

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: P885983

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDSLB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885983
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-152)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDSLB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

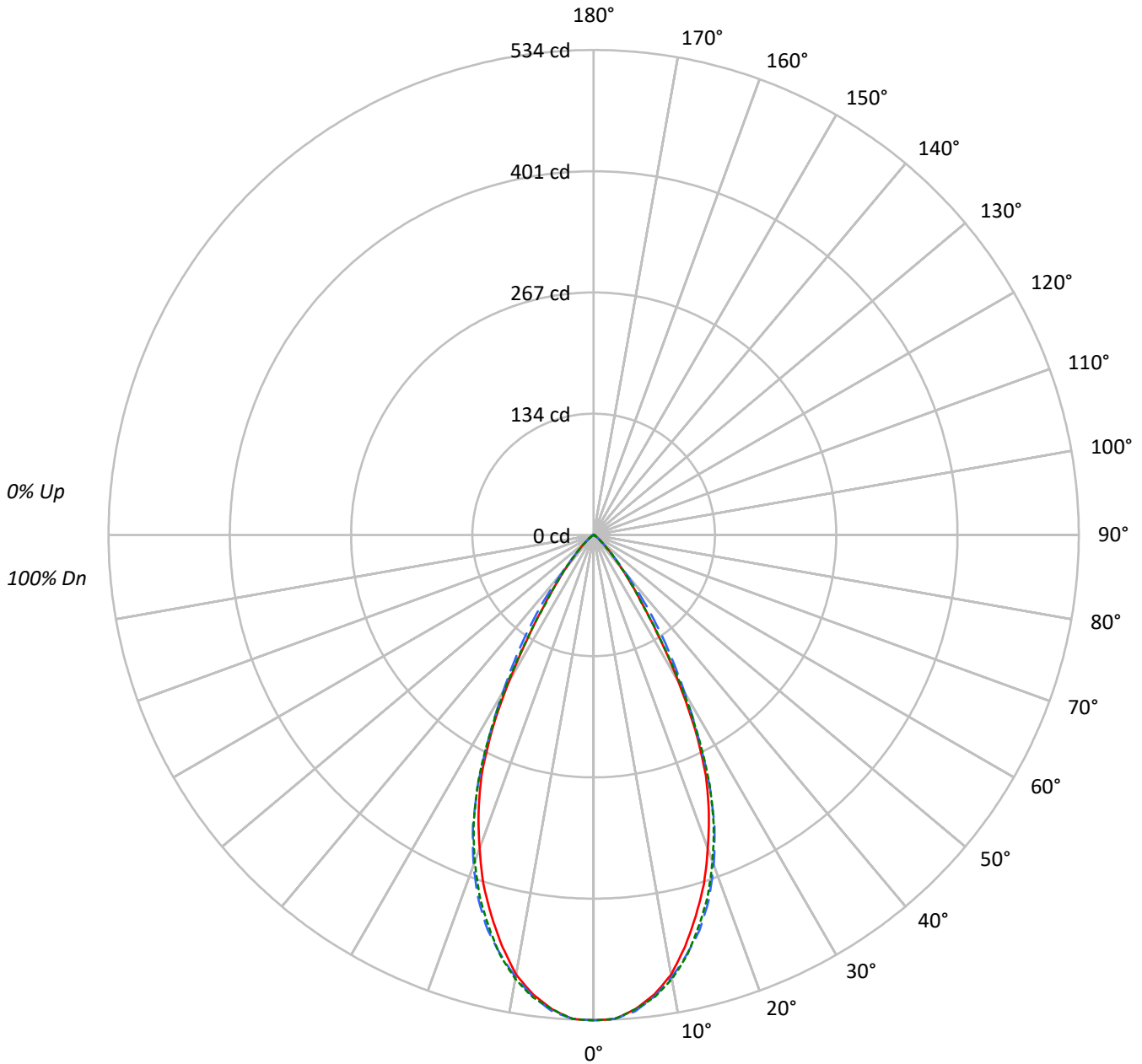
Lumens per Lamp: N/A
Luminaire Lumens: 398.5 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.84 / 0.81
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6
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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	114	111	109	107	111	109	107	105	105	103	102		101	100	99		98	97	96	94
2	108	104	100	97	106	102	99	96	99	96	93		96	94	91		93	91	90	88
3	103	97	92	89	101	96	91	88	93	89	86		91	88	85		89	86	84	82
4	98	91	86	82	97	90	85	81	88	84	80		86	82	79		84	81	79	77
5	94	86	80	76	92	85	80	76	83	78	75		81	77	74		80	76	74	72
6	89	81	75	71	88	80	75	71	78	74	70		77	73	70		76	72	69	68
7	85	76	70	66	84	76	70	66	74	69	66		73	69	66		72	68	65	64
8	81	72	66	62	80	72	66	62	70	66	62		69	65	62		69	65	62	60
9	78	68	63	59	76	68	62	59	67	62	59		66	62	58		65	61	58	57
10	74	65	59	56	73	64	59	56	64	59	55		63	58	55		62	58	55	54

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	828329	828329	828329
5°	815933	819045	815933
10°	773428	778150	781298
15°	696919	722755	716336
20°	605859	637199	630601
25°	499736	513418	515128
30°	333083	356529	345790
35°	179950	227256	176166
40°	95100	109264	97123
45°	46033	48225	46033
50°	21703	19291	21703
55°	13512	8107	13512
60°	9300	3100	9300
65°	7335	3668	7335
70°	4532	0	4532
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 48225 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	12.3
10°-20°	123.6	31.0
20°-30°	133.8	33.6
30°-40°	68.4	17.2
40°-50°	18.0	4.5
50°-60°	4.0	1.0
60°-70°	1.3	0.3
70°-80°	0.2	0.1
80°-90°	0.0	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°	306.6	76.9
0°-40°	375.0	94.1
0°-60°	396.9	99.6
0°-90°	398.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	398.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	534	534	534	534	534	
5°	524	525	526	525	524	49
15°	434	440	450	447	446	121
25°	292	295	300	303	301	130
35°	95	101	120	104	93	63
45°	21	20	22	20	21	18
55°	5	4	3	4	5	5
65°	2	1	1	1	2	2
75°	0	0	0	0	0	0
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°	534.4	534.4	534.4	534.4	534.4
2.5°	533.4	533.4	533.4	533.4	533.4
5°	524.4	525.4	526.4	525.4	524.4
7.5°	510.4	510.4	512.4	513.4	513.4
10°	491.4	492.4	494.4	496.4	496.4
12.5°	464.4	469.4	473.4	472.4	474.4
15°	434.3	440.3	450.4	447.4	446.4
17.5°	403.3	410.3	421.3	418.3	417.3
20°	367.3	375.3	386.3	383.3	382.3
22.5°	331.3	338.3	347.3	347.3	345.3
25°	292.2	295.2	300.2	303.2	301.2
27.5°	242.2	249.2	247.2	252.2	248.2
30°	186.1	194.2	199.2	198.2	193.2
32.5°	135.1	145.1	158.1	149.1	138.1
35°	95.1	101.1	120.1	104.1	93.1
37.5°	67.1	70.1	84.1	69.1	67.1
40°	47.0	48.0	54.0	48.0	48.0
42.5°	32.0	32.0	34.0	32.0	32.0
45°	21.0	20.0	22.0	20.0	21.0
47.5°	14.0	13.0	13.0	13.0	13.0
50°	9.0	9.0	8.0	8.0	9.0
52.5°	7.0	6.0	5.0	6.0	6.0
55°	5.0	4.0	3.0	4.0	5.0
57.5°	3.0	3.0	2.0	3.0	3.0
60°	3.0	2.0	1.0	2.0	3.0
62.5°	2.0	2.0	1.0	2.0	2.0
65°	2.0	1.0	1.0	1.0	2.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	0.0	1.0	1.0
72.5°	1.0	1.0	0.0	0.0	1.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	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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