

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: P887126

Luminaire Tested: ML412LSFLD2W1E-TIR4D55WFL-TL4SDSL-600LM-2700K

Issue Date: 7/10/2024

Test Information

Test Method: LM-79-2019
Report Number: P887126
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-55)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/10/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFLD2W1E-TIR4D55WFL-TL4SDSL-600LM-2700K
Description: 4IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

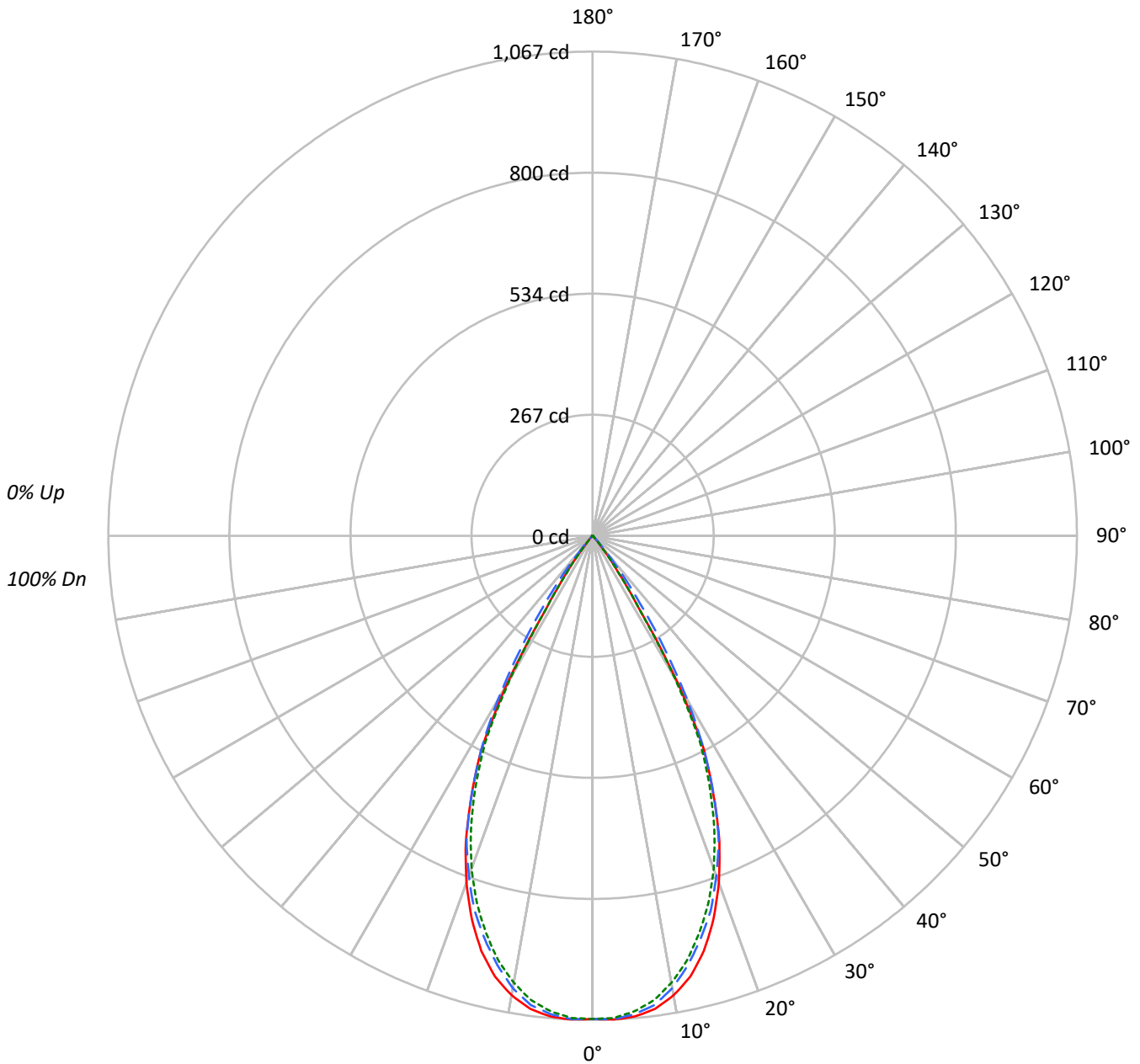
Lumens per Lamp: N/A
Luminaire Lumens: 741.9 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.85 / 0.82
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.4
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	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95					95			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89					89			
3	104	99	94	91	102	97	93	90	95	91	88	92	89	87	90	88	86	84					84			
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80					80			
5	95	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75					75			
6	91	83	78	74	90	83	78	74	81	77	73	80	76	73	79	75	72	71					71			
7	87	79	74	70	86	78	73	70	77	73	69	76	72	69	75	71	69	67					67			
8	84	75	70	66	83	75	69	66	74	69	66	73	68	65	72	68	65	64					64			
9	80	71	66	63	79	71	66	62	70	65	62	69	65	62	68	65	62	61					61			
10	77	68	63	59	76	68	63	59	67	62	59	66	62	59	66	62	59	58					58			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	103134	103134	103134
5°	103421	102925	102322
10°	101124	99560	98390
15°	94997	92219	90925
20°	83814	82165	80412
25°	67426	67480	65224
30°	42306	46501	40405
35°	11625	21536	11566
40°	2023	4945	1429
45°	425	1274	356
50°	316	316	316
55°	253	253	253
60°	194	194	194
65°	115	229	115
70°	142	142	142
75°	187	187	187
80°	279	279	279
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 1274 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	13.4
10°-20°	256.8	34.6
20°-30°	280.5	37.8
30°-40°	96.6	13.0
40°-50°	5.7	0.8
50°-60°	1.2	0.2
60°-70°	0.8	0.1
70°-80°	0.5	0.1
80°-90°	0.1	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°	637.0	85.9
0°-40°	733.6	98.9
0°-60°	740.5	99.8
0°-90°	741.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	741.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1064	1062	1058	1057	1052	100
15°	947	936	920	912	907	263
25°	631	634	631	620	610	282
35°	98	113	182	111	98	79
45°	3	4	9	3	3	3
55°	2	2	2	2	2	1
65°	0	1	1	1	0	1
75°	0	0	0	0	0	1
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°	1064.6	1064.6	1064.6	1064.6	1064.6
2.5°	1067.1	1065.1	1066.1	1065.6	1063.5
5°	1063.5	1062.5	1058.4	1057.4	1052.2
7.5°	1051.7	1050.1	1042.9	1037.3	1032.7
10°	1028.0	1021.3	1012.1	1002.3	1000.2
12.5°	995.1	985.8	969.4	959.1	959.1
15°	947.2	935.9	919.5	912.3	906.6
17.5°	885.5	879.3	865.4	853.1	848.5
20°	813.0	812.4	797.0	786.2	780.0
22.5°	729.6	728.6	726.0	712.1	700.8
25°	630.8	633.9	631.3	620.0	610.2
27.5°	530.5	533.6	531.5	516.6	512.5
30°	378.2	410.1	415.7	394.6	361.2
32.5°	189.3	244.9	294.8	238.2	188.3
35°	98.3	112.7	182.1	111.1	97.8
37.5°	46.3	55.1	104.4	54.0	45.3
40°	16.0	23.2	39.1	23.2	11.3
42.5°	4.1	8.2	20.1	6.2	4.6
45°	3.1	3.6	9.3	3.1	2.6
47.5°	2.1	2.1	4.1	2.1	2.1
50°	2.1	1.5	2.1	1.5	2.1
52.5°	1.5	1.5	1.5	1.5	1.5
55°	1.5	1.5	1.5	1.5	1.5
57.5°	1.0	1.0	1.0	1.0	1.0
60°	1.0	1.0	1.0	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	1.0
65°	0.5	1.0	1.0	1.0	0.5
67.5°	0.5	0.5	1.0	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5
77.5°	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5
82.5°	0.0	0.0	0.0	0.5	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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