

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: P166459

Luminaire Tested: **HU1048D940MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P166459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25790)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HU1048D940MB
Description: HALO HU10 LED UNDERCABINET FIXTURE
48 INCH LENGTH WITH MATTE BLACK FINISH
Light Source: (72) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

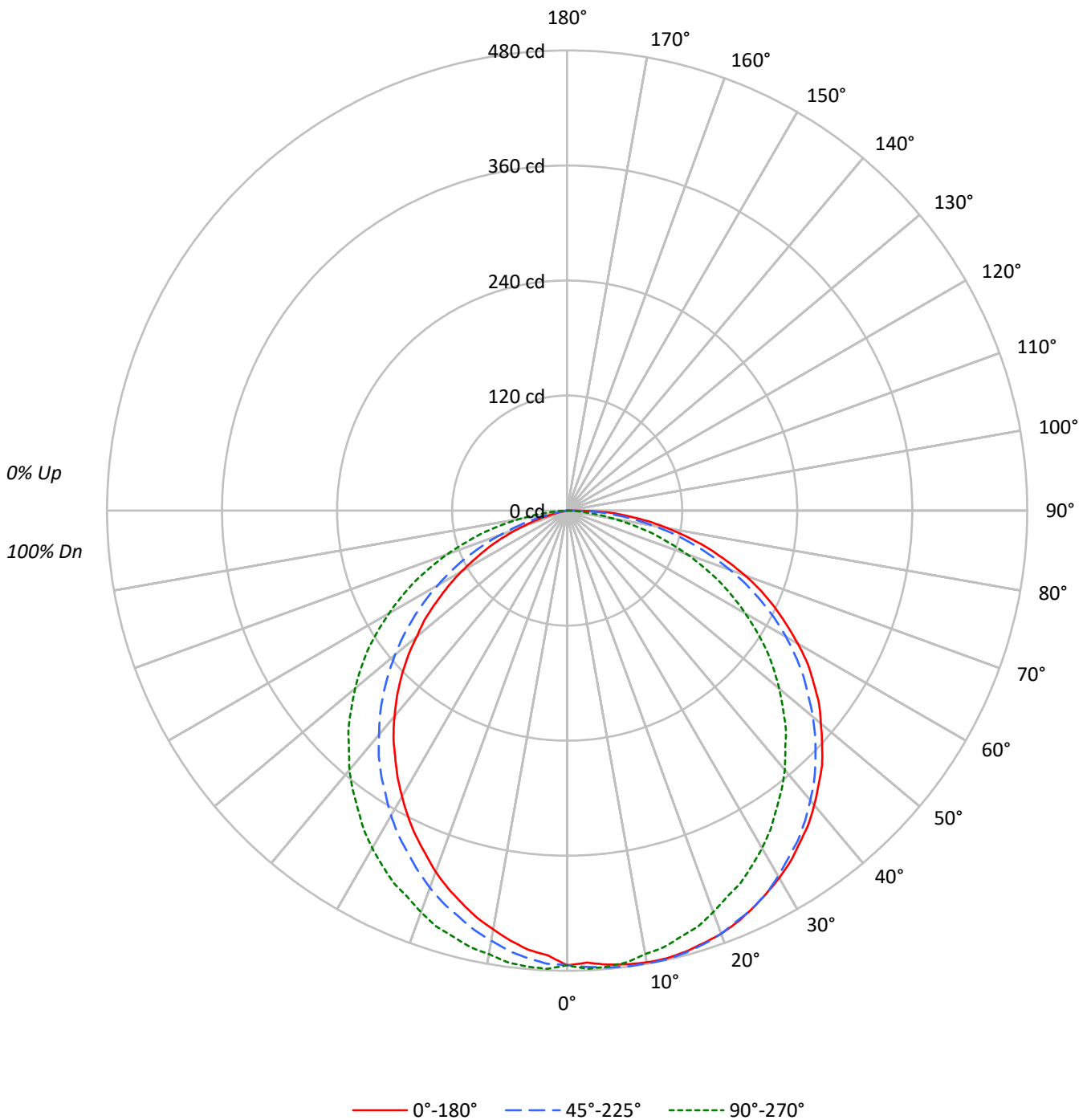
Lumens per Lamp: N/A
Luminaire Lumens: 1357.6 lumens
Efficiency: N/A
Efficacy: 63.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.39
Luminous Opening: Rectangular (W 4' x L: 0.1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.5
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: 25 FT



TEST NUMBER: P166459
CATALOG NUMBER: HU1048D940MB

Luminous Intensity Polar Plot





TEST NUMBER: P166459

CATALOG NUMBER: HU1048D940MB

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	39	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12250	12250	12250
5°	12325	12380	11929
10°	12552	12324	11639
15°	12741	12303	11340
20°	12915	12256	11027
25°	13049	12211	10658
30°	13203	12129	10276
35°	13337	11997	9865
40°	13526	11911	9446
45°	13740	11789	8922
50°	13885	11611	8235
55°	14138	11440	7513
60°	14363	11093	6587
65°	14591	10728	5465
70°	14902	10046	3867
75°	15231	9143	1956
80°	15888	7453	164
85°	18407	4861	0



TEST NUMBER: P166459

CATALOG NUMBER: HU1048D940MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	3.3
10°-20°	128.7	9.5
20°-30°	195.0	14.4
30°-40°	235.3	17.3
40°-50°	244.6	18.0
50°-60°	221.4	16.3
60°-70°	167.5	12.3
70°-80°	93.1	6.9
80°-90°	27.2	2.0
90°-100°	0.0	0.0
100°-110°	0.0	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°	368.6	27.2
0°-40°	604.0	44.5
0°-60°	1070.0	78.8
0°-90°	1357.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1357.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	475	478	477	469	460	45
15°	476	477	460	438	424	135
25°	458	458	428	394	374	211
35°	423	420	380	338	313	265
45°	376	366	323	271	244	290
55°	314	301	254	196	167	281
65°	239	224	176	116	89	236
75°	153	136	92	37	20	161
85°	62	49	16	0	0	66
90°	0	0	0	0	0	



TEST NUMBER: P166459

CATALOG NUMBER: HU1048D940MB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	472.0	476.4	476.4	476.4	478.5	472.0	473.1	465.5	464.4
5°	475.3	480.7	478.5	476.4	477.4	467.6	468.7	458.9	460.0
7.5°	477.4	484.0	479.6	476.4	475.3	463.3	463.3	451.3	452.4
10°	478.5	484.0	479.6	475.3	469.8	458.9	455.6	443.7	443.7
12.5°	478.5	482.9	479.6	472.0	466.5	451.3	448.0	434.9	434.9
15°	476.4	485.1	477.4	467.6	460.0	443.7	438.2	426.2	424.0
17.5°	473.1	482.9	474.2	463.3	454.6	436.0	429.5	416.4	413.1
20°	469.8	478.5	469.8	456.7	445.8	426.2	418.6	403.3	401.1
22.5°	464.4	473.1	463.3	449.1	436.0	415.3	406.6	390.2	387.0
25°	457.8	467.6	457.8	441.5	428.4	404.4	393.5	378.2	373.9
27.5°	450.2	458.9	450.2	431.7	417.5	393.5	381.5	364.1	359.7
30°	442.6	451.3	440.4	421.9	406.6	380.4	367.3	348.8	344.5
32.5°	433.8	442.6	429.5	411.0	394.6	368.4	352.1	334.6	329.2
35°	422.9	430.6	419.7	399.0	380.4	353.2	337.9	318.3	312.8
37.5°	413.1	419.7	407.7	387.0	367.3	340.1	322.7	301.9	297.6
40°	401.1	408.8	394.6	373.9	353.2	323.7	305.2	284.5	280.1
42.5°	388.1	395.7	381.5	358.6	336.8	309.6	288.9	267.1	262.7
45°	376.1	381.5	366.3	344.5	322.7	293.2	271.4	249.6	244.2
47.5°	360.8	366.3	351.0	329.2	305.2	275.8	252.9	231.1	225.6
50°	345.5	351.0	334.6	312.8	288.9	259.4	234.4	212.6	204.9
52.5°	331.4	334.6	317.2	296.5	271.4	240.9	215.8	192.9	187.5
55°	313.9	317.2	300.9	279.1	254.0	223.5	196.2	174.4	166.8
57.5°	297.6	299.8	282.3	260.5	234.4	203.8	176.6	153.7	147.2
60°	278.0	279.1	263.8	240.9	214.7	184.2	155.9	133.0	127.5
62.5°	258.3	259.4	244.2	221.3	195.1	164.6	136.3	114.5	106.8
65°	238.7	238.7	223.5	200.6	175.5	143.9	115.5	94.8	89.4
67.5°	219.1	216.9	202.8	179.9	153.7	123.2	94.8	75.2	69.8
70°	197.3	195.1	180.9	158.1	133.0	102.5	74.1	56.7	51.2
72.5°	174.4	173.3	158.1	136.3	111.2	81.8	54.5	39.2	34.9
75°	152.6	150.4	136.3	114.5	91.6	61.0	37.1	24.0	19.6
77.5°	129.7	127.5	114.5	92.7	69.8	42.5	21.8	10.9	7.6
80°	106.8	104.6	91.6	71.9	50.1	25.1	8.7	2.2	1.1
82.5°	85.0	82.8	69.8	51.2	31.6	12.0	1.1	0.0	0.0
85°	62.1	60.0	49.1	31.6	16.4	2.2	0.0	0.0	0.0
87.5°	42.5	40.3	29.4	16.4	5.5	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)