

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: P581546

Luminaire Tested: **HC407D010-HM40525940-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581546  
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: HC407D010-HM40525940-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 845.8 lumens  
Efficiency: N/A  
Efficacy: 105.7 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

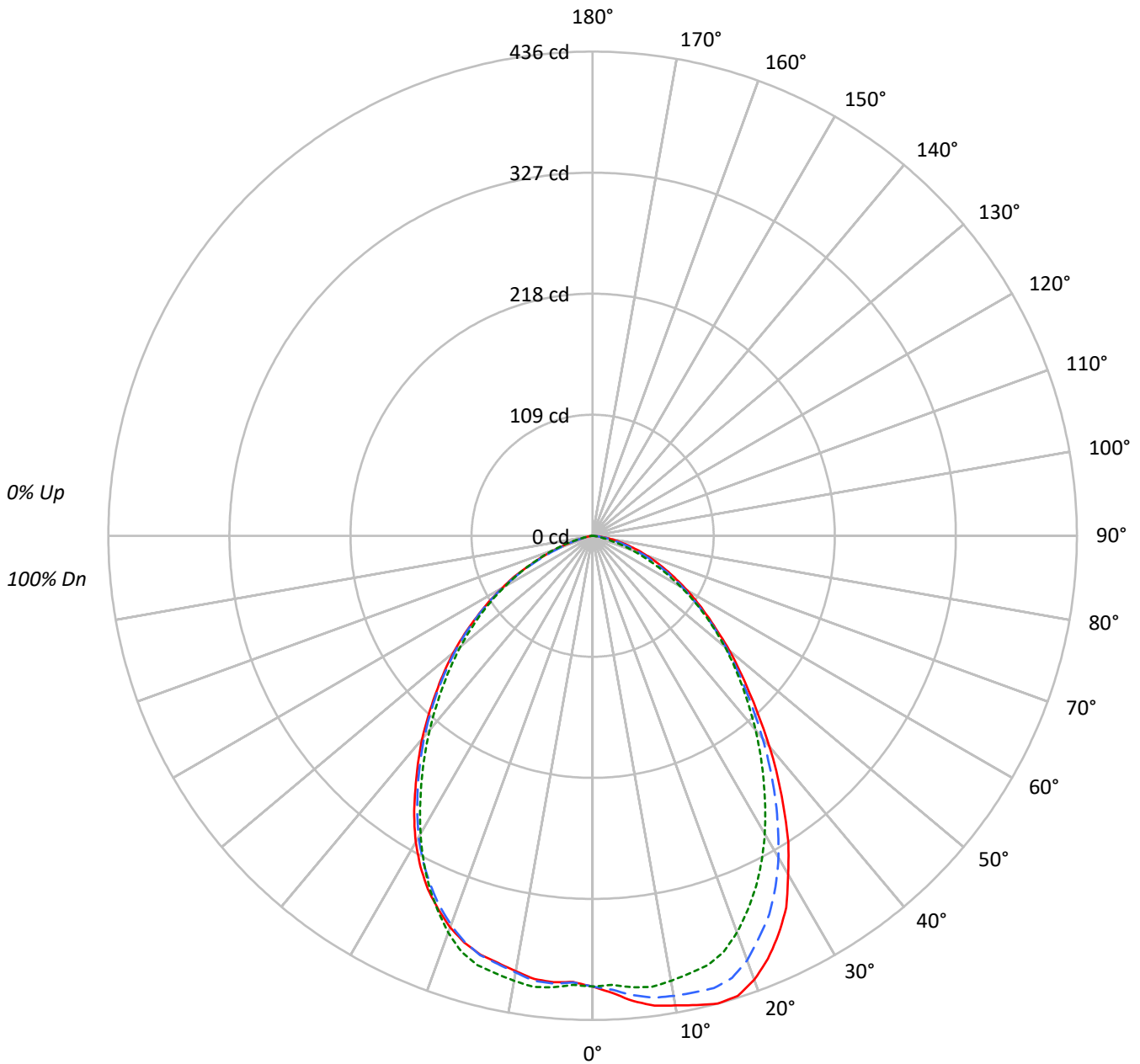
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	90°	180°
0°	50066	50066	50066
5°	52090	50530	49972
10°	53794	50964	49874
15°	55689	51117	49878
20°	55865	49893	49249
25°	53894	47403	47784
30°	50149	44138	45377
35°	45173	40385	41876
40°	39835	36744	38418
45°	34818	33108	34730
50°	30837	29782	31355
55°	27139	26300	27354
60°	24225	22449	23140
65°	21277	18241	17949
70°	18609	13452	12262
75°	15393	8102	6529
80°	11720	3125	1918
85°	5519	849	849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.1	4.6
10°-20°	114.2	13.5
20°-30°	165.5	19.6
30°-40°	174.6	20.6
40°-50°	151.1	17.9
50°-60°	111.9	13.2
60°-70°	64.5	7.6
70°-80°	22.5	2.7
80°-90°	2.4	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°	318.8	37.7
0°-40°	493.4	58.3
0°-60°	756.4	89.4
0°-90°	845.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	845.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	406	406	406	406	406	
5°	421	415	408	405	404	40
15°	436	422	400	391	391	123
25°	396	376	348	346	351	181
35°	300	286	268	274	278	187
45°	200	194	190	197	199	155
55°	126	123	122	127	127	114
65°	73	68	62	59	62	73
75°	32	27	17	14	14	35
85°	4	2	1	1	1	6
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°	405.9	405.9	405.9	405.9	405.9	405.9	405.9	405.9	405.9
2.5°	412.0	410.8	409.2	406.9	404.8	403.2	402.6	402.1	402.1
5°	420.7	418.4	415.3	410.8	408.1	406.4	404.8	403.6	403.6
7.5°	426.7	424.5	419.6	413.5	409.7	406.4	404.2	402.6	402.6
10°	429.5	426.7	420.7	413.0	406.9	402.6	399.3	398.2	398.2
12.5°	432.8	429.5	421.3	411.4	403.6	398.2	394.9	393.9	393.9
15°	436.1	432.2	421.7	410.2	400.3	393.9	391.0	390.6	390.6
17.5°	434.4	429.5	417.4	403.6	392.7	386.1	383.4	383.4	384.0
20°	425.6	420.7	406.9	391.6	380.1	375.2	372.9	374.1	375.2
22.5°	412.4	406.4	391.6	376.8	364.7	360.4	360.4	362.0	363.6
25°	396.0	390.6	376.2	359.8	348.3	345.0	346.1	348.8	351.1
27.5°	377.4	371.3	356.5	341.2	329.7	328.0	330.7	334.6	335.7
30°	352.1	347.2	334.6	319.8	309.9	309.3	313.2	315.9	318.6
32.5°	328.0	322.5	310.4	296.2	289.1	289.6	293.9	297.2	299.0
35°	300.0	295.1	286.3	274.8	268.2	269.3	274.3	277.6	278.1
37.5°	273.7	270.4	261.6	252.9	248.0	250.1	254.5	258.3	258.3
40°	247.4	244.7	238.1	230.9	228.2	230.9	235.3	238.6	238.6
42.5°	222.1	220.5	215.0	210.1	208.5	212.2	216.1	218.8	218.3
45°	199.6	198.0	194.1	190.3	189.8	193.6	196.9	198.6	199.1
47.5°	179.3	178.2	175.0	172.2	172.2	176.0	178.8	180.5	181.1
50°	160.7	159.7	156.8	154.7	155.2	159.1	161.3	162.8	163.4
52.5°	142.0	141.5	139.3	136.6	138.3	141.0	143.7	144.8	145.3
55°	126.2	126.2	123.4	121.2	122.3	125.1	126.7	127.2	127.2
57.5°	111.9	111.3	108.0	105.8	106.4	109.1	110.3	110.8	110.8
60°	98.2	97.6	94.3	91.0	91.0	92.7	93.2	93.8	93.8
62.5°	85.0	84.4	80.7	77.8	76.8	76.2	76.2	77.4	79.5
65°	72.9	72.4	68.5	64.2	62.5	60.9	59.3	60.3	61.5
67.5°	62.0	60.9	57.0	53.3	49.4	46.7	43.9	45.5	47.7
70°	51.6	50.4	46.1	41.7	37.3	32.9	30.7	32.9	34.0
72.5°	41.7	40.6	36.2	31.9	26.3	22.0	21.4	22.0	22.5
75°	32.3	31.9	27.4	22.5	17.0	13.7	13.7	13.7	13.7
77.5°	24.1	23.0	18.7	14.2	9.9	7.6	7.2	7.2	7.2
80°	16.5	15.4	11.5	8.2	4.4	3.3	3.3	2.7	2.7
82.5°	9.3	8.8	6.0	3.3	1.6	1.1	1.1	1.1	1.1
85°	3.9	3.3	2.2	1.1	0.6	0.6	0.6	0.6	0.6
87.5°	0.6	0.6	0.6	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)