

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: P645605

Luminaire Tested: HLS9129301EWH

Issue Date: 3/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P645605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ETA22050021P-001)
Test Lab: ETA Testing Technology Co., Ltd.
Issue Date: 3/6/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLS9129301EWH
Description: 9IN 1200LM WET LOCATION
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

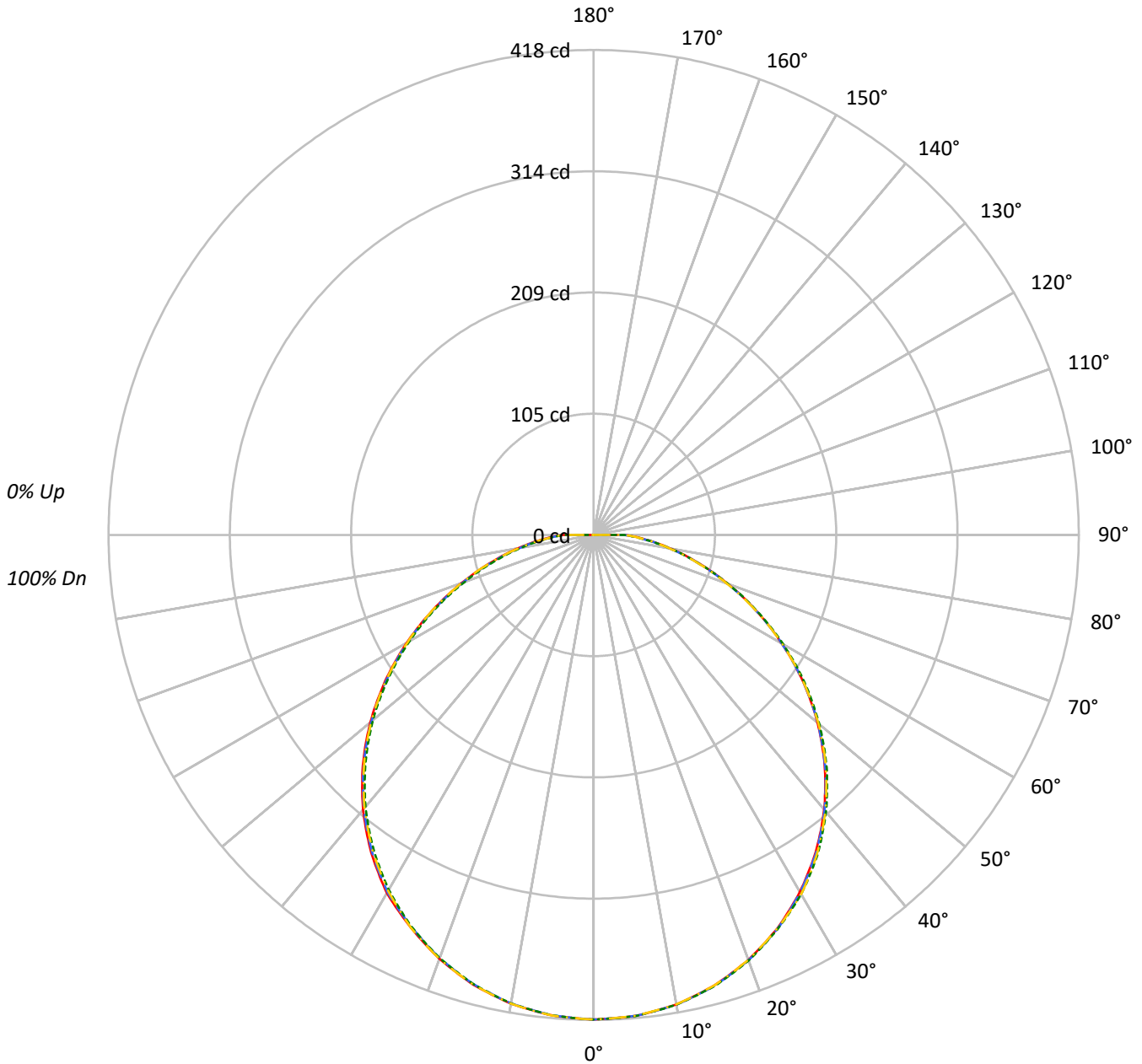
Lumens per Lamp: 1272.3 (1 lamp)
Luminaire Lumens: 1245.0 lumens
Efficiency: 97.9%
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 0.75' x H: 0')
CIE Type: Direct

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					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	0	
RCR																						
0	116	116	116	116	114	114	114	114	109	109	109	104	104	104	100	100	100	98				
1	105	100	96	92	103	98	94	90	94	90	87	90	87	85	86	84	82	80				
2	96	87	80	74	93	85	79	73	82	76	71	78	74	70	75	72	68	66				
3	87	76	68	61	85	75	67	61	72	65	60	69	63	59	66	62	58	55				
4	80	67	59	52	77	66	58	51	64	56	51	61	55	50	59	54	49	47				
5	73	60	51	44	71	59	51	44	57	49	44	55	48	43	53	47	43	41				
6	68	54	45	39	66	53	45	39	51	44	38	50	43	38	48	42	38	35				
7	63	49	40	34	61	48	40	34	47	39	34	45	39	34	44	38	33	31				
8	58	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28				
9	54	41	33	27	53	40	33	27	39	32	27	38	32	27	37	31	27	25				
10	51	38	30	25	50	37	30	25	36	29	25	35	29	25	35	29	24	23				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10177	10177	10177	10177
5°	10177	10179	10167	10165
10°	10166	10171	10151	10144
15°	10140	10153	10125	10110
20°	10107	10122	10081	10063
25°	10062	10079	10033	10006
30°	9999	10063	10030	9934
35°	9925	10006	9940	9839
40°	9828	9907	9834	9726
45°	9700	9786	9696	9582
50°	9544	9624	9522	9408
55°	9349	9426	9311	9184
60°	9117	9190	9059	8927
65°	8919	8947	8803	8671
70°	8741	8748	8605	8420
75°	8774	8736	8623	8350
80°	9401	9289	9246	8840
85°	12496	12244	12356	11601

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 85°
 Luminance: 12580 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	39.5	3.2	3.1
10°-20°	113.4	9.1	8.9
20°-30°	172.3	13.8	13.5
30°-40°	208.8	16.8	16.4
40°-50°	216.9	17.4	17.0
50°-60°	196.1	15.7	15.4
60°-70°	152.0	12.2	11.9
70°-80°	97.6	7.8	7.7
80°-90°	48.5	3.9	3.8
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°	325.2	26.1	25.6
0°-40°	534.0	42.9	42.0
0°-60°	946.9	76.1	74.4
0°-90°	1245.0	100.0	97.9
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°	1245.0	100.0	97.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	418	418	418	418	418	
5°	416	416	416	416	416	40
15°	402	402	401	401	402	113
25°	374	375	373	372	374	172
35°	334	336	334	331	334	209
45°	282	284	281	278	282	217
55°	220	222	219	216	220	197
65°	155	155	153	150	155	153
75°	93	93	92	89	93	99
85°	45	44	44	42	45	50
90°	27	26	26	24	27	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	417.7	417.7	417.7	417.7	417.7	417.7	417.7	417.7	417.7	417.7	417.7
5°	416.1	416.1	416.1	416.3	416.2	416.1	416.0	415.9	415.7	415.5	415.5
10°	410.9	411.1	411.1	411.4	411.1	410.9	410.8	410.5	410.3	410.0	410.0
15°	402.0	402.4	402.4	402.7	402.5	402.1	402.0	401.6	401.4	400.8	400.7
20°	389.8	390.3	390.2	390.7	390.4	389.8	389.7	389.1	388.8	388.0	388.1
25°	374.3	375.1	374.8	375.4	374.9	374.2	374.3	373.4	373.2	372.2	372.3
30°	355.4	358.2	355.9	359.0	357.7	355.3	357.7	354.5	356.5	353.2	355.4
35°	333.7	336.6	334.2	336.8	336.4	333.4	335.5	332.4	334.2	331.0	333.2
40°	309.0	311.8	309.5	311.9	311.5	308.7	310.6	307.5	309.2	306.0	308.0
45°	281.5	284.3	282.1	284.3	284.0	281.0	282.9	279.9	281.4	278.3	280.2
50°	251.8	254.4	252.2	254.2	253.9	251.1	252.7	249.9	251.2	248.4	250.0
55°	220.1	222.3	220.4	222.1	221.9	219.4	220.6	218.1	219.2	216.6	218.0
60°	187.1	189.0	187.2	188.6	188.6	186.3	187.3	185.0	185.9	183.7	184.9
65°	154.7	155.7	154.5	155.1	155.2	153.7	153.9	152.4	152.7	151.3	151.6
70°	122.7	123.5	122.2	122.6	122.8	121.4	121.7	120.5	120.8	119.4	119.7
75°	93.2	93.8	92.3	92.6	92.8	91.6	92.1	91.1	91.6	90.3	90.4
80°	67.0	67.3	66.0	66.0	66.2	65.4	66.0	65.3	65.9	64.5	64.4
85°	44.7	45.0	43.7	43.6	43.8	43.1	44.0	43.6	44.2	42.6	42.6
90°	26.6	27.0	26.2	25.6	25.9	25.7	26.4	26.4	26.4	25.4	25.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	417.7	417.7	417.7	417.7	417.7	417.7
5°	415.6	415.6	415.6	415.8	416.0	416.1
10°	409.9	410.0	410.2	410.3	410.8	410.9
15°	400.7	400.8	401.1	401.2	401.9	402.0
20°	387.8	388.1	388.6	388.8	389.6	389.8
25°	371.9	372.2	372.9	373.1	374.2	374.3
30°	352.8	353.1	356.1	354.2	357.6	355.4
35°	330.5	330.8	333.9	332.1	335.6	333.7
40°	305.5	305.8	308.8	307.2	310.7	309.0
45°	277.8	278.1	281.1	279.8	283.2	281.5
50°	247.9	248.2	251.0	250.0	253.2	251.8
55°	216.1	216.2	218.9	218.2	221.3	220.1
60°	183.2	183.2	185.6	185.2	188.1	187.1
65°	150.6	150.4	152.3	152.8	155.0	154.7
70°	118.6	118.2	120.1	120.8	123.0	122.7
75°	89.3	88.7	90.6	91.3	93.3	93.2
80°	63.5	63.0	64.5	65.0	66.9	67.0
85°	41.9	41.5	42.6	42.8	44.4	44.7
90°	24.8	24.5	25.1	25.3	26.3	26.6

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

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

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