

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: P885660

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885660
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-136)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT
Ballast/Driver: -

Summary

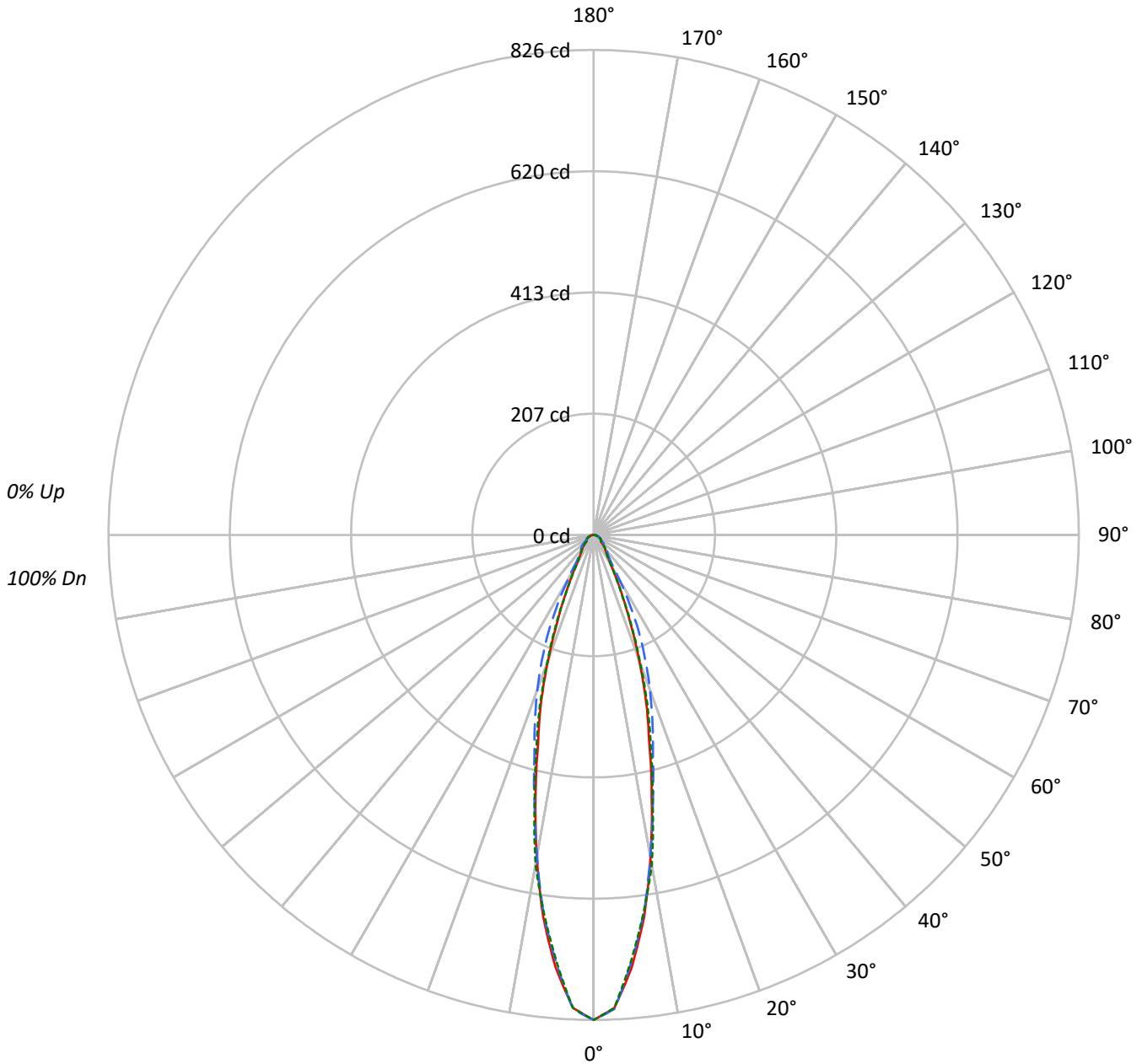
Lumens per Lamp: N/A
Luminaire Lumens: 318.4 lumens
Efficiency: N/A
Efficacy: 52.2 lumens/watt
Spacing Criteria (0/90/45): 0.45 / 0.46 / 0.55
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92																			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86																			
3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	82	80																			
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	77	75																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																			
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64																			
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61																			
9	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58																			
10	76	67	61	58	75	66	61	58	65	61	57	65	60	57	64	60	57	56																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1280468	1280468	1280468
5°	1151705	1139413	1133189
10°	877150	874159	897454
15°	585072	624868	604168
20°	371631	461363	379878
25°	202836	309214	197705
30°	104346	155713	104346
35°	71147	82312	72850
40°	59893	70010	61916
45°	45595	62912	47568
50°	38100	54739	38100
55°	39995	39995	39995
60°	42780	39680	42780
65°	39977	39977	39977
70°	40334	40334	40334
75°	35334	35334	35334
80°	35705	35705	35705
85°	35569	17784	35569

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 62912 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	20.3
10°-20°	106.2	33.4
20°-30°	67.1	21.1
30°-40°	28.4	8.9
40°-50°	19.0	6.0
50°-60°	13.5	4.2
60°-70°	11.0	3.4
70°-80°	6.4	2.0
80°-90°	2.1	0.7
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°	237.9	74.7
0°-40°	266.3	83.7
0°-60°	298.8	93.9
0°-90°	318.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	318.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	740	734	732	726	728	65
15°	365	376	389	381	376	102
25°	119	135	181	137	116	56
35°	38	44	44	44	38	25
45°	21	25	29	25	22	16
55°	15	15	15	15	15	13
65°	11	11	11	11	11	11
75°	6	6	6	6	6	6
85°	2	2	1	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	826.1	826.1	826.1	826.1	826.1
2.5°	806.4	806.4	808.4	806.4	806.4
5°	740.2	734.2	732.3	726.3	728.3
7.5°	657.2	655.2	651.2	651.2	649.3
10°	557.3	559.3	555.4	561.3	570.2
12.5°	456.6	457.5	465.4	469.4	464.5
15°	364.6	375.5	389.4	381.4	376.5
17.5°	296.5	307.3	332.0	312.3	304.4
20°	225.3	246.1	279.7	251.0	230.3
22.5°	164.0	189.7	229.3	191.7	171.0
25°	118.6	135.4	180.8	137.4	115.6
27.5°	83.0	96.8	131.4	97.8	82.0
30°	58.3	73.1	87.0	71.2	58.3
32.5°	45.5	57.3	55.3	55.3	44.5
35°	37.6	44.5	43.5	43.5	38.5
37.5°	32.6	35.6	38.5	36.6	33.6
40°	29.6	31.6	34.6	31.6	30.6
42.5°	25.7	28.7	31.6	28.7	26.7
45°	20.8	24.7	28.7	24.7	21.7
47.5°	16.8	18.8	26.7	19.8	16.8
50°	15.8	15.8	22.7	15.8	15.8
52.5°	15.8	15.8	17.8	15.8	15.8
55°	14.8	14.8	14.8	14.8	14.8
57.5°	13.8	13.8	13.8	13.8	13.8
60°	13.8	13.8	12.8	13.8	13.8
62.5°	11.9	12.8	11.9	12.8	11.9
65°	10.9	10.9	10.9	10.9	10.9
67.5°	9.9	9.9	9.9	9.9	9.9
70°	8.9	8.9	8.9	8.9	8.9
72.5°	6.9	6.9	6.9	7.9	6.9
75°	5.9	5.9	5.9	5.9	5.9
77.5°	4.9	4.9	4.9	4.9	4.9
80°	4.0	4.0	4.0	4.0	4.0
82.5°	3.0	3.0	3.0	3.0	3.0
85°	2.0	2.0	1.0	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0
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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