

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P581458

Luminaire Tested: **HC407D010-HM40525835-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC407D010-HM40525835-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 719.6 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

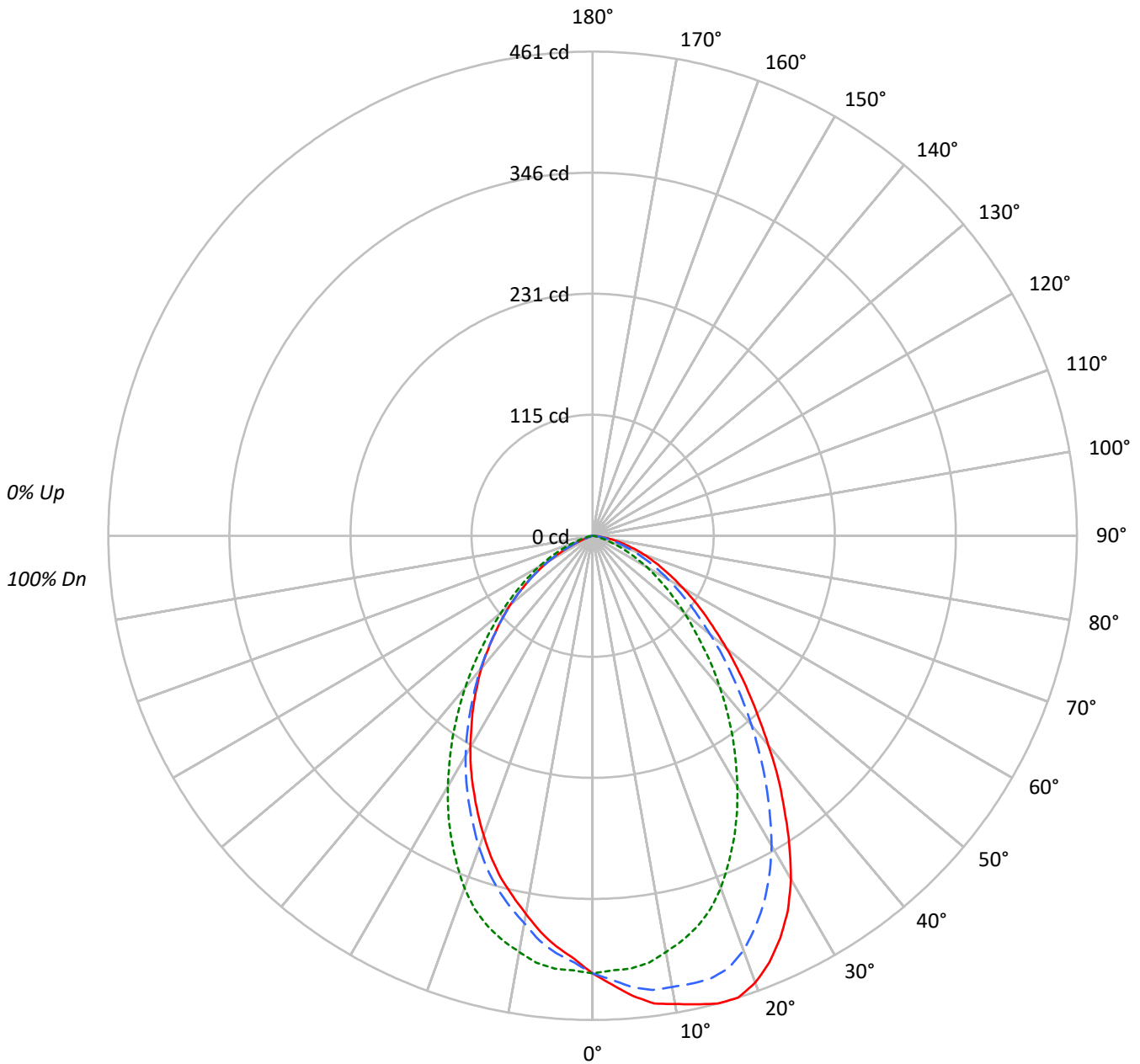
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89	89	89	89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78	78	78	78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69	69	69	69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61	61	61	61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55	55	55	55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49	49	49	49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44	44	44	44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40	40	40	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37	37	37	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34	34	34	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	51386	51386	51386
5°	54442	51223	48635
10°	56700	50400	45791
15°	58868	49189	43059
20°	59422	46834	39825
25°	57501	43306	36460
30°	53766	39239	33157
35°	47914	34889	29799
40°	41880	30352	26535
45°	36492	25747	22956
50°	31835	21837	19669
55°	27892	18085	15935
60°	24422	14629	11718
65°	21247	10886	6567
70°	18609	7069	2128
75°	15250	3670	524
80°	11365	1705	426
85°	6793	849	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	5.5
10°-20°	110.0	15.3
20°-30°	152.1	21.1
30°-40°	153.0	21.3
40°-50°	123.5	17.2
50°-60°	83.5	11.6
60°-70°	42.5	5.9
70°-80°	13.6	1.9
80°-90°	2.1	0.3
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°	301.5	41.9
0°-40°	454.5	63.2
0°-60°	661.4	91.9
0°-90°	719.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	719.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	417	417	417	417	417	
5°	440	431	414	399	393	42
15°	461	436	385	348	337	130
25°	422	386	318	279	268	193
35°	318	288	232	203	198	199
45°	209	187	148	132	132	162
55°	130	112	84	74	74	117
65°	73	59	37	24	22	73
75°	32	22	8	2	1	35
85°	5	2	1	1	1	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6	416.6
2.5°	427.9	425.5	423.1	419.0	414.2	409.5	406.5	404.1	403.0
5°	439.7	436.8	431.4	422.5	413.7	405.4	398.9	394.7	392.8
7.5°	449.2	445.1	436.2	423.7	410.0	397.0	388.7	382.8	380.4
10°	452.7	448.0	436.2	419.6	402.4	386.4	374.5	368.6	365.6
12.5°	456.9	451.6	436.8	416.1	394.7	375.7	362.1	354.4	351.4
15°	461.0	453.9	436.2	410.7	385.2	363.2	348.5	340.7	337.2
17.5°	461.0	452.7	431.4	401.8	372.7	349.6	333.0	324.1	321.1
20°	452.7	443.3	420.1	387.6	356.8	331.8	315.8	306.9	303.4
22.5°	439.7	429.0	404.1	370.4	337.8	313.5	297.5	289.2	285.6
25°	422.5	411.8	385.8	350.8	318.2	293.9	279.2	271.4	267.9
27.5°	402.4	390.6	364.4	329.5	297.5	274.4	260.7	253.7	250.7
30°	377.5	366.2	340.7	306.3	275.5	254.2	241.8	235.2	232.8
32.5°	348.5	339.0	314.1	282.1	253.1	233.5	222.3	216.9	214.5
35°	318.2	309.3	287.5	257.8	231.7	213.4	202.7	199.1	197.9
37.5°	289.7	282.1	260.7	233.5	209.7	193.8	184.2	182.0	180.7
40°	260.1	254.8	235.2	210.4	188.5	174.2	166.5	164.8	164.8
42.5°	233.5	227.6	210.4	187.9	168.3	154.1	148.7	146.9	147.6
45°	209.2	203.2	187.3	166.5	147.6	135.6	131.6	131.6	131.6
47.5°	186.6	181.3	166.5	145.2	129.7	120.3	116.2	116.2	116.8
50°	165.9	162.4	145.8	127.5	113.8	104.9	102.0	101.3	102.5
52.5°	146.3	142.2	127.5	110.8	97.8	90.7	87.7	87.1	87.7
55°	129.7	125.1	112.0	96.0	84.1	77.0	73.5	72.8	74.1
57.5°	113.8	110.3	96.6	82.4	71.1	64.0	61.0	59.9	60.4
60°	99.0	95.4	83.0	69.3	59.3	52.1	48.0	46.8	47.5
62.5°	85.4	82.4	70.6	57.5	47.5	40.9	36.8	33.8	34.9
65°	72.8	69.9	59.3	46.2	37.3	30.3	24.2	22.0	22.5
67.5°	62.2	58.7	48.6	36.8	27.9	20.1	13.7	12.4	12.4
70°	51.6	48.0	39.1	28.4	19.6	10.7	5.9	5.9	5.9
72.5°	41.5	38.5	30.3	21.3	12.4	4.8	2.4	2.4	2.4
75°	32.0	29.6	22.5	14.8	7.7	2.4	1.8	1.1	1.1
77.5°	23.7	21.3	16.0	10.1	4.8	1.1	1.1	1.1	1.1
80°	16.0	14.2	10.7	5.9	2.4	0.6	0.6	0.6	0.6
82.5°	9.4	8.3	5.9	3.0	1.1	0.6	0.6	0.6	0.6
85°	4.8	3.5	2.4	1.1	0.6	0.6	0.6	0.6	0.6
87.5°	1.1	0.6	0.6	0.6	0.0	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



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)