

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: P579861

Luminaire Tested: **HC415D010-HM40525830-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579861  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC415D010-HM40525830-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1169.2 lumens  
Efficiency: N/A  
Efficacy: 83.5 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

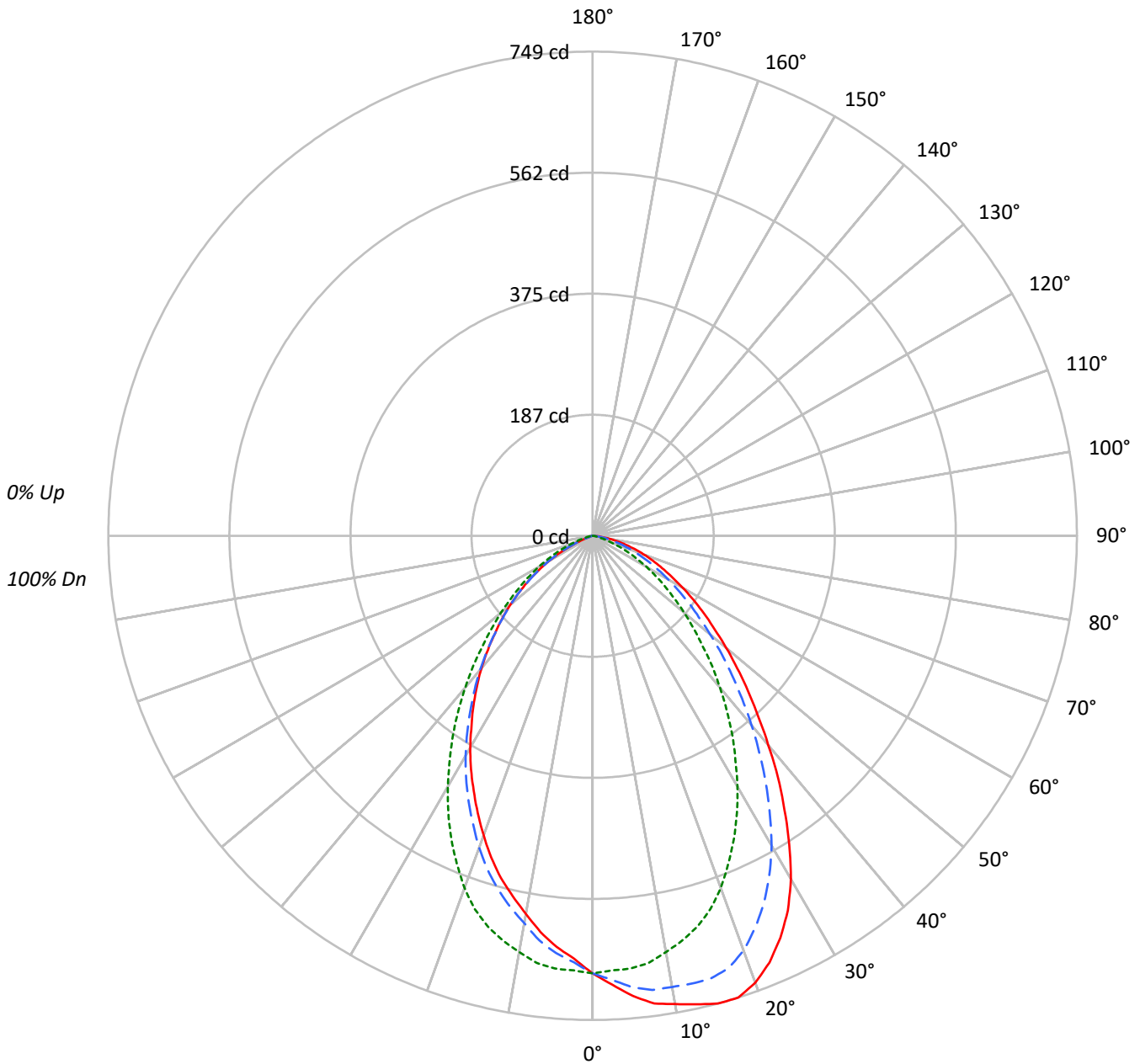
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

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

	0°	90°	180°
0°	83493	83493	83493
5°	88467	83217	79045
10°	92133	81887	74410
15°	95658	79925	69965
20°	96556	76079	64712
25°	93430	70376	59229
30°	87351	63779	53894
35°	77863	56692	48411
40°	68062	49303	43088
45°	59274	41830	37295
50°	51734	35481	31969
55°	45353	29418	25892
60°	39668	23756	18995
65°	34585	17716	10682
70°	30222	11432	3498
75°	24782	5957	905
80°	18468	2770	639
85°	10897	1274	1274



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.9	5.5
10°-20°	178.8	15.3
20°-30°	247.2	21.1
30°-40°	248.6	21.3
40°-50°	200.6	17.2
50°-60°	135.6	11.6
60°-70°	69.0	5.9
70°-80°	22.1	1.9
80°-90°	3.4	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°	489.9	41.9
0°-40°	738.5	63.2
0°-60°	1074.7	91.9
0°-90°	1169.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1169.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	677	677	677	677	677	
5°	714	701	672	648	638	69
15°	749	709	626	566	548	211
25°	686	627	517	454	435	314
35°	517	467	376	329	322	323
45°	340	304	240	214	214	263
55°	211	182	137	119	120	189
65°	118	96	61	40	37	119
75°	52	37	12	3	2	56
85°	8	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°	676.9	676.9	676.9	676.9	676.9	676.9	676.9	676.9	676.9
2.5°	695.2	691.3	687.5	680.7	673.0	665.4	660.5	656.7	654.8
5°	714.5	709.6	701.0	686.5	672.1	658.6	648.0	641.3	638.4
7.5°	729.8	723.1	708.7	688.5	666.3	645.1	631.6	622.1	618.2
10°	735.6	727.9	708.7	681.7	653.8	627.7	608.5	598.9	594.1
12.5°	742.3	733.7	709.6	675.9	641.3	610.5	588.3	575.8	571.0
15°	749.1	737.6	708.7	667.3	625.9	590.2	566.1	553.6	547.9
17.5°	749.1	735.6	701.0	652.9	605.7	568.0	541.1	526.7	521.9
20°	735.6	720.2	682.7	629.7	579.6	539.2	513.2	498.8	493.0
22.5°	714.5	697.1	656.7	601.8	548.8	509.4	483.3	469.9	464.1
25°	686.5	669.2	626.8	570.0	517.1	477.5	453.5	441.0	435.2
27.5°	653.8	634.6	592.1	535.3	483.3	445.8	423.6	412.2	407.3
30°	613.3	595.1	553.6	497.8	447.8	413.1	392.8	382.3	378.4
32.5°	566.1	550.8	510.3	458.3	411.1	379.4	361.1	352.4	348.6
35°	517.1	502.7	467.0	418.9	376.5	346.7	329.3	323.5	321.5
37.5°	470.8	458.3	423.6	379.4	340.9	314.8	299.5	295.6	293.7
40°	422.7	414.0	382.3	341.8	306.2	283.1	270.6	267.6	267.6
42.5°	379.4	369.8	341.8	305.3	273.4	250.4	241.7	238.8	239.8
45°	339.8	330.3	304.3	270.6	239.8	220.5	213.8	213.8	213.8
47.5°	303.4	294.6	270.6	235.9	210.9	195.5	188.7	188.7	189.7
50°	269.6	263.8	236.8	207.0	184.9	170.4	165.7	164.6	166.6
52.5°	237.9	231.0	207.0	180.1	158.8	147.4	142.5	141.6	142.5
55°	210.9	203.2	182.0	156.0	136.8	125.2	119.4	118.5	120.4
57.5°	184.9	179.1	156.9	133.8	115.5	104.0	99.1	97.2	98.2
60°	160.8	155.0	134.8	112.7	96.3	84.7	78.0	76.1	77.0
62.5°	138.6	133.8	114.6	93.3	77.0	66.4	59.7	54.9	56.8
65°	118.5	113.6	96.3	75.2	60.7	49.1	39.5	35.6	36.6
67.5°	101.1	95.3	78.9	59.7	45.3	32.7	22.2	20.2	20.2
70°	83.8	78.0	63.6	46.2	31.7	17.3	9.7	9.7	9.7
72.5°	67.4	62.5	49.1	34.7	20.2	7.7	3.9	3.9	3.9
75°	52.0	48.1	36.6	24.1	12.5	3.9	2.8	1.9	1.9
77.5°	38.5	34.7	26.0	16.4	7.7	1.9	1.9	1.9	1.9
80°	26.0	23.1	17.3	9.7	3.9	0.9	0.9	0.9	0.9
82.5°	15.3	13.5	9.7	4.8	1.9	0.9	0.9	0.9	0.9
85°	7.7	5.8	3.9	1.9	0.9	0.9	0.9	0.9	0.9
87.5°	1.9	0.9	0.9	0.9	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)