

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: P580010

Luminaire Tested: **HCC4S20D010BZ-HM40525835-41MDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580010  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S20D010BZ-HM40525835-41MDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

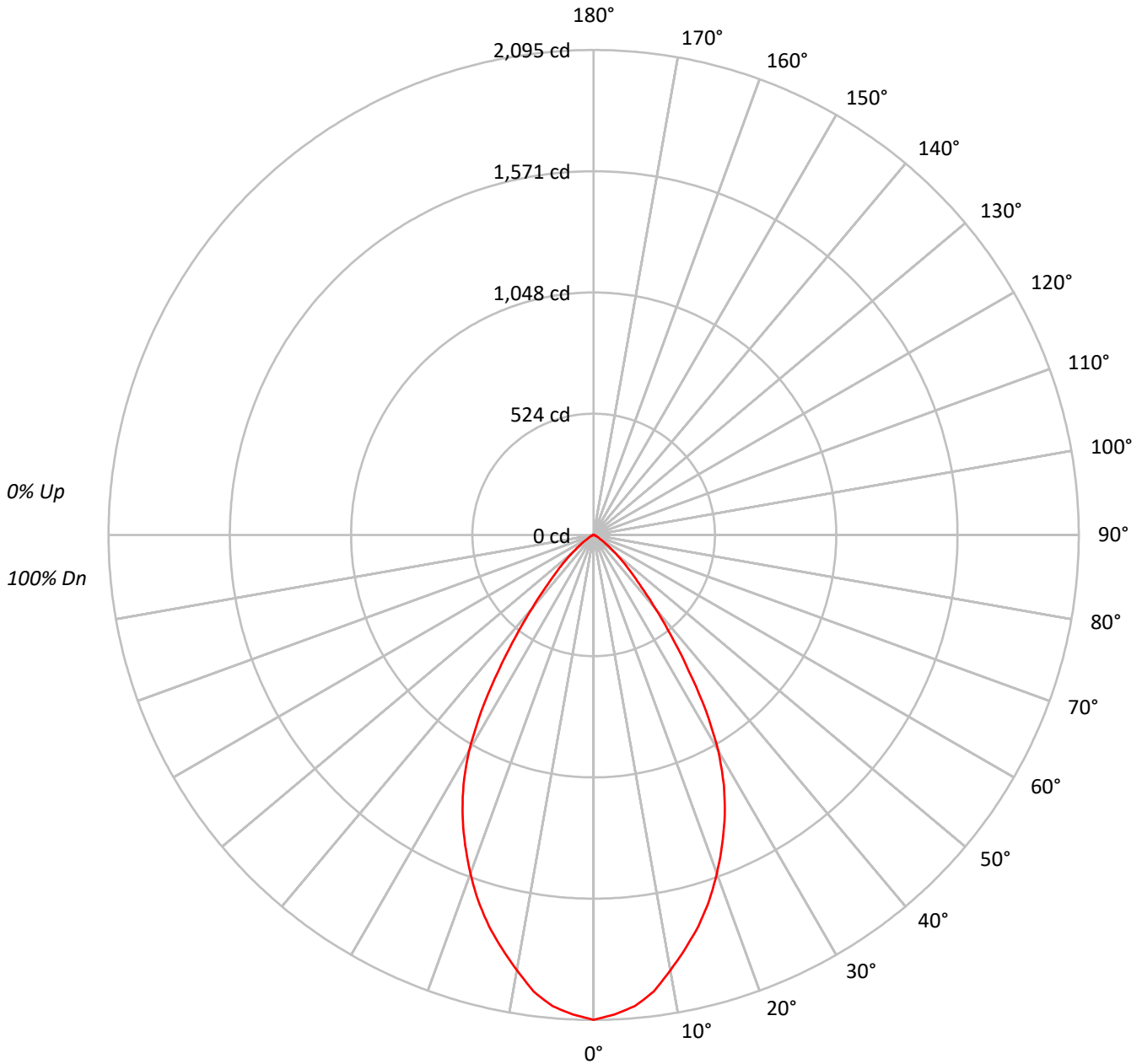
Lumens per Lamp: N/A  
Luminaire Lumens: 1996.0 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.91  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P580010  
CATALOG NUMBER: HCC4S20D010BZ-HM40525835-41MDH

### Luminous Intensity Polar Plot





TEST NUMBER: P580010

CATALOG NUMBER: HCC4S20D010BZ-HM40525835-41MDH

**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	100	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86	86	86	86
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79	79	79	79
4	96	88	82	78	94	87	81	77	85	80	76	82	79	75	81	77	74	73	73	73	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67	67	67	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62	62	62	62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58	58	58	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54	54	54	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	51	51
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	47	47	47	47

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

	0°
0°	258397
5°	252995
10°	239074
15°	223291
20°	204230
25°	182370
30°	153152
35°	107738
40°	66451
45°	39789
50°	23449
55°	11677
60°	6019
65°	3940
70°	2452
75°	1954
80°	994
85°	1981



TEST NUMBER: P580010  
 CATALOG NUMBER: HCC4S20D010BZ-HM40525835-41MDH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.8	9.6
10°-20°	488.8	24.5
20°-30°	609.6	30.5
30°-40°	449.0	22.5
40°-50°	184.7	9.3
50°-60°	54.0	2.7
60°-70°	13.9	0.7
70°-80°	4.3	0.2
80°-90°	1.0	0.0
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°	1289.2	64.6
0°-40°	1738.2	87.1
0°-60°	1976.8	99.0
0°-90°	1996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1996.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2095	
5°	2043	191
15°	1749	489
25°	1340	610
35°	716	449
45°	228	185
55°	54	54
65°	14	14
75°	4	4
85°	1	1
90°	0	



TEST NUMBER: P580010  
CATALOG NUMBER: HCC4S20D010BZ-HM40525835-41MDH

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2094.9
2.5°	2073.1
5°	2043.3
7.5°	1989.0
10°	1908.8
12.5°	1830.2
15°	1748.6
17.5°	1657.6
20°	1555.9
22.5°	1449.9
25°	1340.0
27.5°	1217.8
30°	1075.3
32.5°	902.8
35°	715.5
37.5°	549.9
40°	412.7
42.5°	305.4
45°	228.1
47.5°	168.4
50°	122.2
52.5°	84.2
55°	54.3
57.5°	32.6
60°	24.4
62.5°	17.7
65°	13.5
67.5°	9.5
70°	6.8
72.5°	5.4
75°	4.1
77.5°	2.8
80°	1.4
82.5°	1.4
85°	1.4
87.5°	0.0
90°	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°

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)