

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P295523

Luminaire Tested: **HU1118D9SMB-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1904-227-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HU1118D9SMB-4000K
Description: HALO HU11 UNDERCABINET LED FIXTURE
18-INCH, SELECTABLE CCT, MATTE BLACK FINISH
Light Source: (84) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

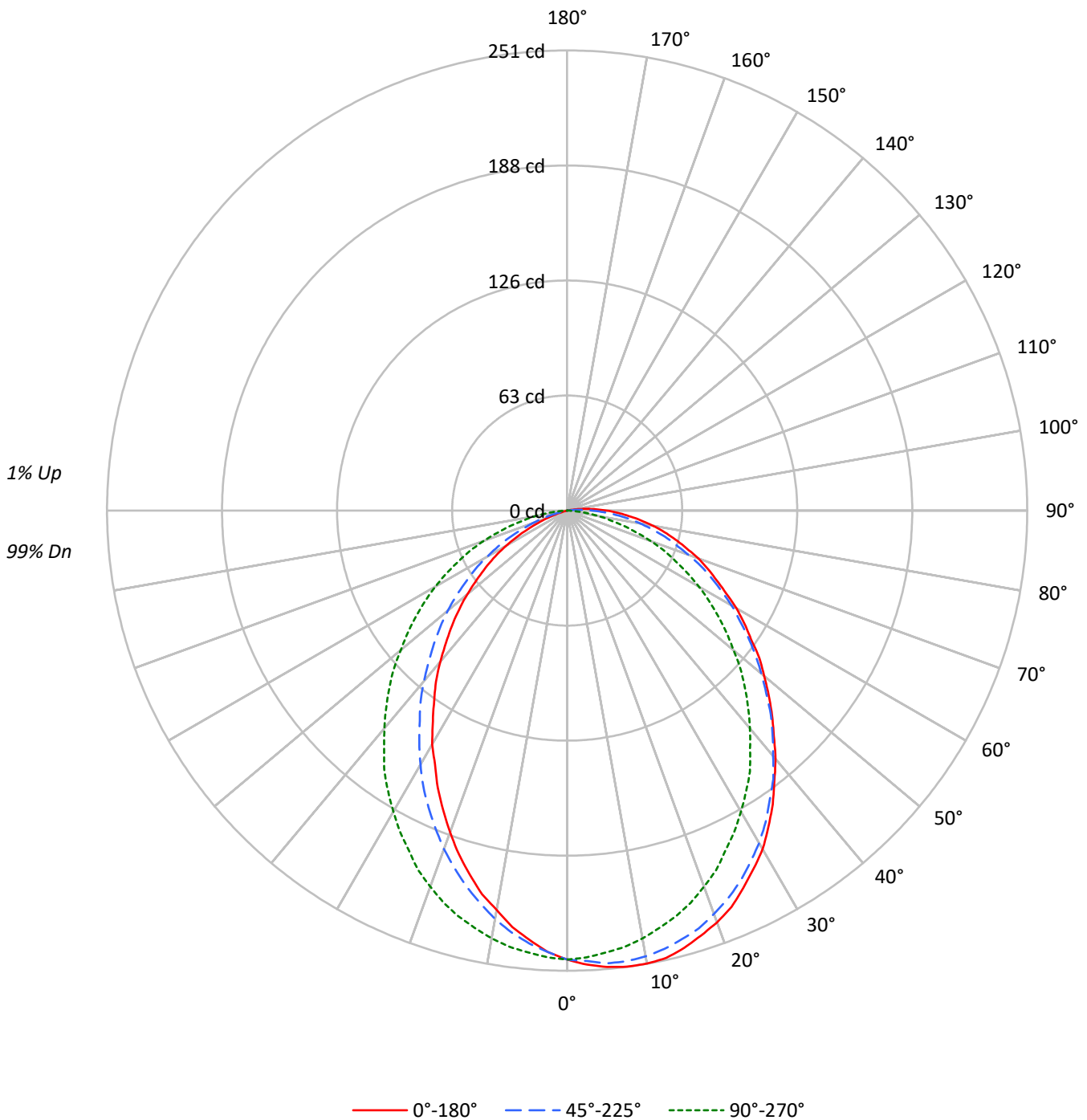
Lumens per Lamp: N/A
Luminaire Lumens: 580.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.16 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 1.29' x L: 0.08' x H: 0.04')
CIE Type: Direct

Input Watts (W): 8
Input Voltage (V): 120
Input Current (A_{in}): 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: 25 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	99								
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84								
2	100	92	85	79	97	90	84	78	86	81	76	83	78	75	80	76	73	71								
3	91	81	73	67	89	79	72	66	76	70	65	73	68	64	71	66	63	60								
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	58	54	52								
5	77	65	56	50	75	64	55	49	61	54	49	59	53	48	58	52	48	46								
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	52	47	42	40								
7	67	53	45	39	65	53	44	39	51	44	38	49	43	38	48	42	38	36								
8	62	49	41	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32								
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29								
10	55	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	24490	24490	24490
5°	24034	24224	22611
10°	23413	23930	20642
15°	22541	23515	18752
20°	21518	22962	16809
25°	20329	22219	14934
30°	19113	21493	13190
35°	17677	20749	11429
40°	16258	19713	9895
45°	14896	18810	8382
50°	13667	17753	6931
55°	12460	16783	5523
60°	11436	15722	4126
65°	10265	14430	2592
70°	9361	12999	1219
75°	8250	10897	135
80°	7117	8665	0
85°	5741	4108	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	4.0
10°-20°	64.1	11.0
20°-30°	92.5	16.0
30°-40°	104.5	18.0
40°-50°	100.5	17.3
50°-60°	84.6	14.6
60°-70°	60.4	10.4
70°-80°	33.6	5.8
80°-90°	13.8	2.4
90°-100°	3.0	0.5
100°-110°	0.1	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	179.6	31.0
0°-40°	284.1	49.0
0°-60°	469.2	80.9
0°-90°	577.0	99.5
90°-120°	3.0	0.5
90°-150°	3.0	0.5
90°-180°	3.0	0.5
0°-180°	580.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	245	245	245	245	245	
5°	250	248	242	237	235	24
15°	247	242	229	212	205	70
25°	227	223	204	179	167	105
35°	196	193	174	140	126	122
45°	158	157	137	103	89	122
55°	122	120	101	67	54	110
65°	90	87	65	35	23	90
75°	61	55	32	7	1	65
85°	34	27	5	0	0	30
90°	22	14	0	0	0	12
95°	11	4	0	0	0	7
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P295523

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9
2.5°	247.9	246.9	245.9	245.9	243.9	243.0	241.0	241.0	241.0
5°	249.9	249.9	247.9	245.9	242.0	241.0	237.0	236.0	235.1
7.5°	250.9	249.9	247.9	244.9	240.0	237.0	232.1	229.1	229.1
10°	250.9	249.9	246.9	243.0	237.0	232.1	226.2	223.2	221.2
12.5°	249.9	248.9	244.9	241.0	233.1	227.2	219.3	215.3	214.3
15°	246.9	245.9	242.0	237.0	229.1	221.2	212.3	207.4	205.4
17.5°	243.0	243.0	239.0	233.1	224.2	214.3	204.4	198.5	196.5
20°	239.0	238.0	234.1	228.1	218.3	207.4	196.5	189.6	186.7
22.5°	234.1	233.1	229.1	222.2	212.3	200.5	187.6	179.7	176.8
25°	227.2	227.2	223.2	216.3	204.4	192.6	178.8	169.9	166.9
27.5°	220.2	220.2	216.3	209.4	197.5	183.7	169.9	160.0	156.0
30°	213.3	213.3	209.4	202.5	189.6	175.8	160.0	149.1	147.2
32.5°	204.4	204.4	201.5	194.6	181.7	165.9	150.1	140.2	136.3
35°	195.5	195.5	192.6	185.7	173.8	157.0	140.2	130.4	126.4
37.5°	185.7	186.7	184.7	177.8	163.9	148.1	131.4	120.5	117.5
40°	176.8	176.8	174.8	168.9	155.1	138.3	121.5	111.6	107.6
42.5°	166.9	167.9	165.9	160.0	146.2	129.4	111.6	101.7	97.8
45°	158.0	158.0	157.0	151.1	137.3	119.5	102.7	92.8	88.9
47.5°	149.1	149.1	147.2	142.2	128.4	110.6	93.8	83.9	80.0
50°	140.2	140.2	138.3	132.3	118.5	101.7	84.9	75.1	71.1
52.5°	132.3	131.4	129.4	123.5	109.6	91.8	76.0	66.2	62.2
55°	122.5	122.5	120.5	115.6	100.7	83.9	67.2	58.3	54.3
57.5°	114.6	114.6	111.6	105.7	91.8	74.1	59.3	49.4	46.4
60°	106.7	105.7	103.7	96.8	83.0	66.2	50.4	41.5	38.5
62.5°	97.8	97.8	94.8	87.9	74.1	57.3	42.5	33.6	30.6
65°	89.9	89.9	86.9	79.0	65.2	48.4	34.6	25.7	22.7
67.5°	83.0	82.0	79.0	70.1	57.3	40.5	26.7	18.8	15.8
70°	76.0	75.1	70.1	62.2	48.4	32.6	19.8	11.9	9.9
72.5°	68.1	67.2	62.2	54.3	39.5	24.7	12.8	6.9	4.9
75°	61.2	59.3	55.3	45.4	31.6	17.8	6.9	2.0	1.0
77.5°	54.3	52.3	47.4	38.5	23.7	10.9	3.0	0.0	0.0
80°	47.4	46.4	40.5	30.6	17.8	4.9	0.0	0.0	0.0
82.5°	40.5	39.5	33.6	23.7	10.9	1.0	0.0	0.0	0.0
85°	33.6	32.6	26.7	16.8	4.9	0.0	0.0	0.0	0.0
87.5°	27.7	25.7	19.8	10.9	2.0	0.0	0.0	0.0	0.0
90°	21.7	19.8	13.8	5.9	0.0	0.0	0.0	0.0	0.0
92.5°	15.8	13.8	8.9	2.0	0.0	0.0	0.0	0.0	0.0
95°	10.9	8.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	5.9	4.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)