

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: P579951

Luminaire Tested: **HC415D010-HM40525935-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579951  
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-HM40525935-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1082.3 lumens  
Efficiency: N/A  
Efficacy: 77.3 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

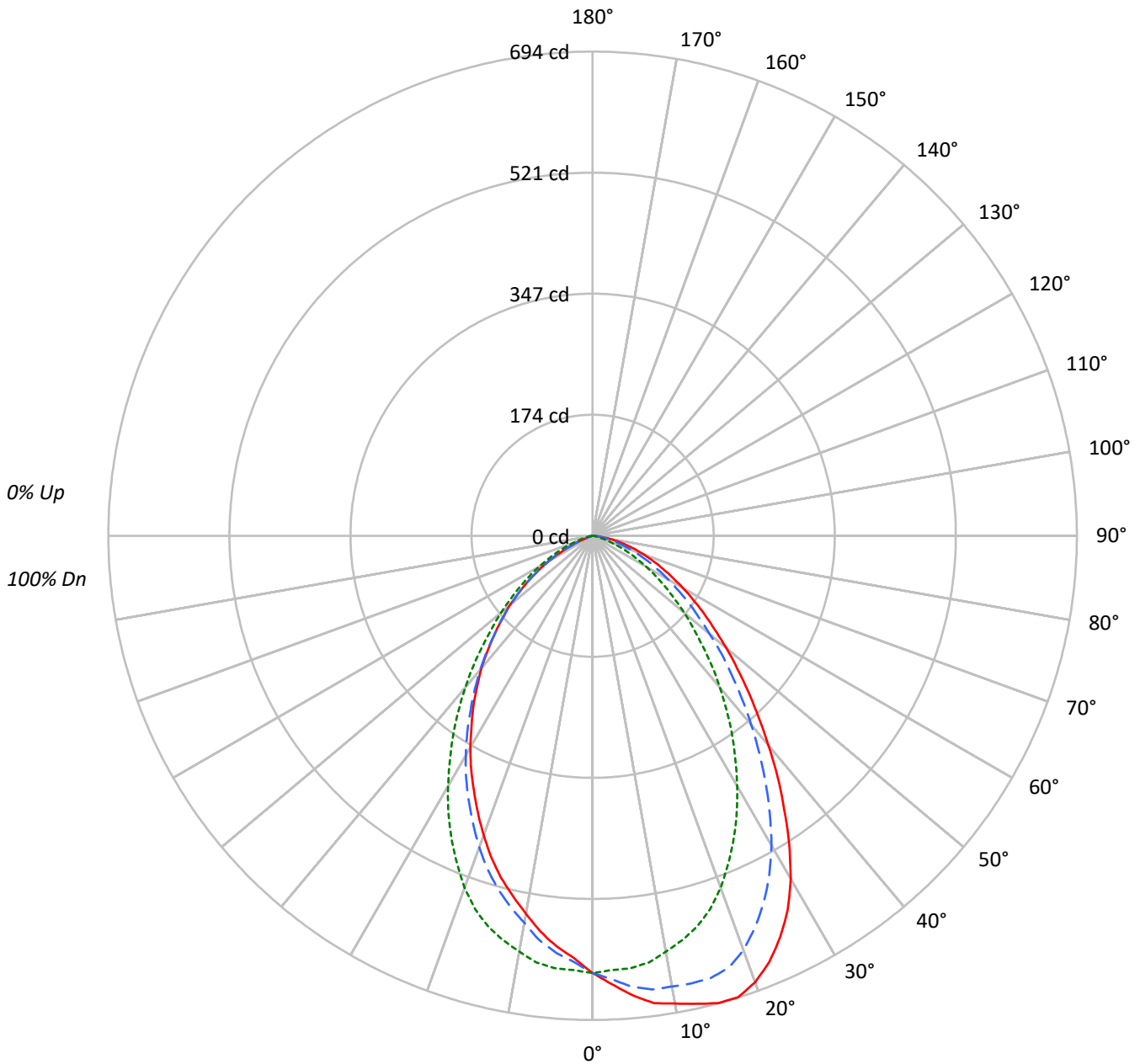
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	77288	77288	77288
5°	81892	77039	73163
10°	85282	75800	68887
15°	88558	73988	64768
20°	89376	70435	59908
25°	86490	65150	54820
30°	80870	59022	49892
35°	72081	52476	44827
40°	62990	45648	39900
45°	54878	38708	34504
50°	47896	32833	29590
55°	41977	27203	23956
60°	36708	21980	17589
65°	31988	16403	9894
70°	27949	10603	3210
75°	22923	5528	858
80°	17119	2486	639
85°	10190	1274	1274



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.1	5.5
10°-20°	165.5	15.3
20°-30°	228.8	21.1
30°-40°	230.1	21.3
40°-50°	185.7	17.2
50°-60°	125.5	11.6
60°-70°	63.9	5.9
70°-80°	20.5	1.9
80°-90°	3.1	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°	453.5	41.9
0°-40°	683.6	63.2
0°-60°	994.8	91.9
0°-90°	1082.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1082.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	627	627	627	627	627	
5°	661	649	622	600	591	64
15°	694	656	579	524	507	195
25°	636	580	479	420	403	291
35°	479	432	348	305	298	299
45°	315	282	222	198	198	244
55°	195	168	126	110	111	175
65°	110	89	56	36	34	110
75°	48	34	12	3	2	52
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°	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6
2.5°	643.5	640.0	636.4	630.1	623.1	615.9	611.5	607.8	606.1
5°	661.4	657.0	648.9	635.5	622.2	609.7	599.9	593.6	590.9
7.5°	675.6	669.4	656.0	637.3	616.8	597.2	584.8	575.8	572.3
10°	680.9	673.8	656.0	631.0	605.2	581.1	563.3	554.4	550.0
12.5°	687.2	679.2	657.0	625.7	593.6	565.1	544.6	533.0	528.6
15°	693.5	682.8	656.0	617.7	579.4	546.3	524.0	512.6	507.2
17.5°	693.5	680.9	648.9	604.3	560.7	525.9	501.0	487.5	483.1
20°	680.9	666.7	631.9	582.9	536.6	499.1	475.0	461.7	456.4
22.5°	661.4	645.4	607.8	557.1	508.0	471.5	447.4	435.0	429.7
25°	635.5	619.4	580.2	527.7	478.7	442.1	419.8	408.2	402.8
27.5°	605.2	587.4	548.1	495.6	447.4	412.7	392.2	381.5	377.0
30°	567.8	550.9	512.6	460.8	414.4	382.4	363.6	353.8	350.3
32.5°	524.0	509.8	472.4	424.2	380.6	351.2	334.3	326.2	322.7
35°	478.7	465.3	432.3	387.7	348.5	320.9	304.8	299.5	297.7
37.5°	435.8	424.2	392.2	351.2	315.5	291.4	277.2	273.7	271.9
40°	391.2	383.3	353.8	316.4	283.5	262.1	250.5	247.8	247.8
42.5°	351.2	342.2	316.4	282.5	253.1	231.7	223.8	221.0	221.9
45°	314.6	305.7	281.6	250.5	221.9	204.1	197.8	197.8	197.8
47.5°	280.7	272.8	250.5	218.4	195.2	180.9	174.6	174.6	175.6
50°	249.6	244.2	219.2	191.6	171.1	157.8	153.3	152.5	154.2
52.5°	220.1	213.9	191.6	166.7	147.0	136.3	131.9	131.0	131.9
55°	195.2	188.1	168.5	144.4	126.5	115.9	110.5	109.6	111.4
57.5°	171.1	165.8	145.3	123.9	107.0	96.3	91.8	90.1	91.0
60°	148.8	143.5	124.7	104.3	89.1	78.5	72.2	70.4	71.3
62.5°	128.4	123.9	106.1	86.4	71.3	61.5	55.3	50.8	52.6
65°	109.6	105.2	89.1	69.5	56.2	45.5	36.5	33.0	33.9
67.5°	93.6	88.2	73.1	55.3	41.8	30.4	20.5	18.8	18.8
70°	77.5	72.2	58.8	42.8	29.4	16.0	8.9	8.9	8.9
72.5°	62.4	58.0	45.5	32.1	18.8	7.2	3.5	3.5	3.5
75°	48.1	44.6	33.9	22.3	11.6	3.5	2.7	1.8	1.8
77.5°	35.7	32.1	24.1	15.1	7.2	1.8	1.8	1.8	1.8
80°	24.1	21.4	16.0	8.9	3.5	0.9	0.9	0.9	0.9
82.5°	14.2	12.5	8.9	4.4	1.8	0.9	0.9	0.9	0.9
85°	7.2	5.3	3.5	1.8	0.9	0.9	0.9	0.9	0.9
87.5°	1.8	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)