

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: P645602

Luminaire Tested: HLS6099301EWH

Issue Date: 3/6/2023

Test Information

Test Method: LM-79-2019
Report Number: P645602
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: HLS6099301EWH
Description: 6IN 900LM WET LOCATION
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

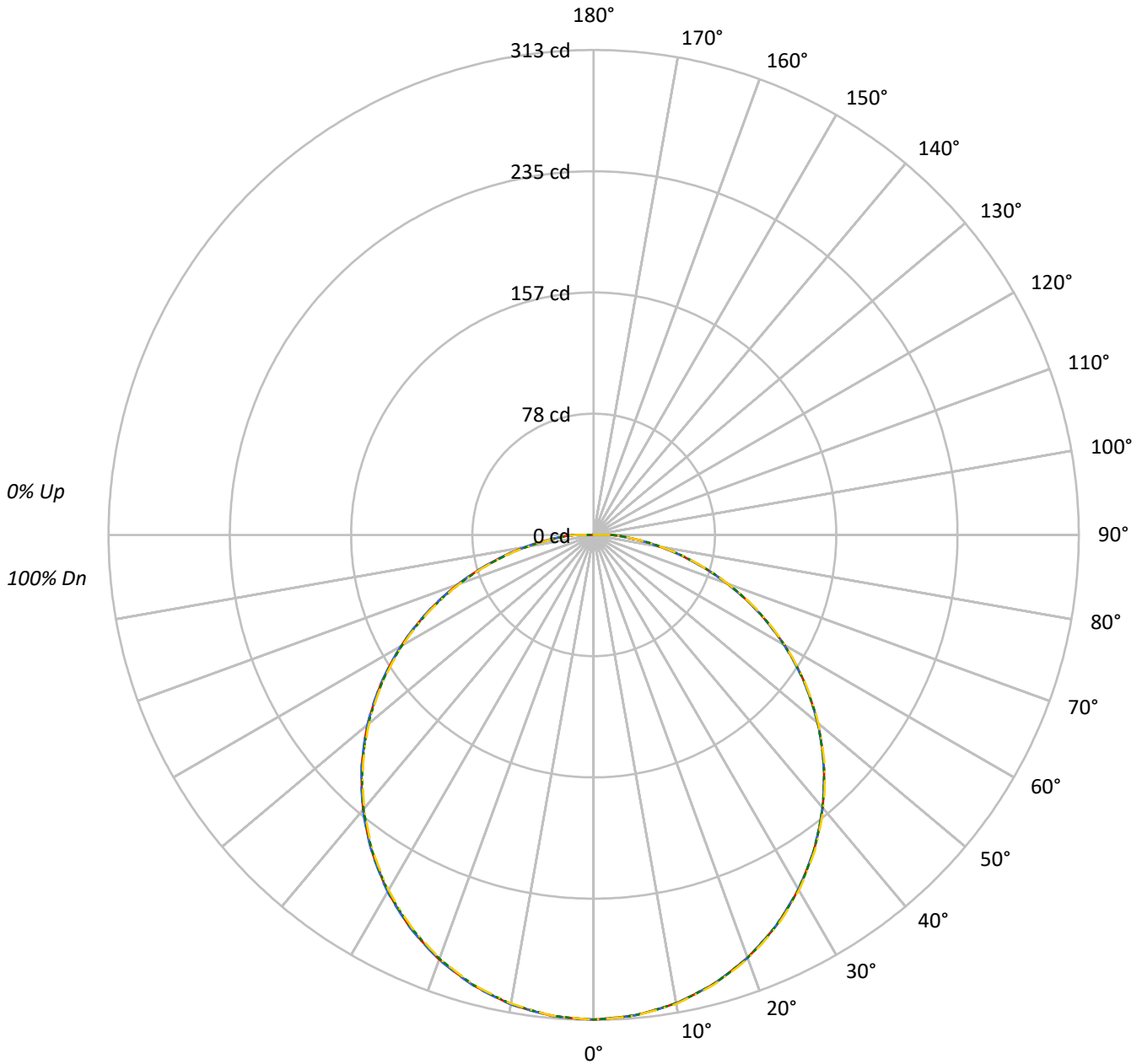
Lumens per Lamp: 972.58 (1 lamp)
Luminaire Lumens: 925.0 lumens
Efficiency: 95.1%
Efficacy: 60.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 15.4
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	113	113	113	113	111	111	111	111	106	106	106	101	101	101	97	97	97	95				
1	103	98	94	90	100	96	92	88	92	88	86	88	85	83	85	82	80	78				
2	93	85	78	73	91	83	77	72	80	75	70	77	72	68	74	70	67	65				
3	85	74	66	60	82	73	66	60	70	64	58	67	62	57	65	60	56	54				
4	78	66	57	51	75	65	57	50	62	55	50	60	54	49	58	53	48	46				
5	71	59	50	44	69	58	49	43	56	48	43	54	47	42	52	46	42	40				
6	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35				
7	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31				
8	57	44	35	30	55	43	35	30	42	35	29	41	34	29	39	33	29	27				
9	53	40	32	27	52	39	32	27	38	31	27	37	31	26	36	31	26	24				
10	50	37	29	24	48	36	29	24	35	29	24	35	28	24	34	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17148	17148	17148	17148
5°	17120	17120	17142	17136
10°	17084	17084	17123	17106
15°	17021	17021	17072	17055
20°	16936	16941	17011	16976
25°	16840	16846	16924	16894
30°	16718	16724	16819	16794
35°	16597	16597	16697	16664
40°	16445	16438	16560	16524
45°	16281	16281	16405	16366
50°	16093	16085	16230	16170
55°	15866	15875	16009	15942
60°	15569	15580	15733	15657
65°	15177	15216	15371	15268
70°	14666	14730	14906	14746
75°	14064	14170	14339	14128
80°	13575	13796	13985	13670
85°	14907	15033	15410	14907

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 225°
 Vertical Angle: 45°
 Luminance: 16420 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	29.6	3.2	3.0
10°-20°	84.8	9.2	8.7
20°-30°	128.6	13.9	13.2
30°-40°	155.5	16.8	16.0
40°-50°	162.5	17.6	16.7
50°-60°	148.8	16.1	15.3
60°-70°	116.3	12.6	12.0
70°-80°	71.1	7.7	7.3
80°-90°	27.8	3.0	2.9
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°	242.9	26.3	25.0
0°-40°	398.4	43.1	41.0
0°-60°	709.7	76.7	73.0
0°-90°	925.0	100.0	95.1
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°	925.0	100.0	95.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	313	313	313	313	313	
5°	311	311	312	311	311	30
15°	300	300	301	300	300	85
25°	278	278	280	279	278	128
35°	248	248	250	249	248	155
45°	210	210	212	211	210	162
55°	166	166	168	167	166	148
65°	117	117	118	118	117	116
75°	66	67	68	67	66	71
85°	24	24	24	24	24	27
90°	10	11	11	10	10	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8
5°	311.1	311.1	311.2	311.1	311.1	311.2	311.4	311.4	311.5	311.4	311.6
10°	306.9	306.9	307.0	306.9	306.9	307.0	307.3	307.3	307.6	307.4	307.7
15°	299.9	299.9	299.9	300.0	299.9	299.9	300.4	300.3	300.8	300.6	301.0
20°	290.3	290.4	290.4	290.4	290.4	290.5	291.0	291.0	291.6	291.1	291.7
25°	278.4	278.5	278.2	278.5	278.5	278.4	279.1	279.0	279.8	279.4	280.0
30°	264.1	264.4	264.0	264.3	264.2	264.1	264.9	264.9	265.7	265.4	266.0
35°	248.0	248.2	247.8	248.1	248.0	247.8	248.7	248.6	249.5	249.1	249.6
40°	229.8	230.0	229.6	230.0	229.7	229.6	230.5	230.5	231.4	231.0	231.6
45°	210.0	210.4	209.8	210.2	210.0	209.8	210.7	210.6	211.6	211.1	211.8
50°	188.7	189.0	188.5	188.8	188.6	188.4	189.3	189.2	190.3	189.8	190.6
55°	166.0	166.2	165.7	166.1	166.1	165.8	166.6	166.4	167.5	167.0	167.7
60°	142.0	142.4	141.7	142.2	142.1	141.7	142.6	142.4	143.5	143.0	143.6
65°	117.0	117.5	116.7	117.2	117.3	116.8	117.8	117.4	118.5	117.9	118.7
70°	91.5	92.1	91.2	91.7	91.9	91.4	92.3	91.9	93.0	92.4	93.3
75°	66.4	66.9	66.1	66.5	66.9	66.3	67.1	66.8	67.7	67.2	68.0
80°	43.0	43.7	42.8	43.4	43.7	43.1	43.8	43.4	44.3	43.7	44.6
85°	23.7	23.9	23.6	23.7	23.9	23.7	24.0	23.9	24.5	24.2	24.7
90°	10.4	10.5	10.2	10.4	10.6	10.2	10.5	10.4	11.1	10.7	11.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	312.8	312.8	312.8	312.8	312.8	312.8
5°	311.4	311.4	311.3	311.3	311.2	311.1
10°	307.4	307.3	307.3	307.1	307.0	306.9
15°	300.5	300.5	300.6	300.3	300.2	299.9
20°	291.1	291.0	291.0	290.7	290.6	290.3
25°	279.2	279.3	279.3	278.8	278.8	278.4
30°	265.1	265.3	265.2	264.6	264.7	264.1
35°	248.9	249.0	249.0	248.4	248.5	248.0
40°	230.8	230.9	231.0	230.3	230.5	229.8
45°	211.1	211.1	211.1	210.4	210.8	210.0
50°	189.6	189.6	189.8	189.1	189.4	188.7
55°	166.9	166.8	167.0	166.3	166.7	166.0
60°	143.0	142.8	143.0	142.3	142.8	142.0
65°	118.0	117.7	118.1	117.2	117.9	117.0
70°	92.4	92.0	92.4	91.7	92.3	91.5
75°	67.3	66.7	67.1	66.4	67.0	66.4
80°	43.8	43.3	43.7	43.0	43.7	43.0
85°	24.3	23.7	23.8	23.6	23.9	23.7
90°	10.8	10.4	10.5	10.2	10.4	10.4

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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