

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: P580609

Luminaire Tested: **HCC4S40D010BZ-HM43040840-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580609  
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: HCC4S40D010BZ-HM43040840-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

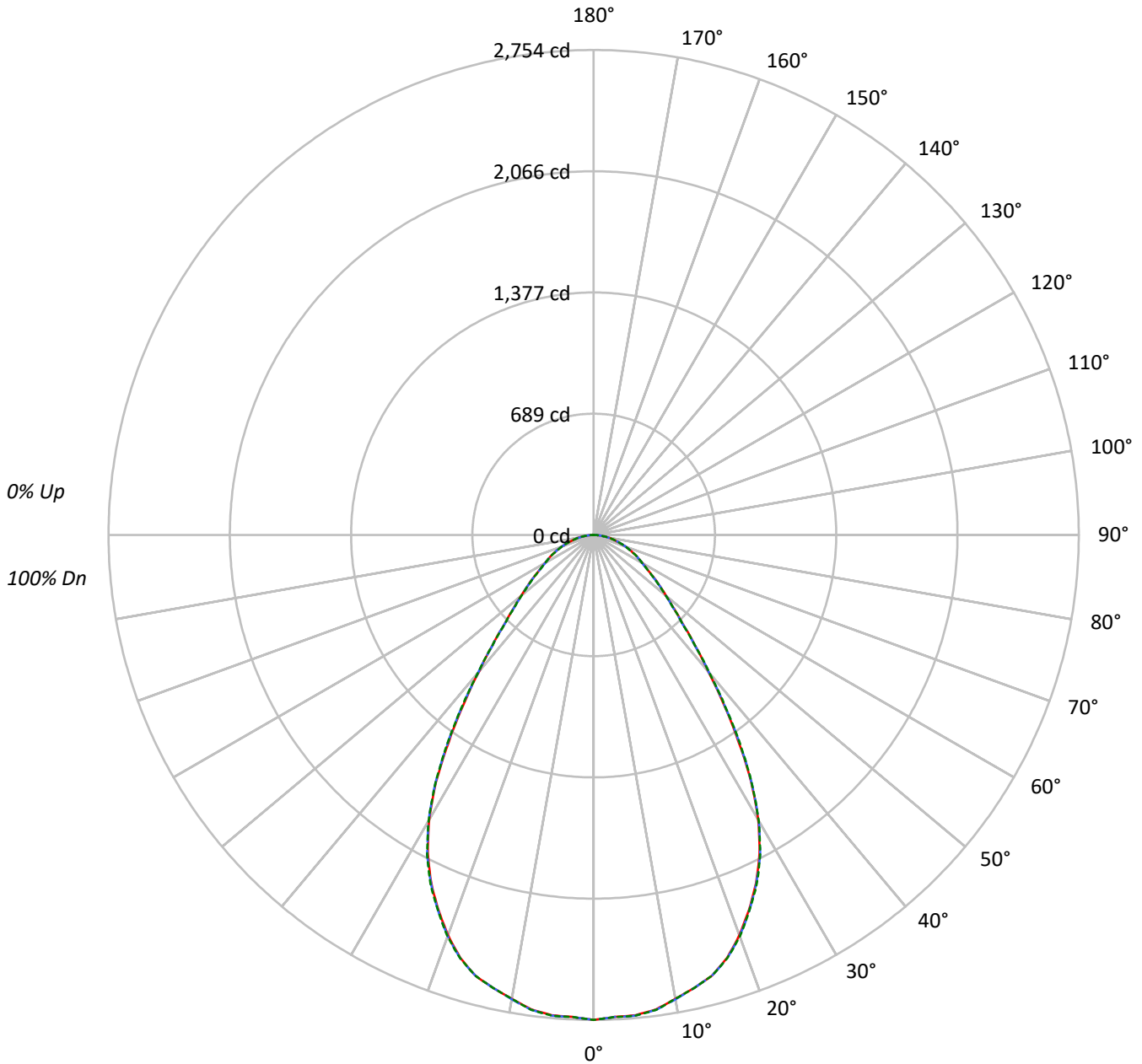
Lumens per Lamp: N/A  
Luminaire Lumens: 4249.8 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 41  
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	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°	339743	339743	339743
5°	338936	339283	339283
10°	334989	335340	334989
15°	330977	330977	330977
20°	317391	318139	318506
25°	296882	297263	298038
30°	266011	266809	266809
35°	215958	217674	218126
40°	162997	163915	164365
45°	124827	124339	124339
50°	102873	102336	102336
55°	88298	87674	87674
60°	78793	78078	78078
65°	74074	74074	74074
70°	68882	68882	68882
75°	62526	63861	62526
80°	58743	56683	58743
85°	48401	48401	48401



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.5	6.1
10°-20°	726.2	17.1
20°-30°	998.0	23.5
30°-40°	897.3	21.1
40°-50°	567.0	13.3
50°-60°	370.2	8.7
60°-70°	250.8	5.9
70°-80°	141.1	3.3
80°-90°	39.6	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°	1983.7	46.7
0°-40°	2881.0	67.8
0°-60°	3818.2	89.8
0°-90°	4249.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4249.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2754	2754	2754	2754	2754	
5°	2737	2737	2740	2740	2740	259
15°	2592	2592	2592	2592	2592	726
25°	2181	2184	2184	2190	2190	996
35°	1434	1440	1446	1451	1449	893
45°	716	713	713	713	713	568
55°	411	411	408	411	408	372
65°	254	254	254	254	254	251
75°	131	134	134	134	131	141
85°	34	34	34	34	34	40
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2754.4	2754.4	2754.4	2754.4	2754.4
2.5°	2740.2	2740.2	2740.2	2740.2	2740.2
5°	2737.4	2737.4	2740.2	2740.2	2740.2
7.5°	2717.4	2720.2	2720.2	2720.2	2720.2
10°	2674.6	2674.6	2677.4	2677.4	2674.6
12.5°	2634.7	2634.7	2634.7	2637.5	2634.7
15°	2591.9	2591.9	2591.9	2591.9	2591.9
17.5°	2517.8	2520.6	2520.6	2520.6	2520.6
20°	2418.0	2423.7	2423.7	2426.5	2426.5
22.5°	2303.9	2306.8	2309.6	2312.5	2309.6
25°	2181.4	2184.2	2184.2	2189.9	2189.9
27.5°	2038.8	2041.6	2047.3	2047.3	2047.3
30°	1867.7	1870.5	1873.3	1873.3	1873.3
32.5°	1665.2	1665.2	1671.0	1673.8	1671.0
35°	1434.2	1439.9	1445.6	1451.4	1448.6
37.5°	1214.7	1220.4	1223.2	1223.2	1226.0
40°	1012.3	1018.0	1018.0	1023.7	1020.8
42.5°	852.5	849.7	849.7	855.4	852.5
45°	715.6	712.8	712.8	712.8	712.8
47.5°	615.9	613.1	613.1	613.1	613.1
50°	536.1	533.3	533.3	533.3	533.3
52.5°	470.5	467.7	467.7	467.7	464.8
55°	410.6	410.6	407.7	410.6	407.7
57.5°	356.5	356.5	356.5	356.5	356.5
60°	319.4	316.5	316.5	316.5	316.5
62.5°	285.2	285.2	285.2	285.2	285.2
65°	253.8	253.8	253.8	253.8	253.8
67.5°	222.4	219.6	222.4	222.4	219.6
70°	191.0	188.2	191.0	191.0	191.0
72.5°	159.6	159.6	159.6	162.5	159.6
75°	131.2	134.0	134.0	134.0	131.2
77.5°	105.5	108.4	105.5	105.5	105.5
80°	82.7	79.8	79.8	79.8	82.7
82.5°	57.1	57.1	57.1	57.1	57.1
85°	34.2	34.2	34.2	34.2	34.2
87.5°	14.2	14.2	14.2	14.2	14.2
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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