

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: P581438

Luminaire Tested: **HC407D010-HM40525830-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581438  
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-HM40525830-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 881.8 lumens  
Efficiency: N/A  
Efficacy: 110.2 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

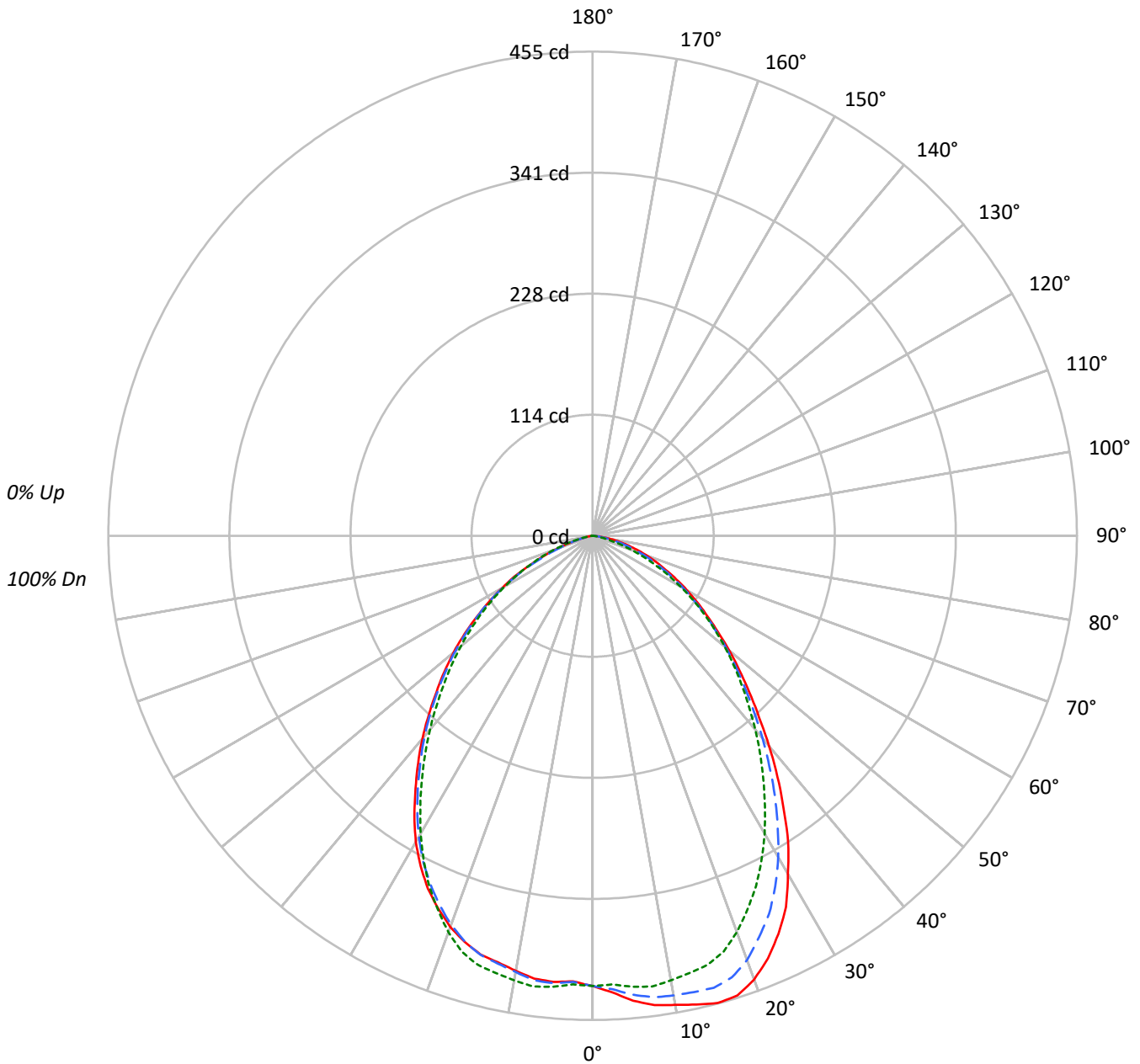
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	52188	52188	52188
5°	54306	52672	52102
10°	56074	53130	51991
15°	58051	53301	51998
20°	58241	52019	51336
25°	56194	49417	49811
30°	52285	46018	47314
35°	47101	42101	43667
40°	41526	38290	40061
45°	36300	34521	36213
50°	32142	31048	32698
55°	28300	27440	28537
60°	25237	23411	24126
65°	22181	19029	18708
70°	19366	14029	12803
75°	16060	8483	6815
80°	12217	3267	1989
85°	5661	849	849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.8	4.6
10°-20°	119.1	13.5
20°-30°	172.5	19.6
30°-40°	182.0	20.6
40°-50°	157.5	17.9
50°-60°	116.7	13.2
60°-70°	67.2	7.6
70°-80°	23.5	2.7
80°-90°	2.5	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°	332.4	37.7
0°-40°	514.4	58.3
0°-60°	788.6	89.4
0°-90°	881.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	881.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	423	423	423	423	423	
5°	439	433	425	422	421	42
15°	455	440	417	408	407	128
25°	413	392	363	361	366	189
35°	313	298	280	286	290	195
45°	208	202	198	205	208	162
55°	132	129	128	132	133	119
65°	76	72	65	62	64	76
75°	34	29	18	14	14	36
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°	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1
2.5°	429.5	428.3	426.5	424.2	422.0	420.3	419.7	419.1	419.1
5°	438.6	436.3	432.9	428.3	425.4	423.7	422.0	420.8	420.8
7.5°	444.8	442.6	437.4	431.2	427.2	423.7	421.4	419.7	419.7
10°	447.7	444.8	438.6	430.6	424.2	419.7	416.3	415.1	415.1
12.5°	451.2	447.7	439.2	428.9	420.8	415.1	411.7	410.6	410.6
15°	454.6	450.6	439.7	427.8	417.4	410.6	407.7	407.2	407.2
17.5°	452.9	447.7	435.2	420.8	409.5	402.5	399.7	399.7	400.2
20°	443.7	438.6	424.2	408.3	396.3	391.1	388.9	390.0	391.1
22.5°	430.1	423.7	408.3	392.8	380.2	375.7	375.7	377.4	379.1
25°	412.9	407.2	392.3	375.1	363.1	359.7	360.9	363.7	366.0
27.5°	393.4	387.1	371.7	355.6	343.7	342.0	344.8	348.8	349.9
30°	367.1	362.0	348.8	333.3	323.1	322.5	326.5	329.3	332.2
32.5°	342.0	336.3	323.6	308.7	301.3	301.9	306.5	309.9	311.7
35°	312.8	307.6	298.5	286.4	279.6	280.7	285.9	289.4	290.0
37.5°	285.3	281.9	272.8	263.6	258.4	260.7	265.4	269.4	269.4
40°	257.9	255.0	248.2	240.7	237.8	240.7	245.4	248.8	248.8
42.5°	231.6	229.9	224.2	219.0	217.2	221.3	225.3	228.2	227.6
45°	208.1	206.4	202.5	198.5	197.9	201.9	205.3	207.0	207.6
47.5°	187.0	185.8	182.4	179.6	179.6	183.6	186.4	188.1	188.7
50°	167.5	166.4	163.5	161.3	161.8	165.8	168.1	169.8	170.4
52.5°	148.1	147.5	145.2	142.4	144.1	146.9	149.8	151.0	151.6
55°	131.6	131.6	128.7	126.3	127.6	130.4	132.1	132.7	132.7
57.5°	116.6	116.1	112.7	110.4	111.0	113.8	114.9	115.5	115.5
60°	102.3	101.7	98.3	94.9	94.9	96.6	97.2	97.8	97.8
62.5°	88.7	88.1	84.1	81.3	80.0	79.4	79.4	80.6	83.0
65°	76.0	75.4	71.5	66.9	65.2	63.5	61.8	62.9	64.1
67.5°	64.6	63.5	59.5	55.4	51.4	48.6	45.7	47.5	49.7
70°	53.7	52.6	48.0	43.5	38.9	34.3	32.0	34.3	35.5
72.5°	43.5	42.3	37.8	33.1	27.4	22.9	22.3	22.9	23.4
75°	33.7	33.1	28.6	23.4	17.8	14.3	14.3	14.3	14.3
77.5°	25.1	24.0	19.5	14.9	10.2	8.0	7.4	7.4	7.4
80°	17.2	16.0	12.1	8.5	4.6	3.4	3.4	2.8	2.8
82.5°	9.7	9.1	6.3	3.4	1.7	1.1	1.1	1.1	1.1
85°	4.0	3.4	2.3	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)