

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: P593066

Luminaire Tested: **HC610D010-HM60525850-61RWWH**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593066  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC610D010-HM60525850-61RWWH  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1223.7 lumens  
Efficiency: N/A  
Efficacy: 123.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

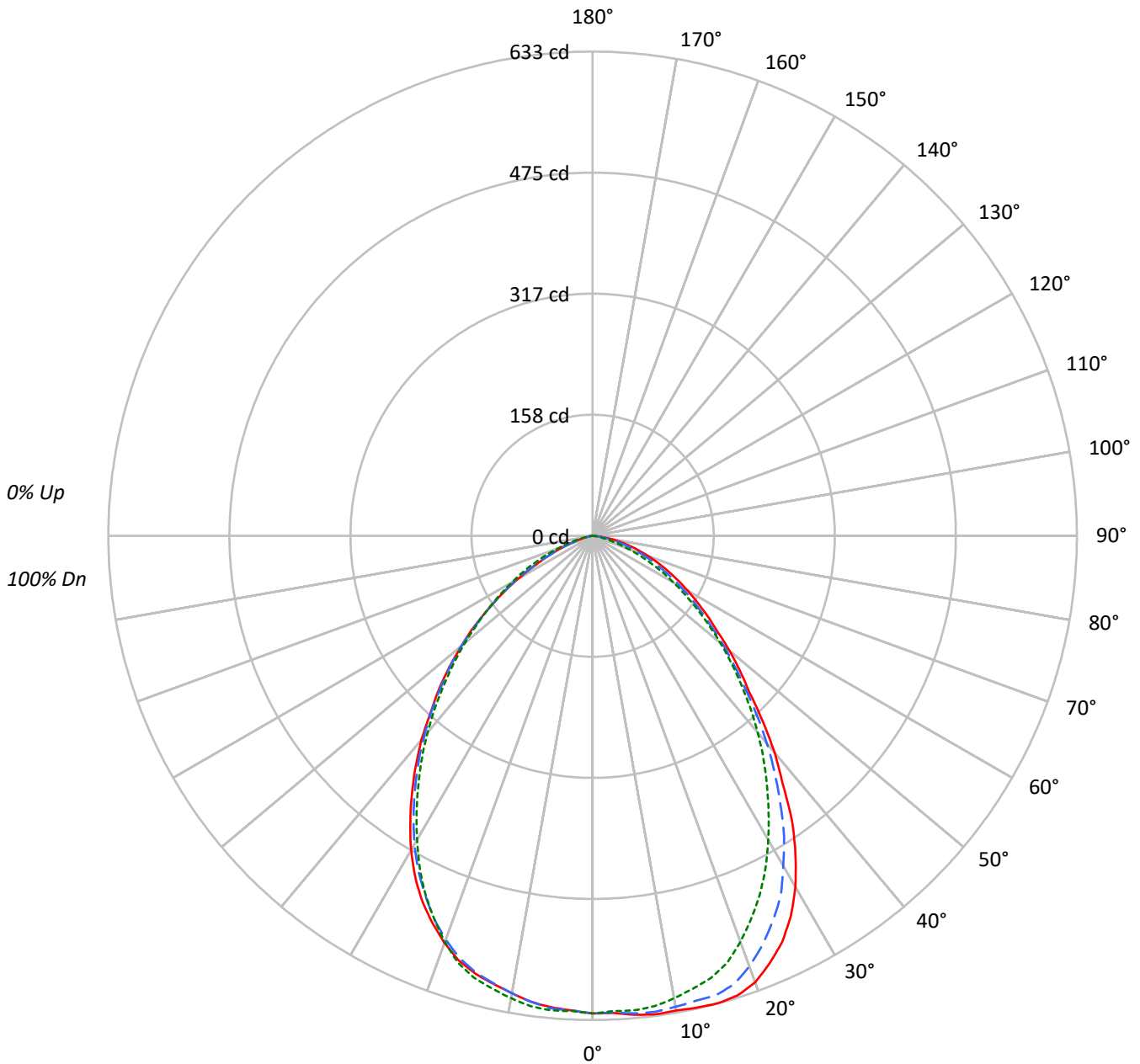
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77																			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	41	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°	34235	34235	34235
5°	34592	34272	34052
10°	35081	34173	33806
15°	35908	33956	33632
20°	36240	32950	33037
25°	35446	31284	31883
30°	33568	29061	30043
35°	30403	26568	27552
40°	26471	24009	24897
45°	22460	21258	22018
50°	19897	18567	19061
55°	17529	15885	15799
60°	15700	13365	12302
65°	14009	10715	8808
70°	12342	7742	5514
75°	10400	4681	3114
80°	8019	2084	1294
85°	4655	503	503



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.3	4.8
10°-20°	170.4	13.9
20°-30°	246.3	20.1
30°-40°	259.1	21.2
40°-50°	217.8	17.8
50°-60°	152.9	12.5
60°-70°	84.1	6.9
70°-80°	29.9	2.4
80°-90°	3.9	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°	475.9	38.9
0°-40°	735.0	60.1
0°-60°	1105.8	90.4
0°-90°	1223.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1223.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	624	624	624	624	624	
5°	629	627	623	620	619	60
15°	633	622	598	591	593	179
25°	586	556	517	518	527	268
35°	454	428	397	405	412	282
45°	290	282	274	281	284	227
55°	183	174	166	166	165	165
65°	108	97	83	68	68	108
75°	49	39	22	15	15	53
85°	7	4	1	1	1	10
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°	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5
2.5°	624.5	624.5	623.6	623.6	622.0	622.0	621.2	621.2	621.2
5°	628.6	628.6	626.9	624.5	622.8	620.3	620.3	619.5	618.8
7.5°	631.0	630.2	627.7	624.5	620.3	616.3	614.7	615.5	614.7
10°	630.2	628.6	625.3	618.8	613.9	608.1	607.3	606.4	607.3
12.5°	631.9	629.4	622.8	614.7	606.4	600.0	599.1	599.1	600.0
15°	632.7	630.2	622.0	609.7	598.3	591.7	590.9	591.7	592.6
17.5°	630.2	626.9	614.7	598.3	585.2	578.7	578.7	580.3	582.0
20°	621.2	616.3	599.1	579.5	564.8	559.8	561.5	564.8	566.3
22.5°	604.8	599.1	579.5	557.4	541.8	537.7	541.8	545.9	547.5
25°	586.0	579.5	556.5	533.6	517.2	512.3	518.1	524.6	527.1
27.5°	560.7	553.3	532.0	505.8	489.5	487.0	493.6	500.9	502.5
30°	530.3	522.2	498.4	473.9	459.1	458.3	465.7	472.3	474.6
32.5°	493.6	486.2	465.7	441.1	428.0	428.0	435.4	441.1	443.6
35°	454.3	446.0	428.0	407.6	397.0	397.8	405.1	409.2	411.7
37.5°	407.6	405.1	391.2	374.0	366.7	368.4	374.0	377.3	379.8
40°	369.9	363.4	354.4	340.5	335.5	337.2	342.9	346.2	347.9
42.5°	329.0	324.9	317.5	307.8	304.5	306.9	311.9	314.2	313.5
45°	289.7	288.9	281.5	275.9	274.2	277.5	280.7	283.2	284.0
47.5°	261.0	257.8	251.3	247.1	245.5	248.8	252.1	253.7	253.7
50°	233.3	230.0	223.5	219.4	217.7	221.0	223.5	225.0	223.5
52.5°	205.5	202.2	196.4	191.5	190.7	192.3	193.1	194.0	195.6
55°	183.4	180.1	173.5	167.8	166.2	167.0	166.2	166.2	165.3
57.5°	162.1	158.8	152.3	145.7	143.2	142.4	139.9	139.1	138.3
60°	143.2	139.1	132.6	125.2	121.9	118.6	114.6	112.2	112.2
62.5°	125.2	121.1	113.8	107.2	102.3	96.6	90.0	86.7	86.7
65°	108.0	104.7	96.6	89.2	82.6	75.3	67.9	66.3	67.9
67.5°	91.7	88.4	80.3	72.8	64.6	55.7	49.1	49.1	50.7
70°	77.0	73.7	66.3	57.3	48.3	39.3	34.4	34.4	34.4
72.5°	63.1	59.8	51.5	43.4	34.4	25.4	22.9	23.8	22.9
75°	49.1	46.6	39.3	30.3	22.1	15.5	14.7	13.9	14.7
77.5°	36.8	34.4	27.8	19.7	12.2	9.1	8.2	8.2	8.2
80°	25.4	22.9	18.0	11.4	6.6	4.1	4.1	4.1	4.1
82.5°	15.5	13.1	9.8	5.8	2.5	2.5	2.5	2.5	2.5
85°	7.4	5.8	4.1	1.6	0.8	0.8	0.8	0.8	0.8
87.5°	1.6	1.6	0.8	0.8	0.0	0.8	0.8	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)