

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: P885977

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMWB-400LM-5000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-151)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMWB-400LM-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

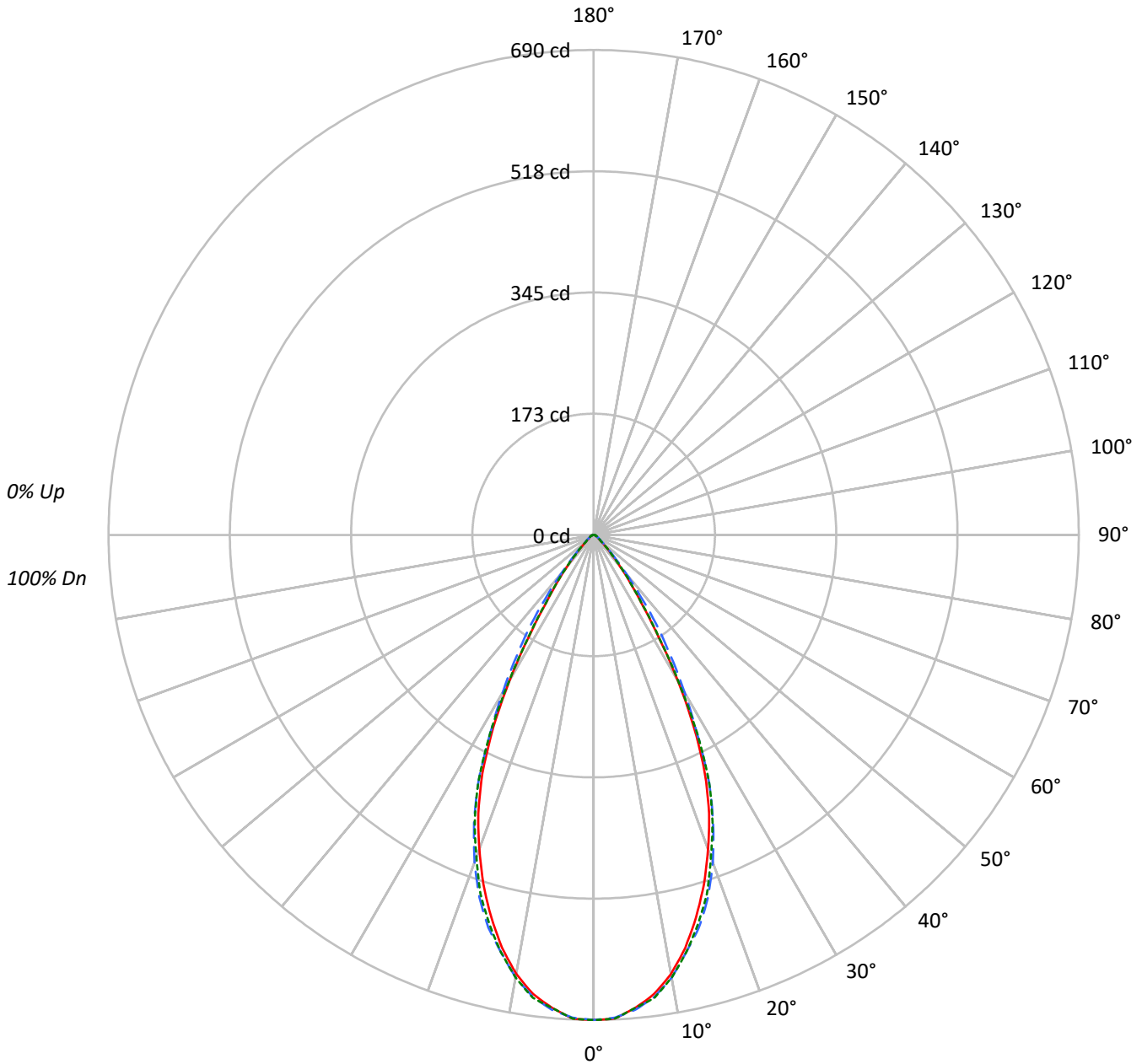
Lumens per Lamp: N/A
Luminaire Lumens: 523.4 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.83 / 0.81
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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	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	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93				
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	90	89	87				
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81				
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76				
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71				
6	88	80	74	70	87	79	73	69	77	73	69	76	72	69	75	71	68	67				
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63				
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	63	60	59				
9	77	67	62	58	76	67	61	58	66	61	58	65	61	57	64	60	57	56				
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1069666	1069666	1069666
5°	1051502	1055548	1051502
10°	998185	1006369	1006369
15°	903122	928155	919811
20°	784664	816829	803963
25°	640148	664605	664605
30°	427942	462843	432596
35°	223850	292726	226310
40°	118369	144673	120999
45°	59843	68392	59843
50°	28213	37618	31348
55°	21078	24592	21078
60°	20150	20150	20150
65°	19072	19072	19072
70°	17675	17675	17675
75°	15571	15571	15571
80°	11604	11604	11604
85°	23120	23120	23120

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 68392 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	12.1
10°-20°	159.2	30.4
20°-30°	171.8	32.8
30°-40°	87.3	16.7
40°-50°	24.6	4.7
50°-60°	8.0	1.5
60°-70°	5.0	1.0
70°-80°	3.1	0.6
80°-90°	0.9	0.2
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°	394.4	75.4
0°-40°	481.7	92.0
0°-60°	514.3	98.3
0°-90°	523.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	523.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	690	690	690	690	690	
5°	676	678	678	678	676	63
15°	563	569	578	577	573	156
25°	374	380	389	389	389	167
35°	118	130	155	133	120	80
45°	27	29	31	29	27	23
55°	8	8	9	9	8	7
65°	5	5	5	5	5	5
75°	3	3	3	3	3	3
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°	690.1	690.1	690.1	690.1	690.1
2.5°	688.8	687.5	687.5	688.8	688.8
5°	675.8	678.4	678.4	678.4	675.8
7.5°	658.9	660.2	662.8	662.8	664.1
10°	634.2	636.8	639.4	639.4	639.4
12.5°	601.7	604.3	608.2	609.5	608.2
15°	562.8	569.3	578.4	577.1	573.2
17.5°	521.2	529.0	540.7	536.8	535.5
20°	475.7	484.8	495.2	491.3	487.4
22.5°	428.9	436.7	444.5	444.5	441.9
25°	374.3	379.5	388.6	388.6	388.6
27.5°	309.3	315.8	318.4	323.6	319.7
30°	239.1	248.2	258.6	256.0	241.7
32.5°	170.3	184.6	202.7	189.8	172.9
35°	118.3	130.0	154.7	132.6	119.6
37.5°	84.5	88.4	107.9	88.4	85.8
40°	58.5	61.1	71.5	61.1	59.8
42.5°	40.3	42.9	46.8	42.9	39.0
45°	27.3	28.6	31.2	28.6	27.3
47.5°	16.9	18.2	20.8	19.5	18.2
50°	11.7	13.0	15.6	14.3	13.0
52.5°	9.1	10.4	11.7	10.4	10.4
55°	7.8	7.8	9.1	9.1	7.8
57.5°	6.5	6.5	7.8	6.5	6.5
60°	6.5	6.5	6.5	6.5	6.5
62.5°	5.2	5.2	5.2	5.2	5.2
65°	5.2	5.2	5.2	5.2	5.2
67.5°	3.9	5.2	3.9	5.2	3.9
70°	3.9	3.9	3.9	3.9	3.9
72.5°	3.9	3.9	3.9	3.9	3.9
75°	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6	2.6
80°	1.3	1.3	1.3	2.6	1.3
82.5°	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.3	1.3
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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