

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: P581476

Luminaire Tested: **HC407D010-HM40525840-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581476  
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: HC407D010-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: 739.5 lumens  
Efficiency: N/A  
Efficacy: 92.4 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

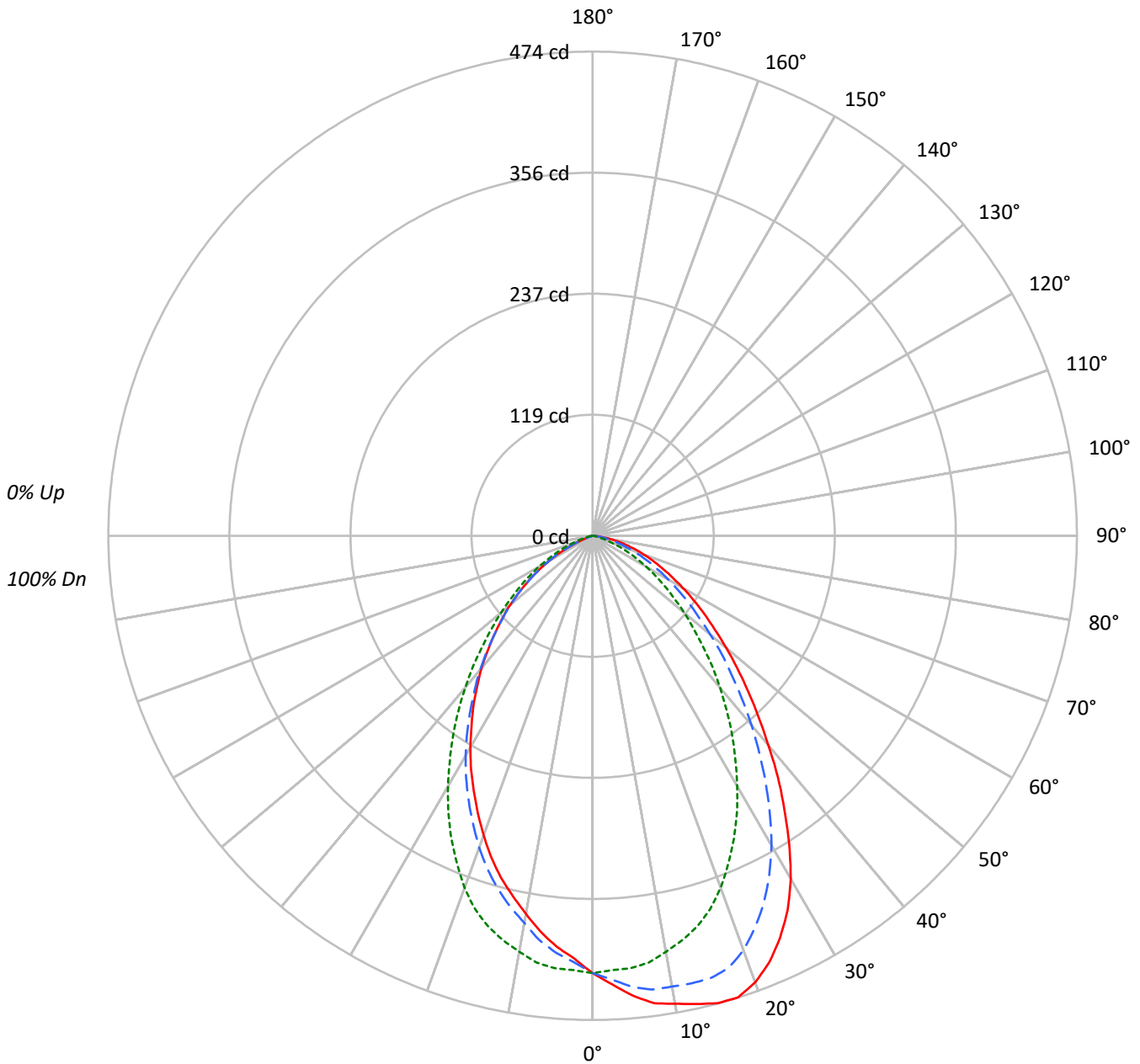
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

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

	0°	90°	180°
0°	52804	52804	52804
5°	55953	52622	49997
10°	58266	51778	47068
15°	60490	50542	44247
20°	61063	48107	40927
25°	59080	44517	37467
30°	55248	40321	34083
35°	49254	35852	30627
40°	43040	31189	27260
45°	37504	26445	23584
50°	32718	22432	20225
55°	28687	18602	16365
60°	25089	15023	12014
65°	21860	11207	6742
70°	19114	7249	2200
75°	15679	3813	620
80°	11649	1705	426
85°	6935	849	849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.4	5.5
10°-20°	113.1	15.3
20°-30°	156.3	21.1
30°-40°	157.2	21.3
40°-50°	126.9	17.2
50°-60°	85.8	11.6
60°-70°	43.7	5.9
70°-80°	14.0	1.9
80°-90°	2.1	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°	309.8	41.9
0°-40°	467.0	63.2
0°-60°	679.7	91.9
0°-90°	739.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	739.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	428	428	428	428	428	
5°	452	443	425	410	404	44
15°	474	448	396	358	346	133
25°	434	396	327	287	275	199
35°	327	295	238	208	203	204
45°	215	192	152	135	135	167
55°	133	115	86	76	76	120
65°	75	61	38	25	23	75
75°	33	23	8	2	1	35
85°	5	2	1	1	1	7
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°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1
2.5°	439.6	437.2	434.8	430.5	425.6	420.8	417.8	415.3	414.1
5°	451.9	448.8	443.4	434.1	425.0	416.5	409.8	405.6	403.8
7.5°	461.6	457.4	448.1	435.4	421.4	408.0	399.4	393.4	390.9
10°	465.2	460.3	448.1	431.2	413.4	397.0	384.9	378.7	375.8
12.5°	469.5	464.1	448.8	427.4	405.6	386.1	372.1	364.2	361.1
15°	473.7	466.5	448.1	422.0	395.8	373.3	358.0	350.2	346.5
17.5°	473.7	465.2	443.4	412.9	383.1	359.3	342.2	333.1	330.0
20°	465.2	455.5	431.8	398.3	366.5	341.1	324.6	315.5	311.8
22.5°	451.9	440.9	415.3	380.5	347.1	322.2	305.7	297.1	293.5
25°	434.1	423.2	396.5	360.5	327.1	302.0	286.8	278.9	275.3
27.5°	413.4	401.3	374.5	338.6	305.7	282.0	267.9	260.6	257.6
30°	387.9	376.3	350.2	314.9	283.1	261.3	248.4	241.7	239.3
32.5°	358.0	348.3	322.7	289.8	260.0	239.9	228.4	222.8	220.4
35°	327.1	317.8	295.3	264.9	238.1	219.2	208.3	204.6	203.4
37.5°	297.8	289.8	267.9	239.9	215.5	199.1	189.4	187.0	185.7
40°	267.3	261.9	241.7	216.2	193.7	179.0	171.2	169.3	169.3
42.5°	239.9	233.9	216.2	193.0	173.0	158.3	152.8	151.0	151.6
45°	215.0	208.8	192.4	171.2	151.6	139.4	135.2	135.2	135.2
47.5°	191.9	186.3	171.2	149.2	133.4	123.6	119.4	119.4	119.9
50°	170.5	166.8	149.8	130.9	116.9	107.8	104.7	104.1	105.4
52.5°	150.4	146.1	130.9	113.9	100.5	93.2	90.1	89.6	90.1
55°	133.4	128.5	115.1	98.7	86.5	79.2	75.6	74.9	76.1
57.5°	116.9	113.2	99.2	84.7	73.1	65.8	62.7	61.5	62.1
60°	101.7	98.1	85.2	71.2	60.9	53.6	49.3	48.1	48.7
62.5°	87.7	84.7	72.5	59.1	48.7	42.0	37.8	34.7	36.0
65°	74.9	71.8	60.9	47.5	38.4	31.1	24.9	22.5	23.1
67.5°	64.0	60.3	50.0	37.8	28.7	20.7	14.0	12.7	12.7
70°	53.0	49.3	40.2	29.2	20.1	10.9	6.1	6.1	6.1
72.5°	42.7	39.6	31.1	22.0	12.7	4.9	2.4	2.4	2.4
75°	32.9	30.5	23.1	15.2	8.0	2.4	1.8	1.3	1.3
77.5°	24.4	22.0	16.4	10.4	4.9	1.3	1.3	1.3	1.3
80°	16.4	14.6	10.9	6.1	2.4	0.6	0.6	0.6	0.6
82.5°	9.8	8.5	6.1	3.1	1.3	0.6	0.6	0.6	0.6
85°	4.9	3.6	2.4	1.3	0.6	0.6	0.6	0.6	0.6
87.5°	1.3	0.6	0.6	0.6	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)