

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: P581096

Luminaire Tested: **HC405D010-HM40525935-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581096  
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-HM40525935-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 617.2 lumens  
Efficiency: N/A  
Efficacy: 102.9 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

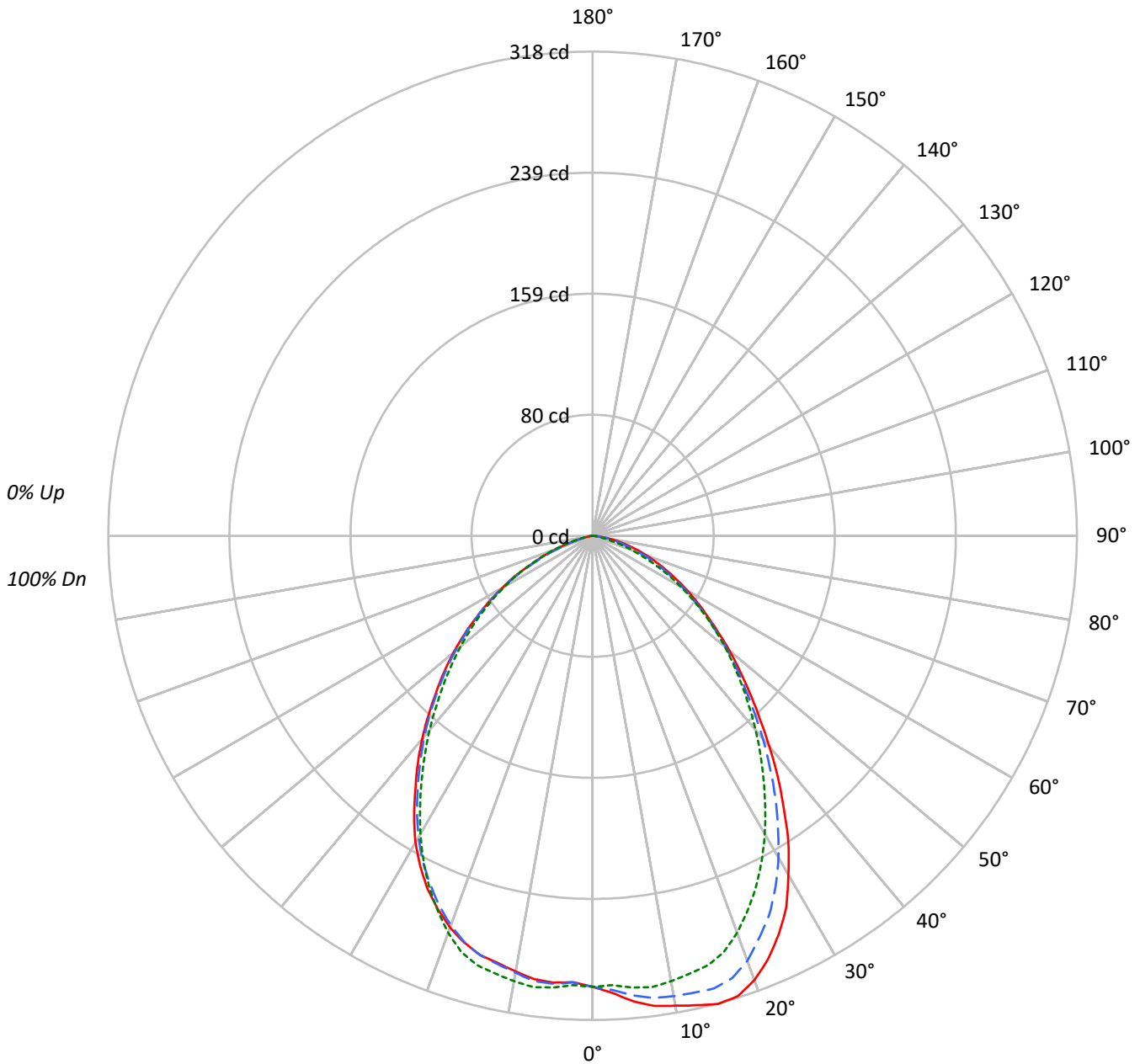
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	61	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°	36535	36535	36535
5°	38012	36873	36476
10°	39253	37199	36397
15°	40646	37300	36394
20°	40770	36412	35939
25°	39332	34582	34868
30°	36604	32203	33129
35°	32961	29468	30552
40°	29063	26809	28033
45°	25415	24160	25346
50°	22490	21741	22893
55°	19784	19182	19956
60°	17663	16380	16874
65°	15527	13309	13075
70°	13560	9809	8980
75°	11247	5909	4766
80°	8524	2273	1421
85°	3963	708	708



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.6	4.6
10°-20°	83.4	13.5
20°-30°	120.7	19.6
30°-40°	127.4	20.6
40°-50°	110.2	17.9
50°-60°	81.7	13.2
60°-70°	47.1	7.6
70°-80°	16.4	2.7
80°-90°	1.8	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°	232.7	37.7
0°-40°	360.1	58.3
0°-60°	552.0	89.4
0°-90°	617.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	617.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	307	303	298	295	295	29
15°	318	308	292	285	285	90
25°	289	275	254	252	256	132
35°	219	209	196	200	203	137
45°	146	142	138	144	145	113
55°	92	90	89	92	93	83
65°	53	50	46	43	45	53
75°	24	20	12	10	10	25
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°	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2
2.5°	300.5	299.8	298.6	297.0	295.4	294.2	293.7	293.4	293.4
5°	307.0	305.4	303.0	299.8	297.8	296.6	295.4	294.6	294.6
7.5°	311.4	309.9	306.2	301.8	299.0	296.6	295.0	293.7	293.7
10°	313.4	311.4	307.0	301.3	297.0	293.7	291.4	290.6	290.6
12.5°	315.8	313.4	307.4	300.2	294.6	290.6	288.2	287.4	287.4
15°	318.3	315.4	307.8	299.4	292.1	287.4	285.3	285.0	285.0
17.5°	317.0	313.4	304.6	294.6	286.6	281.8	279.8	279.8	280.2
20°	310.6	307.0	297.0	285.8	277.4	273.8	272.2	273.0	273.8
22.5°	301.0	296.6	285.8	275.0	266.2	263.0	263.0	264.2	265.4
25°	289.0	285.0	274.6	262.5	254.1	251.7	252.5	254.6	256.2
27.5°	275.4	270.9	260.1	249.0	240.5	239.4	241.3	244.1	244.9
30°	257.0	253.3	244.1	233.4	226.1	225.8	228.6	230.5	232.6
32.5°	239.4	235.4	226.5	216.1	210.9	211.3	214.5	216.9	218.1
35°	218.9	215.3	209.0	200.6	195.7	196.6	200.1	202.5	202.9
37.5°	199.8	197.4	190.9	184.6	180.9	182.5	185.7	188.5	188.5
40°	180.5	178.5	173.8	168.5	166.5	168.5	171.7	174.1	174.1
42.5°	162.1	160.9	156.9	153.3	152.1	154.9	157.7	159.7	159.4
45°	145.7	144.5	141.6	138.9	138.5	141.3	143.7	144.9	145.3
47.5°	130.9	130.1	127.7	125.6	125.6	128.5	130.5	131.7	132.1
50°	117.2	116.5	114.5	112.8	113.3	116.1	117.7	118.8	119.3
52.5°	103.6	103.3	101.7	99.7	100.9	102.8	104.9	105.7	106.1
55°	92.0	92.0	90.0	88.4	89.2	91.3	92.5	92.8	92.8
57.5°	81.6	81.3	78.9	77.3	77.6	79.7	80.5	80.8	80.8
60°	71.6	71.3	68.9	66.4	66.4	67.6	68.1	68.4	68.4
62.5°	62.1	61.6	58.8	56.9	56.1	55.6	55.6	56.4	58.0
65°	53.2	52.9	50.1	46.9	45.6	44.4	43.2	44.0	44.8
67.5°	45.2	44.4	41.7	38.8	36.0	34.0	32.0	33.3	34.8
70°	37.6	36.8	33.6	30.4	27.2	24.1	22.4	24.1	24.9
72.5°	30.4	29.6	26.4	23.3	19.2	16.0	15.7	16.0	16.5
75°	23.6	23.3	20.0	16.5	12.4	10.0	10.0	10.0	10.0
77.5°	17.6	16.8	13.6	10.4	7.2	5.6	5.2	5.2	5.2
80°	12.0	11.2	8.4	6.0	3.2	2.4	2.4	2.0	2.0
82.5°	6.8	6.4	4.4	2.4	1.2	0.8	0.8	0.8	0.8
85°	2.8	2.4	1.6	0.8	0.5	0.5	0.5	0.5	0.5
87.5°	0.5	0.5	0.5	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)