

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: P886737

Luminaire Tested: ML310LSFL9FS1E-TIR4D40FL-TL3SDSL-1000LM-2700K

Issue Date: 7/8/2024

Test Information

Test Method: LM-79-2019
Report Number: P886737
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/8/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML310LSFL9FS1E-TIR4D40FL-TL3SDSL-1000LM-2700K
Description: 3IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1270.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.65
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

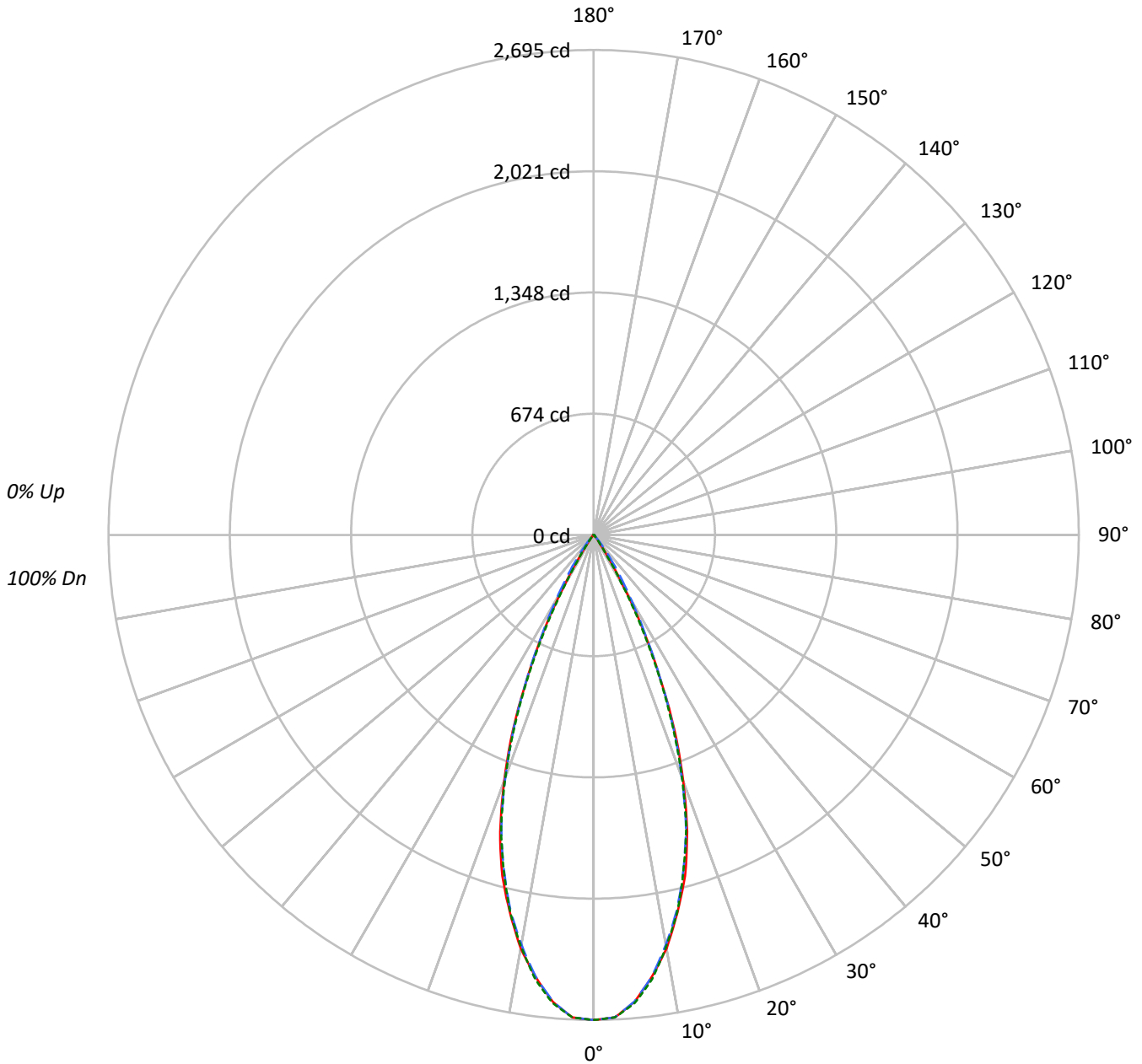
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95																			
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	94	92	91																			
3	105	100	96	93	104	99	95	92	96	93	90	94	91	89	92	89	88	86																			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	84	82																			
5	97	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78																			
6	94	86	81	78	92	86	81	78	84	80	77	83	79	77	82	79	76	75																			
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73	72																			
8	87	79	74	71	86	79	74	71	78	73	70	77	73	70	76	72	70	69																			
9	84	76	71	68	83	75	71	68	74	70	67	74	70	67	73	69	67	66																			
10	81	73	68	65	80	72	68	65	72	67	65	71	67	64	70	67	64	63																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	464192	464192	464192
5°	450233	449887	451616
10°	408011	404339	406088
15°	349821	343741	343919
20°	266428	262762	263312
25°	163879	164449	160839
30°	66660	81774	60873
35°	14297	36183	13666
40°	4721	11691	4946
45°	2192	4141	2192
50°	1608	2143	1608
55°	1501	1802	1501
60°	1378	1722	1378
65°	1223	1630	1630
70°	1511	1511	1511
75°	1331	1331	1331
80°	992	992	1984
85°	1976	1976	1976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 4141 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.4	18.9
10°-20°	531.4	41.8
20°-30°	392.5	30.9
30°-40°	84.4	6.6
40°-50°	10.8	0.9
50°-60°	4.8	0.4
60°-70°	3.7	0.3
70°-80°	2.3	0.2
80°-90°	0.7	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°	1163.2	91.6
0°-40°	1247.6	98.2
0°-60°	1263.3	99.5
0°-90°	1270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2695	2695	2695	2695	2695	
5°	2604	2602	2602	2601	2612	240
15°	1962	1944	1928	1934	1929	535
25°	862	873	865	861	846	393
35°	68	98	172	87	65	66
45°	9	10	17	10	9	8
55°	5	5	6	5	5	4
65°	3	4	4	4	4	3
75°	2	2	2	2	2	2
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°	2695.3	2695.3	2695.3	2695.3	2695.3
2.5°	2684.3	2683.3	2684.3	2685.3	2684.3
5°	2604.3	2602.3	2602.3	2601.3	2612.3
7.5°	2476.2	2477.2	2475.2	2482.2	2489.2
10°	2333.1	2315.1	2312.1	2325.1	2322.1
12.5°	2149.0	2150.0	2135.0	2139.0	2146.0
15°	1962.0	1943.9	1927.9	1933.9	1928.9
17.5°	1727.8	1718.8	1705.8	1706.8	1709.8
20°	1453.7	1455.7	1433.7	1441.7	1436.7
22.5°	1174.6	1160.6	1155.6	1146.6	1141.6
25°	862.4	873.4	865.4	861.4	846.4
27.5°	600.3	602.3	612.3	591.3	559.3
30°	335.2	373.2	411.2	354.2	306.1
32.5°	161.1	200.1	274.1	185.1	142.1
35°	68.0	98.0	172.1	87.0	65.0
37.5°	36.0	47.0	96.0	44.0	34.0
40°	21.0	26.0	52.0	26.0	22.0
42.5°	12.0	16.0	29.0	16.0	13.0
45°	9.0	10.0	17.0	10.0	9.0
47.5°	7.0	8.0	10.0	8.0	7.0
50°	6.0	6.0	8.0	6.0	6.0
52.5°	5.0	6.0	6.0	6.0	6.0
55°	5.0	5.0	6.0	5.0	5.0
57.5°	5.0	5.0	5.0	5.0	5.0
60°	4.0	4.0	5.0	5.0	4.0
62.5°	4.0	4.0	4.0	4.0	4.0
65°	3.0	4.0	4.0	4.0	4.0
67.5°	3.0	3.0	4.0	3.0	3.0
70°	3.0	3.0	3.0	3.0	3.0
72.5°	2.0	2.0	3.0	3.0	3.0
75°	2.0	2.0	2.0	2.0	2.0
77.5°	1.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0
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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