

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: P581510

Luminaire Tested: **HC407D010-HM40525930-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581510  
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-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: 774.9 lumens  
Efficiency: N/A  
Efficacy: 96.9 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

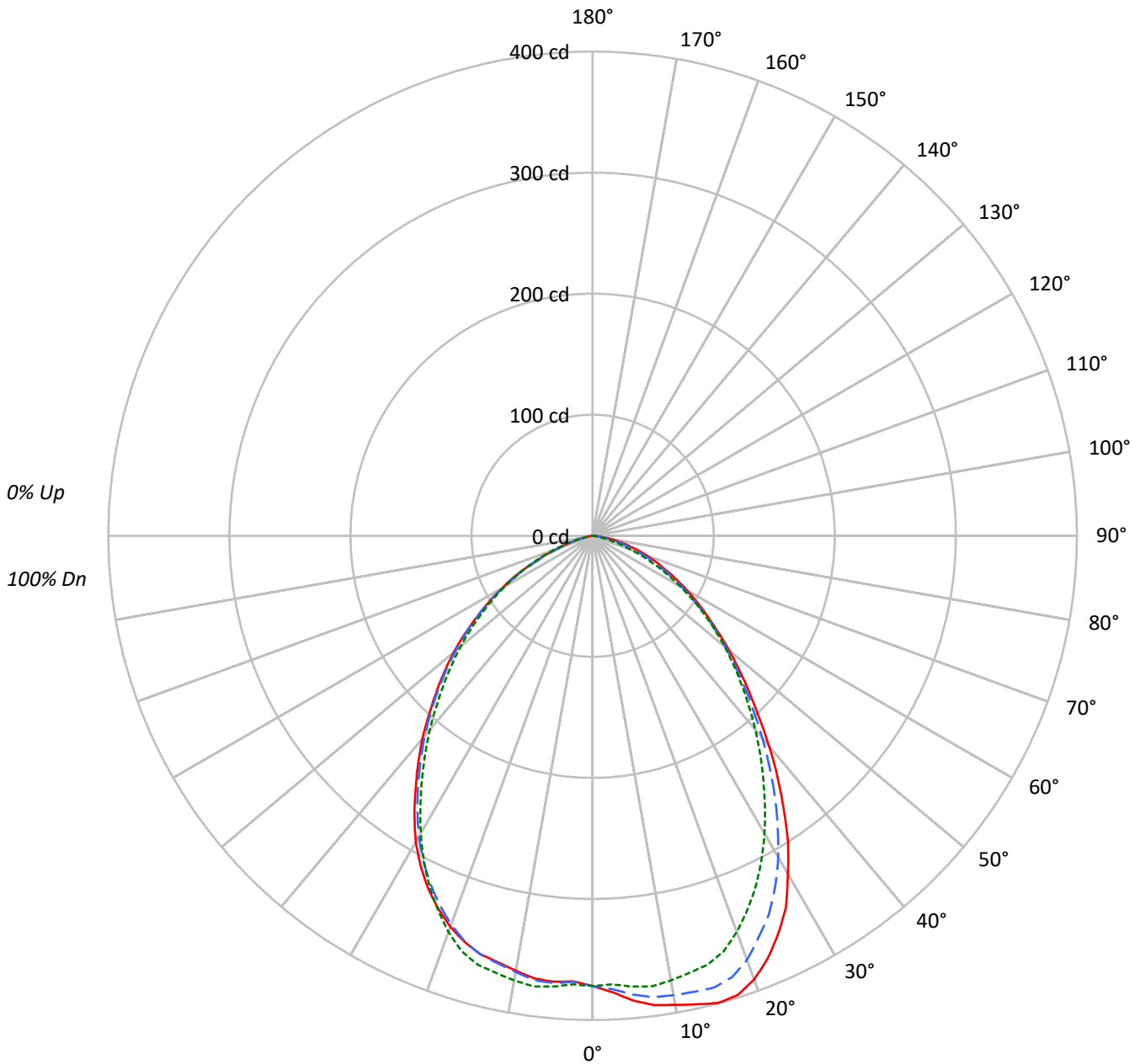
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	45872	45872	45872
5°	47719	46283	45787
10°	49285	46705	45691
15°	51028	46852	45690
20°	51192	45705	45115
25°	49376	43429	43769
30°	45947	40435	41589
35°	41379	36997	38367
40°	36502	33669	35198
45°	31905	30335	31817
50°	28266	27287	28745
55°	24859	24107	25053
60°	22178	20574	21191
65°	19496	16694	16432
70°	17022	12298	11252
75°	14154	7435	5957
80°	10655	2841	1776
85°	4953	708	708



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.9	4.6
10°-20°	104.7	13.5
20°-30°	151.6	19.6
30°-40°	159.9	20.6
40°-50°	138.4	17.9
50°-60°	102.5	13.2
60°-70°	59.1	7.6
70°-80°	20.6	2.7
80°-90°	2.2	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°	292.1	37.7
0°-40°	452.1	58.3
0°-60°	693.0	89.4
0°-90°	774.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	774.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	372	372	372	372	372	
5°	385	380	374	371	370	37
15°	400	386	367	358	358	112
25°	363	345	319	317	322	166
35°	275	262	246	251	255	172
45°	183	178	174	180	182	142
55°	116	113	112	116	116	104
65°	67	63	57	54	56	67
75°	30	25	16	12	12	32
85°	4	2	0	0	0	5
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°	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9
2.5°	377.4	376.3	374.9	372.9	370.9	369.4	368.8	368.4	368.4
5°	385.4	383.4	380.4	376.3	373.8	372.4	370.9	369.8	369.8
7.5°	391.0	389.0	384.4	379.0	375.4	372.4	370.3	368.8	368.8
10°	393.5	391.0	385.4	378.4	372.9	368.8	365.9	364.8	364.8
12.5°	396.5	393.5	385.9	376.9	369.8	364.8	361.8	360.9	360.9
15°	399.6	396.0	386.5	375.9	366.9	360.9	358.2	357.8	357.8
17.5°	398.0	393.5	382.4	369.8	359.8	353.8	351.3	351.3	351.8
20°	390.0	385.4	372.9	358.8	348.2	343.7	341.7	342.8	343.7
22.5°	377.9	372.4	358.8	345.3	334.2	330.1	330.1	331.6	333.2
25°	362.8	357.8	344.7	329.7	319.1	316.1	317.0	319.6	321.6
27.5°	345.7	340.3	326.6	312.6	302.0	300.5	303.0	306.6	307.5
30°	322.6	318.1	306.6	292.9	283.9	283.5	286.9	289.5	292.0
32.5°	300.5	295.4	284.4	271.4	264.8	265.4	269.4	272.3	273.9
35°	274.8	270.4	262.3	251.7	245.7	246.7	251.3	254.2	254.8
37.5°	250.7	247.7	239.7	231.7	227.1	229.2	233.2	236.7	236.7
40°	226.7	224.1	218.0	211.6	209.1	211.6	215.5	218.6	218.6
42.5°	203.5	202.0	197.0	192.4	191.0	194.5	198.0	200.5	199.9
45°	182.9	181.4	177.9	174.3	173.9	177.4	180.4	182.0	182.4
47.5°	164.3	163.3	160.3	157.8	157.8	161.3	163.9	165.4	165.8
50°	147.3	146.2	143.7	141.7	142.2	145.8	147.7	149.2	149.8
52.5°	130.2	129.6	127.7	125.2	126.7	129.2	131.7	132.7	133.1
55°	115.6	115.6	113.1	111.1	112.1	114.6	116.1	116.5	116.5
57.5°	102.5	102.0	99.0	97.0	97.5	100.0	101.1	101.5	101.5
60°	89.9	89.4	86.5	83.4	83.4	84.9	85.5	85.9	85.9
62.5°	77.8	77.4	73.9	71.4	70.3	69.9	69.9	70.9	72.8
65°	66.8	66.3	62.8	58.8	57.2	55.8	54.3	55.3	56.3
67.5°	56.8	55.8	52.2	48.7	45.2	42.7	40.2	41.8	43.7
70°	47.2	46.2	42.2	38.2	34.1	30.2	28.1	30.2	31.2
72.5°	38.2	37.2	33.1	29.1	24.1	20.1	19.6	20.1	20.6
75°	29.7	29.1	25.1	20.6	15.6	12.5	12.5	12.5	12.5
77.5°	22.1	21.1	17.1	13.1	9.0	7.1	6.5	6.5	6.5
80°	15.0	14.1	10.6	7.5	4.0	3.0	3.0	2.5	2.5
82.5°	8.5	8.1	5.6	3.0	1.5	1.0	1.0	1.0	1.0
85°	3.5	3.0	2.0	1.0	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)