

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: P579805

Luminaire Tested: **HC410D010-HM40525935-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579805
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-HM40525935-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1011.2 lumens
Efficiency: N/A
Efficacy: 102.1 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

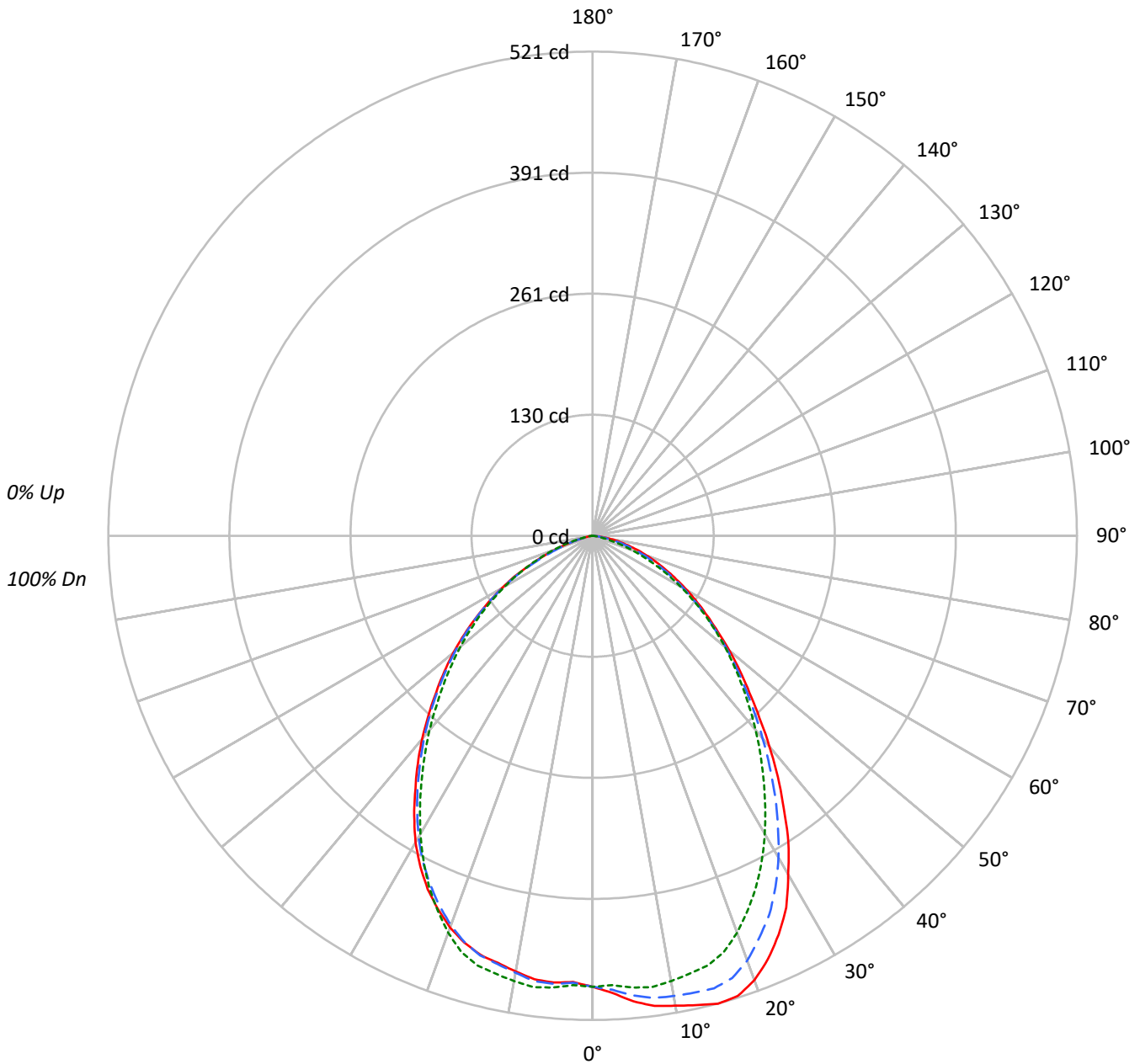
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	59847	59847	59847
5°	62267	60410	59754
10°	64315	60933	59618
15°	66568	61116	59609
20°	66786	59645	58871
25°	64428	56671	57120
30°	59948	52755	54265
35°	54012	48290	50052
40°	47629	43925	45922
45°	41621	39580	41533
50°	36862	35615	37496
55°	32429	31440	32730
60°	28937	26840	27654
65°	25450	21831	21423
70°	22251	16084	14642
75°	18443	9722	7816
80°	13993	3694	2344
85°	6510	991	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	4.6
10°-20°	136.6	13.5
20°-30°	197.8	19.6
30°-40°	208.7	20.6
40°-50°	180.6	17.9
50°-60°	133.8	13.2
60°-70°	77.1	7.6
70°-80°	26.9	2.7
80°-90°	2.9	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°	381.2	37.7
0°-40°	589.9	58.3
0°-60°	904.3	89.4
0°-90°	1011.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1011.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	485	485	485	485	485	
5°	503	496	488	484	483	48
15°	521	504	479	468	467	147
25°	473	450	416	414	420	217
35°	359	342	321	328	332	224
45°	239	232	227	236	238	185
55°	151	148	146	152	152	136
65°	87	82	75	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°	485.2	485.2	485.2	485.2	485.2	485.2	485.2	485.2	485.2
2.5°	492.4	491.2	489.1	486.5	483.9	481.9	481.3	480.6	480.6
5°	502.9	500.3	496.4	491.2	487.9	485.9	483.9	482.6	482.6
7.5°	510.2	507.5	501.6	494.3	489.8	485.9	483.3	481.3	481.3
10°	513.5	510.2	502.9	493.8	486.5	481.3	477.4	476.0	476.0
12.5°	517.3	513.5	503.6	491.7	482.6	476.0	472.2	470.8	470.8
15°	521.3	516.7	504.2	490.5	478.6	470.8	467.5	466.8	466.8
17.5°	519.3	513.5	499.0	482.6	469.5	461.6	458.4	458.4	459.0
20°	508.8	502.9	486.5	468.2	454.4	448.5	445.9	447.2	448.5
22.5°	493.1	485.9	468.2	450.4	436.1	430.8	430.8	432.8	434.7
25°	473.4	466.8	449.9	430.2	416.4	412.4	413.8	417.1	419.7
27.5°	451.1	443.9	426.2	407.9	394.1	392.2	395.3	400.0	401.3
30°	420.9	415.0	400.0	382.3	370.4	369.8	374.4	377.7	381.0
32.5°	392.2	385.6	371.1	354.0	345.6	346.2	351.4	355.4	357.3
35°	358.7	352.8	342.3	328.5	320.7	321.9	327.9	331.8	332.4
37.5°	327.2	323.3	312.7	302.3	296.3	299.0	304.3	308.9	308.9
40°	295.8	292.5	284.6	276.1	272.8	276.1	281.3	285.2	285.2
42.5°	265.6	263.6	257.1	251.2	249.2	253.8	258.3	261.6	260.9
45°	238.6	236.7	232.2	227.5	226.9	231.5	235.5	237.4	238.1
47.5°	214.4	213.1	209.2	205.9	205.9	210.5	213.7	215.8	216.3
50°	192.1	190.8	187.5	184.9	185.6	190.2	192.8	194.7	195.4
52.5°	169.8	169.2	166.6	163.3	165.2	168.5	171.8	173.1	173.8
55°	150.8	150.8	147.5	144.9	146.2	149.5	151.5	152.2	152.2
57.5°	133.7	133.1	129.2	126.5	127.2	130.5	131.8	132.5	132.5
60°	117.3	116.8	112.8	108.8	108.8	110.8	111.5	112.1	112.1
62.5°	101.6	100.9	96.4	93.1	91.8	91.2	91.2	92.4	95.0
65°	87.2	86.6	81.9	76.7	74.8	72.8	70.8	72.1	73.4
67.5°	74.1	72.8	68.2	63.6	59.1	55.8	52.5	54.4	57.0
70°	61.7	60.3	55.1	49.8	44.6	39.4	36.8	39.4	40.6
72.5°	49.8	48.5	43.2	38.0	31.5	26.2	25.6	26.2	26.9
75°	38.7	38.0	32.8	26.9	20.4	16.4	16.4	16.4	16.4
77.5°	28.9	27.5	22.3	17.1	11.8	9.2	8.5	8.5	8.5
80°	19.7	18.3	13.8	9.8	5.2	4.0	4.0	3.3	3.3
82.5°	11.2	10.5	7.2	4.0	1.9	1.4	1.4	1.4	1.4
85°	4.6	4.0	2.6	1.4	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)