

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: P592687

Luminaire Tested: **HCC4S20D010MB-HM40525950-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592687  
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: HCC4S20D010MB-HM40525950-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

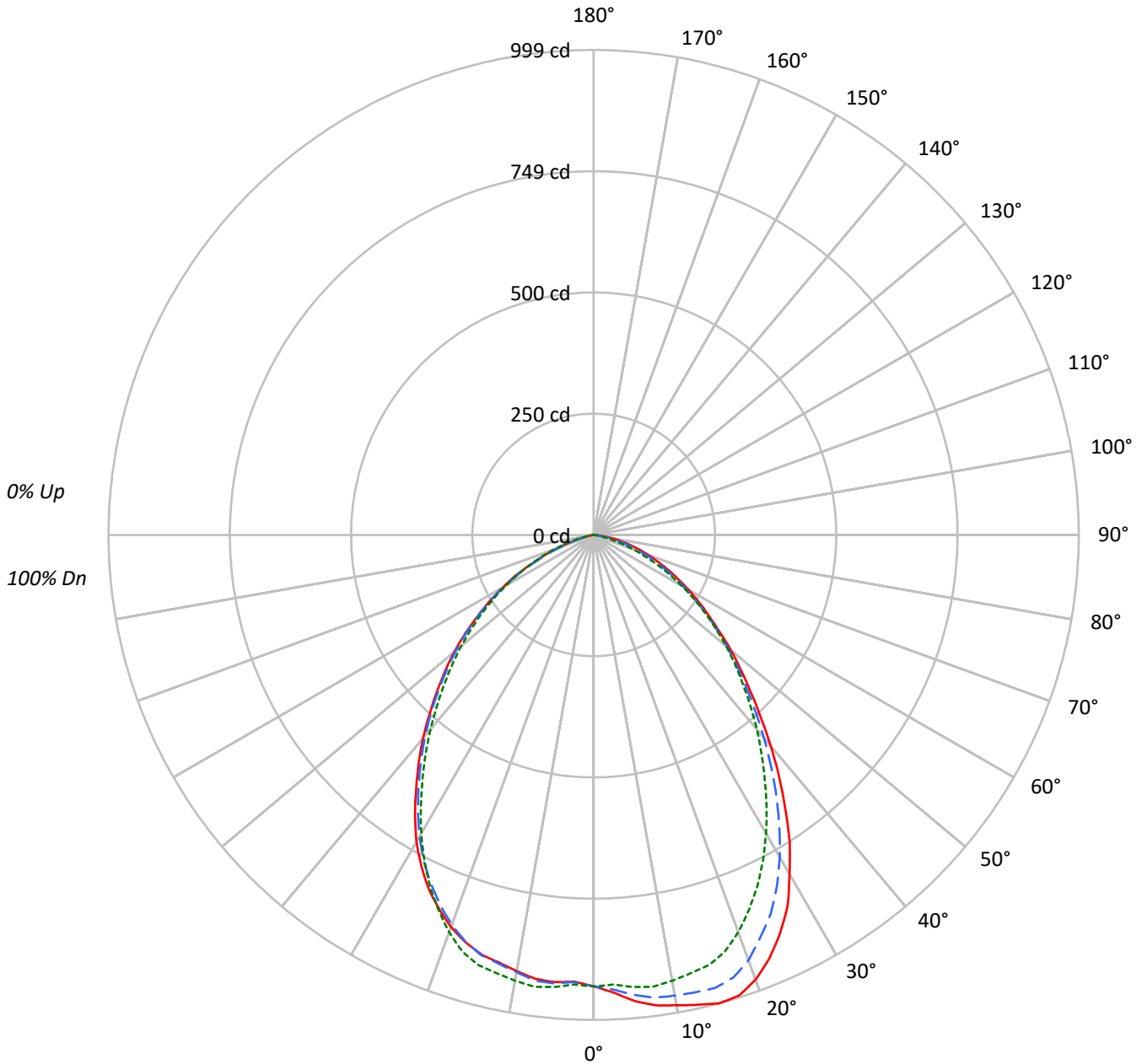
Lumens per Lamp: N/A  
Luminaire Lumens: 1937.5 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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: P592687  
CATALOG NUMBER: HCC4S20D010MB-HM40525950-41RWWC

### Luminous Intensity Polar Plot



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



TEST NUMBER: P592687

CATALOG NUMBER: HCC4S20D010MB-HM40525950-41RWWC

**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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76								
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67								
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58								
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52								
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46								
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41								
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37								
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

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

	0°	90°	180°
0°	114687	114687	114687
5°	119322	115744	114493
10°	123219	116769	114252
15°	127544	117111	114225
20°	127980	114290	112806
25°	123467	108592	109449
30°	114882	101109	103972
35°	103492	92515	95918
40°	91232	84163	87995
45°	79770	75828	79543
50°	70655	68237	71844
55°	62127	60256	62686
60°	55481	51435	52989
65°	48770	41824	41065
70°	42591	30835	28094
75°	35314	18586	14964
80°	26779	7174	4475
85°	12454	1840	1840



TEST NUMBER: P592687  
 CATALOG NUMBER: HCC4S20D010MB-HM40525950-41RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.7	4.6
10°-20°	261.7	13.5
20°-30°	379.0	19.6
30°-40°	399.9	20.6
40°-50°	346.1	17.9
50°-60°	256.4	13.2
60°-70°	147.8	7.6
70°-80°	51.6	2.7
80°-90°	5.4	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°	730.4	37.7
0°-40°	1130.2	58.3
0°-60°	1732.7	89.4
0°-90°	1937.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	930	930	930	930	930	
5°	964	951	935	927	925	93
15°	999	966	917	896	894	281
25°	907	862	798	793	804	415
35°	687	656	614	628	637	429
45°	457	445	435	451	456	355
55°	289	283	280	290	292	261
65°	167	157	143	136	141	167
75°	74	63	39	31	31	80
85°	9	5	1	1	1	14
90°	0	0	0	0	0	

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



TEST NUMBER: P592687

CATALOG NUMBER: HCC4S20D010MB-HM40525950-41RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	929.8	929.8	929.8	929.8	929.8	929.8	929.8	929.8	929.8
2.5°	943.5	941.1	937.3	932.3	927.2	923.4	922.2	920.9	920.9
5°	963.7	958.7	951.1	941.1	934.8	931.0	927.2	924.7	924.7
7.5°	977.5	972.4	961.2	947.3	938.6	931.0	926.0	922.2	922.2
10°	983.8	977.5	963.7	946.0	932.3	922.2	914.7	912.2	912.2
12.5°	991.4	983.8	965.0	942.3	924.7	912.2	904.6	902.1	902.1
15°	998.8	990.1	966.2	939.9	917.1	902.1	895.8	894.5	894.5
17.5°	995.1	983.8	956.1	924.7	899.6	884.6	878.3	878.3	879.5
20°	975.0	963.7	932.3	897.1	870.7	859.4	854.4	856.9	859.4
22.5°	944.8	931.0	897.1	863.1	835.5	825.5	825.5	829.3	833.0
25°	907.2	894.5	861.9	824.2	797.9	790.3	792.8	799.1	804.2
27.5°	864.4	850.6	816.7	781.5	755.1	751.3	757.6	766.4	768.9
30°	806.6	795.3	766.4	732.5	709.9	708.6	717.4	723.6	730.0
32.5°	751.3	738.8	711.1	678.5	662.2	663.4	673.4	681.0	684.8
35°	687.3	675.9	655.9	629.5	614.4	616.9	628.2	635.8	637.0
37.5°	627.0	619.4	599.3	579.2	567.9	572.9	583.0	591.7	591.7
40°	566.6	560.3	545.3	529.0	522.7	529.0	539.0	546.5	546.5
42.5°	508.8	505.1	492.5	481.2	477.5	486.2	495.0	501.4	500.1
45°	457.3	453.5	444.8	436.0	434.7	443.5	451.0	454.8	456.0
47.5°	410.9	408.3	400.8	394.6	394.6	403.3	409.6	413.4	414.6
50°	368.2	365.7	359.4	354.3	355.6	364.4	369.3	373.1	374.4
52.5°	325.4	324.1	319.1	312.9	316.6	322.9	329.2	331.7	333.0
55°	288.9	288.9	282.7	277.7	280.2	286.5	290.2	291.5	291.5
57.5°	256.4	255.1	247.5	242.5	243.7	250.0	252.6	253.8	253.8
60°	224.9	223.7	216.1	208.5	208.5	212.3	213.6	214.8	214.8
62.5°	194.8	193.5	184.7	178.4	175.9	174.7	174.7	177.2	182.1
65°	167.1	165.9	157.0	147.0	143.3	139.5	135.7	138.2	140.7
67.5°	142.0	139.5	130.6	121.9	113.1	106.8	100.5	104.3	109.3
70°	118.1	115.6	105.5	95.5	85.5	75.4	70.3	75.4	77.9
72.5°	95.5	93.0	82.9	72.8	60.3	50.2	49.0	50.2	51.5
75°	74.1	72.8	62.9	51.5	39.0	31.4	31.4	31.4	31.4
77.5°	55.3	52.8	42.7	32.7	22.6	17.5	16.3	16.3	16.3
80°	37.7	35.2	26.4	18.8	10.1	7.6	7.6	6.3	6.3
82.5°	21.3	20.1	13.8	7.6	3.8	2.5	2.5	2.5	2.5
85°	8.8	7.6	5.0	2.5	1.3	1.3	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	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)