

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: P885782

Luminaire Tested: ML104LSFL95FS1E-TIR1D55WFL-TL1SDMW-340LM-5000K

Issue Date: 6/19/2024

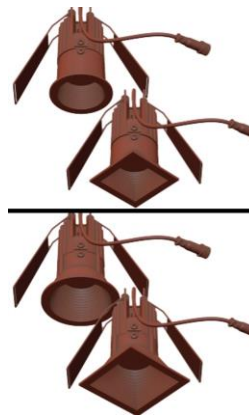
Test Information

Test Method: LM-79-2019
Report Number: P885782
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-148)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D55WFL-TL1SDMW-340LM-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

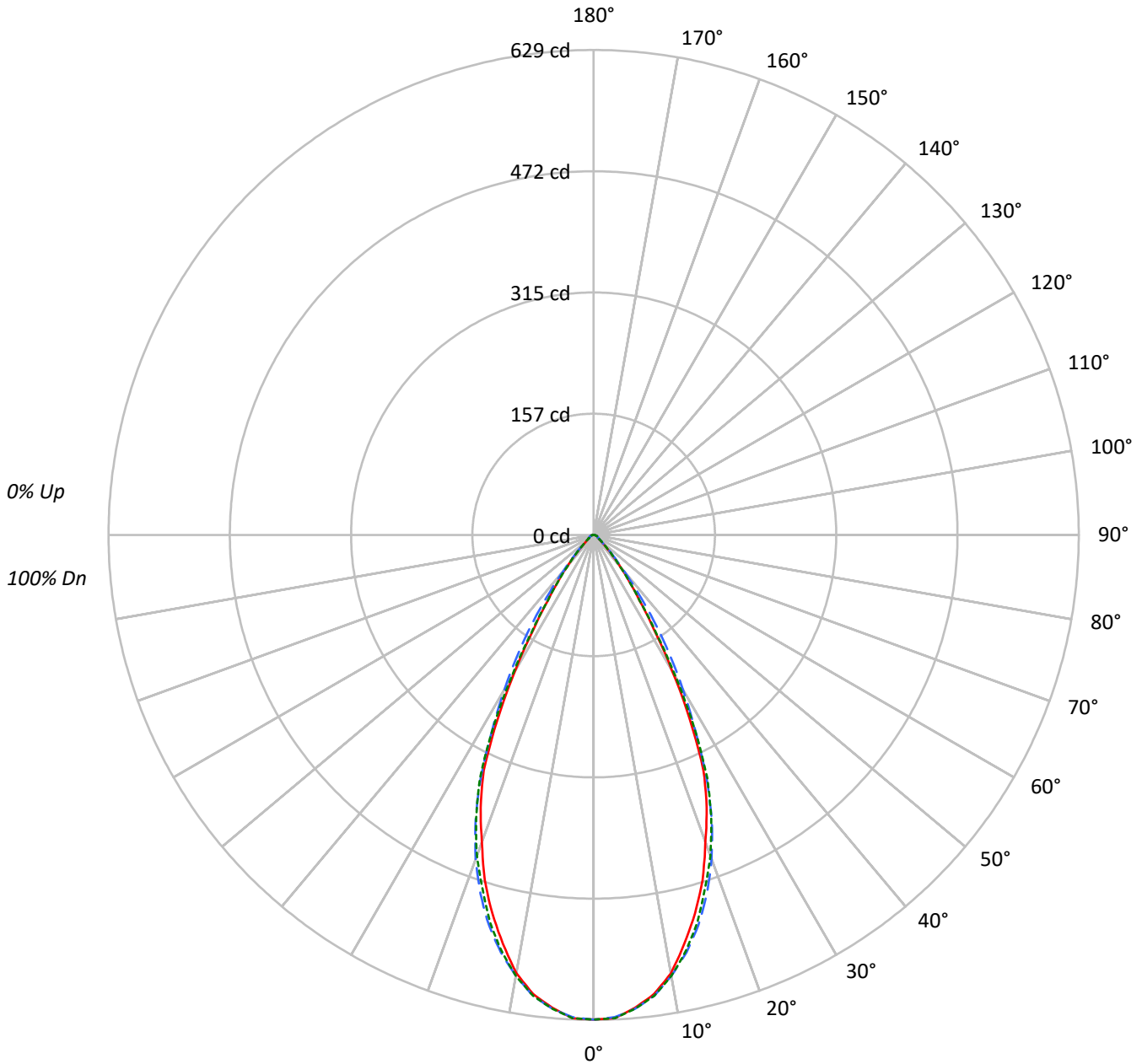
Lumens per Lamp: N/A
Luminaire Lumens: 471.4 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

Input Watts (W): 6.1
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81								
4	98	90	85	80	96	89	84	80	87	82	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	68	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	69	64	61	68	64	61	68	63	60	59								
9	77	67	62	58	76	67	61	58	66	61	57	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°	974340	974340	974340
5°	957990	959858	959858
10°	908314	913822	913822
15°	815185	841502	833960
20°	698890	737488	729901
25°	576526	590551	596536
30°	364583	412729	381228
35°	194899	256964	197169
40°	108859	123225	104205
45°	51294	58966	53925
50°	28213	31107	31107
55°	22159	22159	22159
60°	18290	18290	18290
65°	17238	21639	17238
70°	21300	21300	21300
75°	20961	20961	20961
80°	20530	20530	20530
85°	21341	21341	21341

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 58966 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.8	12.3
10°-20°	144.0	30.6
20°-30°	153.6	32.6
30°-40°	76.8	16.3
40°-50°	21.9	4.6
50°-60°	7.7	1.6
60°-70°	5.3	1.1
70°-80°	3.4	0.7
80°-90°	1.0	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°	355.3	75.4
0°-40°	432.2	91.7
0°-60°	461.7	97.9
0°-90°	471.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	471.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	629	629	629	629	629	
5°	616	617	617	617	617	58
15°	508	514	524	521	520	141
25°	337	341	345	349	349	148
35°	103	114	136	115	104	69
45°	23	25	27	26	25	20
55°	8	8	8	8	8	7
65°	5	6	6	6	5	5
75°	4	4	4	4	4	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°	628.6	628.6	628.6	628.6	628.6
2.5°	627.4	626.2	626.2	627.4	627.4
5°	615.7	616.9	616.9	616.9	616.9
7.5°	600.5	601.7	602.8	604.0	602.8
10°	577.1	578.2	580.6	582.9	580.6
12.5°	543.1	549.0	554.8	553.7	552.5
15°	508.0	513.9	524.4	520.9	519.7
17.5°	469.4	476.4	488.1	486.9	479.9
20°	423.7	434.3	447.1	443.6	442.5
22.5°	382.8	391.0	400.3	401.5	398.0
25°	337.1	340.6	345.3	348.8	348.8
27.5°	270.4	280.9	284.4	288.0	283.3
30°	203.7	217.7	230.6	227.1	213.0
32.5°	145.1	162.7	181.4	168.6	151.0
35°	103.0	113.5	135.8	114.7	104.2
37.5°	74.9	78.4	93.6	79.6	74.9
40°	53.8	55.0	60.9	55.0	51.5
42.5°	36.3	38.6	41.0	38.6	36.3
45°	23.4	24.6	26.9	25.8	24.6
47.5°	15.2	16.4	17.6	17.6	17.6
50°	11.7	11.7	12.9	14.0	12.9
52.5°	9.4	9.4	10.5	10.5	9.4
55°	8.2	8.2	8.2	8.2	8.2
57.5°	7.0	7.0	7.0	7.0	7.0
60°	5.9	5.9	5.9	5.9	5.9
62.5°	5.9	5.9	5.9	5.9	5.9
65°	4.7	5.9	5.9	5.9	4.7
67.5°	4.7	4.7	4.7	4.7	4.7
70°	4.7	4.7	4.7	4.7	4.7
72.5°	3.5	3.5	3.5	3.5	3.5
75°	3.5	3.5	3.5	3.5	3.5
77.5°	2.3	2.3	2.3	2.3	2.3
80°	2.3	2.3	2.3	2.3	2.3
82.5°	1.2	1.2	1.2	1.2	1.2
85°	1.2	1.2	1.2	1.2	1.2
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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