

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: P579697

Luminaire Tested: **HC410D010-HM40525827-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579697
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC410D010-HM40525827-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1008.5 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

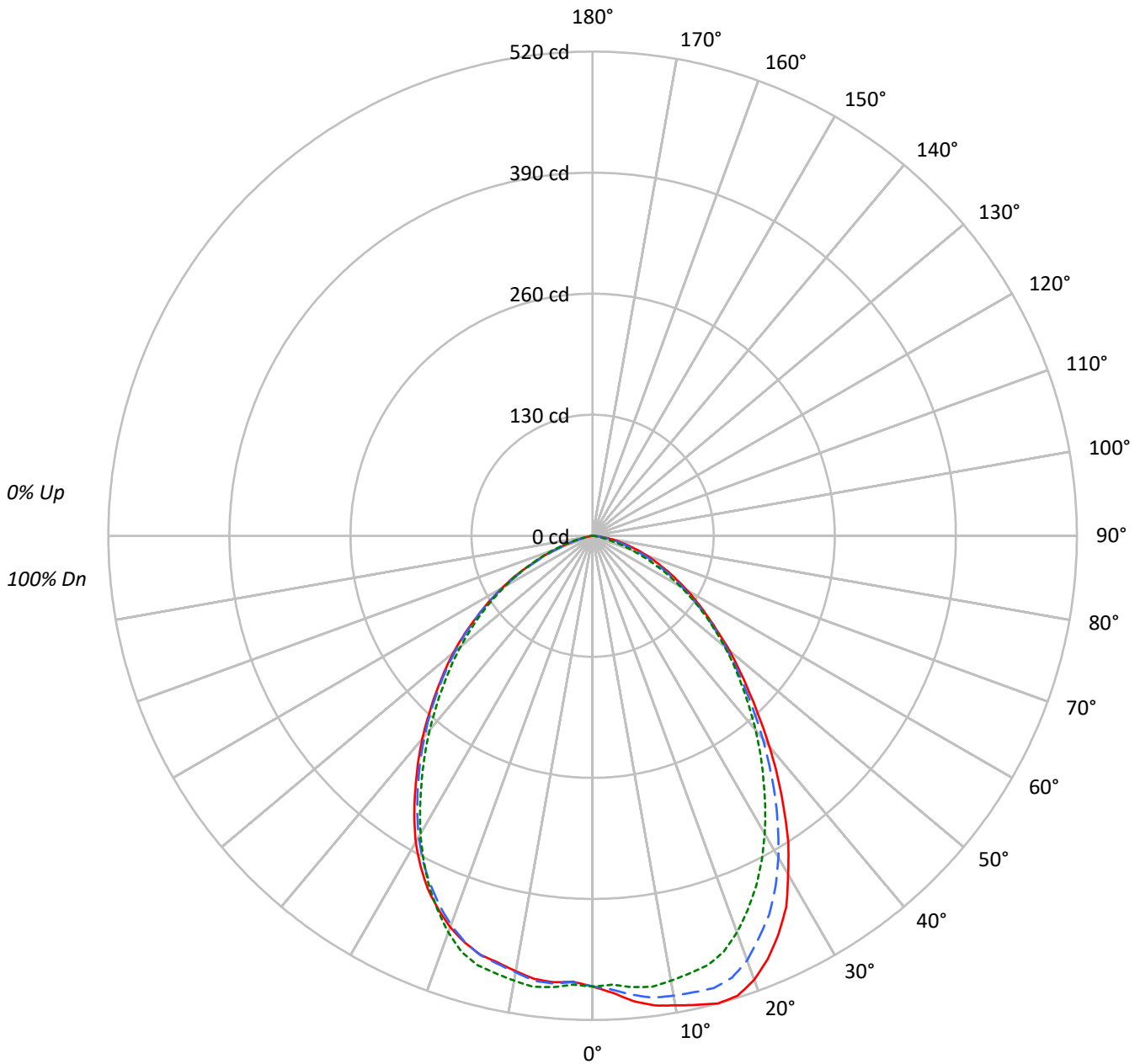
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67			67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46			46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41			41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37			37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	59699	59699	59699
5°	62107	60249	59605
10°	64140	60771	59468
15°	66402	60962	59468
20°	66602	59488	58713
25°	64265	56521	56970
30°	59791	52627	54122
35°	53861	48155	49931
40°	47500	43813	45809
45°	41533	39458	41411
50°	36766	35500	37400
55°	32343	31375	32623
60°	28888	26791	27605
65°	25363	21744	21393
70°	22179	16048	14606
75°	18396	9674	7816
80°	13922	3694	2344
85°	6510	991	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	4.6
10°-20°	136.2	13.5
20°-30°	197.3	19.6
30°-40°	208.1	20.6
40°-50°	180.1	17.9
50°-60°	133.4	13.2
60°-70°	76.9	7.6
70°-80°	26.9	2.7
80°-90°	2.8	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°	380.2	37.7
0°-40°	588.3	58.3
0°-60°	901.9	89.4
0°-90°	1008.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1008.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	484	484	484	484	484	
5°	502	495	487	483	481	48
15°	520	503	477	466	466	146
25°	472	449	415	413	419	216
35°	358	341	320	327	332	223
45°	238	232	226	235	237	185
55°	150	147	146	151	152	136
65°	87	82	74	71	73	87
75°	39	33	20	16	16	42
85°	5	3	1	1	1	7
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°	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0
2.5°	491.2	489.8	487.9	485.2	482.6	480.7	480.0	479.3	479.3
5°	501.6	499.0	495.0	489.8	486.6	484.6	482.6	481.4	481.4
7.5°	508.8	506.2	500.3	493.1	488.5	484.6	481.9	480.0	480.0
10°	512.1	508.8	501.6	492.4	485.2	480.0	476.1	474.8	474.8
12.5°	516.0	512.1	502.2	490.5	481.4	474.8	470.9	469.5	469.5
15°	520.0	515.3	502.9	489.2	477.4	469.5	466.2	465.7	465.7
17.5°	517.9	512.1	497.6	481.4	468.3	460.4	457.1	457.1	457.8
20°	507.4	501.6	485.2	466.9	453.2	447.3	444.7	446.0	447.3
22.5°	491.8	484.6	466.9	449.3	434.9	429.7	429.7	431.6	433.6
25°	472.2	465.7	448.6	429.0	415.3	411.4	412.6	415.9	418.6
27.5°	450.0	442.8	425.0	406.7	393.1	391.1	394.3	399.0	400.2
30°	419.8	414.0	399.0	381.2	369.5	368.8	373.4	376.7	380.0
32.5°	391.1	384.5	370.2	353.1	344.7	345.3	350.5	354.5	356.4
35°	357.7	351.9	341.4	327.6	319.8	321.1	326.9	330.9	331.6
37.5°	326.4	322.4	311.9	301.5	295.7	298.3	303.4	308.1	308.1
40°	295.0	291.7	283.8	275.3	272.1	275.3	280.5	284.5	284.5
42.5°	264.8	262.9	256.4	250.5	248.5	253.1	257.6	260.9	260.3
45°	238.1	236.1	231.5	226.9	226.2	230.9	234.8	236.7	237.4
47.5°	213.8	212.6	208.6	205.3	205.3	210.0	213.1	215.2	215.8
50°	191.6	190.3	187.1	184.5	185.0	189.7	192.3	194.3	194.9
52.5°	169.3	168.8	166.1	162.8	164.8	168.1	171.4	172.6	173.3
55°	150.4	150.4	147.1	144.5	145.9	149.1	151.0	151.7	151.7
57.5°	133.4	132.8	128.8	126.2	126.9	130.2	131.4	132.1	132.1
60°	117.1	116.4	112.4	108.6	108.6	110.5	111.2	111.9	111.9
62.5°	101.4	100.7	96.2	92.9	91.6	90.9	90.9	92.2	94.8
65°	86.9	86.4	81.7	76.5	74.5	72.6	70.7	71.9	73.3
67.5°	73.9	72.6	68.1	63.4	58.8	55.5	52.3	54.3	56.9
70°	61.5	60.2	55.0	49.7	44.5	39.3	36.6	39.3	40.5
72.5°	49.7	48.4	43.1	37.9	31.4	26.2	25.5	26.2	26.9
75°	38.6	37.9	32.7	26.9	20.3	16.4	16.4	16.4	16.4
77.5°	28.8	27.4	22.2	17.0	11.7	9.1	8.5	8.5	8.5
80°	19.6	18.3	13.8	9.8	5.2	3.9	3.9	3.3	3.3
82.5°	11.2	10.5	7.2	3.9	1.9	1.3	1.3	1.3	1.3
85°	4.6	3.9	2.6	1.3	0.7	0.7	0.7	0.7	0.7
87.5°	0.7	0.7	0.7	0.0	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)