

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P581100

Luminaire Tested: **HCC4S05D010BZ-HM40525935-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581100  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S05D010BZ-HM40525935-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

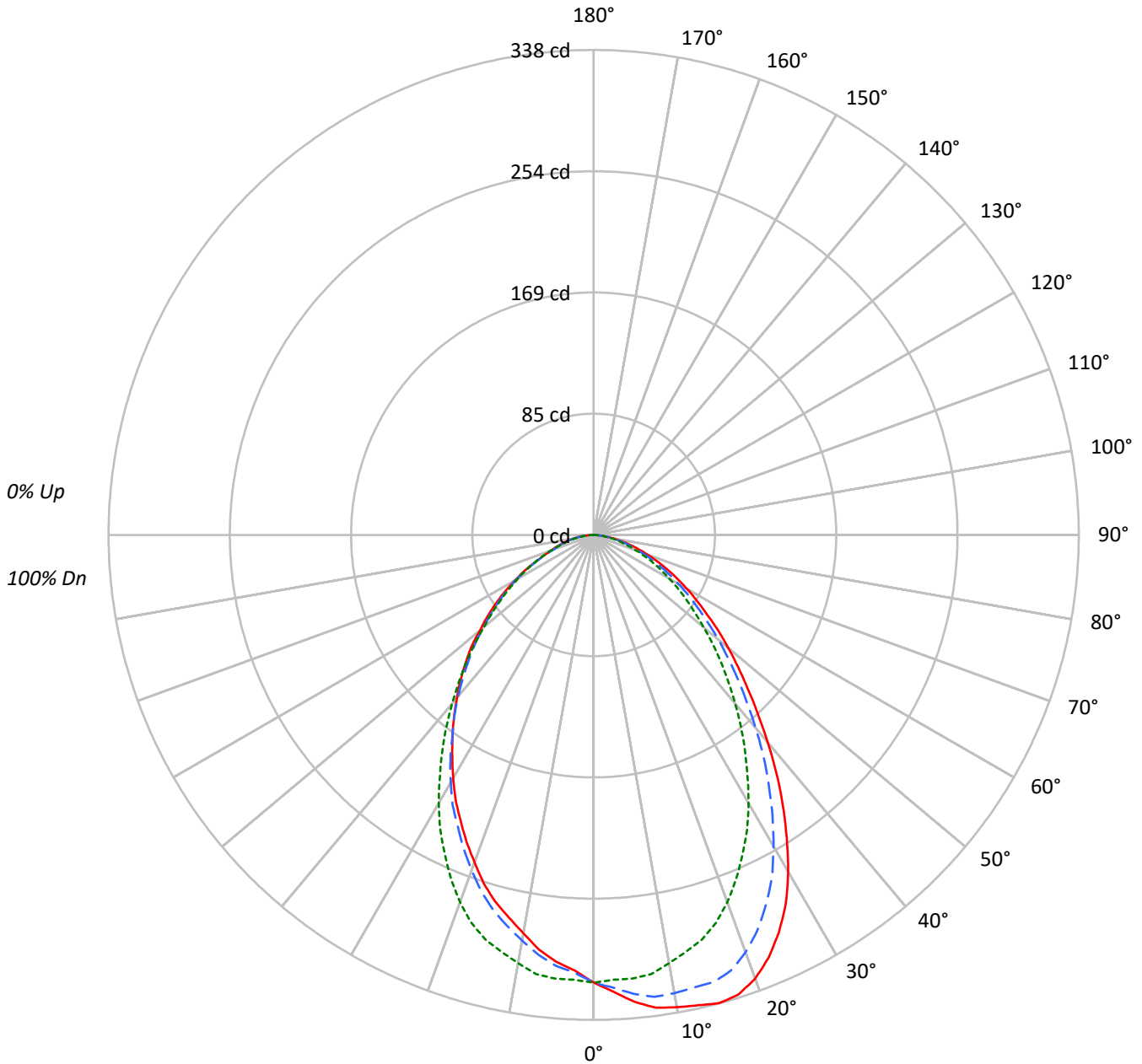
Lumens per Lamp: N/A  
Luminaire Lumens: 604.9 lumens  
Efficiency: N/A  
Efficacy: 100.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 6  
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					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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58					58			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46					46			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41					41			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	45	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°	38472	38472	38472
5°	40451	38420	36972
10°	41871	37950	35295
15°	43149	37262	33801
20°	43185	35743	31857
25°	41564	33398	29860
30°	38598	30736	27887
35°	34603	27676	25809
40°	30352	24684	23847
45°	26532	21857	21997
50°	23430	19132	19822
55°	20666	16967	17827
60°	18477	14999	15591
65°	16373	13221	13221
70°	14281	11252	11252
75°	12248	9531	10723
80°	9660	8524	9660
85°	6227	7359	9057



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.5	4.9
10°-20°	83.2	13.8
20°-30°	116.6	19.3
30°-40°	120.1	19.9
40°-50°	102.3	16.9
50°-60°	75.8	12.5
60°-70°	47.6	7.9
70°-80°	23.6	3.9
80°-90°	6.2	1.0
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°	229.3	37.9
0°-40°	349.4	57.8
0°-60°	527.5	87.2
0°-90°	604.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	604.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	312	312	312	312	312	
5°	327	321	310	302	299	31
15°	338	323	292	271	265	95
25°	305	284	245	224	219	140
35°	230	213	184	172	171	143
45°	152	142	125	123	126	118
55°	96	88	79	80	83	87
65°	56	50	45	44	45	56
75°	26	23	20	22	22	27
85°	4	4	5	6	6	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°	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9
2.5°	318.7	317.5	315.9	313.0	310.3	307.8	305.4	304.3	303.8
5°	326.7	324.3	321.1	315.9	310.3	305.4	301.5	299.4	298.6
7.5°	332.3	329.8	324.7	316.7	308.7	301.5	295.1	292.3	291.5
10°	334.3	331.5	324.3	313.5	303.0	294.3	287.0	283.4	281.8
12.5°	335.8	332.3	323.0	310.3	297.5	286.7	279.0	274.2	273.1
15°	337.9	333.9	322.7	307.0	291.8	279.0	270.6	266.3	264.7
17.5°	335.8	331.5	318.3	300.7	283.4	269.4	260.3	256.2	254.6
20°	329.0	324.3	309.5	290.7	272.3	257.9	248.6	244.6	242.7
22.5°	318.7	313.5	298.3	278.2	259.5	245.4	236.6	232.6	231.4
25°	305.4	300.2	284.2	263.8	245.4	231.8	224.2	220.6	219.4
27.5°	289.9	284.7	269.0	249.0	231.4	218.6	212.6	209.0	208.2
30°	271.0	265.8	250.6	232.2	215.8	203.7	199.0	196.1	195.8
32.5°	250.3	245.8	231.8	215.0	199.4	189.3	185.8	183.8	183.3
35°	229.8	225.0	212.6	197.4	183.8	174.9	171.7	171.4	171.4
37.5°	209.0	204.2	194.2	180.1	168.5	160.5	159.4	159.7	159.7
40°	188.5	184.2	175.4	163.8	153.3	147.3	146.9	147.8	148.1
42.5°	169.3	165.7	157.8	147.8	138.9	134.2	134.5	136.1	137.3
45°	152.1	148.9	141.8	132.9	125.3	121.7	122.9	124.8	126.1
47.5°	136.5	133.7	126.9	118.9	112.5	110.1	111.7	114.1	115.7
50°	122.1	119.7	113.3	104.9	99.7	98.1	100.1	102.5	103.3
52.5°	109.3	106.9	100.1	92.8	88.9	88.1	90.1	92.0	93.3
55°	96.1	94.1	88.5	82.1	78.9	78.4	80.5	82.1	82.9
57.5°	85.2	83.3	78.1	72.4	69.7	69.2	71.3	72.4	72.9
60°	74.9	72.9	68.1	62.9	60.8	60.8	62.1	62.9	63.2
62.5°	65.3	63.2	58.9	54.5	52.9	52.9	52.9	53.2	54.5
65°	56.1	54.5	50.4	46.4	45.3	44.5	44.5	44.5	45.3
67.5°	47.7	46.1	42.8	39.3	38.0	36.9	36.4	37.2	37.2
70°	39.6	38.5	35.2	32.5	31.2	30.1	29.6	31.2	31.2
72.5°	32.5	31.2	29.2	26.4	25.2	24.9	25.7	26.4	26.8
75°	25.7	24.4	22.8	21.2	20.0	20.4	21.6	22.0	22.5
77.5°	19.2	18.8	17.3	16.0	16.0	16.5	17.3	18.0	18.4
80°	13.6	13.2	12.4	11.6	12.0	12.8	13.2	14.0	13.6
82.5°	8.4	8.4	8.1	8.1	8.4	9.2	9.6	10.0	10.4
85°	4.4	4.4	4.4	4.8	5.2	5.6	6.0	6.4	6.4
87.5°	1.2	1.6	1.6	2.0	2.4	2.4	2.8	2.8	2.8
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°

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