

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: P885648

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMB-340LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-138)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMB-340LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 235.3 lumens
Efficiency: N/A
Efficacy: 38.6 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.54
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

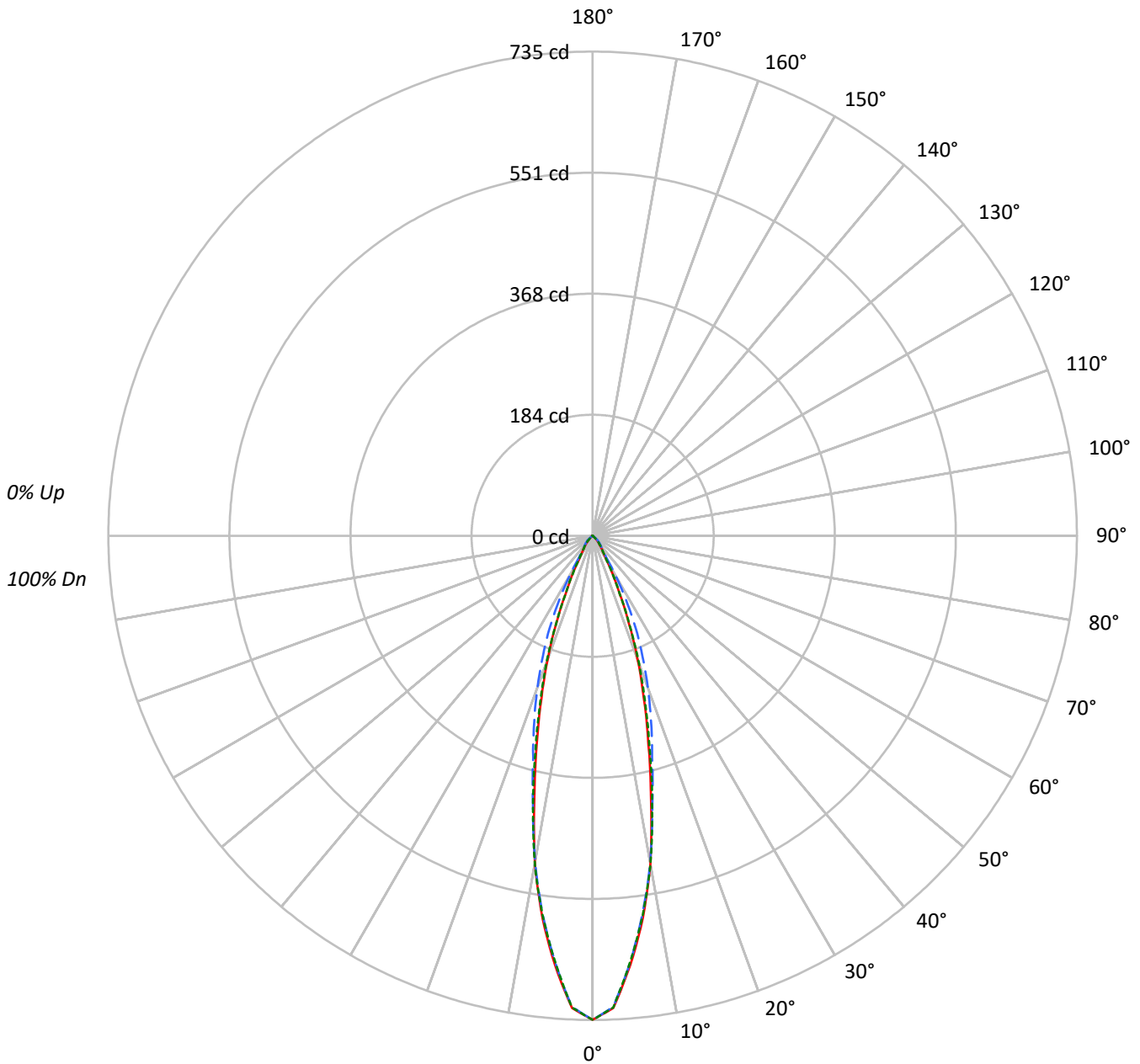
Input Watts (W): 6.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
1	115	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96					96			
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91					91			
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87					87			
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	87	84	83					83			
5	98	91	87	83	97	91	86	83	89	85	82	87	84	81	86	83	81	80					80			
6	95	87	83	79	93	87	82	79	85	81	78	84	81	78	83	80	77	76					76			
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73					73			
8	88	80	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70					70			
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68					68			
10	82	75	70	67	81	74	70	67	73	69	67	73	69	66	72	69	66	65					65			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1138797	1138797	1138797
5°	1018361	1012759	1011359
10°	794519	791686	795935
15°	525056	559878	535326
20°	328579	402971	337486
25°	166579	263721	166579
30°	74277	120991	75888
35°	44278	49387	44278
40°	29137	36421	30958
45°	13810	27620	15783
50°	4341	17362	4341
55°	2432	2432	2432
60°	2790	0	2790
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: 27620 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.7	24.5
10°-20°	94.8	40.3
20°-30°	56.6	24.1
30°-40°	18.3	7.8
40°-50°	7.0	3.0
50°-60°	0.9	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°	209.0	88.8
0°-40°	227.3	96.6
0°-60°	235.2	100.0
0°-90°	235.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	235.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	654	656	651	652	650	58
15°	327	337	349	342	334	91
25°	97	114	154	118	97	47
35°	23	28	26	28	23	15
45°	6	9	13	9	7	5
55°	1	1	1	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°	734.7	734.7	734.7	734.7	734.7
2.5°	717.6	716.7	715.8	716.7	716.7
5°	654.5	656.3	650.9	651.8	650.0
7.5°	585.1	583.3	579.7	582.4	581.5
10°	504.8	499.4	503.0	503.0	505.7
12.5°	408.4	416.5	418.3	417.4	417.4
15°	327.2	337.2	348.9	341.7	333.6
17.5°	257.8	274.1	294.8	278.6	264.1
20°	199.2	215.5	244.3	218.2	204.6
22.5°	144.2	164.1	197.4	165.9	146.0
25°	97.4	113.6	154.2	118.1	97.4
27.5°	65.8	77.5	108.2	78.4	64.9
30°	41.5	55.9	67.6	55.0	42.4
32.5°	29.7	39.7	37.9	39.7	30.7
35°	23.4	27.9	26.1	27.9	23.4
37.5°	18.0	20.7	21.6	20.7	18.9
40°	14.4	15.3	18.0	16.2	15.3
42.5°	10.8	12.6	15.3	12.6	11.7
45°	6.3	9.0	12.6	9.0	7.2
47.5°	1.8	4.5	10.8	4.5	1.8
50°	1.8	0.9	7.2	0.9	1.8
52.5°	0.9	0.9	2.7	0.9	0.9
55°	0.9	0.9	0.9	0.9	0.9
57.5°	0.9	0.0	0.0	0.9	0.9
60°	0.9	0.0	0.0	0.0	0.9
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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