

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: P887127

Luminaire Tested: ML412LSFLD2W1E-TIR4D55WFL-TL4SDSL-600LM-3000K

Issue Date: 7/10/2024

Test Information

Test Method: LM-79-2019
Report Number: P887127
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-3000K
Description: 4IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 2700K CCT
Ballast/Driver: -

Summary

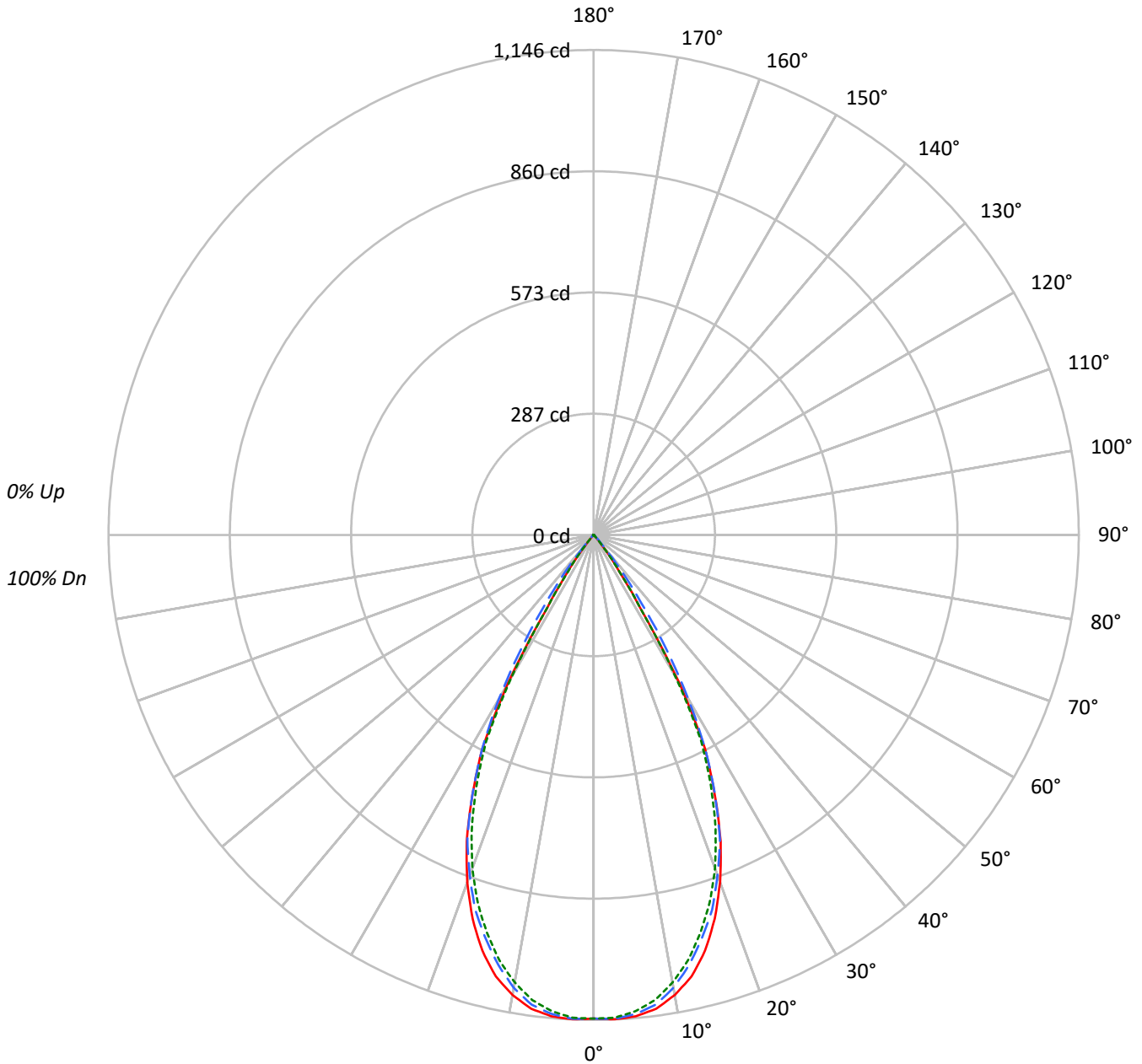
Lumens per Lamp: N/A
Luminaire Lumens: 796.7 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.85 / 0.82
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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										
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								
1	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95								
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89								
3	104	99	94	91	102	97	93	90	95	91	88	92	89	87	90	88	86	84								
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80								
5	95	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	76	75								
6	91	83	78	74	90	83	78	74	81	77	73	80	76	73	78	75	72	71								
7	87	79	74	70	86	78	73	70	77	73	69	76	72	69	75	71	69	67								
8	84	75	70	66	83	75	69	66	74	69	66	73	68	65	72	68	65	64								
9	80	71	66	63	79	71	66	62	70	65	62	69	65	62	68	65	62	61								
10	77	68	63	59	76	68	63	59	67	62	59	66	62	59	66	62	59	58								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	110729	110729	110729
5°	111045	110510	109858
10°	108581	106889	105639
15°	101998	99009	97625
20°	89979	88216	86340
25°	72397	72450	70034
30°	45416	49935	43380
35°	12477	23132	12418
40°	2162	5311	1543
45°	452	1356	384
50°	332	332	332
55°	287	287	287
60°	213	213	213
65°	138	252	138
70°	170	170	170
75°	225	225	225
80°	335	335	335
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 1356 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	13.4
10°-20°	275.8	34.6
20°-30°	301.2	37.8
30°-40°	103.7	13.0
40°-50°	6.1	0.8
50°-60°	1.3	0.2
60°-70°	0.9	0.1
70°-80°	0.6	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°	683.9	85.8
0°-40°	787.7	98.9
0°-60°	795.1	99.8
0°-90°	796.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	796.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1142	1141	1136	1135	1130	108
15°	1017	1005	987	980	973	282
25°	677	681	678	666	655	303
35°	106	121	196	119	105	85
45°	3	4	10	3	3	4
55°	2	2	2	2	2	1
65°	1	1	1	1	1	1
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.0	1143.0	1143.0	1143.0	1143.0
2.5°	1145.7	1143.5	1144.6	1144.1	1141.9
5°	1141.9	1140.8	1136.4	1135.3	1129.7
7.5°	1129.2	1127.5	1119.8	1113.7	1108.7
10°	1103.8	1096.6	1086.6	1076.1	1073.9
12.5°	1068.4	1058.5	1040.8	1029.7	1029.7
15°	1017.0	1004.9	987.2	979.5	973.4
17.5°	950.7	944.1	929.2	915.9	911.0
20°	872.8	872.3	855.7	844.1	837.5
22.5°	783.4	782.2	779.5	764.6	752.4
25°	677.3	680.6	677.8	665.7	655.2
27.5°	569.6	572.9	570.7	554.6	550.2
30°	406.0	440.3	446.4	423.7	387.8
32.5°	203.3	263.0	316.5	255.8	202.2
35°	105.5	121.0	195.6	119.3	105.0
37.5°	49.7	59.1	112.1	58.0	48.6
40°	17.1	24.9	42.0	24.9	12.2
42.5°	4.4	8.8	21.5	6.6	5.0
45°	3.3	3.9	9.9	3.3	2.8
47.5°	2.2	2.2	4.4	2.2	2.2
50°	2.2	1.7	2.2	1.7	2.2
52.5°	1.7	1.7	1.7	1.7	1.7
55°	1.7	1.7	1.7	1.7	1.7
57.5°	1.1	1.1	1.1	1.1	1.1
60°	1.1	1.1	1.1	1.1	1.1
62.5°	1.1	1.1	1.1	1.1	1.1
65°	0.6	1.1	1.1	1.1	0.6
67.5°	0.6	0.6	1.1	0.6	0.6
70°	0.6	0.6	0.6	0.6	0.6
72.5°	0.6	0.6	0.6	0.6	0.6
75°	0.6	0.6	0.6	0.6	0.6
77.5°	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6
82.5°	0.0	0.0	0.0	0.6	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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