

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: P581044

Luminaire Tested: **HC405D010-HM40525840-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581044  
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-HM40525840-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 559.2 lumens  
Efficiency: N/A  
Efficacy: 93.2 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

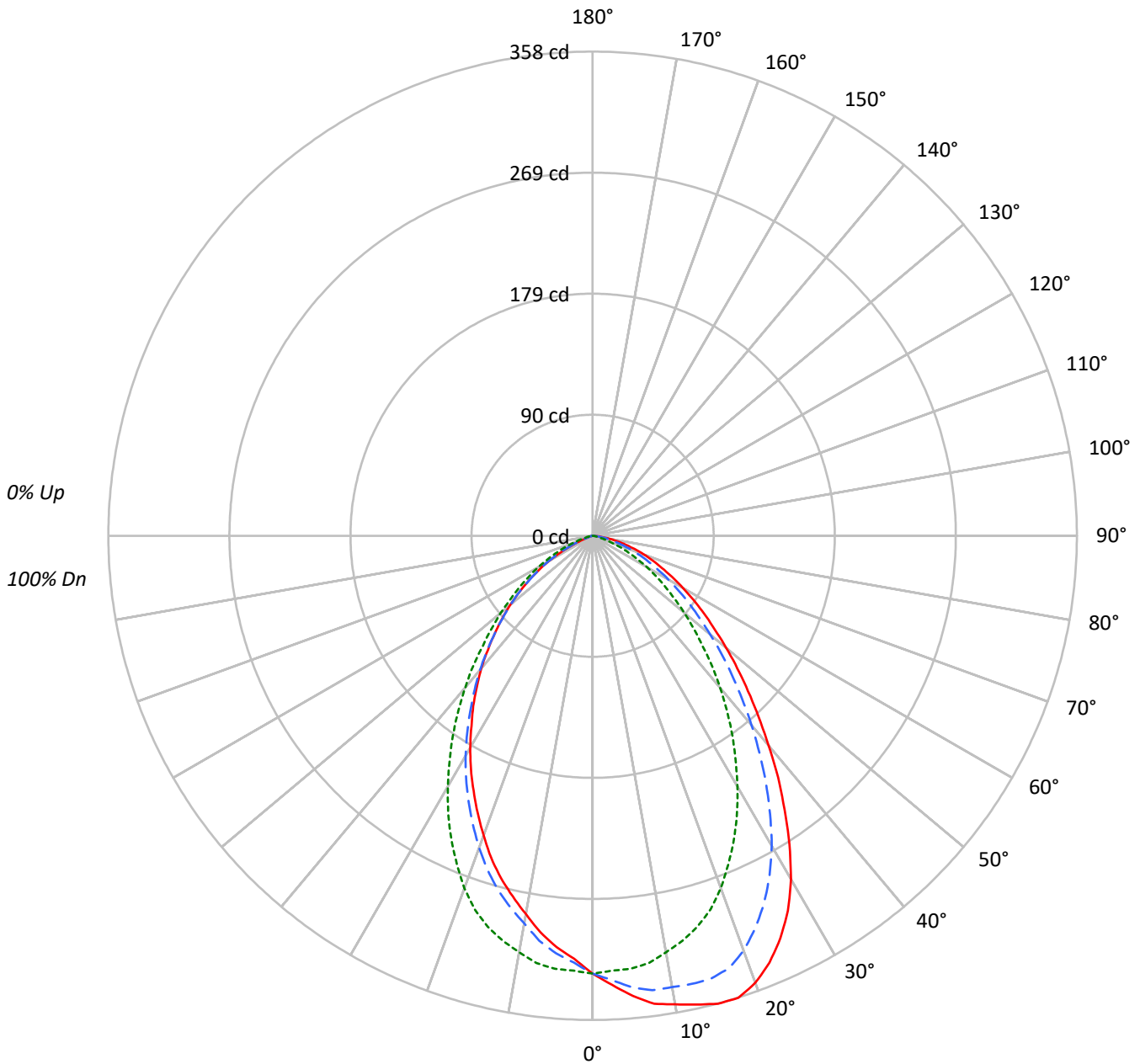
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P581044

CATALOG NUMBER: HC405D010-HM40525840-41WWBB

### Luminous Intensity Polar Plot





TEST NUMBER: P581044

CATALOG NUMBER: HC405D010-HM40525840-41WWBB

**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			100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

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

	0°	90°	180°
0°	39927	39927	39927
5°	42296	39795	37801
10°	44062	39165	35583
15°	45741	38220	33457
20°	46178	36386	30938
25°	44694	33657	28335
30°	41774	30494	25765
35°	37238	27104	23159
40°	32541	23573	20610
45°	28346	19990	17845
50°	24735	16963	15294
55°	21677	14064	12365
60°	18995	11372	9103
65°	16519	8493	5108
70°	14462	5482	1695
75°	11867	2859	429
80°	8879	1279	355
85°	5095	708	708



TEST NUMBER: P581044

CATALOG NUMBER: HC405D010-HM40525840-41WWBB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.6	5.5
10°-20°	85.5	15.3
20°-30°	118.2	21.1
30°-40°	118.9	21.3
40°-50°	95.9	17.2
50°-60°	64.9	11.6
60°-70°	33.0	5.9
70°-80°	10.6	1.9
80°-90°	1.6	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°	234.3	41.9
0°-40°	353.2	63.2
0°-60°	513.9	91.9
0°-90°	559.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	559.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	324	324	324	324	324	
5°	342	335	321	310	305	33
15°	358	339	299	271	262	101
25°	328	300	247	217	208	150
35°	247	223	180	157	154	155
45°	162	146	115	102	102	126
55°	101	87	65	57	58	91
65°	57	46	29	19	18	57
75°	25	18	6	1	1	27
85°	4	2	0	0	0	5
90°	0	0	0	0	0	



TEST NUMBER: P581044

CATALOG NUMBER: HC405D010-HM40525840-41WWBB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	323.7	323.7	323.7	323.7	323.7	323.7	323.7	323.7	323.7
2.5°	332.4	330.6	328.8	325.5	321.9	318.1	315.9	314.1	313.1
5°	341.6	339.4	335.2	328.4	321.4	315.0	309.9	306.7	305.3
7.5°	349.0	345.8	338.9	329.3	318.6	308.5	302.0	297.5	295.7
10°	351.8	348.1	338.9	326.0	312.7	300.2	291.0	286.4	284.1
12.5°	355.0	350.8	339.4	323.2	306.7	291.9	281.4	275.4	273.1
15°	358.2	352.8	338.9	319.0	299.3	282.3	270.7	264.8	262.0
17.5°	358.2	351.8	335.2	312.2	289.7	271.7	258.8	251.9	249.6
20°	351.8	344.5	326.4	301.1	277.2	257.9	245.4	238.6	235.7
22.5°	341.6	333.3	314.1	287.8	262.4	243.6	231.2	224.7	221.9
25°	328.4	320.1	299.8	272.6	247.3	228.4	216.9	210.9	208.2
27.5°	312.7	303.5	283.2	256.1	231.2	213.2	202.6	197.0	194.8
30°	293.3	284.5	264.8	238.0	214.1	197.5	187.8	182.8	180.9
32.5°	270.7	263.4	244.0	219.2	196.6	181.4	172.6	168.5	166.7
35°	247.3	240.4	223.4	200.3	180.0	165.8	157.4	154.7	153.8
37.5°	225.2	219.2	202.6	181.4	163.0	150.6	143.2	141.3	140.4
40°	202.1	197.9	182.8	163.4	146.4	135.4	129.4	128.0	128.0
42.5°	181.4	176.8	163.4	146.0	130.8	119.7	115.5	114.2	114.6
45°	162.5	158.0	145.5	129.4	114.6	105.4	102.3	102.3	102.3
47.5°	145.1	140.9	129.4	112.8	100.8	93.5	90.2	90.2	90.7
50°	128.9	126.2	113.3	99.0	88.4	81.5	79.2	78.8	79.7
52.5°	113.7	110.5	99.0	86.1	75.9	70.5	68.1	67.6	68.1
55°	100.8	97.2	87.1	74.6	65.4	59.8	57.1	56.6	57.5
57.5°	88.4	85.7	75.0	64.0	55.3	49.7	47.4	46.5	47.0
60°	77.0	74.1	64.5	53.9	46.1	40.5	37.3	36.4	36.9
62.5°	66.3	64.0	54.8	44.7	36.9	31.8	28.6	26.2	27.1
65°	56.6	54.4	46.1	35.9	29.1	23.5	18.8	17.0	17.5
67.5°	48.4	45.6	37.8	28.6	21.7	15.7	10.6	9.6	9.6
70°	40.1	37.3	30.4	22.1	15.2	8.3	4.7	4.7	4.7
72.5°	32.2	30.0	23.5	16.6	9.6	3.6	1.8	1.8	1.8
75°	24.9	23.0	17.5	11.5	6.0	1.8	1.4	0.9	0.9
77.5°	18.4	16.6	12.5	7.8	3.6	0.9	0.9	0.9	0.9
80°	12.5	11.0	8.3	4.7	1.8	0.5	0.5	0.5	0.5
82.5°	7.4	6.5	4.7	2.3	0.9	0.5	0.5	0.5	0.5
85°	3.6	2.7	1.8	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)