

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: P579700

Luminaire Tested: **HC410D010-HM40525827-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC410D010-HM40525827-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

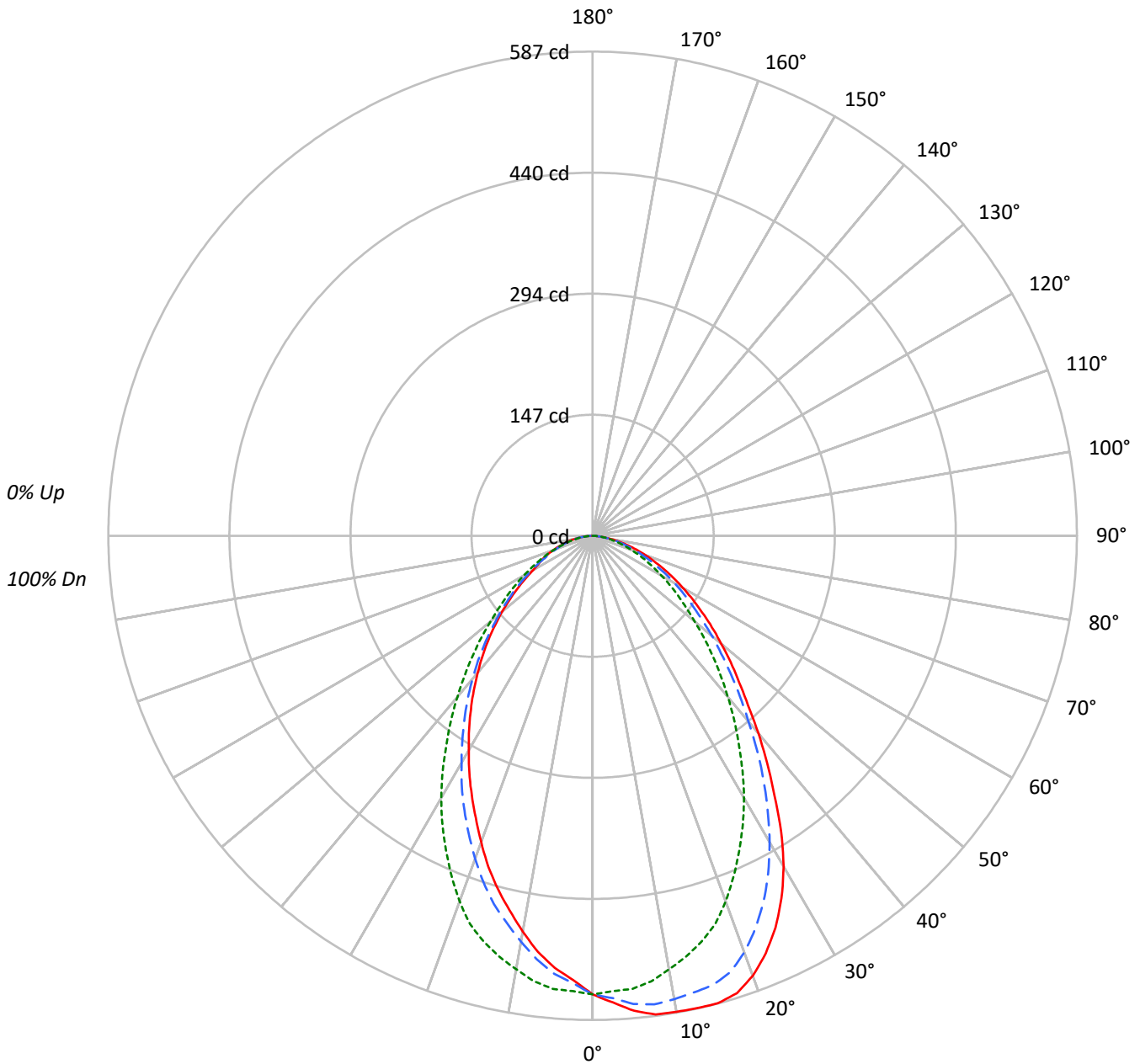
Lumens per Lamp: N/A  
Luminaire Lumens: 992.8 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
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	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38				
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35				
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32				

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

	0°	90°	180°
0°	68568	68568	68568
5°	71591	68273	65115
10°	73396	66845	61034
15°	74907	65062	56634
20°	74517	61903	51848
25°	71383	57229	47171
30°	65958	52257	42757
35°	57822	46483	38713
40°	50334	41059	34844
45°	43819	35829	31154
50°	39031	30875	27498
55°	34881	27139	23763
60°	31132	23732	20500
65°	27668	20780	19467
70°	24307	17924	18176
75°	20540	15298	16823
80°	15769	12999	15343
85°	9199	10190	12879



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	5.2
10°-20°	143.7	14.5
20°-30°	196.4	19.8
30°-40°	197.2	19.9
40°-50°	163.1	16.4
50°-60°	118.2	11.9
60°-70°	74.9	7.5
70°-80°	37.8	3.8
80°-90°	9.3	0.9
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°	392.2	39.5
0°-40°	589.4	59.4
0°-60°	870.8	87.7
0°-90°	992.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	992.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	556	556	556	556	556	
5°	578	570	551	533	526	55
15°	587	564	510	462	444	165
25°	524	490	420	368	347	240
35°	384	361	309	271	257	241
45°	251	237	205	185	179	195
55°	162	148	126	115	110	146
65°	95	84	71	64	67	94
75°	43	37	32	33	35	46
85°	6	6	7	8	9	9
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°	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9
2.5°	566.4	564.4	561.1	557.3	552.6	547.4	542.8	540.2	539.0
5°	578.2	575.6	569.7	561.1	551.4	541.6	533.0	527.8	525.9
7.5°	585.4	581.4	573.0	559.9	544.8	530.4	518.0	510.8	508.8
10°	586.0	581.4	570.4	552.6	533.7	514.7	499.7	489.2	487.3
12.5°	586.6	580.8	567.1	546.1	522.6	499.0	480.7	468.3	465.0
15°	586.6	580.8	563.8	539.0	509.5	482.6	462.4	448.0	443.5
17.5°	581.4	574.9	554.7	525.9	493.8	463.7	440.2	425.2	420.5
20°	567.7	560.5	537.6	506.2	471.6	440.2	416.6	400.9	395.0
22.5°	548.1	539.5	515.4	481.4	446.7	414.7	391.8	375.4	370.2
25°	524.5	516.1	489.9	456.6	420.5	390.4	367.6	352.6	346.6
27.5°	495.7	486.6	461.1	427.8	394.4	364.3	343.3	329.7	323.8
30°	463.1	453.3	429.0	397.0	366.9	338.1	317.8	306.7	300.2
32.5°	425.2	416.6	395.0	366.2	338.1	310.7	293.6	283.8	278.6
35°	384.0	379.3	361.0	336.2	308.7	285.9	270.7	261.6	257.1
37.5°	347.3	342.8	327.1	306.1	281.9	260.9	248.5	240.7	236.7
40°	312.6	308.7	293.6	276.0	255.0	236.7	226.3	220.4	216.4
42.5°	278.6	276.6	264.2	247.9	229.5	213.8	205.4	200.7	197.6
45°	251.2	248.5	236.7	221.1	205.4	192.3	185.0	181.9	178.6
47.5°	226.9	223.7	211.2	197.6	183.1	171.4	164.8	161.6	160.2
50°	203.4	200.2	189.0	175.3	160.9	152.4	147.1	143.8	143.3
52.5°	182.4	179.2	166.8	153.7	142.6	135.4	130.8	127.6	126.2
55°	162.2	158.3	147.8	135.4	126.2	119.7	115.2	111.9	110.5
57.5°	143.8	140.0	130.8	119.0	110.5	104.7	100.7	97.4	96.2
60°	126.2	122.9	114.5	103.3	96.2	90.9	86.9	84.3	83.1
62.5°	109.9	107.3	98.8	89.0	83.1	78.5	75.2	72.6	73.9
65°	94.8	92.2	84.3	75.9	71.2	66.7	64.1	64.1	66.7
67.5°	80.5	77.8	71.2	64.1	60.2	56.9	55.0	56.9	58.8
70°	67.4	64.8	58.8	53.0	49.7	47.1	47.1	49.0	50.4
72.5°	55.0	52.3	47.8	43.1	40.5	38.6	40.5	41.9	43.1
75°	43.1	41.2	37.3	34.0	32.1	31.4	33.3	34.7	35.3
77.5°	32.1	30.7	28.1	25.5	24.2	24.8	26.9	27.4	28.1
80°	22.2	21.6	19.6	18.3	18.3	19.0	20.3	20.9	21.6
82.5°	13.8	13.8	12.4	11.7	12.4	13.8	14.3	15.0	15.0
85°	6.5	7.2	6.5	6.5	7.2	8.5	8.5	9.1	9.1
87.5°	1.9	1.9	2.6	2.6	3.3	3.3	3.3	3.3	3.9
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)