

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: P581064

Luminaire Tested: **HC405D010-HM40525927-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581064  
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-HM40525927-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 516.1 lumens  
Efficiency: N/A  
Efficacy: 86.0 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

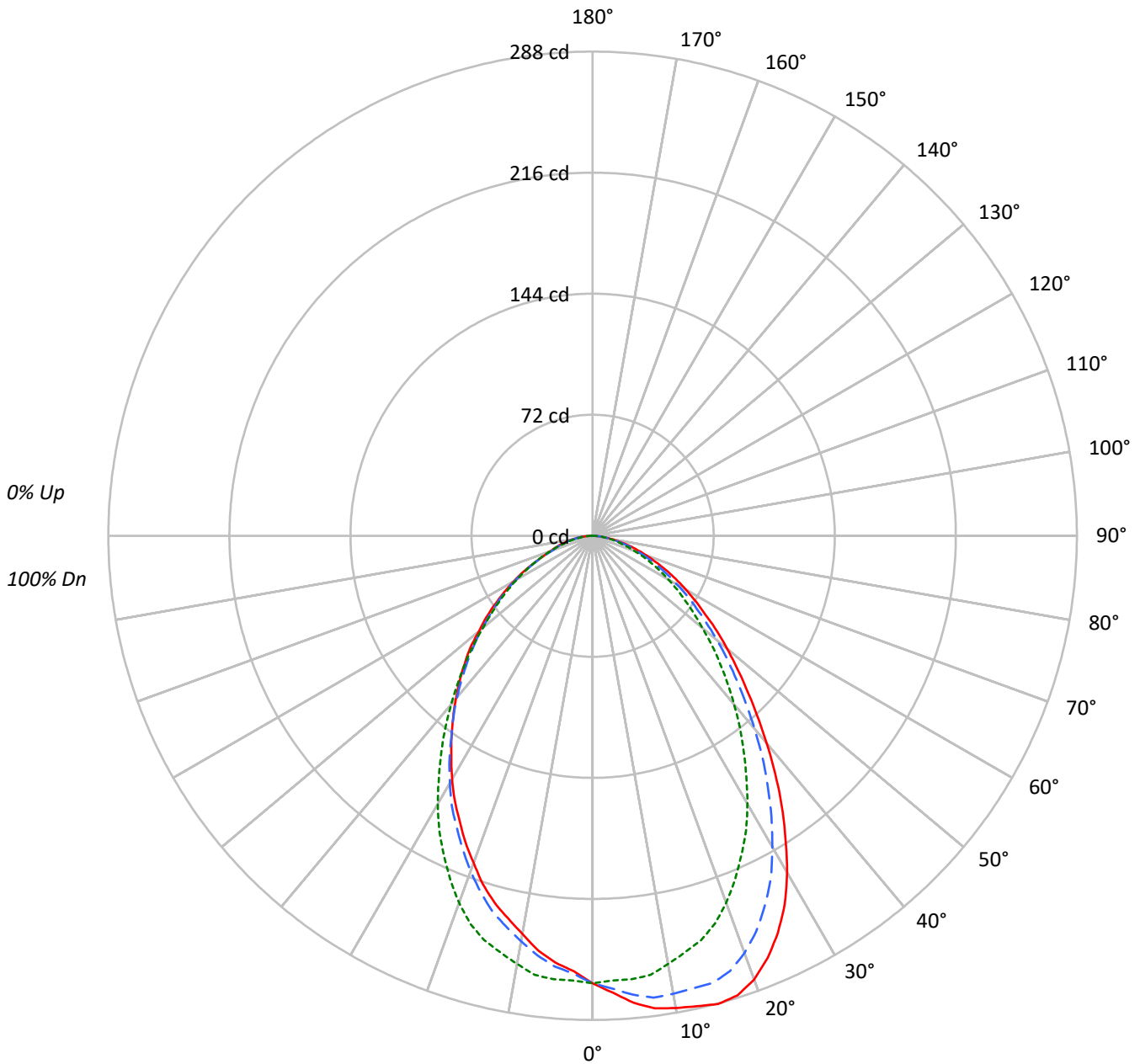
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P581064

CATALOG NUMBER: HC405D010-HM40525927-41WWWB

### Luminous Intensity Polar Plot





TEST NUMBER: P581064

CATALOG NUMBER: HC405D010-HM40525927-41WWWB

**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°	32835	32835	32835
5°	34520	32787	31549
10°	35721	32389	30122
15°	36815	31797	28834
20°	36858	30492	27171
25°	35467	28499	25477
30°	32943	26221	23800
35°	29528	23595	22014
40°	25908	21077	20352
45°	22642	18647	18769
50°	19995	16311	16925
55°	17612	14473	15204
60°	15764	12803	13321
65°	13951	11266	11266
70°	12190	9629	9629
75°	10437	8102	9150
80°	8240	7245	8240
85°	5236	6227	7642



TEST NUMBER: P581064

CATALOG NUMBER: HC405D010-HM40525927-41WWWB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.2	4.9
10°-20°	71.0	13.8
20°-30°	99.5	19.3
30°-40°	102.5	19.9
40°-50°	87.3	16.9
50°-60°	64.7	12.5
60°-70°	40.6	7.9
70°-80°	20.2	3.9
80°-90°	5.3	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°	195.7	37.9
0°-40°	298.2	57.8
0°-60°	450.1	87.2
0°-90°	516.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	516.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	266	266	266	266	266	
5°	279	274	265	257	255	27
15°	288	275	249	231	226	81
25°	261	242	209	191	187	119
35°	196	181	157	146	146	122
45°	130	121	107	105	108	101
55°	82	76	67	69	71	74
65°	48	43	39	38	39	48
75°	22	20	17	18	19	23
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



TEST NUMBER: P581064

CATALOG NUMBER: HC405D010-HM40525927-41WWWB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	266.2	266.2	266.2	266.2	266.2	266.2	266.2	266.2	266.2
2.5°	271.9	270.9	269.6	267.2	264.8	262.8	260.6	259.6	259.2
5°	278.8	276.7	274.0	269.6	264.8	260.6	257.2	255.5	254.8
7.5°	283.5	281.5	277.1	270.2	263.4	257.2	251.7	249.4	248.7
10°	285.2	282.8	276.7	267.5	258.6	251.1	244.9	241.9	240.5
12.5°	286.6	283.5	275.7	264.8	253.8	244.6	238.1	234.0	233.0
15°	288.3	284.9	275.4	262.0	249.0	238.1	231.0	227.1	225.8
17.5°	286.6	282.8	271.6	256.5	241.9	230.0	222.0	218.6	217.2
20°	280.8	276.7	264.1	248.0	232.3	220.0	212.1	208.7	207.0
22.5°	271.9	267.5	254.5	237.4	221.3	209.4	201.9	198.5	197.5
25°	260.6	256.2	242.5	225.1	209.4	197.8	191.2	188.2	187.2
27.5°	247.3	242.9	229.6	212.5	197.5	186.5	181.4	178.3	177.6
30°	231.3	226.8	213.8	198.2	184.1	173.9	169.8	167.4	167.1
32.5°	213.5	209.7	197.8	183.4	170.1	161.6	158.6	156.7	156.4
35°	196.1	191.9	181.4	168.4	156.7	149.3	146.5	146.2	146.2
37.5°	178.3	174.2	165.7	153.7	143.8	137.0	136.0	136.3	136.3
40°	160.9	157.1	149.6	139.7	130.9	125.8	125.4	126.1	126.4
42.5°	144.5	141.4	134.6	126.1	118.5	114.4	114.7	116.1	117.1
45°	129.8	127.1	120.9	113.4	106.9	103.9	104.9	106.6	107.6
47.5°	116.5	114.1	108.3	101.5	96.0	94.0	95.3	97.4	98.7
50°	104.2	102.2	96.7	89.6	85.0	83.6	85.4	87.4	88.2
52.5°	93.3	91.3	85.4	79.2	75.8	75.1	76.8	78.5	79.6
55°	81.9	80.2	75.5	70.0	67.3	67.0	68.7	70.0	70.7
57.5°	72.8	71.1	66.6	61.9	59.5	59.1	60.8	61.9	62.2
60°	63.9	62.2	58.1	53.7	51.9	51.9	53.0	53.7	54.0
62.5°	55.7	54.0	50.2	46.4	45.1	45.1	45.1	45.4	46.4
65°	47.8	46.4	43.0	39.6	38.6	37.9	37.9	37.9	38.6
67.5°	40.6	39.3	36.5	33.5	32.5	31.4	31.1	31.8	31.8
70°	33.8	32.8	30.1	27.7	26.7	25.7	25.3	26.7	26.7
72.5°	27.7	26.7	25.0	22.6	21.6	21.2	21.9	22.6	22.9
75°	21.9	20.9	19.5	18.2	17.0	17.4	18.5	18.8	19.2
77.5°	16.3	16.0	14.6	13.6	13.6	14.0	14.6	15.3	15.7
80°	11.6	11.2	10.6	9.9	10.2	10.9	11.2	11.9	11.6
82.5°	7.2	7.2	6.8	6.8	7.2	7.8	8.2	8.5	8.9
85°	3.7	3.7	3.7	4.1	4.4	4.8	5.1	5.4	5.4
87.5°	1.0	1.4	1.4	1.7	2.0	2.0	2.4	2.4	2.4
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)