

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: P580053

Luminaire Tested: **HCC4W20D010MW-HM40525927-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580053  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W20D010MW-HM40525927-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

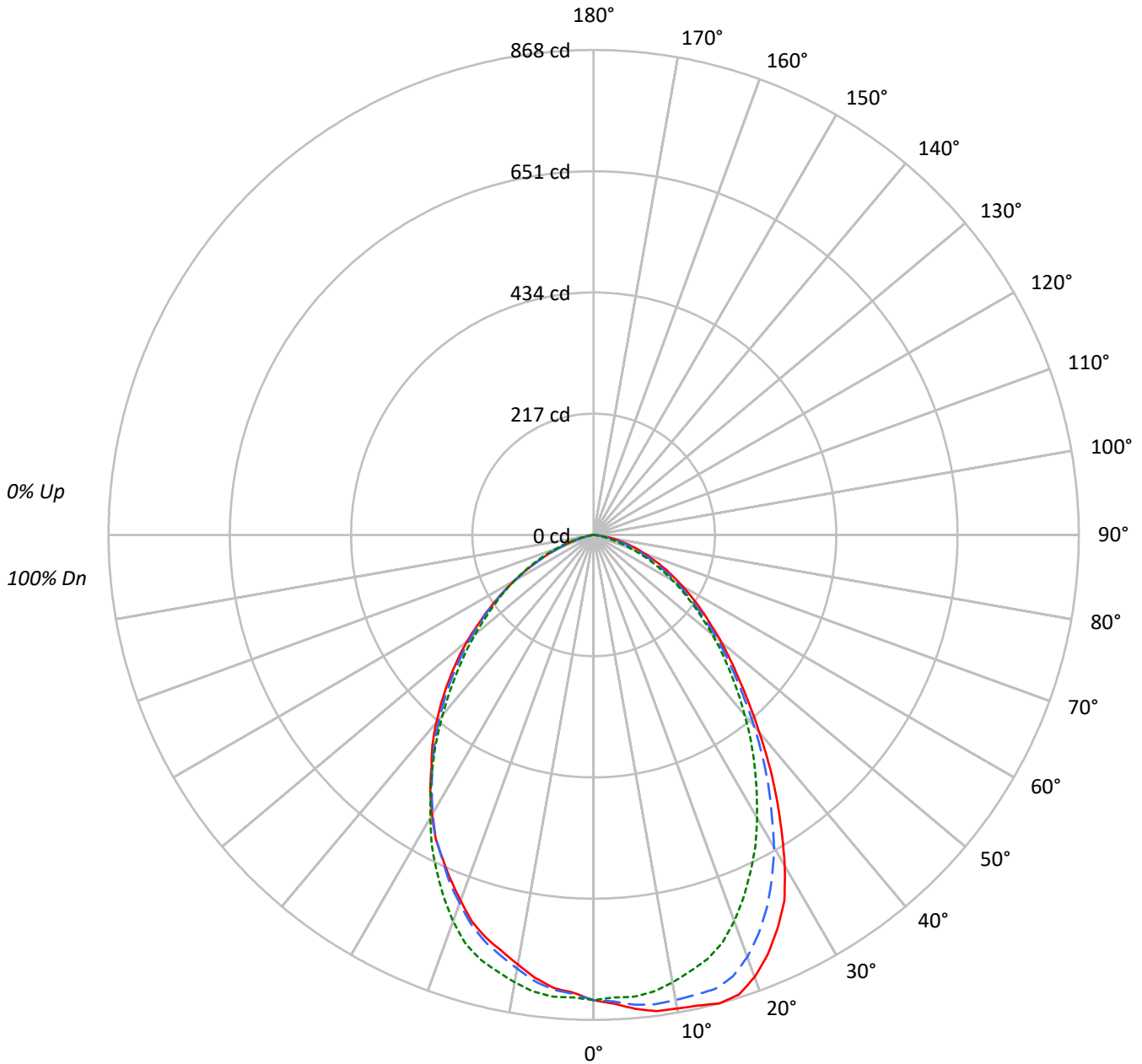
Lumens per Lamp: N/A  
Luminaire Lumens: 1587.2 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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: P580053  
CATALOG NUMBER: HCC4W20D010MW-HM40525927-41RWWH

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580053

CATALOG NUMBER: HCC4W20D010MW-HM40525927-41RWWH

**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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47					47			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35					35			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

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

	0°	90°	180°
0°	102710	102710	102710
5°	105405	102718	100799
10°	107801	101840	97819
15°	110828	100395	95249
20°	110522	96543	91384
25°	105870	90382	87007
30°	97378	83249	82366
35°	85663	75545	76162
40°	74116	67627	70461
45°	64420	60076	63704
50°	57165	53000	56570
55°	50708	46493	48493
60°	45169	40309	40309
65°	40131	33506	31404
70°	34693	25353	22396
75°	29071	16775	13821
80°	22091	8098	7316
85°	11746	2972	2972



TEST NUMBER: P580053  
 CATALOG NUMBER: HCC4W20D010MW-HM40525927-41RWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.9	5.0
10°-20°	223.6	14.1
20°-30°	315.3	19.9
30°-40°	325.7	20.5
40°-50°	276.1	17.4
50°-60°	200.9	12.7
60°-70°	117.4	7.4
70°-80°	43.6	2.7
80°-90°	5.7	0.4
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°	617.7	38.9
0°-40°	943.5	59.4
0°-60°	1420.5	89.5
0°-90°	1587.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1587.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	833	833	833	833	833	
5°	851	844	830	817	814	82
15°	868	841	786	753	746	244
25°	778	734	664	640	639	356
35°	569	544	502	503	506	355
45°	369	359	344	357	365	287
55°	236	224	216	223	226	212
65°	138	126	115	108	108	136
75°	61	51	35	28	29	66
85°	8	5	2	2	2	12
90°	0	0	0	0	0	



TEST NUMBER: P580053

CATALOG NUMBER: HCC4W20D010MW-HM40525927-41RWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	832.7	832.7	832.7	832.7	832.7	832.7	832.7	832.7	832.7
2.5°	839.9	837.9	835.8	832.7	828.6	825.5	822.4	820.3	820.3
5°	851.3	848.2	844.1	836.9	829.6	823.4	817.2	814.1	814.1
7.5°	859.7	855.5	847.2	836.9	824.5	815.2	805.9	801.8	799.7
10°	860.7	856.6	845.1	829.6	813.1	798.7	788.2	782.0	781.0
12.5°	862.8	857.6	843.0	821.4	799.7	782.0	770.7	764.5	762.4
15°	867.9	860.7	841.0	813.1	786.2	765.5	753.1	748.0	745.9
17.5°	862.8	852.3	828.6	795.4	765.5	742.7	730.3	725.1	725.1
20°	842.0	831.7	803.8	767.6	735.5	713.8	701.4	698.3	696.2
22.5°	813.1	801.8	771.7	733.4	701.4	681.7	673.4	669.3	668.2
25°	777.9	766.5	734.4	695.2	664.1	647.6	640.4	640.4	639.3
27.5°	738.6	724.1	691.1	656.9	626.8	614.4	611.4	611.4	612.4
30°	683.7	673.4	645.5	612.4	584.5	576.1	576.1	578.3	578.3
32.5°	624.8	617.5	592.8	563.8	542.1	536.9	539.0	543.1	544.1
35°	568.9	560.7	544.1	518.2	501.7	499.6	502.7	505.8	505.8
37.5°	514.1	505.8	494.5	473.8	461.3	462.4	466.5	470.7	473.8
40°	460.3	454.1	445.8	429.3	420.0	424.2	429.3	433.5	437.6
42.5°	412.7	406.5	400.3	387.9	381.7	386.9	393.1	397.2	401.3
45°	369.3	365.2	359.0	348.6	344.4	349.6	356.8	361.1	365.2
47.5°	332.1	330.0	321.7	312.4	310.4	315.5	321.7	326.9	330.0
50°	297.9	294.8	287.6	278.3	276.2	284.5	288.6	291.7	294.8
52.5°	264.8	261.7	253.5	245.1	245.1	251.4	254.5	255.6	258.6
55°	235.8	232.7	224.5	218.3	216.2	221.4	223.4	223.4	225.5
57.5°	209.0	205.9	197.6	190.3	189.3	192.4	192.4	192.4	193.5
60°	183.1	180.0	171.7	165.5	163.4	164.5	163.4	162.4	163.4
62.5°	159.3	156.2	148.0	140.7	138.7	138.7	135.5	134.4	135.5
65°	137.5	132.4	126.2	118.9	114.8	111.7	107.6	107.6	107.6
67.5°	115.8	111.7	104.5	97.3	92.1	86.9	80.6	82.8	83.8
70°	96.2	93.1	84.9	77.5	70.3	64.1	59.0	61.0	62.1
72.5°	78.6	74.4	67.2	59.0	52.8	44.5	41.4	43.5	43.5
75°	61.0	56.9	50.7	42.4	35.2	28.0	28.0	29.0	29.0
77.5°	45.5	41.4	35.2	28.0	21.7	16.5	17.5	17.5	17.5
80°	31.1	28.0	22.7	16.5	11.4	9.3	9.3	9.3	10.3
82.5°	17.5	15.5	12.4	8.3	5.2	5.2	5.2	5.2	5.2
85°	8.3	6.2	5.2	3.1	2.1	2.1	2.1	2.1	2.1
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	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)