

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: P645606

Luminaire Tested: HLS9129401EWH

Issue Date: 3/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P645606
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: HLS9129401EWH
Description: 9IN 1200LM WET LOCATION
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

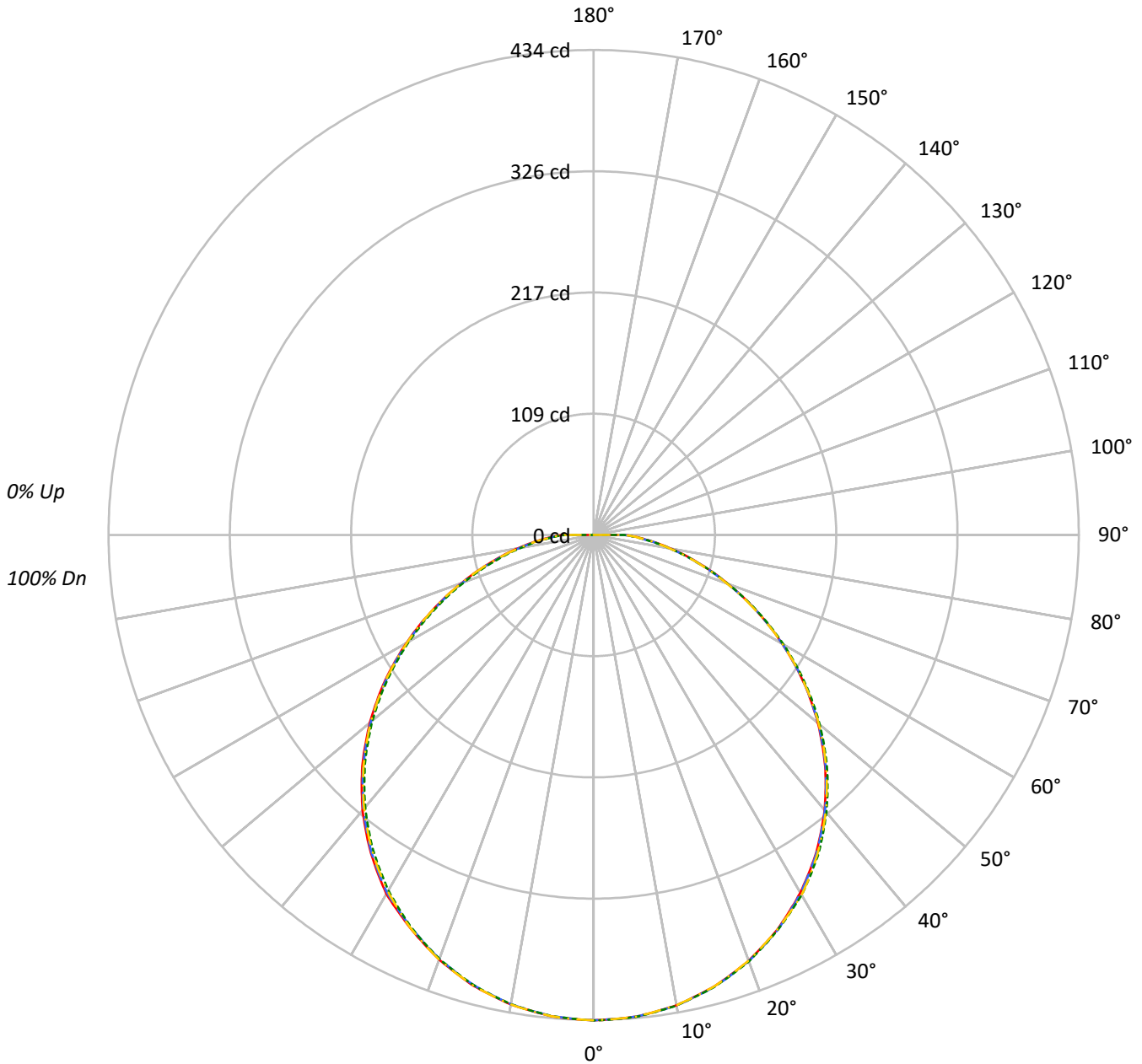
Lumens per Lamp: 1272.3 (1 lamp)
Luminaire Lumens: 1295.0 lumens
Efficiency: 101.8%
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 0.75' x H: 0')
CIE Type: Direct

Input Watts (W): 18
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	0
RCR																			
0	121	121	121	121	118	118	118	118	113	113	113	108	108	108	104	104	104	102	
1	110	104	100	95	107	102	98	94	98	94	91	94	91	88	90	88	85	83	
2	99	91	83	77	97	89	82	76	85	79	74	82	77	73	78	75	71	69	
3	91	79	71	64	88	78	70	63	75	68	62	72	66	61	69	64	60	58	
4	83	70	61	54	80	69	60	53	66	59	53	64	57	52	62	56	51	49	
5	76	63	53	46	74	61	53	46	59	51	45	57	50	45	55	49	44	42	
6	70	56	47	40	68	55	47	40	53	46	40	52	45	39	50	44	39	37	
7	65	51	42	36	63	50	42	35	49	41	35	47	40	35	46	39	35	33	
8	61	47	38	32	59	46	37	32	44	37	31	43	36	31	42	36	31	29	
9	57	43	34	28	55	42	34	28	41	33	28	40	33	28	39	33	28	26	
10	53	39	31	26	52	39	31	26	38	31	26	37	30	25	36	30	25	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10586	10586	10586	10586
5°	10585	10590	10575	10573
10°	10574	10579	10557	10549
15°	10546	10559	10531	10516
20°	10514	10529	10485	10467
25°	10466	10482	10436	10407
30°	10401	10469	10435	10331
35°	10324	10407	10339	10235
40°	10222	10305	10229	10117
45°	10089	10178	10085	9968
50°	9927	10011	9904	9787
55°	9728	9804	9685	9553
60°	9488	9561	9424	9283
65°	9276	9305	9155	9017
70°	9090	9097	8947	8755
75°	9122	9084	8971	8679
80°	9780	9653	9611	9190
85°	12999	12748	12859	12049

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 85°
 Luminance: 13111 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	41.1	3.2	3.2
10°-20°	117.9	9.1	9.3
20°-30°	179.2	13.8	14.1
30°-40°	217.1	16.8	17.1
40°-50°	225.6	17.4	17.7
50°-60°	203.9	15.7	16.0
60°-70°	158.1	12.2	12.4
70°-80°	101.5	7.8	8.0
80°-90°	50.5	3.9	4.0
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°	338.3	26.1	26.6
0°-40°	555.4	42.9	43.7
0°-60°	984.9	76.1	77.4
0°-90°	1295.0	100.0	101.8
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°	1295.0	100.0	101.8

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	434	434	434	434	434	
5°	433	433	432	432	433	41
15°	418	419	418	417	418	118
25°	389	390	388	387	389	179
35°	347	350	348	344	347	217
45°	293	295	293	289	293	226
55°	229	231	228	225	229	205
65°	161	161	159	156	161	159
75°	97	96	95	92	97	103
85°	46	46	46	43	46	52
90°	28	27	28	26	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°	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5	434.5
5°	432.8	432.8	432.8	433.1	433.0	432.8	432.7	432.6	432.4	432.2	432.2
10°	427.4	427.6	427.6	427.9	427.6	427.4	427.3	426.9	426.7	426.4	426.4
15°	418.1	418.5	418.5	418.9	418.6	418.2	418.1	417.7	417.5	416.9	416.8
20°	405.5	406.0	405.9	406.4	406.1	405.5	405.4	404.8	404.4	403.6	403.7
25°	389.3	390.1	389.8	390.5	389.9	389.2	389.3	388.4	388.2	387.1	387.2
30°	369.7	372.6	370.2	373.5	372.1	369.5	372.1	368.7	370.9	367.3	369.7
35°	347.1	350.1	347.6	350.3	349.9	346.8	349.0	345.8	347.6	344.3	346.6
40°	321.4	324.3	321.9	324.4	324.0	321.1	323.1	319.9	321.6	318.3	320.4
45°	292.8	295.7	293.4	295.7	295.4	292.3	294.3	291.2	292.7	289.5	291.5
50°	261.9	264.6	262.3	264.4	264.1	261.2	262.9	260.0	261.3	258.4	260.1
55°	229.0	231.2	229.3	231.0	230.8	228.2	229.5	226.9	228.0	225.3	226.8
60°	194.7	196.6	194.8	196.2	196.2	193.8	194.9	192.5	193.4	191.0	192.4
65°	160.9	161.9	160.7	161.3	161.4	159.8	160.0	158.5	158.8	157.3	157.7
70°	127.6	128.4	127.1	127.5	127.7	126.2	126.6	125.3	125.6	124.2	124.5
75°	96.9	97.5	96.0	96.3	96.5	95.3	95.8	94.7	95.3	93.9	94.0
80°	69.7	70.0	68.6	68.6	68.8	68.0	68.6	67.9	68.5	67.1	67.0
85°	46.5	46.9	45.5	45.4	45.6	44.9	45.8	45.4	46.0	44.4	44.4
90°	27.7	28.1	27.3	26.6	26.9	26.7	27.5	27.5	27.5	26.4	26.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	434.5	434.5	434.5	434.5	434.5	434.5
5°	432.3	432.3	432.3	432.5	432.7	432.8
10°	426.3	426.4	426.6	426.7	427.3	427.4
15°	416.8	416.9	417.2	417.3	418.0	418.1
20°	403.4	403.7	404.2	404.4	405.3	405.5
25°	386.8	387.1	387.9	388.1	389.2	389.3
30°	366.9	367.2	370.5	368.4	372.0	369.7
35°	343.8	344.1	347.3	345.5	349.1	347.1
40°	317.8	318.1	321.2	319.6	323.2	321.4
45°	289.0	289.3	292.4	291.1	294.6	292.8
50°	257.9	258.2	261.1	260.1	263.4	261.9
55°	224.8	224.9	227.7	227.0	230.2	229.0
60°	190.5	190.5	193.1	192.7	195.7	194.7
65°	156.6	156.4	158.4	158.9	161.2	160.9
70°	123.3	122.9	124.9	125.6	127.9	127.6
75°	92.9	92.2	94.2	94.9	97.0	96.9
80°	66.0	65.5	67.1	67.6	69.6	69.7
85°	43.5	43.1	44.4	44.6	46.2	46.5
90°	25.8	25.5	26.1	26.3	27.4	27.7

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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