

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: P645610

Luminaire Tested: HLSMS9129501EWH

Issue Date: 3/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P645610
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ETA22050021P-002 R2)
Test Lab: ETA Testing Technology Co., Ltd.
Issue Date: 3/6/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLSMS9129501EWH
Description: 9IN 1200LM WET LOCATION, WITH MOTION SENSOR
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

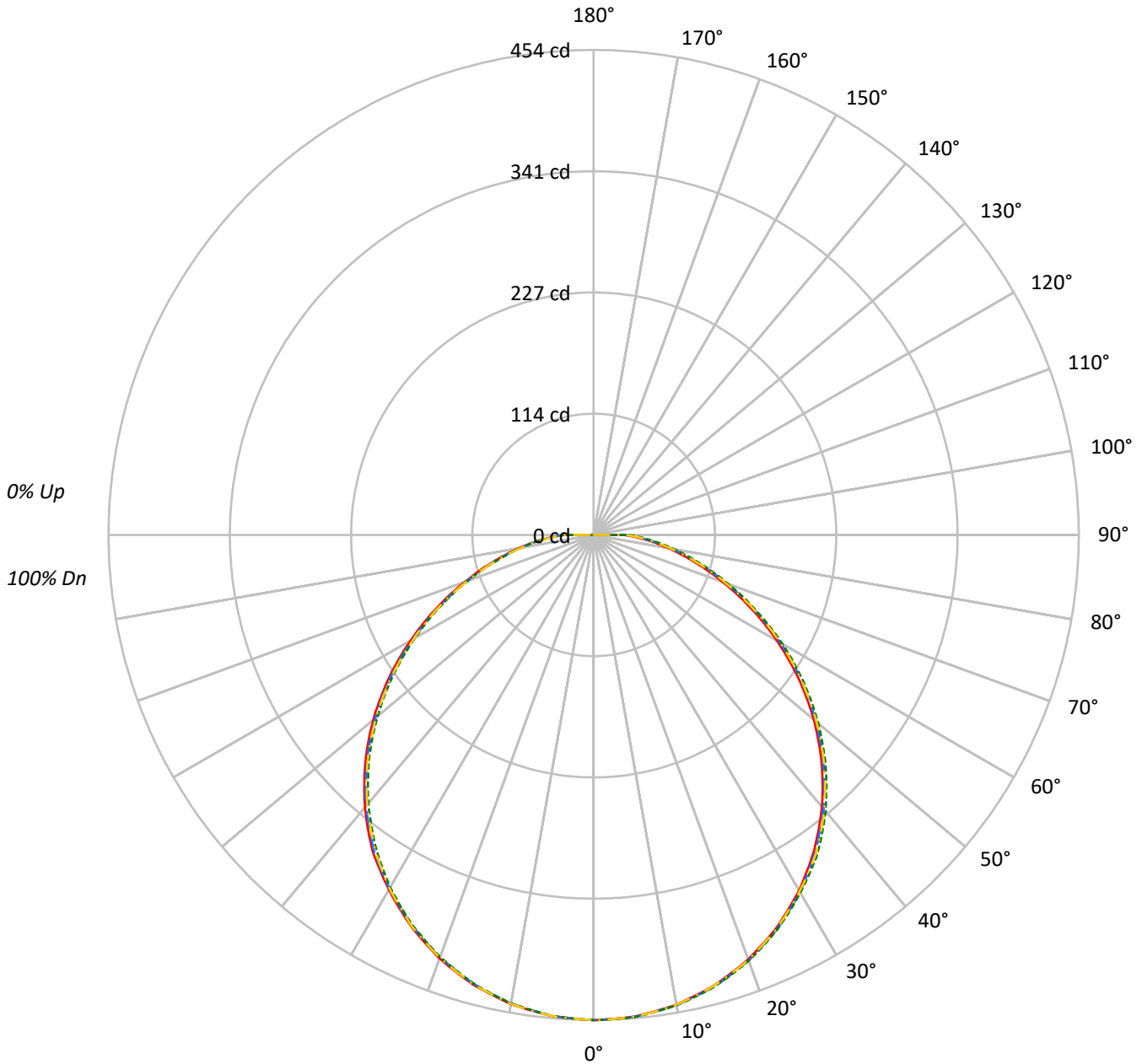
Lumens per Lamp: 1300.1 (1 lamp)
Luminaire Lumens: 1340.0 lumens
Efficiency: 103.1%
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.37
Luminous Opening: Circular (Dia: 0.75' x H: 0')
CIE Type: Direct

Input Watts (W): 17.8
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									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	123	123	123	123	120	120	120	120	115	115	115	110	110	110	105	105	105	103																			
1	111	106	101	97	108	103	99	95	99	95	92	95	92	89	91	89	86	84																			
2	101	92	84	78	98	90	83	77	86	80	75	83	78	74	79	75	72	70																			
3	92	80	72	65	89	79	71	64	76	69	63	73	67	62	70	65	61	58																			
4	84	71	62	55	81	70	61	54	67	60	53	65	58	53	62	57	52	50																			
5	77	64	54	47	75	62	53	47	60	52	46	58	51	46	56	50	45	43																			
6	71	57	48	41	69	56	47	41	54	46	40	53	45	40	51	45	40	37																			
7	66	52	43	36	64	51	42	36	49	41	36	48	41	35	46	40	35	33																			
8	61	47	38	32	60	47	38	32	45	37	32	44	37	32	43	36	31	29																			
9	57	43	35	29	56	43	35	29	42	34	29	40	34	29	39	33	28	27																			
10	54	40	32	26	52	39	32	26	38	31	26	37	31	26	37	30	26	24																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11069	11069	11069	11069
5°	11065	11077	11055	11050
10°	11047	11064	11034	11017
15°	11013	11041	10995	10967
20°	10965	11001	10939	10900
25°	10898	10950	10869	10818
30°	10815	10882	10786	10716
35°	10705	10856	10734	10589
40°	10572	10738	10594	10432
45°	10399	10585	10420	10244
50°	10193	10401	10208	10007
55°	9936	10182	9948	9732
60°	9639	9926	9648	9414
65°	9368	9680	9340	9120
70°	9125	9532	9111	8890
75°	9150	9687	9150	8896
80°	9878	10664	9864	9583
85°	13307	14732	13251	12803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 85°
 Luminance: 14732 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	43.0	3.2	3.3
10°-20°	123.1	9.2	9.5
20°-30°	186.6	13.9	14.4
30°-40°	225.3	16.8	17.3
40°-50°	233.0	17.4	17.9
50°-60°	209.4	15.6	16.1
60°-70°	161.5	12.1	12.4
70°-80°	104.5	7.8	8.0
80°-90°	53.6	4.0	4.1
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	352.7	26.3	27.1
0°-40°	578.0	43.1	44.5
0°-60°	1020.4	76.1	78.5
0°-90°	1340.0	100.0	103.1
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1340.0	100.0	103.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	454	454	454	454	454	
5°	452	453	452	452	452	43
15°	437	438	436	435	437	123
25°	405	407	404	402	405	187
35°	360	365	361	356	360	225
45°	302	307	302	297	302	233
55°	234	240	234	229	234	209
65°	162	168	162	158	162	161
75°	97	103	97	94	97	104
85°	48	53	47	46	48	53
90°	28	33	28	27	28	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3
5°	452.4	452.7	452.7	452.7	452.9	452.7	452.6	452.3	452.0	451.9	451.8
10°	446.5	447.0	447.0	447.2	447.2	447.0	446.7	446.4	446.0	445.6	445.4
15°	436.6	437.4	437.6	437.8	437.7	437.4	436.9	436.3	435.9	435.3	434.9
20°	422.9	423.8	424.0	424.4	424.3	423.7	423.4	422.5	421.9	421.1	420.8
25°	405.4	406.5	406.8	407.3	407.3	406.4	406.1	404.8	404.3	403.1	402.9
30°	384.4	385.8	386.0	386.9	386.8	385.7	385.4	383.8	383.4	381.8	382.4
35°	359.9	363.9	361.8	365.0	365.0	361.5	363.3	359.3	360.9	357.2	359.2
40°	332.4	336.2	334.5	337.5	337.6	334.2	335.8	331.8	333.1	329.4	331.2
45°	301.8	305.8	304.2	307.1	307.2	303.9	305.4	301.3	302.4	298.7	300.3
50°	268.9	272.8	271.5	274.3	274.4	271.2	272.3	268.6	269.3	265.8	266.9
55°	233.9	237.8	236.9	239.5	239.7	236.6	237.5	233.9	234.2	230.9	231.8
60°	197.8	201.7	201.3	203.5	203.7	200.9	201.5	198.1	198.0	194.8	195.5
65°	162.5	165.6	166.1	167.7	167.9	166.0	165.6	163.0	162.0	159.7	159.6
70°	128.1	131.2	132.0	133.6	133.8	131.9	131.4	128.9	127.9	125.7	125.9
75°	97.2	99.9	100.8	102.5	102.9	101.0	100.3	97.8	97.2	95.3	95.7
80°	70.4	72.5	73.5	75.2	76.0	74.2	73.1	70.7	70.3	68.9	69.5
85°	47.6	49.0	49.8	51.6	52.7	51.0	49.7	47.4	47.4	46.5	47.1
90°	27.9	29.5	30.3	31.9	33.1	31.9	30.4	28.5	28.0	28.1	28.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	454.3	454.3	454.3	454.3	454.3	454.3
5°	451.7	451.8	451.9	452.0	452.3	452.4
10°	445.2	445.3	445.5	445.8	446.2	446.5
15°	434.6	434.8	435.3	435.4	436.2	436.6
20°	420.4	420.4	421.0	421.3	422.4	422.9
25°	402.3	402.4	403.3	403.5	404.8	405.4
30°	380.9	380.9	382.2	382.2	384.1	384.4
35°	356.1	356.0	359.4	357.5	361.5	359.9
40°	328.2	328.0	331.4	329.5	333.6	332.4
45°	297.4	297.3	300.3	299.0	302.8	301.8
50°	264.4	264.0	266.9	265.7	269.6	268.9
55°	229.5	229.1	231.7	230.6	234.3	233.9
60°	193.5	193.2	195.5	194.5	197.8	197.8
65°	158.7	158.2	159.7	159.4	161.6	162.5
70°	125.2	124.8	125.9	125.4	127.2	128.1
75°	95.2	94.5	95.5	94.9	96.2	97.2
80°	69.0	68.3	69.0	68.2	69.6	70.4
85°	46.7	45.8	46.3	45.6	47.0	47.6
90°	28.4	27.4	27.5	27.5	28.3	27.9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°

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