

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: P581118

Luminaire Tested: **HC405D010-HM40525940-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581118  
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-HM40525940-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 626.7 lumens  
Efficiency: N/A  
Efficacy: 104.5 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

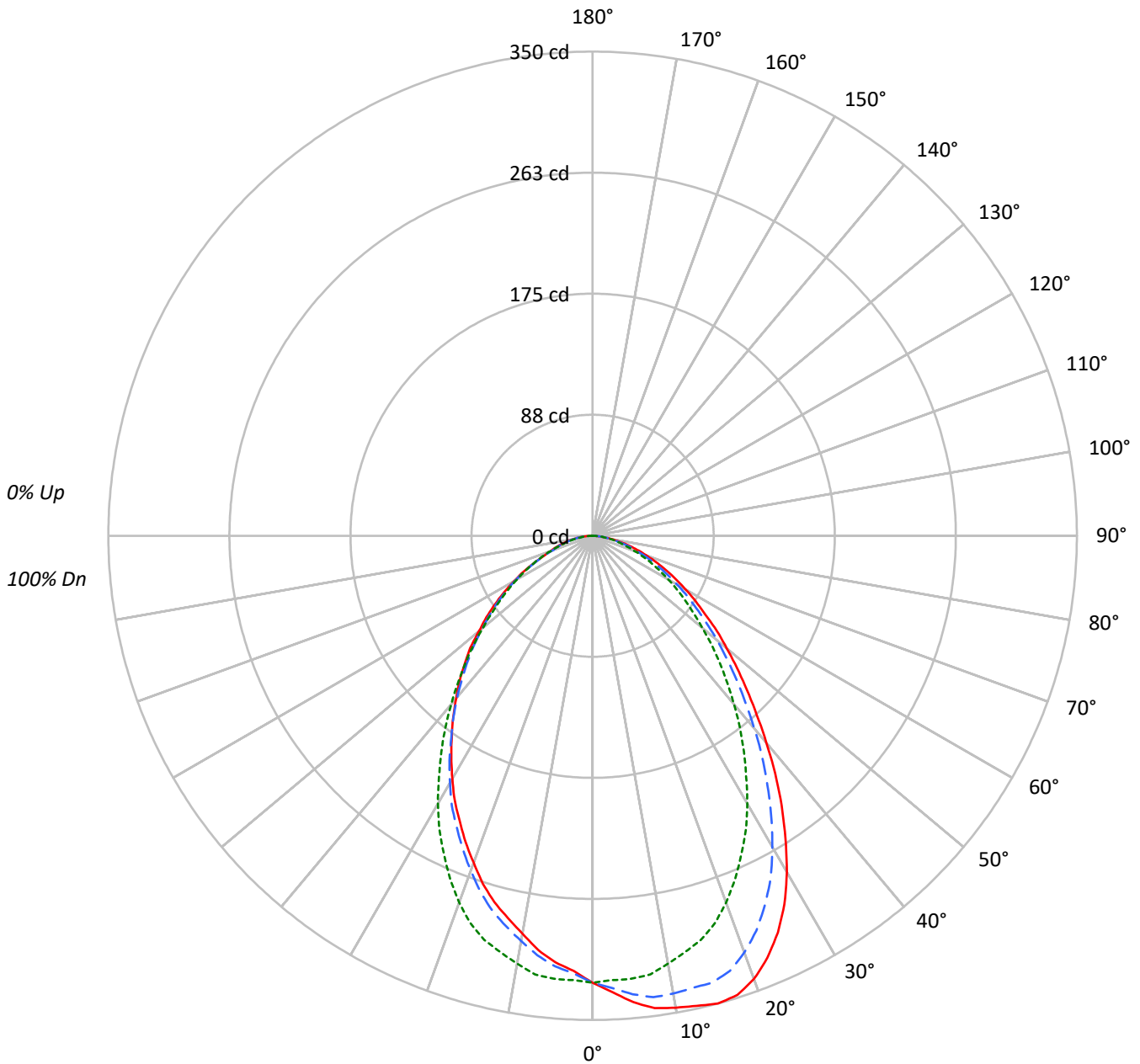
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	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	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

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

	0°	90°	180°
0°	39853	39853	39853
5°	41912	39807	38321
10°	43386	39341	36573
15°	44707	38616	35014
20°	44760	37016	32999
25°	43088	34596	30935
30°	39994	31847	28884
35°	35852	28685	26727
40°	31446	25585	24716
45°	27509	22642	22781
50°	24293	19822	20532
55°	21397	17569	18472
60°	19119	15566	16158
65°	16957	13688	13688
70°	14822	11649	11649
75°	12677	9913	11104
80°	10016	8879	10016
85°	6369	7642	9341



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.6	4.9
10°-20°	86.2	13.8
20°-30°	120.8	19.3
30°-40°	124.5	19.9
40°-50°	106.0	16.9
50°-60°	78.5	12.5
60°-70°	49.3	7.9
70°-80°	24.5	3.9
80°-90°	6.4	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°	237.6	37.9
0°-40°	362.1	57.8
0°-60°	546.5	87.2
0°-90°	626.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	626.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	323	323	323	323	323	
5°	338	333	322	312	310	33
15°	350	334	302	280	274	98
25°	317	294	254	232	227	145
35°	238	220	190	178	178	148
45°	158	147	130	127	131	122
55°	100	92	82	83	86	90
65°	58	52	47	46	47	58
75°	27	24	21	22	23	28
85°	4	4	5	6	7	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°	323.1	323.1	323.1	323.1	323.1	323.1	323.1	323.1	323.1
2.5°	330.2	328.9	327.3	324.4	321.5	319.0	316.6	315.3	314.8
5°	338.5	336.0	332.7	327.3	321.5	316.6	312.4	310.3	309.5
7.5°	344.4	341.9	336.4	328.1	319.8	312.4	305.8	302.8	302.0
10°	346.4	343.5	336.0	324.8	314.1	304.9	297.5	293.7	292.0
12.5°	348.0	344.4	334.7	321.5	308.3	297.0	289.1	284.2	283.0
15°	350.1	345.9	334.4	318.1	302.4	289.1	280.5	275.8	274.2
17.5°	348.0	343.5	329.8	311.6	293.7	279.2	269.7	265.5	263.8
20°	341.0	336.0	320.6	301.1	282.0	267.2	257.6	253.4	251.4
22.5°	330.2	324.8	309.1	288.3	268.8	254.2	245.2	241.0	239.8
25°	316.6	311.1	294.5	273.4	254.2	240.2	232.3	228.6	227.3
27.5°	300.3	295.0	278.8	258.0	239.8	226.5	220.3	216.6	215.8
30°	280.8	275.5	259.7	240.6	223.6	211.1	206.1	203.3	202.8
32.5°	259.2	254.7	240.2	222.8	206.6	196.2	192.5	190.5	190.0
35°	238.1	233.1	220.3	204.5	190.5	181.3	178.0	177.5	177.5
37.5°	216.6	211.6	201.2	186.7	174.7	166.4	165.1	165.5	165.5
40°	195.3	190.8	181.7	169.7	158.9	152.7	152.2	153.1	153.5
42.5°	175.5	171.7	163.4	153.1	143.9	138.9	139.4	141.1	142.3
45°	157.7	154.4	146.9	137.7	129.8	126.1	127.3	129.4	130.6
47.5°	141.4	138.6	131.5	123.1	116.6	114.1	115.8	118.3	119.9
50°	126.6	124.1	117.4	108.7	103.3	101.6	103.7	106.2	107.0
52.5°	113.3	110.8	103.7	96.2	92.0	91.3	93.3	95.5	96.7
55°	99.5	97.5	91.7	85.0	81.7	81.3	83.4	85.0	85.9
57.5°	88.3	86.3	80.9	75.1	72.2	71.7	73.9	75.1	75.5
60°	77.5	75.5	70.5	65.1	63.1	63.1	64.4	65.1	65.5
62.5°	67.6	65.5	60.9	56.4	54.7	54.7	54.7	55.2	56.4
65°	58.1	56.4	52.3	48.1	46.9	46.1	46.1	46.1	46.9
67.5°	49.4	47.7	44.4	40.6	39.4	38.1	37.8	38.6	38.6
70°	41.1	39.8	36.5	33.6	32.3	31.1	30.6	32.3	32.3
72.5°	33.6	32.3	30.3	27.4	26.1	25.8	26.6	27.4	27.8
75°	26.6	25.3	23.6	22.0	20.8	21.1	22.4	22.8	23.3
77.5°	19.9	19.5	17.8	16.6	16.6	17.0	17.8	18.6	19.1
80°	14.1	13.7	12.8	12.0	12.5	13.3	13.7	14.5	14.1
82.5°	8.7	8.7	8.3	8.3	8.7	9.5	10.0	10.3	10.8
85°	4.5	4.5	4.5	5.0	5.4	5.8	6.2	6.6	6.6
87.5°	1.2	1.7	1.7	2.0	2.5	2.5	3.0	3.0	3.0
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)