

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: P581008

Luminaire Tested: **HC405D010-HM40525830-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581008  
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: HC405D010-HM40525830-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 525.0 lumens  
Efficiency: N/A  
Efficacy: 87.5 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

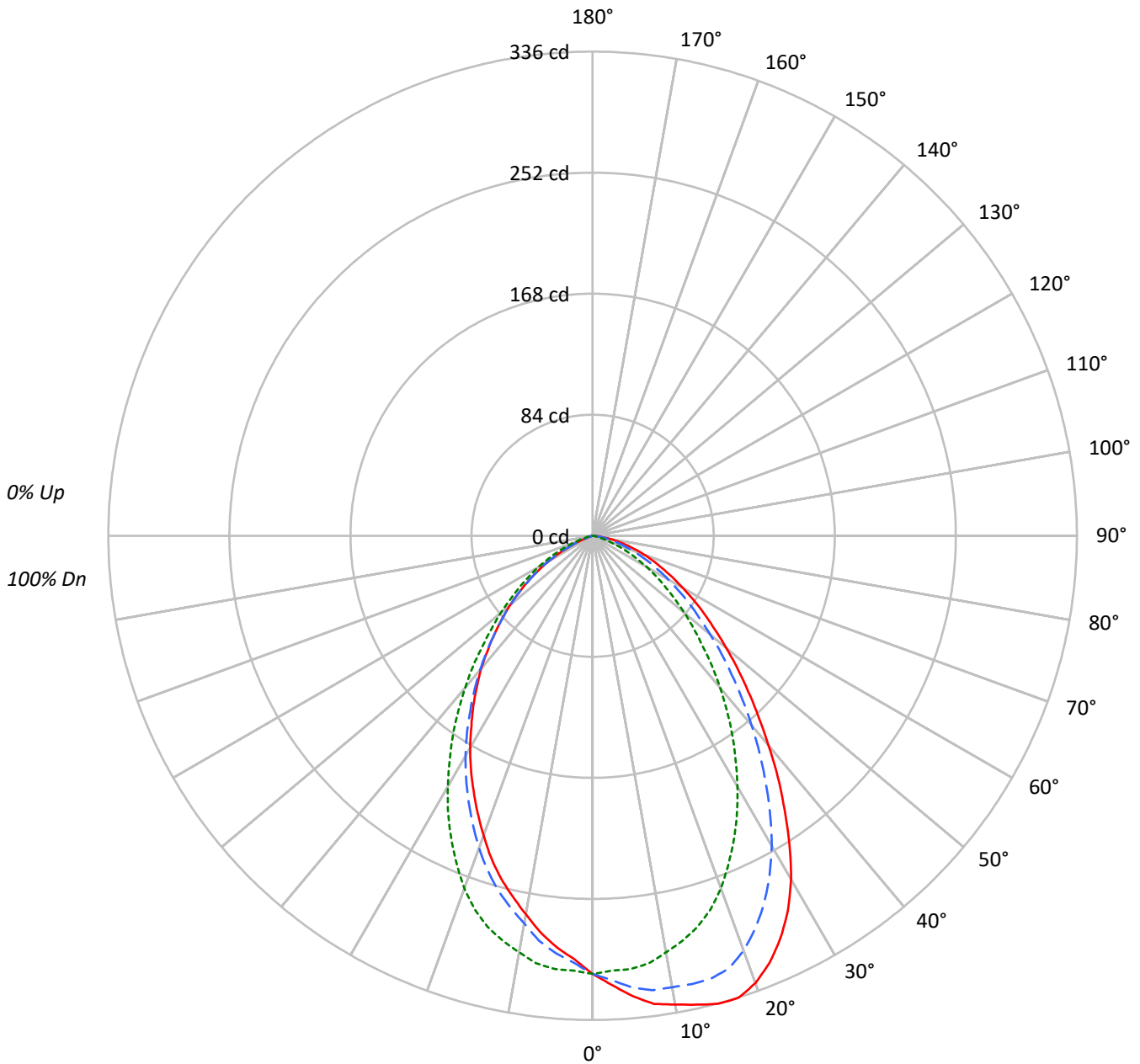
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	37497	37497	37497
5°	39720	37368	35486
10°	41370	36760	33404
15°	42944	35883	31413
20°	43356	34167	29048
25°	41959	31588	26593
30°	39224	28628	24198
35°	34949	25448	21743
40°	30561	22124	19354
45°	26602	18769	16746
50°	23219	15927	14354
55°	20365	13204	11613
60°	17811	10657	8536
65°	15498	7939	4816
70°	13560	5157	1551
75°	11152	2716	429
80°	8311	1208	355
85°	4812	708	708



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.7	5.5
10°-20°	80.3	15.3
20°-30°	111.0	21.1
30°-40°	111.6	21.3
40°-50°	90.1	17.2
50°-60°	60.9	11.6
60°-70°	31.0	5.9
70°-80°	9.9	1.9
80°-90°	1.5	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°	219.9	41.9
0°-40°	331.6	63.2
0°-60°	482.5	91.9
0°-90°	525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	525.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	304	304	304	304	304	
5°	321	315	302	291	287	31
15°	336	318	281	254	246	95
25°	308	282	232	204	195	141
35°	232	210	169	148	144	145
45°	152	137	108	96	96	118
55°	95	82	61	54	54	85
65°	53	43	27	18	16	53
75°	23	16	6	1	1	25
85°	3	2	0	0	0	5
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°	304.0	304.0	304.0	304.0	304.0	304.0	304.0	304.0	304.0
2.5°	312.1	310.4	308.6	305.7	302.1	298.7	296.6	294.9	294.0
5°	320.8	318.6	314.7	308.3	301.8	295.7	290.9	287.9	286.6
7.5°	327.7	324.6	318.1	309.1	299.2	289.7	283.6	279.2	277.5
10°	330.3	326.8	318.1	306.1	293.5	281.8	273.2	268.9	266.7
12.5°	333.3	329.4	318.6	303.5	287.9	274.1	264.1	258.6	256.4
15°	336.3	331.2	318.1	299.5	281.0	265.0	254.2	248.6	246.0
17.5°	336.3	330.3	314.7	293.1	271.9	255.0	243.0	236.4	234.3
20°	330.3	323.4	306.4	282.7	260.3	242.1	230.4	223.9	221.3
22.5°	320.8	313.0	294.9	270.1	246.4	228.7	217.0	211.0	208.4
25°	308.3	300.4	281.5	255.9	232.1	214.4	203.6	197.9	195.4
27.5°	293.5	284.9	265.8	240.4	217.0	200.1	190.2	185.0	182.8
30°	275.4	267.2	248.6	223.5	201.0	185.5	176.4	171.6	169.9
32.5°	254.2	247.3	229.2	205.8	184.6	170.4	162.1	158.2	156.5
35°	232.1	225.6	209.6	188.1	169.0	155.6	147.9	145.3	144.4
37.5°	211.3	205.8	190.2	170.4	153.0	141.3	134.5	132.7	131.9
40°	189.8	185.9	171.6	153.5	137.4	127.1	121.4	120.2	120.2
42.5°	170.4	166.1	153.5	137.0	122.8	112.4	108.5	107.3	107.6
45°	152.5	148.2	136.7	121.4	107.6	99.0	96.0	96.0	96.0
47.5°	136.2	132.2	121.4	105.9	94.7	87.7	84.8	84.8	85.1
50°	121.0	118.5	106.3	93.0	83.0	76.5	74.3	73.9	74.8
52.5°	106.8	103.7	93.0	80.8	71.3	66.2	64.0	63.6	64.0
55°	94.7	91.3	81.7	70.0	61.4	56.2	53.6	53.1	54.0
57.5°	83.0	80.4	70.5	60.0	51.9	46.6	44.5	43.7	44.0
60°	72.2	69.6	60.5	50.6	43.2	38.0	35.1	34.2	34.6
62.5°	62.2	60.0	51.4	41.9	34.6	29.9	26.8	24.6	25.5
65°	53.1	51.0	43.2	33.7	27.2	22.0	17.7	16.0	16.5
67.5°	45.4	42.8	35.4	26.8	20.3	14.6	10.0	9.1	9.1
70°	37.6	35.1	28.5	20.8	14.3	7.8	4.3	4.3	4.3
72.5°	30.3	28.1	22.0	15.5	9.1	3.4	1.7	1.7	1.7
75°	23.4	21.6	16.5	10.8	5.7	1.7	1.2	0.9	0.9
77.5°	17.3	15.5	11.7	7.4	3.4	0.9	0.9	0.9	0.9
80°	11.7	10.3	7.8	4.3	1.7	0.5	0.5	0.5	0.5
82.5°	6.9	6.0	4.3	2.2	0.9	0.5	0.5	0.5	0.5
85°	3.4	2.6	1.7	0.9	0.5	0.5	0.5	0.5	0.5
87.5°	0.9	0.5	0.5	0.5	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



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)