

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: P885963

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMBB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885963
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-153)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMBB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

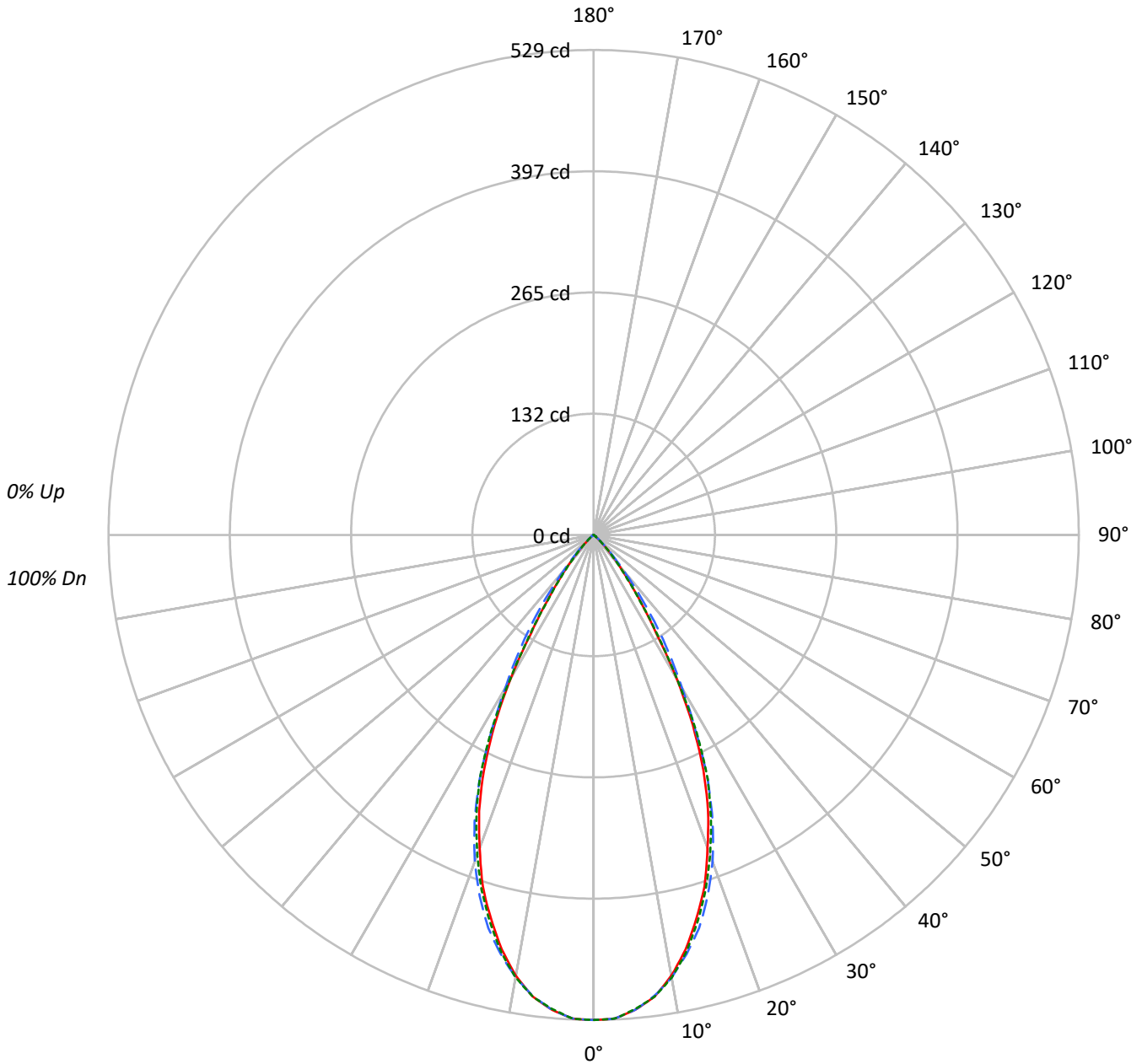
Lumens per Lamp: N/A
Luminaire Lumens: 382.3 lumens
Efficiency: N/A
Efficacy: 63.7 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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	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	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94					94			
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	88					88			
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	84	83					83			
4	99	92	87	83	97	91	86	82	89	84	81	87	83	80	85	82	79	78					78			
5	94	86	81	77	93	85	80	77	84	79	76	82	78	75	81	77	75	73					73			
6	90	82	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69					69			
7	86	77	71	67	84	76	71	67	75	70	67	74	70	67	73	69	66	65					65			
8	82	73	67	64	81	72	67	63	71	67	63	70	66	63	69	66	63	61					61			
9	78	69	64	60	77	69	63	60	68	63	60	67	63	59	66	62	59	58					58			
10	75	66	60	57	74	65	60	57	65	60	56	64	59	56	63	59	56	55					55			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	820114	820114	820114
5°	809243	809243	807687
10°	768234	771382	771382
15°	694993	712645	701412
20°	598931	625323	612127
25°	484173	502986	502986
30°	323955	345432	325744
35°	168408	217605	166515
40°	84983	101170	80936
45°	32881	39457	32881
50°	12057	12057	9646
55°	2702	5405	5405
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 39457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.7	12.7
10°-20°	122.0	31.9
20°-30°	130.3	34.1
30°-40°	64.9	17.0
40°-50°	14.7	3.8
50°-60°	1.8	0.5
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	301.0	78.7
0°-40°	365.9	95.7
0°-60°	382.3	100.0
0°-90°	382.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	382.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	520	520	520	520	519	49
15°	433	437	444	441	437	120
25°	283	287	294	294	294	127
35°	89	96	115	98	88	59
45°	15	16	18	16	15	14
55°	1	2	2	2	2	1
65°	0	0	0	0	0	0
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°	529.1	529.1	529.1	529.1	529.1
2.5°	528.1	528.1	528.1	528.1	528.1
5°	520.1	520.1	520.1	520.1	519.1
7.5°	508.1	508.1	507.1	507.1	508.1
10°	488.1	489.1	490.1	490.1	490.1
12.5°	463.1	464.1	468.1	467.1	466.1
15°	433.1	437.1	444.1	441.1	437.1
17.5°	402.1	406.1	413.1	411.1	406.1
20°	363.1	368.1	379.1	375.1	371.1
22.5°	326.1	331.1	339.1	339.1	334.1
25°	283.1	287.1	294.1	294.1	294.1
27.5°	234.0	240.0	241.0	246.0	243.0
30°	181.0	189.0	193.0	192.0	182.0
32.5°	127.0	140.0	152.0	145.0	130.0
35°	89.0	96.0	115.0	98.0	88.0
37.5°	61.0	64.0	80.0	64.0	60.0
40°	42.0	43.0	50.0	44.0	40.0
42.5°	26.0	28.0	31.0	27.0	25.0
45°	15.0	16.0	18.0	16.0	15.0
47.5°	8.0	9.0	10.0	9.0	8.0
50°	5.0	5.0	5.0	5.0	4.0
52.5°	3.0	3.0	3.0	3.0	3.0
55°	1.0	2.0	2.0	2.0	2.0
57.5°	0.0	1.0	1.0	1.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
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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