

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: P645604

Luminaire Tested: HLS6099501EWH

Issue Date: 3/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P645604
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ETA20070011P-002 R3)
Test Lab: ETA Testing Technology Co., Ltd.
Issue Date: 3/6/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLS6099501EWH
Description: 6IN 900LM WET LOCATION
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

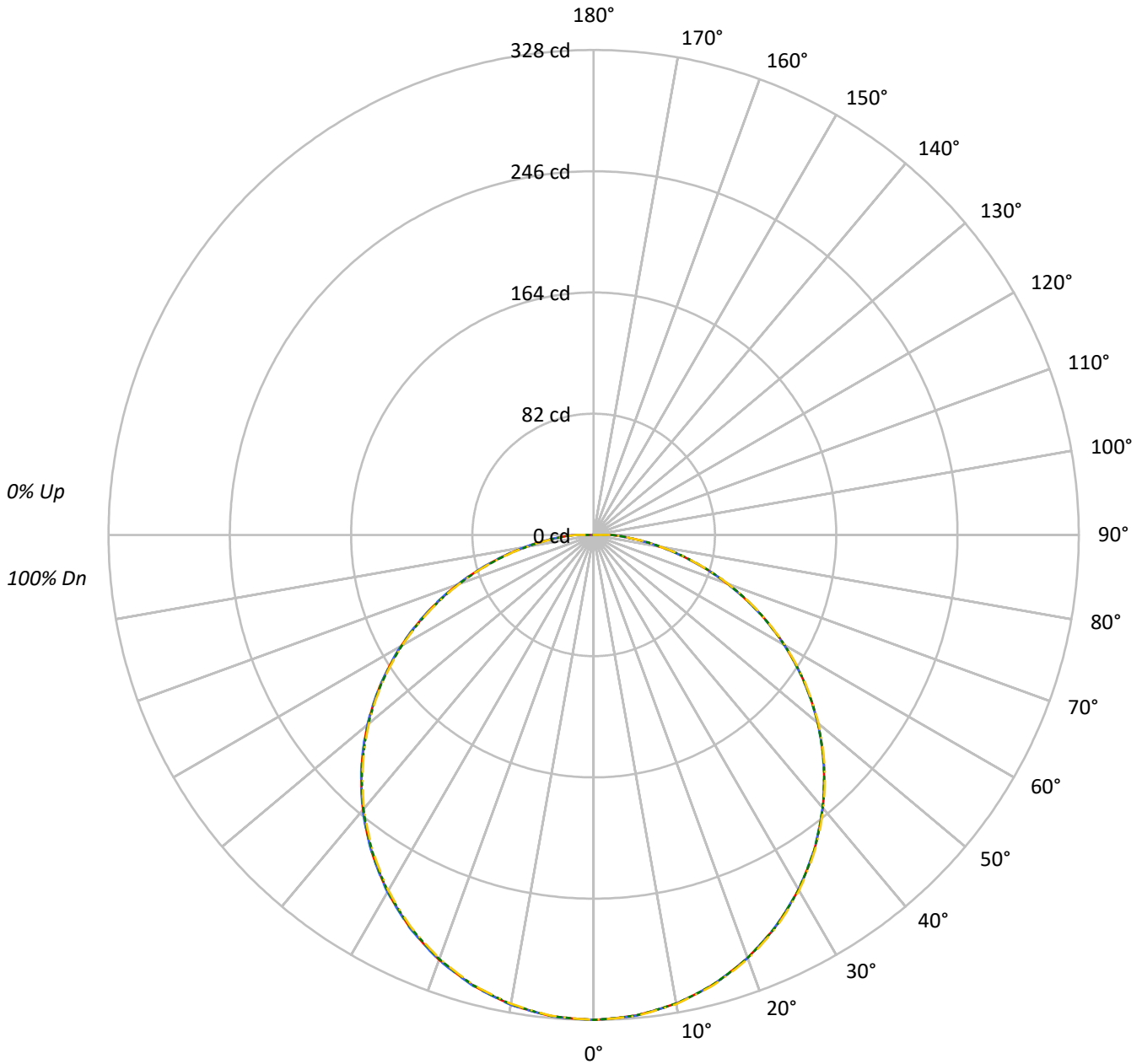
Lumens per Lamp: 972.58 (1 lamp)
Luminaire Lumens: 970.0 lumens
Efficiency: 99.7%
Efficacy: 62.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 15.6
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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	108	103	98	94	105	100	96	93	96	93	90	92	89	87	89	86	84	82								
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	74	70	68								
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57								
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	51	48								
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42								
6	69	55	46	40	67	54	46	40	53	45	39	51	44	39	49	43	38	36								
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32								
8	59	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	31	29								
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	28	26								
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17981	17981	17981	17981
5°	17956	17956	17978	17973
10°	17913	17913	17958	17936
15°	17849	17849	17900	17883
20°	17758	17764	17840	17805
25°	17656	17662	17747	17717
30°	17534	17541	17636	17610
35°	17400	17400	17514	17474
40°	17247	17239	17368	17325
45°	17072	17072	17203	17157
50°	16878	16869	17014	16955
55°	16630	16640	16783	16716
60°	16325	16336	16490	16413
65°	15916	15955	16111	16007
70°	15387	15451	15628	15467
75°	14763	14869	15038	14827
80°	14238	14459	14680	14333
85°	15599	15788	16165	15662

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 225°
 Vertical Angle: 45°
 Luminance: 17219 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	31.0	3.2	3.2
10°-20°	88.9	9.2	9.1
20°-30°	134.8	13.9	13.9
30°-40°	163.1	16.8	16.8
40°-50°	170.4	17.6	17.5
50°-60°	156.0	16.1	16.0
60°-70°	122.0	12.6	12.5
70°-80°	74.6	7.7	7.7
80°-90°	29.1	3.0	3.0
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°	254.7	26.3	26.2
0°-40°	417.8	43.1	43.0
0°-60°	744.2	76.7	76.5
0°-90°	970.0	100.0	99.7
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°	970.0	100.0	99.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	328	328	328	328	328	
5°	326	326	327	327	326	31
15°	314	314	315	315	314	89
25°	292	292	293	293	292	135
35°	260	260	262	261	260	163
45°	220	220	222	221	220	170
55°	174	174	176	175	174	156
65°	123	123	124	123	123	121
75°	70	70	71	70	70	74
85°	25	25	26	25	25	29
90°	11	11	12	11	11	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	328.0	328.0	328.0	328.0	328.0	328.0	328.0	328.0	328.0	328.0	328.0
5°	326.3	326.3	326.4	326.3	326.3	326.4	326.6	326.6	326.7	326.6	326.8
10°	321.8	321.8	321.9	321.8	321.8	321.9	322.2	322.2	322.6	322.3	322.7
15°	314.5	314.5	314.5	314.6	314.5	314.5	315.0	314.9	315.4	315.2	315.7
20°	304.4	304.5	304.5	304.5	304.5	304.6	305.2	305.1	305.8	305.3	305.9
25°	291.9	292.0	291.7	292.1	292.0	291.9	292.7	292.6	293.4	293.0	293.6
30°	277.0	277.3	276.9	277.2	277.1	277.0	277.8	277.8	278.6	278.3	278.9
35°	260.0	260.2	259.8	260.1	260.0	259.8	260.8	260.7	261.7	261.2	261.8
40°	241.0	241.2	240.8	241.2	240.9	240.8	241.7	241.7	242.7	242.2	242.9
45°	220.2	220.6	220.0	220.4	220.2	220.0	220.9	220.8	221.9	221.4	222.1
50°	197.9	198.2	197.6	198.0	197.8	197.5	198.5	198.4	199.5	199.0	199.8
55°	174.0	174.3	173.7	174.1	174.1	173.8	174.7	174.5	175.6	175.1	175.8
60°	148.9	149.3	148.6	149.1	149.0	148.6	149.5	149.3	150.4	149.9	150.6
65°	122.7	123.2	122.4	122.9	123.0	122.5	123.5	123.1	124.2	123.6	124.5
70°	96.0	96.6	95.7	96.2	96.4	95.9	96.8	96.4	97.5	96.9	97.8
75°	69.7	70.2	69.3	69.8	70.2	69.6	70.4	70.1	71.0	70.5	71.3
80°	45.1	45.8	44.9	45.5	45.8	45.2	46.0	45.5	46.5	45.9	46.8
85°	24.8	25.1	24.7	24.9	25.1	24.9	25.2	25.1	25.7	25.4	25.9
90°	10.9	11.0	10.7	10.9	11.1	10.7	11.0	10.9	11.6	11.2	11.5



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	328.0	328.0	328.0	328.0	328.0	328.0
5°	326.6	326.6	326.5	326.5	326.4	326.3
10°	322.3	322.2	322.2	322.0	321.9	321.8
15°	315.1	315.1	315.2	314.9	314.8	314.5
20°	305.3	305.2	305.2	304.8	304.7	304.4
25°	292.8	292.9	292.9	292.4	292.4	291.9
30°	278.0	278.2	278.1	277.5	277.6	277.0
35°	261.0	261.1	261.1	260.4	260.5	260.0
40°	242.0	242.1	242.2	241.5	241.7	241.0
45°	221.3	221.3	221.4	220.6	221.0	220.2
50°	198.8	198.8	199.0	198.3	198.6	197.9
55°	175.0	174.9	175.1	174.4	174.8	174.0
60°	149.9	149.7	149.9	149.2	149.7	148.9
65°	123.7	123.4	123.8	122.9	123.6	122.7
70°	96.9	96.5	96.9	96.2	96.8	96.0
75°	70.6	70.0	70.4	69.7	70.3	69.7
80°	46.0	45.4	45.8	45.1	45.9	45.1
85°	25.5	24.9	25.0	24.7	25.1	24.8
90°	11.3	10.9	11.0	10.7	10.9	10.9

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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