

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: P885662

Luminaire Tested: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-5000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-136)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D25NFL-TL1SDMW-340LM-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE WHITE TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT
Ballast/Driver: -

Summary

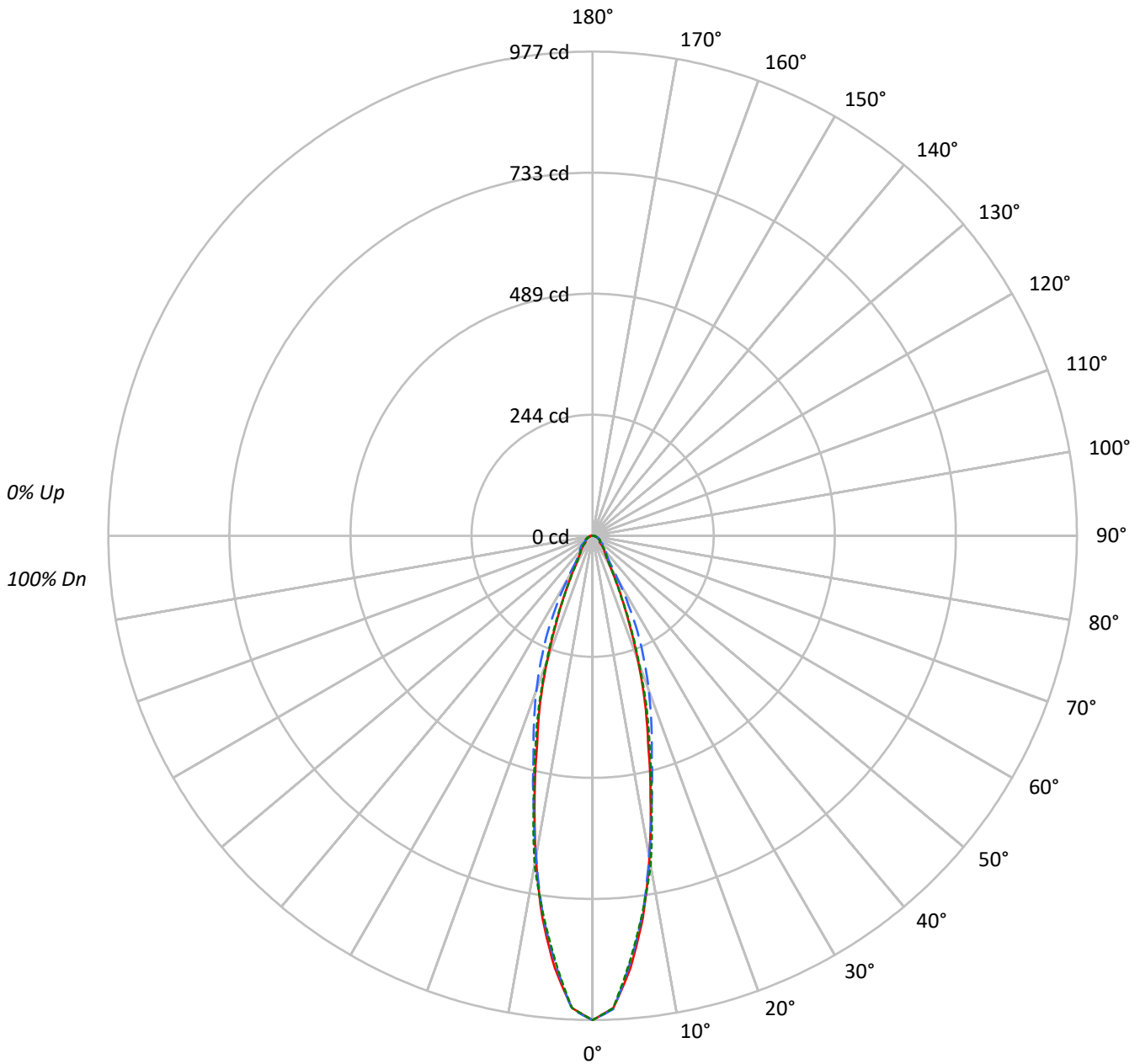
Lumens per Lamp: N/A
Luminaire Lumens: 376.6 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 0.45 / 0.46 / 0.55
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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					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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86					86			
3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	82	80					80			
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	77	75					75			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71					71			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67					67			
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64					64			
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61					61			
9	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58					58			
10	76	67	61	58	75	66	61	58	65	61	57	65	60	57	64	60	57	56					56			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1514676	1514676	1514676
5°	1362223	1347597	1340440
10°	1037533	1033913	1061457
15°	692105	738962	714571
20°	439590	545652	449157
25°	239949	365823	233963
30°	123497	184171	123497
35°	84015	97260	86285
40°	71021	82757	73247
45°	53705	74311	56336
50°	45093	64867	45093
55°	47291	47291	47291
60°	50841	47120	50841
65°	47313	47313	47313
70°	47585	47585	47585
75°	41922	41922	41922
80°	41953	41953	41953
85°	40904	21341	40904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 74311 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	20.3
10°-20°	125.6	33.4
20°-30°	79.4	21.1
30°-40°	33.6	8.9
40°-50°	22.5	6.0
50°-60°	16.0	4.3
60°-70°	13.0	3.5
70°-80°	7.6	2.0
80°-90°	2.5	0.7
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°	281.4	74.7
0°-40°	315.0	83.7
0°-60°	353.5	93.9
0°-90°	376.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	376.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	977	977	977	977	977	
5°	876	868	866	859	862	77
15°	431	444	460	451	445	121
25°	140	160	214	162	137	67
35°	44	53	51	51	46	29
45°	24	29	34	29	26	19
55°	18	18	18	18	18	16
65°	13	13	13	13	13	13
75°	7	7	7	7	7	8
85°	2	2	1	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	977.2	977.2	977.2	977.2	977.2
2.5°	953.8	953.8	956.1	953.8	953.8
5°	875.5	868.5	866.1	859.1	861.5
7.5°	777.3	775.0	770.3	770.3	768.0
10°	659.2	661.6	656.9	663.9	674.4
12.5°	540.0	541.2	550.5	555.2	549.4
15°	431.3	444.2	460.5	451.2	445.3
17.5°	350.7	363.5	392.7	369.4	360.0
20°	266.5	291.0	330.8	296.9	272.3
22.5°	194.0	224.4	271.2	226.8	202.2
25°	140.3	160.1	213.9	162.5	136.8
27.5°	98.2	114.5	155.5	115.7	97.0
30°	69.0	86.5	102.9	84.2	69.0
32.5°	53.8	67.8	65.5	65.5	52.6
35°	44.4	52.6	51.4	51.4	45.6
37.5°	38.6	42.1	45.6	43.2	39.7
40°	35.1	37.4	40.9	37.4	36.2
42.5°	30.4	33.9	37.4	33.9	31.6
45°	24.5	29.2	33.9	29.2	25.7
47.5°	19.9	22.2	31.6	23.4	19.9
50°	18.7	18.7	26.9	18.7	18.7
52.5°	18.7	18.7	21.0	18.7	18.7
55°	17.5	17.5	17.5	17.5	17.5
57.5°	16.4	16.4	16.4	16.4	16.4
60°	16.4	16.4	15.2	16.4	16.4
62.5°	14.0	15.2	14.0	15.2	14.0
65°	12.9	12.9	12.9	12.9	12.9
67.5°	11.7	11.7	11.7	11.7	11.7
70°	10.5	10.5	10.5	10.5	10.5
72.5°	8.2	8.2	8.2	9.4	8.2
75°	7.0	7.0	7.0	7.0	7.0
77.5°	5.8	5.8	5.8	5.8	5.8
80°	4.7	4.7	4.7	4.7	4.7
82.5°	3.5	3.5	3.5	3.5	3.5
85°	2.3	2.3	1.2	2.3	2.3
87.5°	1.2	1.2	1.2	1.2	1.2
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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