

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: P886604

Luminaire Tested: ML310LSFL95FS1E-TIR4D40FL-TL3SDMW-850LM-3500K

Issue Date: 7/5/2024

Test Information

Test Method: LM-79-2019
Report Number: P886604
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL95FS1E-TIR4D40FL-TL3SDMW-850LM-3500K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE WHITE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

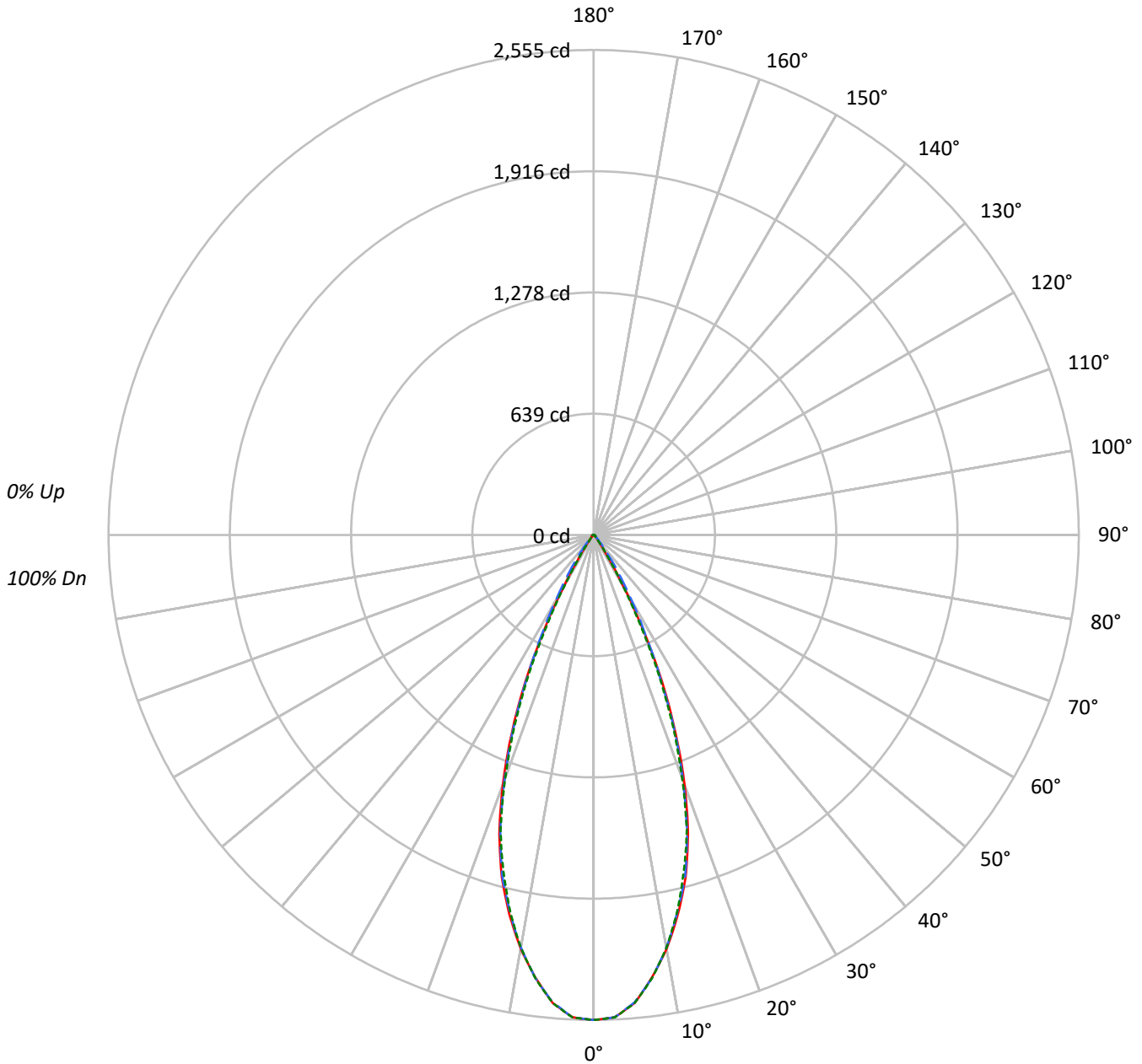
Lumens per Lamp: N/A
Luminaire Lumens: 1234.1 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.69 / 0.68 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (A_{in}): 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	114	112	109	107	112	110	108	106	106	104	102	102	101	99	98	97	97	95																			
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	92	90																			
3	105	99	95	92	103	98	94	91	96	92	90	93	90	88	91	89	87	85																			
4	101	94	90	86	99	93	89	86	91	87	85	89	86	84	87	85	83	81																			
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77																			
6	93	86	80	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74																			
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71																			
8	86	78	73	70	85	78	73	70	77	72	69	76	72	69	75	71	69	68																			
9	83	75	70	67	82	74	70	66	74	69	66	73	69	66	72	68	66	65																			
10	80	72	67	64	79	72	67	64	71	66	64	70	66	63	69	66	63	62																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	440081	440081	440081
5°	427983	427309	427983
10°	387061	386029	386204
15°	333132	331741	327052
20°	256604	251784	249291
25°	161181	157304	152876
30°	62603	79984	57770
35°	14717	35132	14297
40°	5688	12680	5688
45°	3312	5431	3312
50°	2867	3376	3135
55°	3213	3213	3213
60°	3341	3341	3341
65°	3179	3545	3179
70°	2921	3424	3424
75°	3261	3261	3261
80°	2876	2876	3868
85°	1976	3754	3754

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5431 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.4	18.4
10°-20°	507.1	41.1
20°-30°	375.8	30.5
30°-40°	84.4	6.8
40°-50°	14.7	1.2
50°-60°	9.5	0.8
60°-70°	8.2	0.7
70°-80°	5.2	0.4
80°-90°	1.8	0.1
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°	1110.3	90.0
0°-40°	1194.7	96.8
0°-60°	1218.9	98.8
0°-90°	1234.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1234.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2555	2555	2555	2555	2555	
5°	2476	2475	2472	2470	2476	227
15°	1868	1856	1861	1835	1834	511
25°	848	836	828	817	804	378
35°	70	99	167	94	68	65
45°	14	16	22	16	14	12
55°	11	11	11	11	11	9
65°	8	9	9	9	8	8
75°	5	5	5	5	5	5
85°	1	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2555.3	2555.3	2555.3	2555.3	2555.3
2.5°	2543.6	2545.5	2543.6	2543.6	2544.6
5°	2475.6	2474.6	2471.7	2469.8	2475.6
7.5°	2352.2	2355.1	2354.1	2357.1	2355.1
10°	2213.3	2204.5	2207.4	2203.5	2208.4
12.5°	2049.1	2047.1	2036.4	2033.5	2031.6
15°	1868.4	1855.7	1860.6	1835.3	1834.3
17.5°	1652.7	1643.9	1635.2	1631.3	1631.3
20°	1400.1	1396.2	1373.8	1371.9	1360.2
22.5°	1125.1	1108.6	1109.5	1106.6	1089.1
25°	848.2	836.5	827.8	817.1	804.5
27.5°	564.5	586.8	587.8	562.5	517.9
30°	314.8	362.4	402.2	339.1	290.5
32.5°	155.5	202.1	265.2	186.5	147.7
35°	70.0	99.1	167.1	94.2	68.0
37.5°	37.9	50.5	100.1	48.6	36.9
40°	25.3	30.1	56.4	30.1	25.3
42.5°	17.5	20.4	34.0	20.4	18.5
45°	13.6	15.5	22.3	15.5	13.6
47.5°	11.7	12.6	16.5	12.6	12.6
50°	10.7	11.7	12.6	11.7	11.7
52.5°	10.7	10.7	11.7	10.7	10.7
55°	10.7	10.7	10.7	10.7	10.7
57.5°	9.7	9.7	10.7	9.7	9.7
60°	9.7	9.7	9.7	9.7	9.7
62.5°	8.7	8.7	8.7	8.7	8.7
65°	7.8	8.7	8.7	8.7	7.8
67.5°	6.8	7.8	7.8	7.8	7.8
70°	5.8	6.8	6.8	6.8	6.8
72.5°	5.8	5.8	5.8	5.8	5.8
75°	4.9	4.9	4.9	4.9	4.9
77.5°	3.9	3.9	3.9	4.9	3.9
80°	2.9	2.9	2.9	3.9	3.9
82.5°	1.9	1.9	1.9	2.9	2.9
85°	1.0	1.9	1.9	1.9	1.9
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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