

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: P580992

Luminaire Tested: **HC405D010-HM40525827-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580992  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC405D010-HM40525827-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 603.2 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

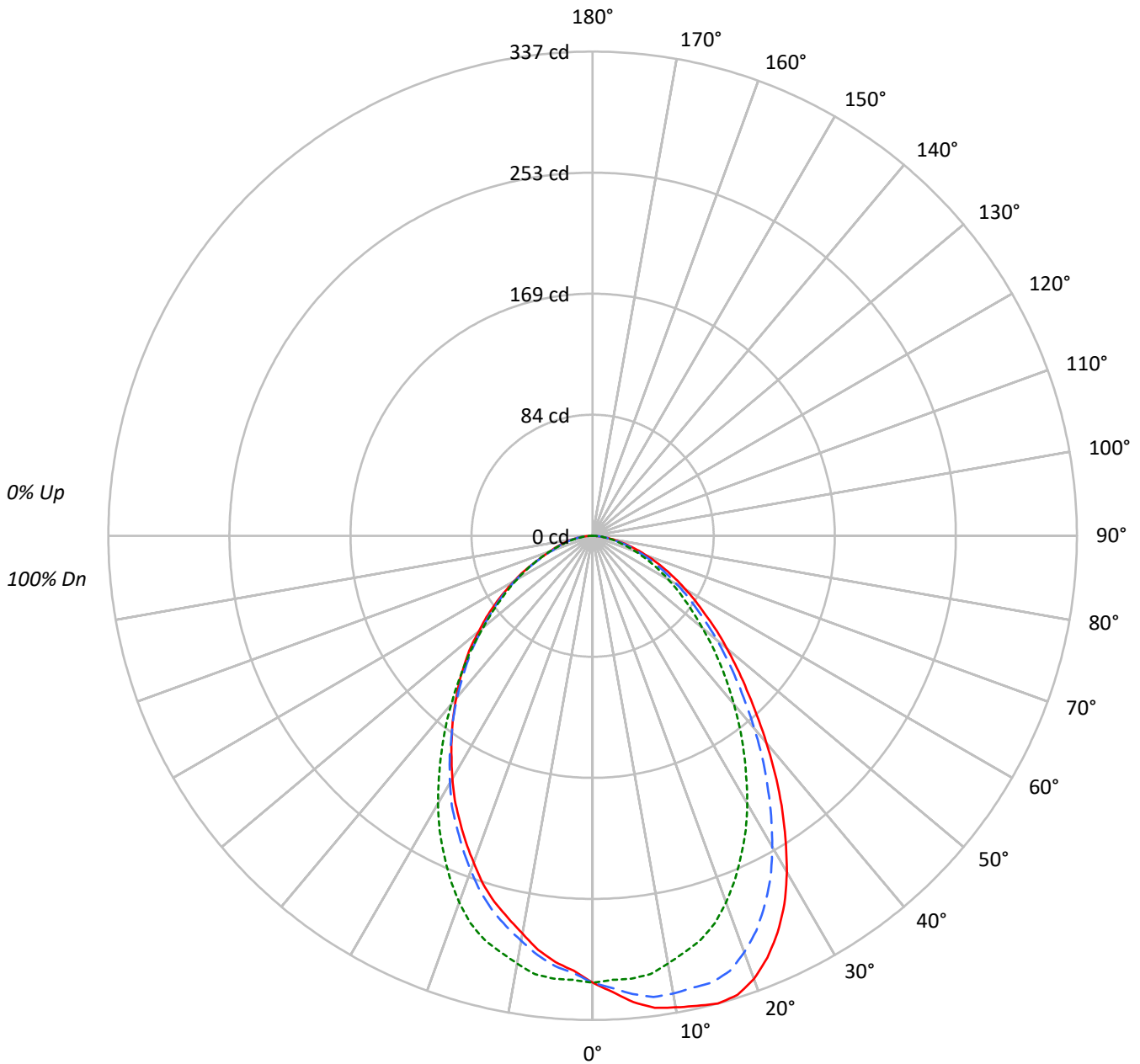
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

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

	0°	90°	180°
0°	38360	38360	38360
5°	40352	38309	36873
10°	41745	37863	35207
15°	43034	37173	33699
20°	43080	35638	31765
25°	41455	33317	29778
30°	38512	30650	27802
35°	34512	27601	25734
40°	30287	24619	23798
45°	26462	21805	21944
50°	23372	19074	19784
55°	20601	16924	17763
60°	18428	14974	15566
65°	16344	13192	13192
70°	14245	11216	11216
75°	12153	9531	10675
80°	9660	8524	9660
85°	6227	7359	9057



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.5	4.9
10°-20°	83.0	13.8
20°-30°	116.3	19.3
30°-40°	119.8	19.9
40°-50°	102.0	16.9
50°-60°	75.6	12.5
60°-70°	47.4	7.9
70°-80°	23.5	3.9
80°-90°	6.2	1.0
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°	228.7	37.9
0°-40°	348.5	57.8
0°-60°	526.1	87.2
0°-90°	603.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	603.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	311	311	311	311	311	
5°	326	320	309	301	298	31
15°	337	322	291	270	264	95
25°	305	284	245	224	219	139
35°	229	212	183	171	171	143
45°	152	141	125	123	126	118
55°	96	88	79	80	83	87
65°	56	50	45	44	45	56
75°	26	23	20	22	22	27
85°	4	4	5	6	6	6
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°	311.0	311.0	311.0	311.0	311.0	311.0	311.0	311.0	311.0
2.5°	317.8	316.7	315.1	312.2	309.4	307.0	304.6	303.5	303.0
5°	325.9	323.5	320.2	315.1	309.4	304.6	300.7	298.6	297.8
7.5°	331.4	329.0	323.8	315.9	307.8	300.7	294.3	291.5	290.7
10°	333.3	330.6	323.5	312.7	302.3	293.5	286.2	282.7	281.1
12.5°	335.1	331.4	322.2	309.4	296.7	285.9	278.3	273.5	272.3
15°	337.0	333.0	321.8	306.2	291.1	278.3	269.9	265.5	263.9
17.5°	335.1	330.6	317.5	299.9	282.7	268.8	259.6	255.5	253.9
20°	328.2	323.5	308.6	289.9	271.5	257.2	248.0	243.9	242.0
22.5°	317.8	312.7	297.5	277.5	258.8	244.8	236.0	232.0	230.7
25°	304.6	299.4	283.5	263.1	244.8	231.2	223.6	220.0	218.8
27.5°	289.1	283.9	268.3	248.3	230.7	218.0	212.0	208.4	207.6
30°	270.4	265.1	249.9	231.5	215.2	203.3	198.4	195.7	195.2
32.5°	249.6	245.2	231.2	214.4	198.9	188.9	185.2	183.3	182.8
35°	229.2	224.4	212.0	196.8	183.3	174.4	171.3	170.9	170.9
37.5°	208.4	203.6	193.6	179.7	168.1	160.1	158.9	159.4	159.4
40°	188.1	183.6	174.9	163.3	152.9	147.0	146.5	147.3	147.8
42.5°	168.9	165.3	157.3	147.3	138.6	133.8	134.2	135.7	137.0
45°	151.7	148.6	141.3	132.6	125.0	121.3	122.6	124.6	125.8
47.5°	136.2	133.4	126.6	118.6	112.3	109.8	111.5	113.8	115.4
50°	121.8	119.4	113.0	104.6	99.4	97.8	99.8	102.3	103.1
52.5°	109.0	106.6	99.8	92.6	88.6	87.8	89.9	91.8	93.1
55°	95.8	93.9	88.2	81.8	78.7	78.3	80.2	81.8	82.6
57.5°	85.0	83.1	77.9	72.3	69.5	69.1	71.1	72.3	72.6
60°	74.7	72.6	67.9	62.7	60.7	60.7	61.9	62.7	63.1
62.5°	65.0	63.1	58.7	54.3	52.7	52.7	52.7	53.1	54.3
65°	56.0	54.3	50.3	46.3	45.2	44.3	44.3	44.3	45.2
67.5°	47.6	46.0	42.7	39.2	37.9	36.8	36.3	37.1	37.1
70°	39.5	38.4	35.2	32.3	31.1	30.0	29.5	31.1	31.1
72.5°	32.3	31.1	29.2	26.3	25.2	24.7	25.5	26.3	26.8
75°	25.5	24.4	22.8	21.1	20.0	20.3	21.6	21.9	22.4
77.5°	19.2	18.7	17.1	16.0	16.0	16.3	17.1	17.9	18.4
80°	13.6	13.2	12.4	11.6	12.0	12.8	13.2	14.0	13.6
82.5°	8.4	8.4	7.9	7.9	8.4	9.2	9.5	10.0	10.3
85°	4.4	4.4	4.4	4.8	5.2	5.6	6.0	6.4	6.4
87.5°	1.2	1.6	1.6	2.0	2.4	2.4	2.8	2.8	2.8
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)