

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: P580070

Luminaire Tested: **HCC4W20D010MB-HM40525930-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580070  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W20D010MB-HM40525930-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

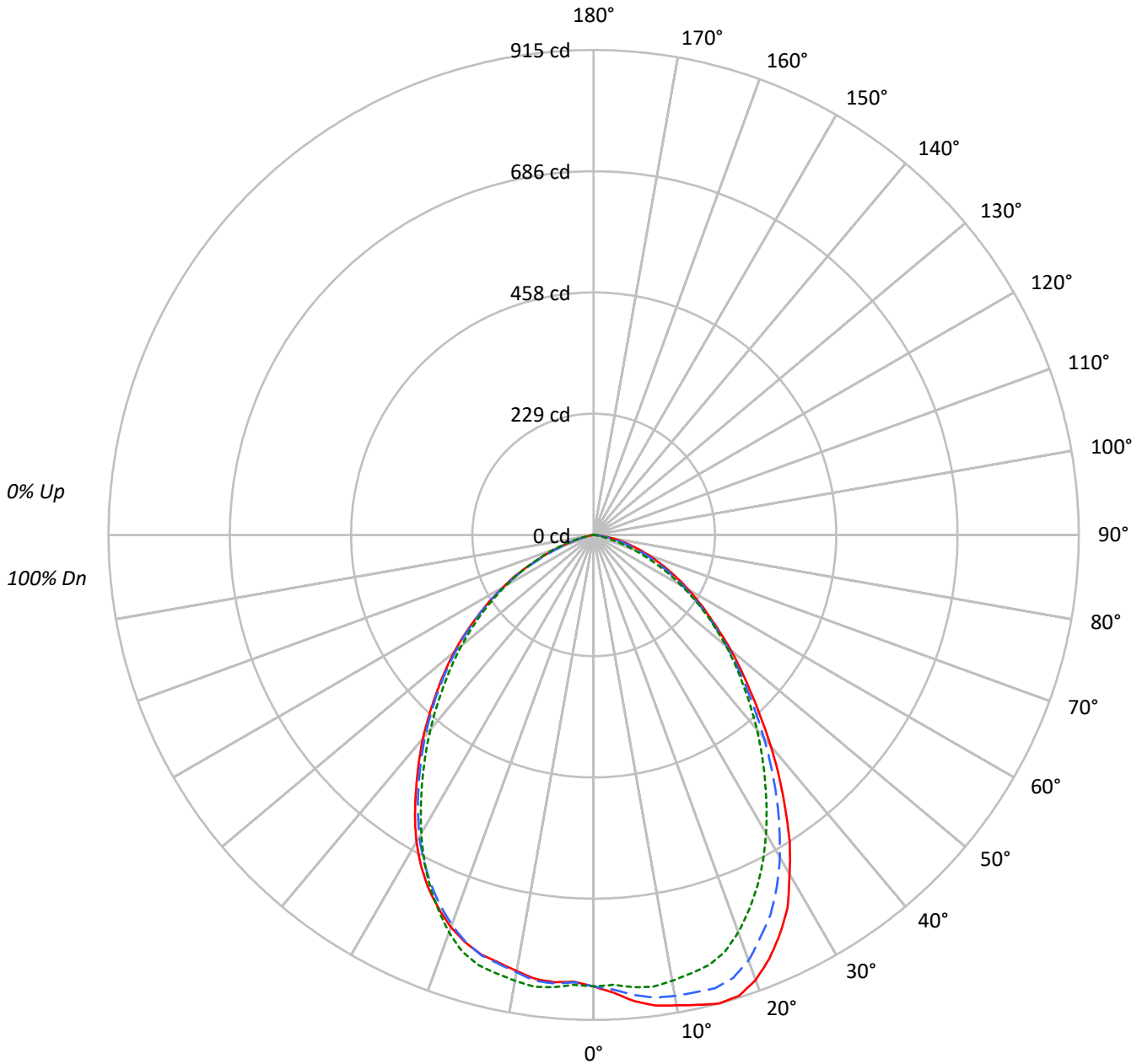
Lumens per Lamp: N/A  
Luminaire Lumens: 1775.0 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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: P580070  
CATALOG NUMBER: HCC4W20D010MB-HM40525930-41RWWC

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580070

CATALOG NUMBER: HCC4W20D010MB-HM40525930-41RWWC

**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	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76					76			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67					67			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58					58			
5	81	70	62	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52					52			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41					41			
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37					37			
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

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

	0°	90°	180°
0°	105078	105078	105078
5°	109330	106049	104898
10°	112886	106987	104670
15°	116868	107304	104660
20°	117256	104707	103355
25°	113110	99487	100263
30°	105254	92620	95255
35°	94818	84760	87877
40°	83584	77111	80637
45°	73089	69461	72897
50°	64725	62499	65838
55°	56923	55202	57417
60°	50818	47143	48549
65°	44684	38292	37621
70°	39021	28202	25714
75°	32359	17014	13725
80°	24506	6535	4049
85°	11322	1557	1557



TEST NUMBER: P580070  
 CATALOG NUMBER: HCC4W20D010MB-HM40525930-41RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.2	4.6
10°-20°	239.8	13.5
20°-30°	347.3	19.6
30°-40°	366.3	20.6
40°-50°	317.1	17.9
50°-60°	234.9	13.2
60°-70°	135.4	7.6
70°-80°	47.3	2.7
80°-90°	5.0	0.3
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°	669.2	37.7
0°-40°	1035.5	58.3
0°-60°	1587.4	89.4
0°-90°	1775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1775.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	852	852	852	852	852	
5°	883	871	856	850	847	85
15°	915	885	840	821	820	257
25°	831	790	731	726	737	380
35°	630	601	563	576	584	393
45°	419	408	398	413	418	325
55°	265	259	257	266	267	239
65°	153	144	131	124	129	153
75°	68	58	36	29	29	73
85°	8	5	1	1	1	12
90°	0	0	0	0	0	



TEST NUMBER: P580070

CATALOG NUMBER: HCC4W20D010MB-HM40525930-41RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	851.9	851.9	851.9	851.9	851.9	851.9	851.9	851.9	851.9
2.5°	864.5	862.2	858.8	854.2	849.6	846.0	844.9	843.7	843.7
5°	883.0	878.3	871.4	862.2	856.5	853.0	849.6	847.2	847.2
7.5°	895.6	891.0	880.6	867.9	859.9	853.0	848.3	844.9	844.9
10°	901.3	895.6	883.0	866.8	854.2	844.9	838.0	835.7	835.7
12.5°	908.2	901.3	884.1	863.3	847.2	835.7	828.8	826.5	826.5
15°	915.2	907.0	885.3	861.1	840.3	826.5	820.8	819.6	819.6
17.5°	911.6	901.3	876.0	847.2	824.2	810.4	804.6	804.6	805.8
20°	893.3	883.0	854.2	821.9	797.7	787.4	782.7	785.1	787.4
22.5°	865.6	853.0	821.9	790.9	765.5	756.3	756.3	759.8	763.2
25°	831.1	819.6	789.7	755.2	731.0	724.1	726.4	732.1	736.7
27.5°	792.0	779.3	748.2	716.0	691.9	688.3	694.2	702.2	704.5
30°	739.0	728.7	702.2	671.1	650.3	649.2	657.3	663.1	668.8
32.5°	688.3	676.8	651.5	621.6	606.6	607.8	617.0	623.9	627.4
35°	629.7	619.3	600.9	576.7	562.9	565.2	575.6	582.4	583.6
37.5°	574.4	567.5	549.1	530.7	520.3	524.9	534.2	542.2	542.2
40°	519.1	513.4	499.6	484.6	478.9	484.6	493.8	500.8	500.8
42.5°	466.3	462.7	451.2	440.9	437.5	445.5	453.5	459.3	458.1
45°	419.0	415.6	407.5	399.4	398.2	406.4	413.3	416.7	417.9
47.5°	376.4	374.2	367.2	361.4	361.4	369.6	375.3	378.7	379.9
50°	337.3	334.9	329.2	324.6	325.7	333.8	338.5	341.9	343.1
52.5°	298.1	297.0	292.4	286.6	290.1	295.8	301.5	303.8	305.1
55°	264.7	264.7	259.0	254.4	256.7	262.4	265.9	267.0	267.0
57.5°	234.8	233.6	226.8	222.2	223.3	229.1	231.3	232.5	232.5
60°	206.0	204.9	198.0	191.1	191.1	194.5	195.7	196.8	196.8
62.5°	178.5	177.3	169.2	163.4	161.2	160.0	160.0	162.3	166.9
65°	153.1	152.0	143.8	134.7	131.2	127.8	124.3	126.6	128.9
67.5°	130.1	127.8	119.7	111.6	103.6	97.8	92.1	95.5	100.1
70°	108.2	105.9	96.7	87.5	78.2	69.0	64.5	69.0	71.3
72.5°	87.5	85.2	75.9	66.8	55.3	46.0	44.8	46.0	47.1
75°	67.9	66.8	57.6	47.1	35.7	28.8	28.8	28.8	28.8
77.5°	50.7	48.4	39.1	29.9	20.8	16.2	14.9	14.9	14.9
80°	34.5	32.2	24.2	17.3	9.2	6.9	6.9	5.7	5.7
82.5°	19.6	18.5	12.6	6.9	3.4	2.3	2.3	2.3	2.3
85°	8.0	6.9	4.6	2.3	1.1	1.1	1.1	1.1	1.1
87.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
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)