

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: P580033

Luminaire Tested: **HCC4W20D010MW-HM40525840-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580033  
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: HCC4W20D010MW-HM40525840-41WDW  
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**

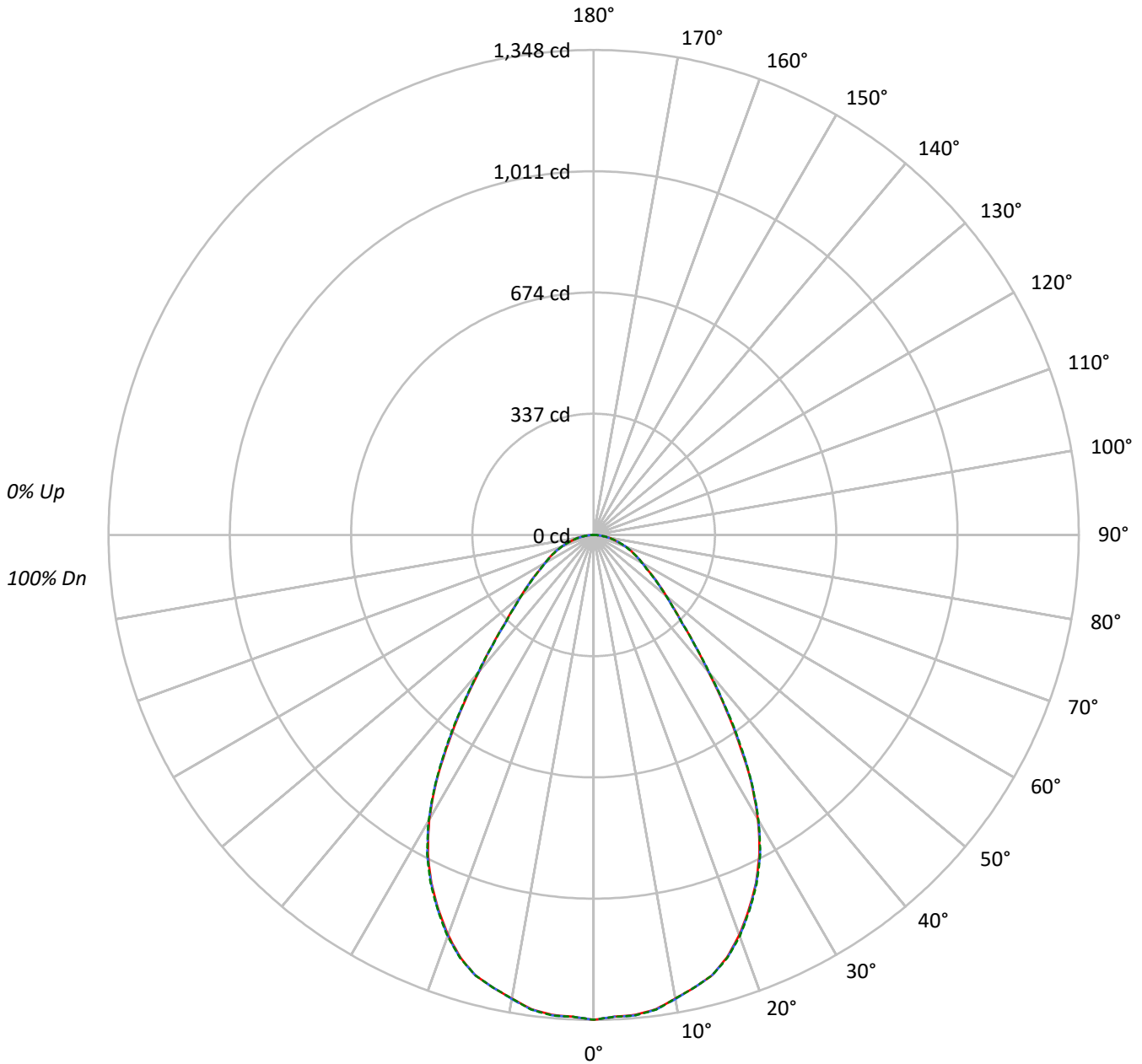
Lumens per Lamp: N/A  
Luminaire Lumens: 2078.9 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): 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: P580033  
CATALOG NUMBER: HCC4W20D010MW-HM40525840-41WDW

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580033

CATALOG NUMBER: HCC4W20D010MW-HM40525840-41WDW

**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	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89					89			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78					78			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69					69			
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56					56			
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51					51			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46					46			
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42					42			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39					39			
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36					36			

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

	0°	45°	90°
0°	166208	166208	166208
5°	165803	165976	165976
10°	163875	164050	163875
15°	161907	161907	161907
20°	155269	155637	155808
25°	145229	145406	145801
30°	130122	130535	130535
35°	105645	106488	106699
40°	79735	80170	80412
45°	61070	60826	60826
50°	50314	50045	50045
55°	43181	42902	42902
60°	38533	38188	38188
65°	36220	36220	36220
70°	33720	33720	33720
75°	30548	31263	30548
80°	28768	27773	28768
85°	23634	23634	23634



TEST NUMBER: P580033  
 CATALOG NUMBER: HCC4W20D010MW-HM40525840-41WDW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.0	6.1
10°-20°	355.3	17.1
20°-30°	488.2	23.5
30°-40°	439.0	21.1
40°-50°	277.3	13.3
50°-60°	181.0	8.7
60°-70°	122.7	5.9
70°-80°	69.1	3.3
80°-90°	19.4	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°	970.4	46.7
0°-40°	1409.4	67.8
0°-60°	1867.8	89.8
0°-90°	2078.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2078.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1348	1348	1348	1348	1348	
5°	1339	1339	1340	1340	1340	127
15°	1268	1268	1268	1268	1268	355
25°	1067	1068	1068	1071	1071	487
35°	702	704	707	710	709	437
45°	350	349	349	349	349	278
55°	201	201	200	201	200	182
65°	124	124	124	124	124	123
75°	64	66	66	66	64	69
85°	17	17	17	17	17	20
90°	0	0	0	0	0	



TEST NUMBER: P580033

CATALOG NUMBER: HCC4W20D010MW-HM40525840-41WDW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1347.5	1347.5	1347.5	1347.5	1347.5
2.5°	1340.5	1340.5	1340.5	1340.5	1340.5
5°	1339.1	1339.1	1340.5	1340.5	1340.5
7.5°	1329.3	1330.7	1330.7	1330.7	1330.7
10°	1308.4	1308.4	1309.8	1309.8	1308.4
12.5°	1288.9	1288.9	1288.9	1290.3	1288.9
15°	1267.9	1267.9	1267.9	1267.9	1267.9
17.5°	1231.6	1233.0	1233.0	1233.0	1233.0
20°	1182.9	1185.7	1185.7	1187.0	1187.0
22.5°	1127.0	1128.4	1129.8	1131.3	1129.8
25°	1067.1	1068.4	1068.4	1071.3	1071.3
27.5°	997.3	998.7	1001.6	1001.6	1001.6
30°	913.6	915.1	916.5	916.5	916.5
32.5°	814.6	814.6	817.4	818.8	817.4
35°	701.6	704.4	707.2	710.0	708.6
37.5°	594.3	597.0	598.4	598.4	599.8
40°	495.2	497.9	497.9	500.8	499.4
42.5°	417.0	415.7	415.7	418.4	417.0
45°	350.1	348.7	348.7	348.7	348.7
47.5°	301.3	299.9	299.9	299.9	299.9
50°	262.2	260.8	260.8	260.8	260.8
52.5°	230.2	228.7	228.7	228.7	227.3
55°	200.8	200.8	199.5	200.8	199.5
57.5°	174.3	174.3	174.3	174.3	174.3
60°	156.2	154.8	154.8	154.8	154.8
62.5°	139.5	139.5	139.5	139.5	139.5
65°	124.1	124.1	124.1	124.1	124.1
67.5°	108.9	107.4	108.9	108.9	107.4
70°	93.5	92.1	93.5	93.5	93.5
72.5°	78.1	78.1	78.1	79.5	78.1
75°	64.1	65.6	65.6	65.6	64.1
77.5°	51.6	53.0	51.6	51.6	51.6
80°	40.5	39.1	39.1	39.1	40.5
82.5°	27.9	27.9	27.9	27.9	27.9
85°	16.7	16.7	16.7	16.7	16.7
87.5°	7.0	7.0	7.0	7.0	7.0
90°	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)