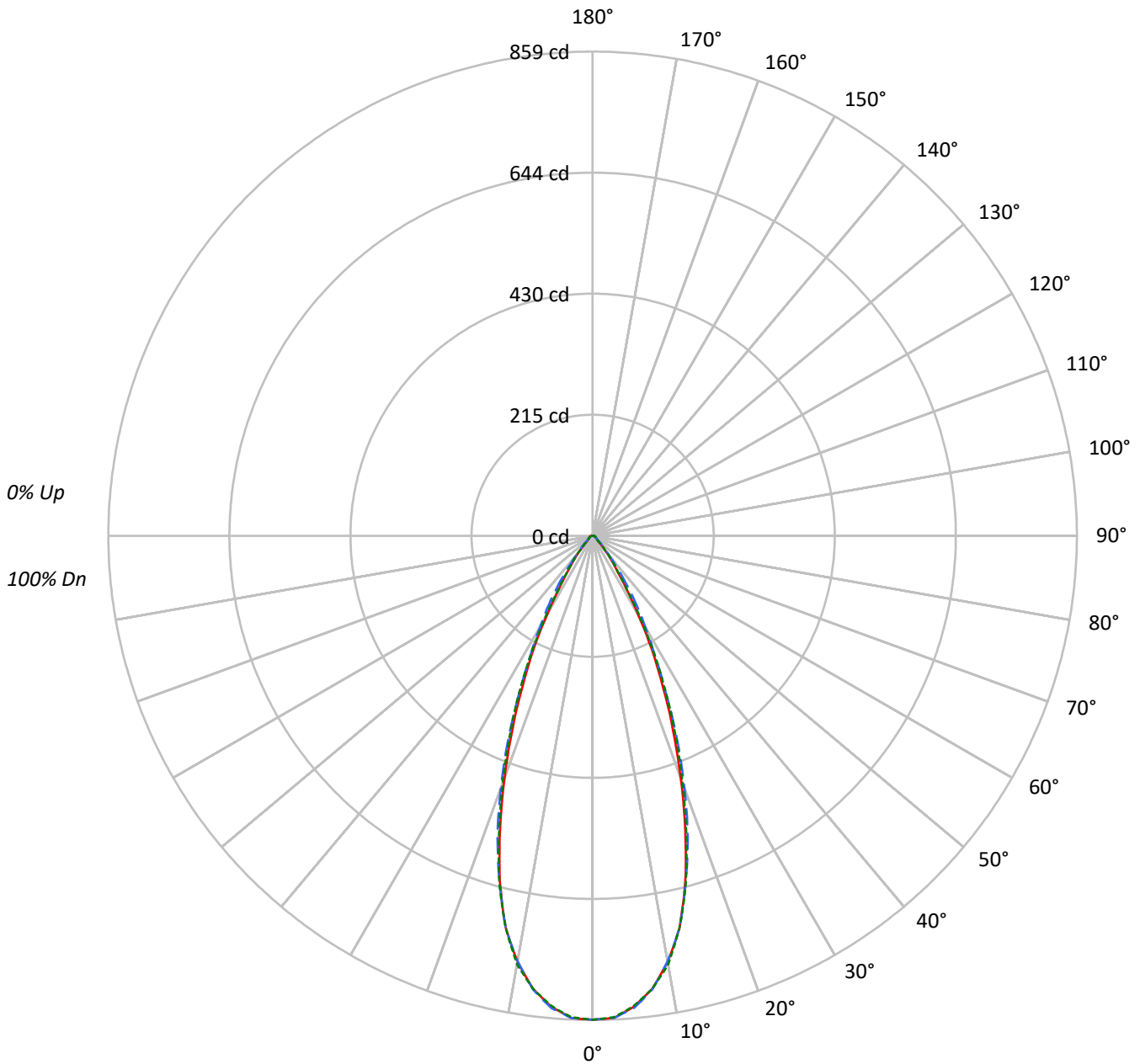
Input Watts (W): 6.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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			
1	114	111	109	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94					94			
2	108	104	100	97	106	102	99	96	99	96	93	96	94	92	93	91	90	88					88			
3	103	97	93	89	102	96	92	88	93	90	87	91	88	86	89	86	84	83					83			
4	99	92	87	83	97	91	86	82	89	84	81	87	83	80	85	82	79	78					78			
5	94	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74					74			
6	90	82	77	73	89	81	76	72	80	75	72	79	75	72	77	74	71	70					70			
7	87	78	73	69	85	77	72	68	76	72	68	75	71	68	74	70	67	66					66			
8	83	74	69	65	82	74	69	65	73	68	65	72	67	64	71	67	64	63					63			
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60					60			
10	77	68	62	59	76	67	62	59	66	62	59	66	61	58	65	61	58	57					57			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1330844	1330844	1330844
5°	1304964	1308699	1303097
10°	1207832	1205943	1215072
15°	1019302	1022993	1024919
20°	752499	785323	768004
25°	502130	526074	528126
30°	288874	332904	305699
35°	141727	196980	148350
40°	78103	92267	82757
45°	33319	51294	33319
50°	25320	28213	25320
55°	22159	22159	22159
60°	21700	21700	21700
65°	21272	21272	21272
70°	21300	21300	21300
75°	20961	20961	20961
80°	20530	20530	20530
85°	21341	21341	21341

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 51294 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	16.0
10°-20°	174.3	35.8
20°-30°	140.7	28.9
30°-40°	59.0	12.1
40°-50°	17.0	3.5
50°-60°	7.5	1.5
60°-70°	5.7	1.2
70°-80°	4.0	0.8
80°-90°	1.2	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°	392.9	80.6
0°-40°	451.8	92.7
0°-60°	476.3	97.8
0°-90°	487.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	487.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	859	859	859	859	859	
5°	839	839	841	840	838	78
15°	635	633	638	635	639	173
25°	294	303	308	309	309	135
35°	75	83	104	85	78	52
45°	15	19	23	20	15	15
55°	8	8	8	8	8	7
65°	6	6	6	6	6	5
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°	858.6	858.6	858.6	858.6	858.6
2.5°	856.3	856.3	856.3	857.4	855.1
5°	838.7	838.7	841.1	839.9	837.5
7.5°	810.6	810.6	811.8	811.8	810.6
10°	767.4	768.5	766.2	769.7	772.0
12.5°	712.4	711.2	712.4	713.5	712.4
15°	635.2	632.8	637.5	635.2	638.7
17.5°	546.3	554.5	561.5	556.8	552.1
20°	456.2	463.2	476.1	470.2	465.6
22.5°	372.0	381.3	391.9	389.5	383.7
25°	293.6	303.0	307.6	308.8	308.8
27.5°	226.9	235.1	238.6	243.3	236.3
30°	161.4	173.1	186.0	184.8	170.8
32.5°	110.0	121.7	143.9	129.8	114.6
35°	74.9	83.1	104.1	85.4	78.4
37.5°	55.0	59.7	69.0	60.8	57.3
40°	38.6	42.1	45.6	44.5	40.9
42.5°	25.7	29.2	32.8	30.4	25.7
45°	15.2	18.7	23.4	19.9	15.2
47.5°	11.7	12.9	17.5	12.9	11.7
50°	10.5	10.5	11.7	10.5	10.5
52.5°	9.4	9.4	9.4	9.4	9.4
55°	8.2	8.2	8.2	8.2	8.2
57.5°	7.0	7.0	7.0	7.0	7.0
60°	7.0	7.0	7.0	7.0	7.0
62.5°	5.8	5.8	5.8	5.8	5.8
65°	5.8	5.8	5.8	5.8	5.8
67.5°	4.7	5.8	5.8	5.8	5.8
70°	4.7	4.7	4.7	4.7	4.7
72.5°	4.7	4.7	4.7	4.7	4.7
75°	3.5	3.5	3.5	3.5	3.5
77.5°	3.5	3.5	3.5	3.5	3.5
80°	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	1.2	2.3	2.3
85°	1.2	1.2	1.2	1.2	1.2
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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