

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: P581009

Luminaire Tested: **HCC4S05D010BZ-HM40525830-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581009  
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: HCC4S05D010BZ-HM40525830-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

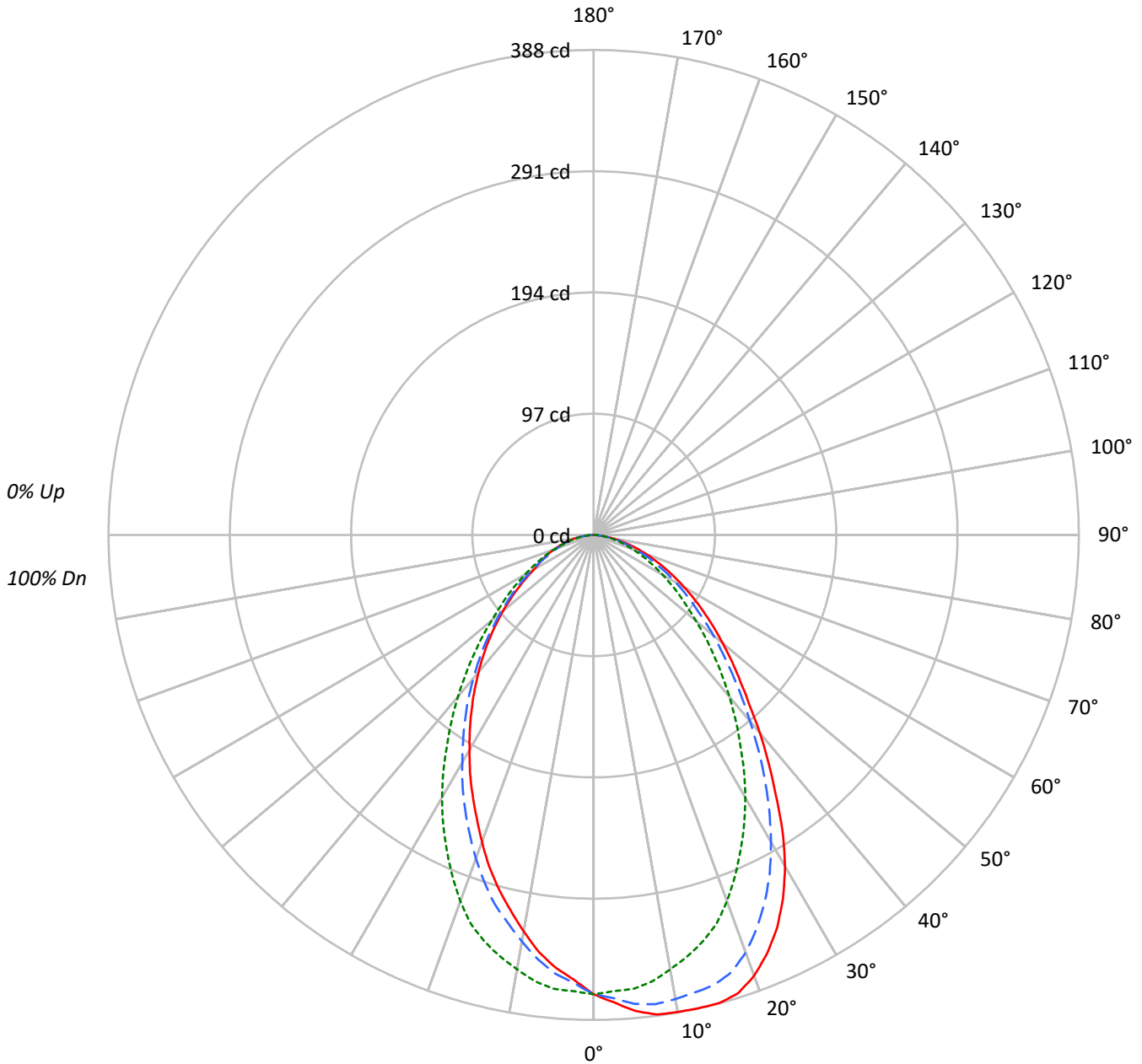
Lumens per Lamp: N/A  
Luminaire Lumens: 656.4 lumens  
Efficiency: N/A  
Efficacy: 109.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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



TEST NUMBER: P581009  
CATALOG NUMBER: HCC4S05D010BZ-HM40525830-41WWW

### Luminous Intensity Polar Plot



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



TEST NUMBER: P581009

CATALOG NUMBER: HCC4S05D010BZ-HM40525830-41WWW

**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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87					87			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76					76			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66					66			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58					58			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47					47			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35					35			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

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

	0°	90°	180°
0°	45330	45330	45330
5°	47335	45144	43051
10°	48534	44200	40343
15°	49521	43021	37441
20°	49263	40927	34286
25°	47212	37849	31193
30°	43597	34539	28272
35°	38216	30733	25583
40°	33282	27163	23041
45°	28974	23671	20584
50°	25809	20398	18172
55°	23074	17935	15720
60°	20574	15690	13543
65°	18300	13747	12900
70°	16048	11865	12009
75°	13582	10103	11152
80°	10513	8595	10158
85°	6085	6793	8491



TEST NUMBER: P581009  
 CATALOG NUMBER: HCC4S05D010BZ-HM40525830-41WWW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.5	5.2
10°-20°	95.0	14.5
20°-30°	129.8	19.8
30°-40°	130.4	19.9
40°-50°	107.9	16.4
50°-60°	78.2	11.9
60°-70°	49.5	7.5
70°-80°	25.0	3.8
80°-90°	6.1	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°	259.3	39.5
0°-40°	389.7	59.4
0°-60°	575.7	87.7
0°-90°	656.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	656.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	368	368	368	368	368	
5°	382	377	365	352	348	37
15°	388	373	337	306	293	109
25°	347	324	278	243	229	158
35°	254	239	204	179	170	159
45°	166	156	136	122	118	129
55°	107	98	83	76	73	96
65°	63	56	47	42	44	62
75°	28	25	21	22	23	30
85°	4	4	5	6	6	6
90°	0	0	0	0	0	

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



TEST NUMBER: P581009

CATALOG NUMBER: HCC4S05D010BZ-HM40525830-41WWW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	367.5	367.5	367.5	367.5	367.5	367.5	367.5	367.5	367.5
2.5°	374.4	373.2	371.0	368.4	365.4	362.0	358.9	357.2	356.3
5°	382.3	380.6	376.6	371.0	364.6	358.1	352.4	349.0	347.7
7.5°	387.0	384.4	378.7	370.1	360.2	350.7	342.4	337.8	336.4
10°	387.5	384.4	377.0	365.4	352.9	340.3	330.4	323.5	322.1
12.5°	387.8	384.0	374.9	361.0	345.5	329.9	317.8	309.6	307.5
15°	387.8	384.0	372.7	356.3	336.9	319.2	305.8	296.2	293.2
17.5°	384.4	380.1	366.7	347.7	326.4	306.6	291.0	281.0	278.1
20°	375.3	370.6	355.5	334.7	311.8	291.0	275.5	265.0	261.2
22.5°	362.4	356.7	340.7	318.3	295.3	274.1	259.0	248.2	244.7
25°	346.9	341.2	323.9	301.8	278.1	258.2	243.0	233.1	229.2
27.5°	327.8	321.8	304.9	282.8	260.7	240.8	227.0	217.9	214.1
30°	306.1	299.6	283.6	262.5	242.5	223.6	210.2	202.8	198.5
32.5°	281.0	275.5	261.2	242.2	223.6	205.4	194.2	187.6	184.2
35°	253.8	250.8	238.7	222.2	204.1	189.0	179.0	173.0	169.9
37.5°	229.6	226.5	216.2	202.4	186.4	172.5	164.3	159.1	156.5
40°	206.7	204.1	194.2	182.5	168.7	156.5	149.6	145.7	143.1
42.5°	184.2	183.0	174.7	163.9	151.7	141.4	135.7	132.8	130.6
45°	166.1	164.3	156.5	146.2	135.7	127.1	122.4	120.2	118.0
47.5°	150.0	147.9	139.7	130.6	121.1	113.3	109.0	106.8	105.9
50°	134.5	132.3	125.0	115.9	106.3	100.8	97.3	95.1	94.7
52.5°	120.7	118.5	110.3	101.6	94.3	89.6	86.5	84.3	83.4
55°	107.3	104.6	97.7	89.6	83.4	79.1	76.2	73.9	73.1
57.5°	95.1	92.5	86.5	78.7	73.1	69.2	66.6	64.5	63.6
60°	83.4	81.3	75.7	68.3	63.6	60.2	57.5	55.7	54.9
62.5°	72.6	70.9	65.3	58.8	54.9	51.9	49.7	48.0	48.9
65°	62.7	60.9	55.7	50.2	47.1	44.2	42.3	42.3	44.2
67.5°	53.2	51.4	47.1	42.3	39.8	37.6	36.3	37.6	38.9
70°	44.5	42.8	38.9	35.1	32.9	31.1	31.1	32.5	33.3
72.5°	36.3	34.6	31.6	28.5	26.8	25.5	26.8	27.7	28.5
75°	28.5	27.2	24.6	22.5	21.2	20.8	22.0	22.9	23.4
77.5°	21.2	20.3	18.6	16.9	16.0	16.5	17.7	18.2	18.6
80°	14.8	14.3	12.9	12.1	12.1	12.5	13.4	13.8	14.3
82.5°	9.1	9.1	8.2	7.8	8.2	9.1	9.5	10.0	10.0
85°	4.3	4.8	4.3	4.3	4.8	5.7	5.7	6.0	6.0
87.5°	1.2	1.2	1.7	1.7	2.2	2.2	2.2	2.2	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report





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

Scaled Data Report



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

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

Scaled Data Report



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

Scaled Data Report



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

Scaled Data Report



(END OF REPORT)