

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: P580049

Luminaire Tested: **HCC4S20D010BZ-HM40525927-41NDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580049  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S20D010BZ-HM40525927-41NDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

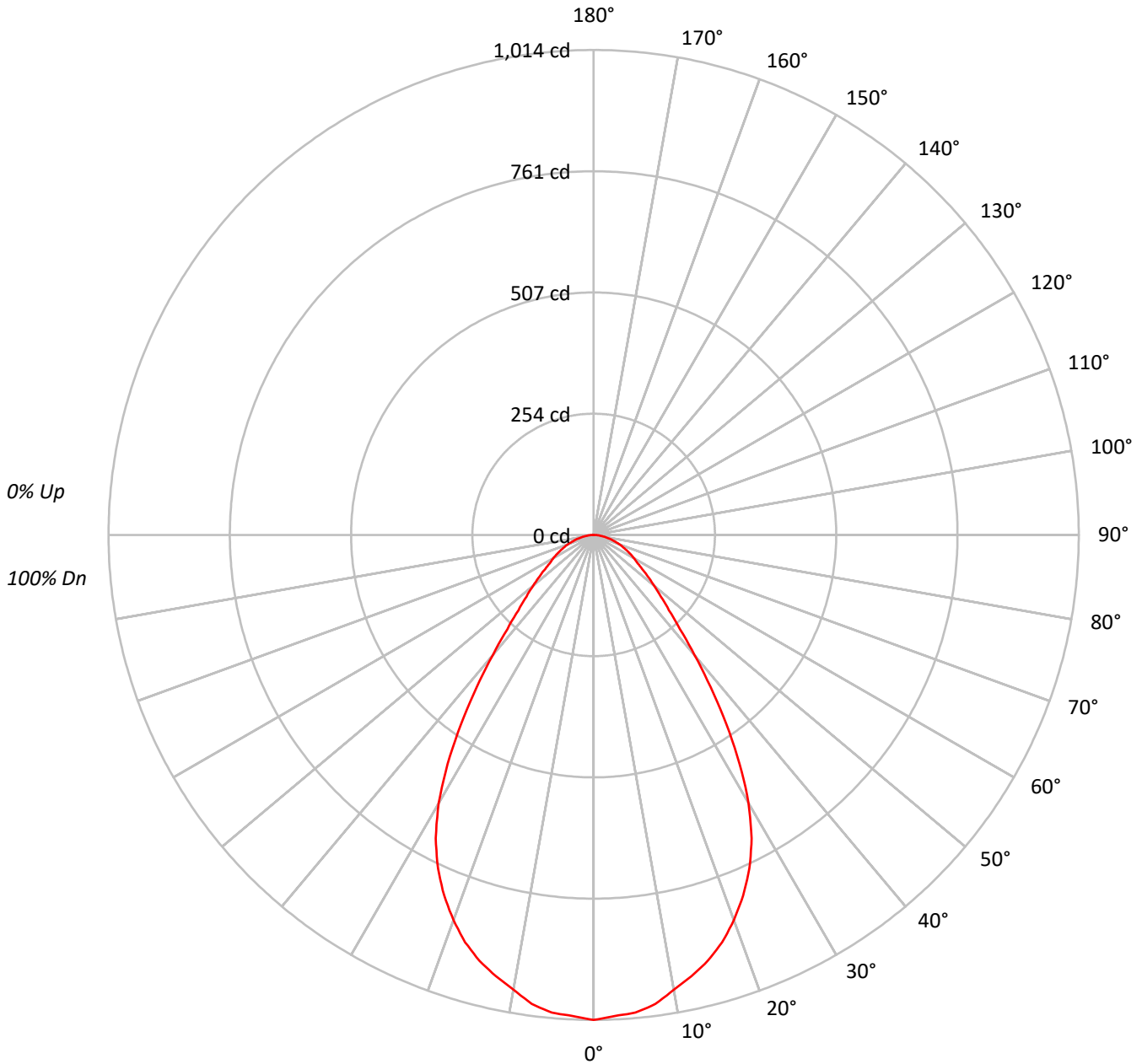
Lumens per Lamp: N/A  
Luminaire Lumens: 1423.7 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.01  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 20  
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			100
1	111	108	104	101	109	105	102	100	101	99	97	98	96	94	94	92	91	89			89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71			71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64			64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	55	63	58	54	52			52
7	75	63	56	51	73	62	56	51	61	55	50	60	54	50	59	53	50	48			48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44			44
9	66	55	48	43	65	54	47	43	53	47	43	52	47	43	51	46	42	41			41
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38			38

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

	0°
0°	125085
5°	124151
10°	120915
15°	117736
20°	112465
25°	104781
30°	92250
35°	72759
40°	52813
45°	38812
50°	31566
55°	26494
60°	24003
65°	22065
70°	20520
75°	18729
80°	16835
85°	14577



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	6.6
10°-20°	258.6	18.2
20°-30°	350.5	24.6
30°-40°	300.8	21.1
40°-50°	177.6	12.5
50°-60°	112.6	7.9
60°-70°	75.6	5.3
70°-80°	41.7	2.9
80°-90°	11.6	0.8
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°	703.7	49.4
0°-40°	1004.5	70.6
0°-60°	1294.7	90.9
0°-90°	1423.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1423.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1014	
5°	1003	95
15°	922	259
25°	770	351
35°	483	301
45°	222	178
55°	123	113
65°	76	76
75°	39	42
85°	10	12
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1014.1
2.5°	1006.8
5°	1002.7
7.5°	989.3
10°	965.4
12.5°	944.8
15°	922.0
17.5°	893.1
20°	856.8
22.5°	816.4
25°	769.9
27.5°	715.0
30°	647.7
32.5°	568.1
35°	483.2
37.5°	401.4
40°	328.0
42.5°	267.0
45°	222.5
47.5°	190.4
50°	164.5
52.5°	142.8
55°	123.2
57.5°	107.6
60°	97.3
62.5°	86.9
65°	75.6
67.5°	66.2
70°	56.9
72.5°	47.6
75°	39.3
77.5°	31.1
80°	23.7
82.5°	16.5
85°	10.3
87.5°	4.1
90°	0.0

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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(END OF REPORT)