

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: P579698

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579698
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC410D010-HM40525827-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1003.3 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

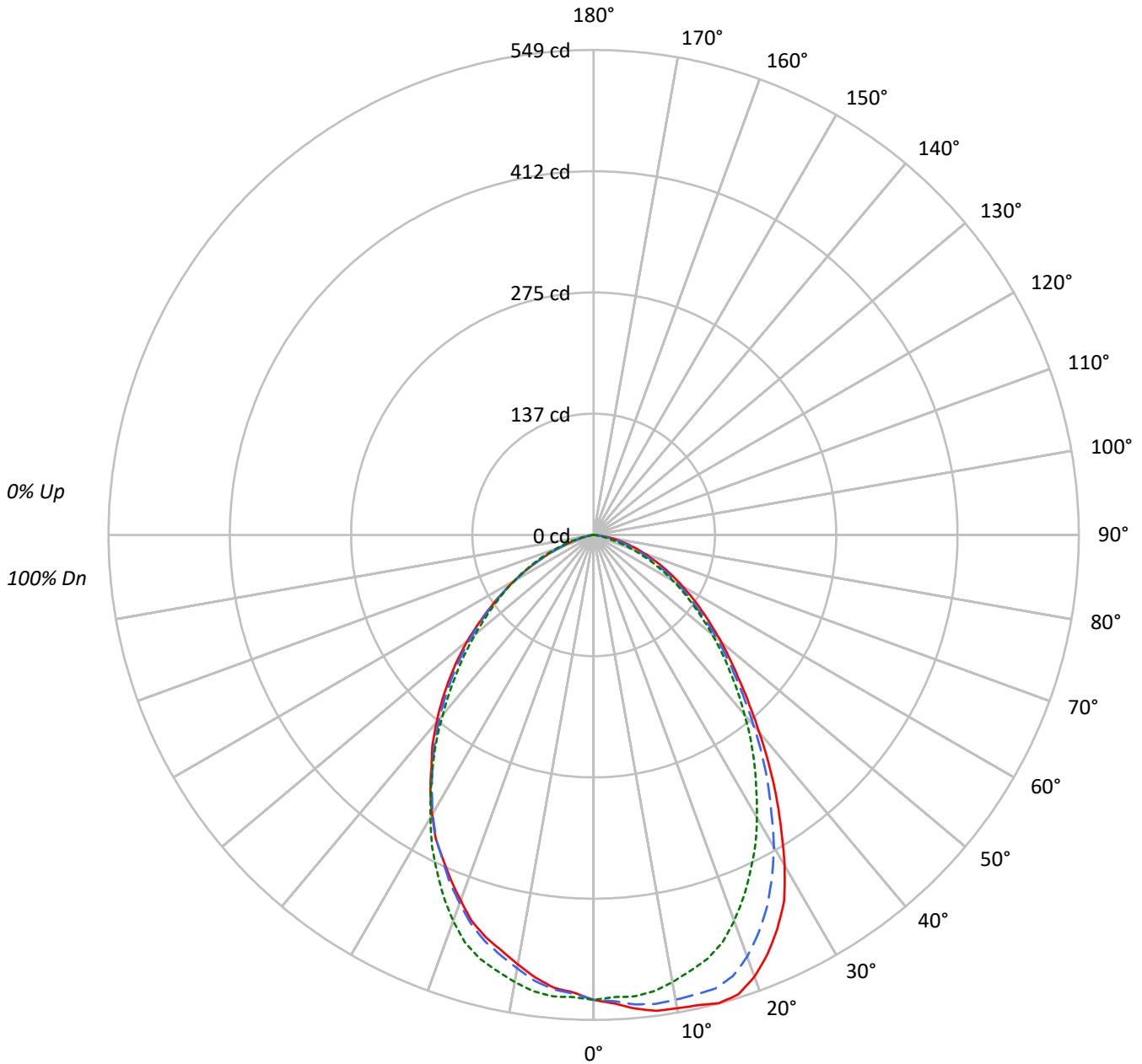
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	64917	64917	64917
5°	66638	64930	63716
10°	68135	64365	61835
15°	70054	63465	60209
20°	69857	61024	57768
25°	66919	57133	54997
30°	61557	52613	52057
35°	54148	47763	48155
40°	46856	42750	44521
45°	40714	37975	40260
50°	36133	33504	35769
55°	32063	29397	30666
60°	28542	25483	25483
65°	25363	21189	19876
70°	21927	16048	14173
75°	18396	10580	8721
80°	13922	5114	4617
85°	7359	1840	1840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.8	5.0
10°-20°	141.3	14.1
20°-30°	199.3	19.9
30°-40°	205.9	20.5
40°-50°	174.5	17.4
50°-60°	127.0	12.7
60°-70°	74.2	7.4
70°-80°	27.6	2.7
80°-90°	3.6	0.4
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°	390.5	38.9
0°-40°	596.3	59.4
0°-60°	897.9	89.5
0°-90°	1003.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	526	526	526	526	526	
5°	538	534	524	516	515	52
15°	549	532	497	476	472	154
25°	492	464	420	405	404	225
35°	360	344	317	318	320	225
45°	233	227	218	226	231	182
55°	149	142	137	141	143	134
65°	87	80	73	68	68	86
75°	39	32	22	18	18	41
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°	526.3	526.3	526.3	526.3	526.3	526.3	526.3	526.3	526.3
2.5°	530.9	529.6	528.3	526.3	523.7	521.8	519.8	518.5	518.5
5°	538.2	536.1	533.5	528.9	524.4	520.5	516.5	514.6	514.6
7.5°	543.4	540.8	535.5	528.9	521.1	515.3	509.4	506.8	505.4
10°	544.0	541.3	534.2	524.4	513.9	504.8	498.2	494.3	493.7
12.5°	545.3	542.0	532.9	519.2	505.4	494.3	487.1	483.2	481.9
15°	548.6	544.0	531.6	513.9	497.0	483.9	476.0	472.7	471.5
17.5°	545.3	538.7	523.7	502.8	483.9	469.4	461.6	458.4	458.4
20°	532.2	525.6	508.0	485.1	464.9	451.1	443.4	441.3	440.1
22.5°	513.9	506.8	487.7	463.6	443.4	430.8	425.6	423.0	422.4
25°	491.7	484.6	464.2	439.4	419.8	409.3	404.8	404.8	404.1
27.5°	466.8	457.7	436.8	415.1	396.3	388.4	386.5	386.5	387.0
30°	432.2	425.6	408.0	387.0	369.4	364.2	364.2	365.5	365.5
32.5°	394.9	390.3	374.6	356.3	342.7	339.4	340.6	343.2	343.9
35°	359.6	354.4	343.9	327.6	317.2	315.8	317.7	319.8	319.8
37.5°	325.0	319.8	312.5	299.5	291.7	292.2	294.9	297.5	299.5
40°	291.0	287.0	281.8	271.3	265.5	268.1	271.3	273.9	276.5
42.5°	260.9	257.0	253.1	245.2	241.3	244.6	248.4	251.0	253.7
45°	233.4	230.8	226.9	220.3	217.7	221.0	225.6	228.2	230.8
47.5°	209.8	208.6	203.4	197.4	196.2	199.4	203.4	206.7	208.6
50°	188.3	186.4	181.7	175.9	174.6	179.8	182.4	184.4	186.4
52.5°	167.4	165.5	160.2	155.0	155.0	158.9	160.8	161.5	163.4
55°	149.1	147.1	141.9	137.9	136.7	140.0	141.2	141.2	142.6
57.5°	132.1	130.1	124.8	120.3	119.6	121.7	121.7	121.7	122.2
60°	115.7	113.8	108.6	104.6	103.3	104.0	103.3	102.6	103.3
62.5°	100.7	98.8	93.5	88.9	87.6	87.6	85.7	85.0	85.7
65°	86.9	83.6	79.8	75.2	72.6	70.7	68.1	68.1	68.1
67.5°	73.3	70.7	66.0	61.5	58.2	55.0	51.0	52.3	52.9
70°	60.8	58.8	53.6	49.0	44.5	40.5	37.3	38.6	39.3
72.5°	49.7	47.1	42.4	37.3	33.3	28.1	26.2	27.4	27.4
75°	38.6	36.0	32.1	26.9	22.2	17.6	17.6	18.3	18.3
77.5°	28.8	26.2	22.2	17.6	13.8	10.5	11.2	11.2	11.2
80°	19.6	17.6	14.3	10.5	7.2	5.9	5.9	5.9	6.5
82.5°	11.2	9.8	7.9	5.2	3.3	3.3	3.3	3.3	3.3
85°	5.2	3.9	3.3	1.9	1.3	1.3	1.3	1.3	1.3
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)