

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: P885958

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885958
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-150)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

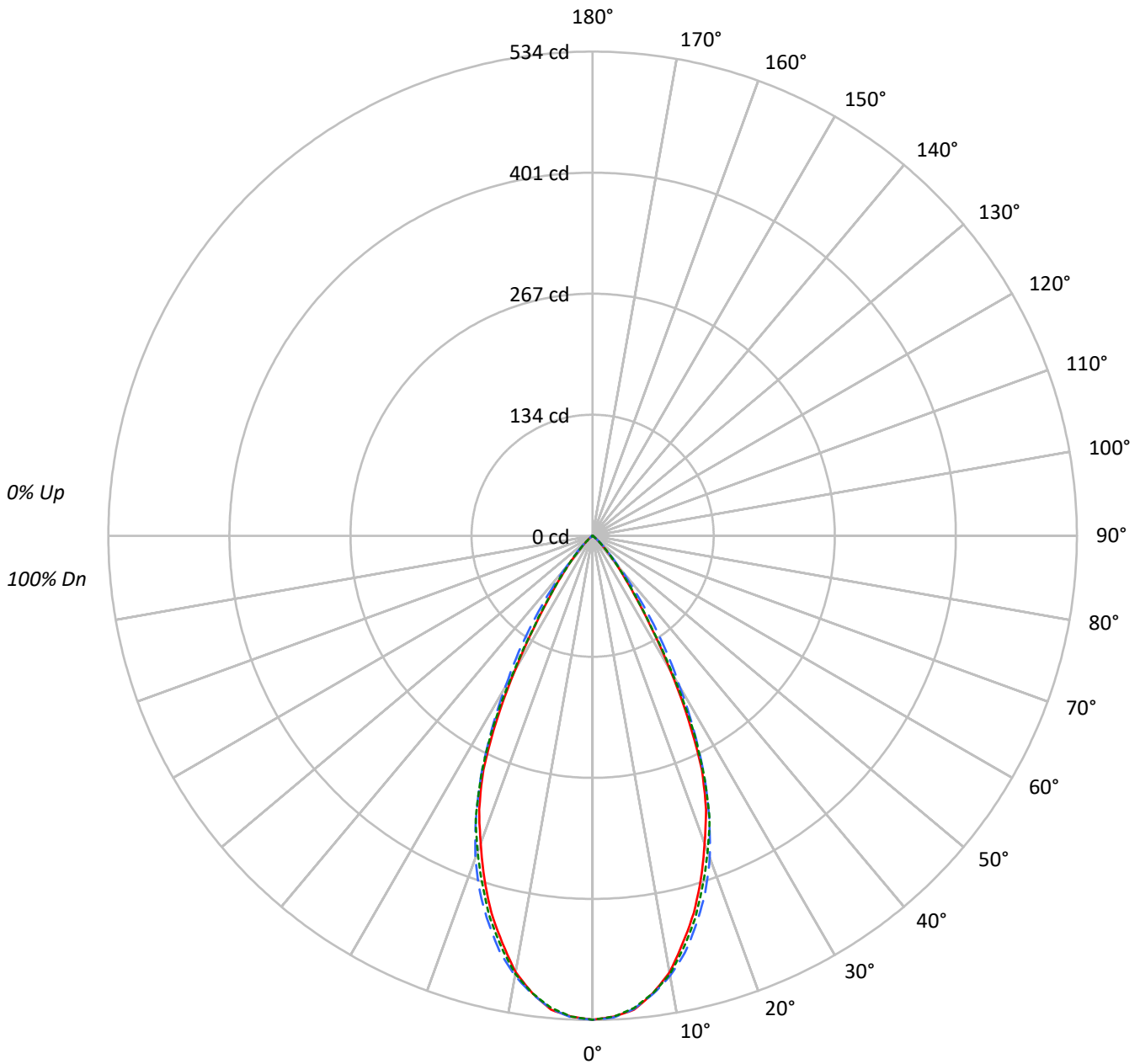
Lumens per Lamp: N/A
Luminaire Lumens: 378.2 lumens
Efficiency: N/A
Efficacy: 63.0 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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				
RC	80					70					50					30				
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	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	89		
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	85	83		
4	99	92	87	83	97	91	86	82	89	85	81	87	83	80	85	82	79	78		
5	94	87	81	77	93	86	81	77	84	79	76	82	78	75	81	77	75	73		
6	90	82	76	72	89	81	76	72	79	75	71	78	74	71	77	73	70	69		
7	86	77	72	68	85	77	71	68	75	71	67	74	70	67	73	69	66	65		
8	82	73	68	64	81	73	67	64	72	67	63	71	66	63	70	66	63	62		
9	79	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	60	58		
10	75	66	61	57	74	66	60	57	65	60	57	64	60	57	63	59	56	55		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	827399	827399	827399
5°	816556	815000	813444
10°	769336	775632	772484
15°	691303	710559	700931
20°	595137	623178	611632
25°	487251	497513	495803
30°	305878	343463	316616
35°	157054	207955	162731
40°	78913	95100	78913
45°	32881	39457	32881
50°	9646	14468	12057
55°	2702	5405	2702
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°	48.9	12.9
10°-20°	121.7	32.2
20°-30°	129.3	34.2
30°-40°	62.3	16.5
40°-50°	14.3	3.8
50°-60°	1.6	0.4
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°	300.0	79.3
0°-40°	362.3	95.8
0°-60°	378.2	100.0
0°-90°	378.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	378.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	534	534	534	534	534	
5°	525	524	524	524	523	49
15°	431	437	443	441	437	120
25°	285	287	291	297	290	125
35°	83	91	110	92	86	56
45°	15	16	18	16	15	13
55°	1	1	2	1	1	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°	533.8	533.8	533.8	533.8	533.8
2.5°	530.8	530.8	531.8	531.8	530.8
5°	524.8	523.8	523.8	523.8	522.8
7.5°	508.8	508.8	509.8	510.8	508.8
10°	488.8	489.8	492.8	490.8	490.8
12.5°	459.8	463.8	470.8	468.8	464.8
15°	430.8	436.8	442.8	440.8	436.8
17.5°	396.8	403.8	412.8	408.8	403.8
20°	360.8	366.8	377.8	373.8	370.8
22.5°	326.9	329.8	335.8	335.8	336.8
25°	284.9	286.9	290.9	296.9	289.9
27.5°	228.9	235.9	240.9	242.9	237.9
30°	170.9	181.9	191.9	188.9	176.9
32.5°	120.9	132.9	150.9	137.9	122.9
35°	83.0	91.0	109.9	92.0	86.0
37.5°	57.0	62.0	75.0	62.0	59.0
40°	39.0	42.0	47.0	42.0	39.0
42.5°	25.0	27.0	29.0	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°	4.0	5.0	6.0	5.0	5.0
52.5°	2.0	3.0	3.0	3.0	3.0
55°	1.0	1.0	2.0	1.0	1.0
57.5°	0.0	0.0	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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