

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: P592582

Luminaire Tested: **HC407D010-HM40525850-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592582  
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: HC407D010-HM40525850-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 924.6 lumens  
Efficiency: N/A  
Efficacy: 115.6 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

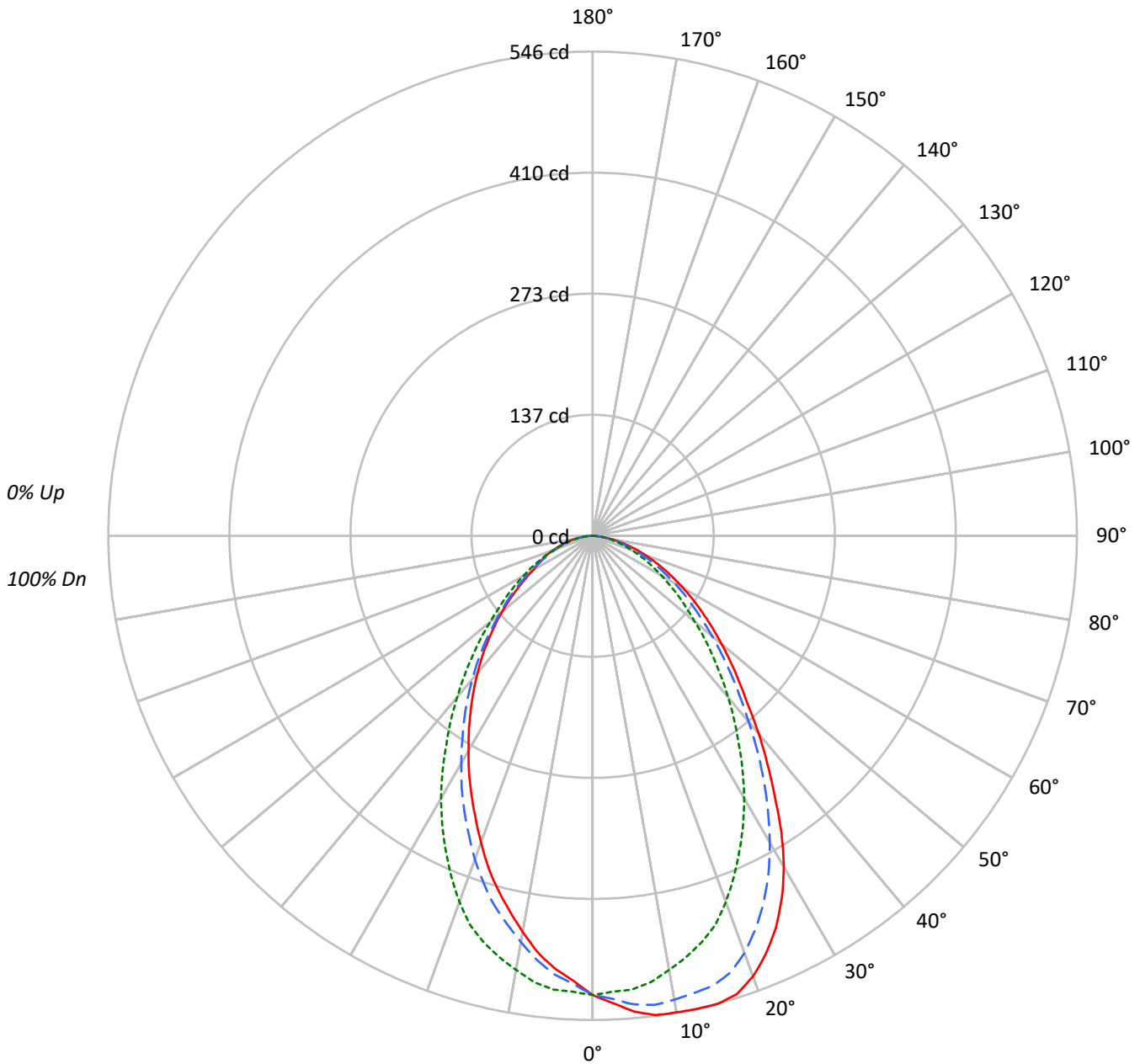
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	63868	63868	63868
5°	66675	63580	60645
10°	68361	62261	56838
15°	69774	60592	52739
20°	69398	57650	48291
25°	66483	53309	43946
30°	61429	48667	39823
35°	53846	43291	36048
40°	46888	38257	32477
45°	40801	33370	29009
50°	36363	28765	25598
55°	32472	25289	22150
60°	29011	22104	19094
65°	25771	19350	18125
70°	22612	16698	16914
75°	19158	14202	15679
80°	14704	12146	14277
85°	8633	9482	12029



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.5	5.2
10°-20°	133.9	14.5
20°-30°	182.9	19.8
30°-40°	183.7	19.9
40°-50°	151.9	16.4
50°-60°	110.1	11.9
60°-70°	69.7	7.5
70°-80°	35.3	3.8
80°-90°	8.6	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°	365.3	39.5
0°-40°	549.0	59.4
0°-60°	811.0	87.7
0°-90°	924.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	924.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	518	518	518	518	518	
5°	538	530	514	496	490	52
15°	546	525	474	431	413	154
25°	488	456	392	342	323	223
35°	358	336	288	252	239	224
45°	234	220	191	172	166	182
55°	151	138	118	107	103	136
65°	88	78	66	60	62	88
75°	40	35	30	31	33	43
85°	6	6	7	8	8	8
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°	517.8	517.8	517.8	517.8	517.8	517.8	517.8	517.8	517.8
2.5°	527.5	525.6	522.7	518.9	514.7	509.8	505.6	503.1	502.0
5°	538.5	536.0	530.5	522.7	513.5	504.4	496.4	491.6	489.8
7.5°	545.2	541.6	533.6	521.4	507.4	494.0	482.4	475.7	473.9
10°	545.8	541.6	531.2	514.7	497.1	479.4	465.3	455.7	453.8
12.5°	546.4	540.9	528.1	508.6	486.7	464.8	447.7	436.2	433.1
15°	546.4	540.9	525.1	502.0	474.5	449.5	430.6	417.3	413.0
17.5°	541.6	535.4	516.5	489.8	459.9	431.9	409.9	395.9	391.7
20°	528.7	522.0	500.7	471.5	439.2	409.9	388.1	373.4	367.9
22.5°	510.5	502.5	480.0	448.4	416.1	386.2	364.8	349.6	344.8
25°	488.5	480.6	456.2	425.2	391.7	363.7	342.3	328.3	322.9
27.5°	461.7	453.2	429.5	398.4	367.3	339.2	319.8	307.0	301.6
30°	431.3	422.1	399.6	369.7	341.7	314.9	296.0	285.6	279.6
32.5°	395.9	388.1	367.9	341.1	314.9	289.4	273.5	264.4	259.5
35°	357.6	353.3	336.3	313.1	287.5	266.2	252.2	243.6	239.4
37.5°	323.4	319.2	304.5	285.1	262.5	243.1	231.5	224.2	220.5
40°	291.2	287.5	273.5	257.1	237.6	220.5	210.8	205.3	201.7
42.5°	259.5	257.6	246.0	230.9	213.8	199.1	191.3	187.0	184.0
45°	233.9	231.5	220.5	205.9	191.3	179.1	172.4	169.3	166.3
47.5°	211.3	208.4	196.8	184.0	170.6	159.5	153.5	150.4	149.2
50°	189.5	186.4	176.0	163.3	149.9	141.9	137.0	134.1	133.4
52.5°	169.9	166.9	155.3	143.2	132.8	126.1	121.9	118.8	117.6
55°	151.0	147.4	137.7	126.1	117.6	111.5	107.2	104.1	103.0
57.5°	134.1	130.3	121.9	110.8	103.0	97.4	93.8	90.8	89.6
60°	117.6	114.5	106.6	96.3	89.6	84.7	81.0	78.5	77.4
62.5°	102.3	99.9	92.0	82.8	77.4	73.1	70.1	67.6	68.8
65°	88.3	85.9	78.5	70.7	66.3	62.1	59.7	59.7	62.1
67.5°	74.9	72.5	66.3	59.7	56.0	53.0	51.2	53.0	54.9
70°	62.7	60.3	54.9	49.4	46.3	43.8	43.8	45.6	46.9
72.5°	51.2	48.7	44.5	40.2	37.8	36.0	37.8	39.0	40.2
75°	40.2	38.4	34.7	31.6	29.8	29.2	31.1	32.3	32.9
77.5°	29.8	28.7	26.2	23.8	22.5	23.1	24.9	25.6	26.2
80°	20.7	20.1	18.3	17.1	17.1	17.6	18.9	19.5	20.1
82.5°	12.7	12.7	11.6	10.9	11.6	12.7	13.4	14.0	14.0
85°	6.1	6.7	6.1	6.1	6.7	8.0	8.0	8.5	8.5
87.5°	1.8	1.8	2.4	2.4	3.1	3.1	3.1	3.1	3.6
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)