

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: P581078

Luminaire Tested: **HC405D010-HM40525930-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581078  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC405D010-HM40525930-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 585.9 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

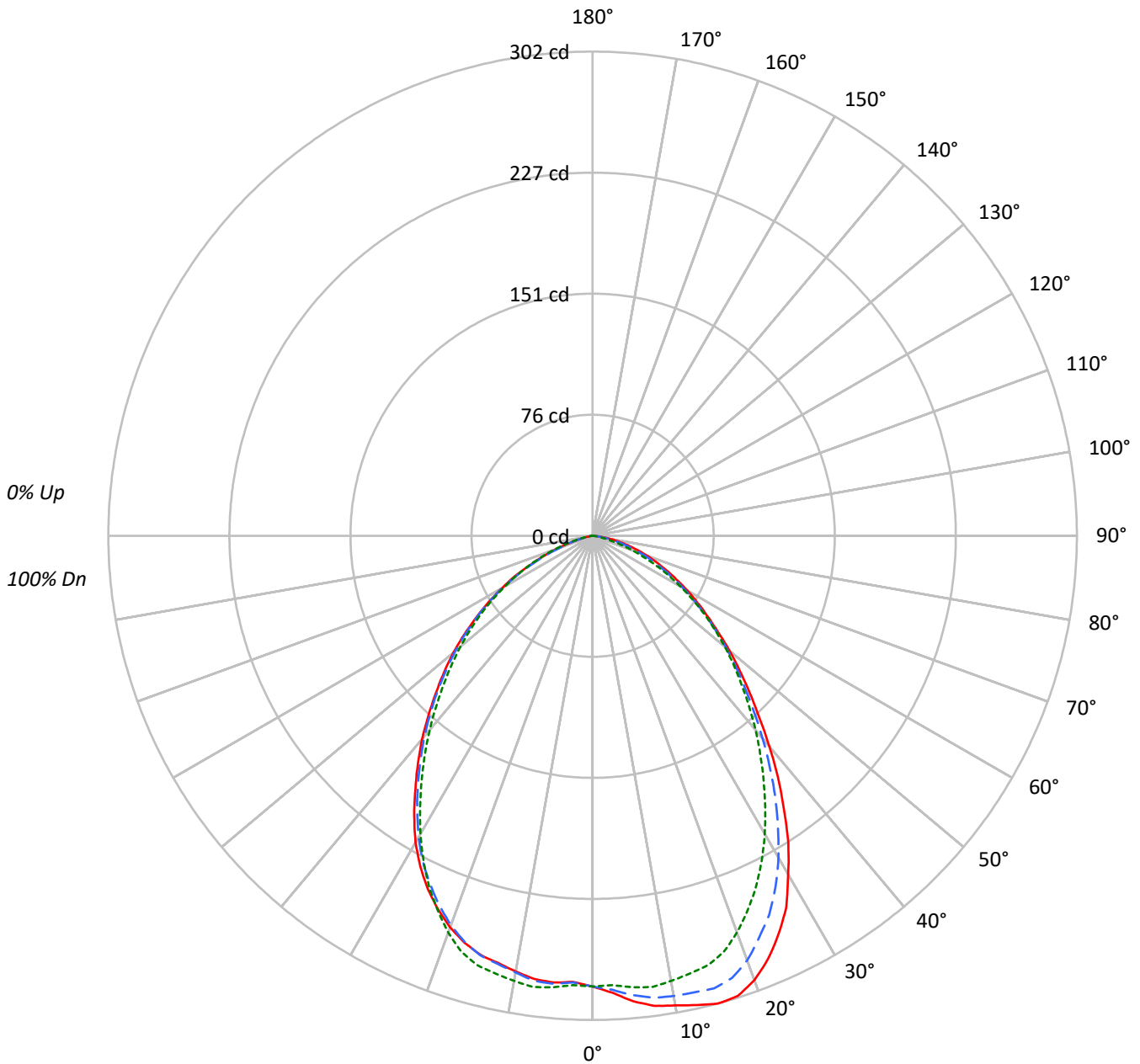
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100				
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

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

	0°	90°	180°
0°	34672	34672	34672
5°	36093	35003	34632
10°	37261	35308	34556
15°	38577	35423	34555
20°	38709	34561	34115
25°	37331	32840	33099
30°	34738	30579	31448
35°	31290	27977	29001
40°	27598	25457	26616
45°	24142	22921	24055
50°	21358	20628	21741
55°	18795	18236	18967
60°	16775	15566	16010
65°	14739	12667	12433
70°	12911	9341	8511
75°	10723	5624	4527
80°	8098	2202	1350
85°	3680	425	425



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.1	4.6
10°-20°	79.2	13.5
20°-30°	114.6	19.6
30°-40°	120.9	20.6
40°-50°	104.7	17.9
50°-60°	77.5	13.2
60°-70°	44.7	7.6
70°-80°	15.6	2.7
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°	220.9	37.7
0°-40°	341.8	58.3
0°-60°	524.0	89.4
0°-90°	585.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	585.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	281	281	281	281	281	
5°	292	288	283	280	280	28
15°	302	292	277	271	271	85
25°	274	261	241	240	243	126
35°	208	198	186	190	193	130
45°	138	134	131	136	138	107
55°	87	86	85	88	88	79
65°	50	47	43	41	43	50
75°	22	19	12	10	10	24
85°	3	2	0	0	0	4
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°	281.1	281.1	281.1	281.1	281.1	281.1	281.1	281.1	281.1
2.5°	285.3	284.7	283.5	281.9	280.5	279.3	278.9	278.5	278.5
5°	291.5	289.9	287.6	284.7	282.7	281.6	280.5	279.7	279.7
7.5°	295.7	294.1	290.7	286.5	283.9	281.6	280.0	278.9	278.9
10°	297.5	295.7	291.5	286.1	281.9	278.9	276.6	275.9	275.9
12.5°	299.8	297.5	291.8	285.0	279.7	275.9	273.5	272.9	272.9
15°	302.1	299.4	292.3	284.2	277.4	272.9	270.9	270.6	270.6
17.5°	301.0	297.5	289.2	279.7	272.1	267.5	265.6	265.6	266.0
20°	294.9	291.5	281.9	271.3	263.3	259.9	258.4	259.1	259.9
22.5°	285.8	281.6	271.3	261.0	252.7	249.7	249.7	250.8	252.0
25°	274.3	270.6	260.7	249.2	241.3	239.0	239.8	241.6	243.2
27.5°	261.4	257.3	247.0	236.3	228.4	227.2	229.2	231.8	232.6
30°	243.9	240.5	231.8	221.6	214.7	214.3	217.0	218.8	220.8
32.5°	227.2	223.5	215.1	205.2	200.2	200.7	203.6	206.0	207.1
35°	207.8	204.4	198.4	190.3	185.8	186.6	190.0	192.3	192.6
37.5°	189.7	187.4	181.3	175.1	171.7	173.3	176.3	179.0	179.0
40°	171.4	169.5	164.9	159.9	158.1	159.9	163.0	165.3	165.3
42.5°	153.9	152.8	148.9	145.5	144.4	147.1	149.7	151.6	151.2
45°	138.4	137.2	134.5	131.9	131.4	134.2	136.4	137.6	137.9
47.5°	124.3	123.5	121.2	119.3	119.3	122.0	123.8	125.0	125.4
50°	111.3	110.5	108.6	107.1	107.5	110.2	111.7	112.8	113.3
52.5°	98.4	98.1	96.5	94.7	95.8	97.6	99.5	100.3	100.7
55°	87.4	87.4	85.5	84.0	84.8	86.6	87.7	88.2	88.2
57.5°	77.5	77.2	74.9	73.3	73.7	75.6	76.4	76.7	76.7
60°	68.0	67.6	65.4	63.1	63.1	64.2	64.6	64.9	64.9
62.5°	58.9	58.6	55.8	53.9	53.2	52.8	52.8	53.6	55.0
65°	50.5	50.2	47.4	44.5	43.4	42.2	41.1	41.8	42.6
67.5°	42.9	42.2	39.5	36.9	34.2	32.3	30.4	31.6	33.0
70°	35.8	35.0	31.9	28.8	25.9	22.8	21.2	22.8	23.6
72.5°	28.8	28.1	25.1	22.0	18.3	15.2	14.9	15.2	15.5
75°	22.5	22.0	19.0	15.5	11.8	9.5	9.5	9.5	9.5
77.5°	16.7	16.0	12.9	9.9	6.8	5.3	5.0	5.0	5.0
80°	11.4	10.7	7.9	5.7	3.1	2.3	2.3	1.9	1.9
82.5°	6.5	6.1	4.2	2.3	1.1	0.8	0.8	0.8	0.8
85°	2.6	2.3	1.5	0.8	0.3	0.3	0.3	0.3	0.3
87.5°	0.3	0.3	0.3	0.0	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)