

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: P592740

Luminaire Tested: **HCC4S30D010BZ-HM43040850-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592740  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010BZ-HM43040850-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

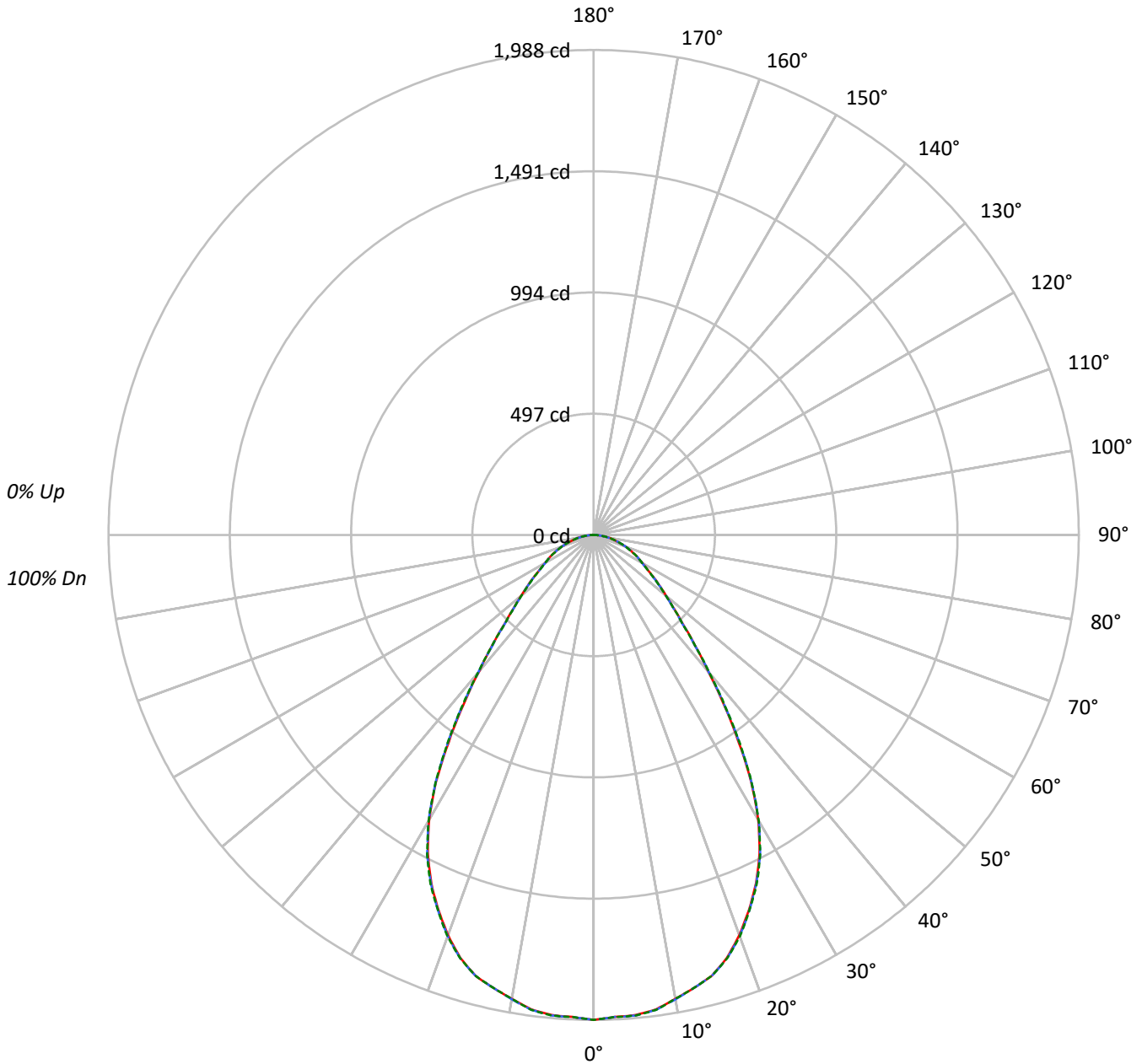
Lumens per Lamp: N/A  
Luminaire Lumens: 3067.7 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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	94	92	90	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69																			
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																			
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																			

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

	0°	45°	90°
0°	245236	245236	245236
5°	244650	244897	244897
10°	241805	242068	241805
15°	238908	238908	238908
20°	229104	229642	229918
25°	214298	214570	215128
30°	192020	192590	192590
35°	155893	157127	157428
40°	117655	118315	118637
45°	90114	89765	89765
50°	74243	73859	73859
55°	63740	63288	63288
60°	56887	56344	56344
65°	53469	53469	53469
70°	49768	49768	49768
75°	45084	46132	45084
80°	42406	40914	42406
85°	34956	34956	34956



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.3	6.1
10°-20°	524.2	17.1
20°-30°	720.4	23.5
30°-40°	647.7	21.1
40°-50°	409.3	13.3
50°-60°	267.2	8.7
60°-70°	181.0	5.9
70°-80°	101.9	3.3
80°-90°	28.6	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°	1431.9	46.7
0°-40°	2079.6	67.8
0°-60°	2756.1	89.8
0°-90°	3067.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3067.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1988	1988	1988	1988	1988	
5°	1976	1976	1978	1978	1978	187
15°	1871	1871	1871	1871	1871	524
25°	1575	1577	1577	1581	1581	719
35°	1035	1040	1044	1048	1046	645
45°	517	515	515	515	515	410
55°	296	296	294	296	294	268
65°	183	183	183	183	183	182
75°	95	97	97	97	95	101
85°	25	25	25	25	25	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1988.2	1988.2	1988.2	1988.2	1988.2
2.5°	1977.9	1977.9	1977.9	1977.9	1977.9
5°	1975.9	1975.9	1977.9	1977.9	1977.9
7.5°	1961.5	1963.5	1963.5	1963.5	1963.5
10°	1930.6	1930.6	1932.7	1932.7	1930.6
12.5°	1901.8	1901.8	1901.8	1903.8	1901.8
15°	1870.9	1870.9	1870.9	1870.9	1870.9
17.5°	1817.4	1819.5	1819.5	1819.5	1819.5
20°	1745.4	1749.5	1749.5	1751.6	1751.6
22.5°	1663.0	1665.2	1667.2	1669.2	1667.2
25°	1574.6	1576.6	1576.6	1580.7	1580.7
27.5°	1471.6	1473.7	1477.8	1477.8	1477.8
30°	1348.2	1350.2	1352.2	1352.2	1352.2
32.5°	1202.0	1202.0	1206.2	1208.2	1206.2
35°	1035.3	1039.5	1043.5	1047.7	1045.5
37.5°	876.8	881.0	883.0	883.0	885.0
40°	730.7	734.8	734.8	739.0	736.8
42.5°	615.4	613.4	613.4	617.5	615.4
45°	516.6	514.6	514.6	514.6	514.6
47.5°	444.5	442.5	442.5	442.5	442.5
50°	386.9	384.9	384.9	384.9	384.9
52.5°	339.6	337.5	337.5	337.5	335.5
55°	296.4	296.4	294.3	296.4	294.3
57.5°	257.3	257.3	257.3	257.3	257.3
60°	230.6	228.4	228.4	228.4	228.4
62.5°	205.9	205.9	205.9	205.9	205.9
65°	183.2	183.2	183.2	183.2	183.2
67.5°	160.5	158.5	160.5	160.5	158.5
70°	138.0	135.8	138.0	138.0	138.0
72.5°	115.3	115.3	115.3	117.3	115.3
75°	94.6	96.8	96.8	96.8	94.6
77.5°	76.1	78.2	76.1	76.1	76.1
80°	59.7	57.6	57.6	57.6	59.7
82.5°	41.2	41.2	41.2	41.2	41.2
85°	24.7	24.7	24.7	24.7	24.7
87.5°	10.3	10.3	10.3	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

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

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