

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: P581549

Luminaire Tested: **HC407D010-HM40525940-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC407D010-HM40525940-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 832.6 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

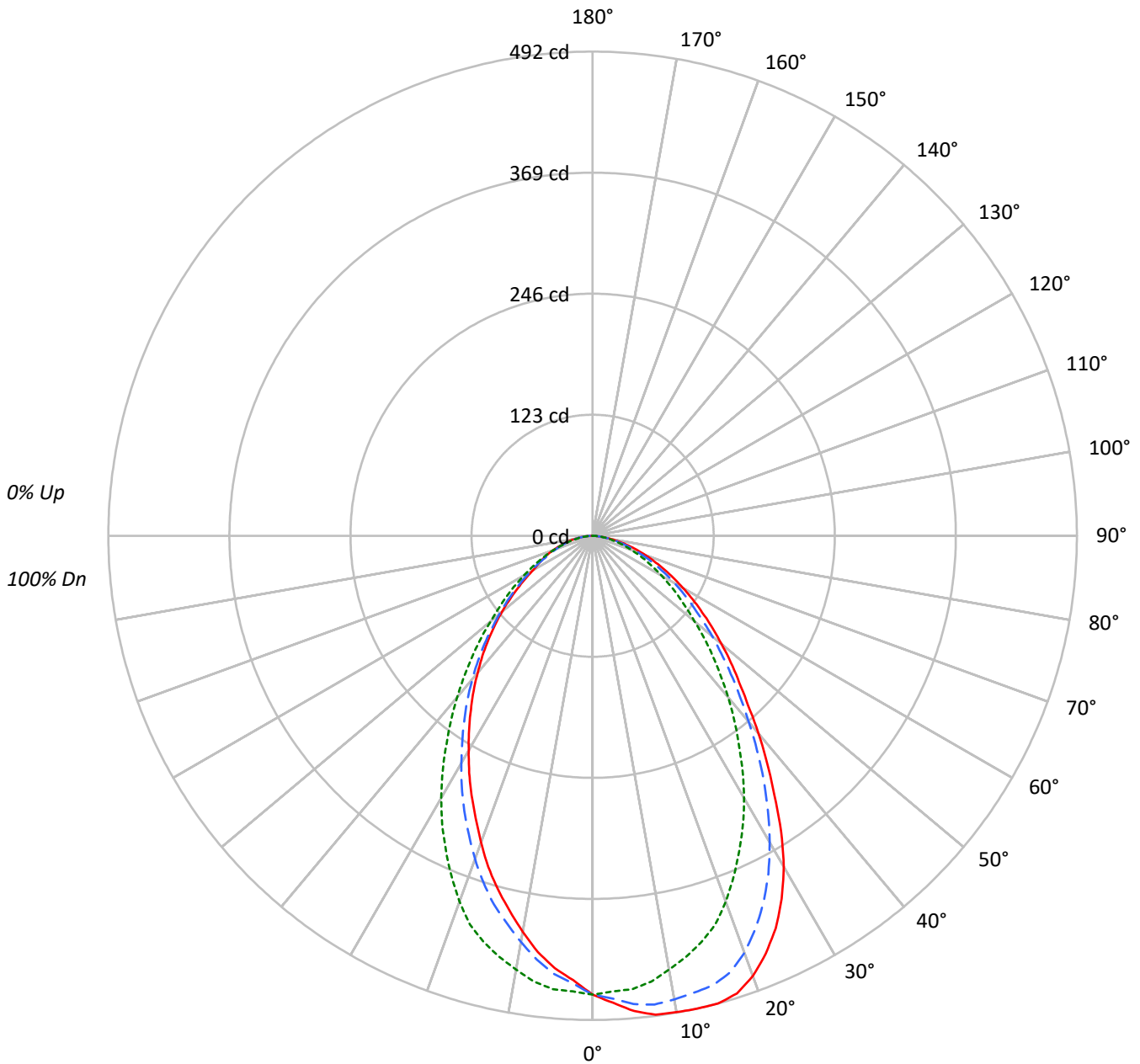
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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																			
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	57504	57504	57504
5°	60039	57253	54603
10°	61560	56061	51189
15°	62840	54565	47490
20°	62494	51914	43487
25°	59883	48001	39577
30°	55319	43825	35849
35°	48471	38984	32449
40°	42218	34441	29224
45°	36736	30056	26131
50°	32737	25905	23065
55°	29246	22752	19935
60°	26100	19908	17170
65°	23203	17424	16344
70°	20340	15039	15219
75°	17252	12820	14106
80°	13283	10939	12857
85°	7784	8491	10756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	5.2
10°-20°	120.6	14.5
20°-30°	164.7	19.8
30°-40°	165.4	19.9
40°-50°	136.8	16.4
50°-60°	99.1	11.9
60°-70°	62.8	7.5
70°-80°	31.8	3.8
80°-90°	7.8	0.9
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°	329.0	39.5
0°-40°	494.3	59.4
0°-60°	730.3	87.7
0°-90°	832.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	832.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	466	466	466	466	466	
5°	485	478	462	447	441	46
15°	492	473	427	388	372	138
25°	440	411	353	308	291	201
35°	322	303	259	227	216	202
45°	211	199	172	155	150	164
55°	136	124	106	96	93	122
65°	80	71	60	54	56	79
75°	36	31	27	28	30	39
85°	6	6	6	7	8	8
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°	466.2	466.2	466.2	466.2	466.2	466.2	466.2	466.2	466.2
2.5°	475.0	473.4	470.7	467.4	463.5	459.1	455.3	453.0	452.0
5°	484.9	482.7	477.7	470.7	462.4	454.2	447.0	442.7	441.0
7.5°	490.9	487.6	480.5	469.5	456.9	444.8	434.5	428.5	426.7
10°	491.5	487.6	478.3	463.5	447.6	431.6	419.1	410.2	408.7
12.5°	492.1	487.1	475.6	458.0	438.2	418.6	403.2	392.7	390.0
15°	492.1	487.1	472.8	452.0	427.3	404.8	387.8	375.8	371.9
17.5°	487.6	482.2	465.1	441.0	414.1	388.9	369.2	356.5	352.7
20°	476.1	470.1	450.9	424.6	395.5	369.2	349.4	336.3	331.3
22.5°	459.6	452.6	432.2	403.8	374.6	347.8	328.5	314.9	310.4
25°	440.0	432.8	410.8	382.8	352.7	327.5	308.3	295.7	290.8
27.5°	415.8	408.1	386.7	358.7	330.8	305.6	288.0	276.4	271.5
30°	388.4	380.1	359.8	333.0	307.7	283.6	266.6	257.3	251.7
32.5°	356.5	349.4	331.3	307.1	283.6	260.6	246.3	238.1	233.6
35°	321.9	318.2	302.8	282.0	258.9	239.7	227.1	219.4	215.5
37.5°	291.2	287.5	274.3	256.7	236.4	218.8	208.5	201.9	198.6
40°	262.2	258.9	246.3	231.5	213.9	198.6	189.8	184.8	181.5
42.5°	233.6	232.0	221.6	207.9	192.5	179.3	172.3	168.4	165.7
45°	210.6	208.5	198.6	185.4	172.3	161.3	155.2	152.5	149.8
47.5°	190.4	187.5	177.2	165.7	153.6	143.7	138.3	135.5	134.4
50°	170.6	167.9	158.5	147.0	135.0	127.8	123.5	120.6	120.2
52.5°	153.1	150.3	139.9	128.9	119.6	113.6	109.7	107.0	105.8
55°	136.0	132.7	123.9	113.6	105.8	100.4	96.5	93.8	92.7
57.5°	120.6	117.4	109.7	99.8	92.7	87.7	84.4	81.7	80.7
60°	105.8	103.1	96.0	86.7	80.7	76.2	72.9	70.8	69.6
62.5°	92.2	90.0	82.8	74.7	69.6	65.8	63.0	60.9	62.0
65°	79.5	77.4	70.8	63.6	59.7	56.0	53.7	53.7	56.0
67.5°	67.5	65.3	59.7	53.7	50.4	47.7	46.1	47.7	49.4
70°	56.4	54.3	49.4	44.4	41.7	39.5	39.5	41.2	42.2
72.5°	46.1	43.9	40.1	36.2	34.0	32.3	34.0	35.1	36.2
75°	36.2	34.6	31.3	28.6	26.9	26.3	28.0	29.0	29.6
77.5°	26.9	25.8	23.6	21.4	20.3	20.8	22.5	23.0	23.6
80°	18.7	18.1	16.5	15.4	15.4	15.9	17.0	17.5	18.1
82.5°	11.5	11.5	10.5	9.9	10.5	11.5	12.1	12.6	12.6
85°	5.5	6.0	5.5	5.5	6.0	7.2	7.2	7.6	7.6
87.5°	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7	3.3
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)