

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: P580006

Luminaire Tested: **HCC4S20D010SL-HM40525830-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580006  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S20D010SL-HM40525830-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

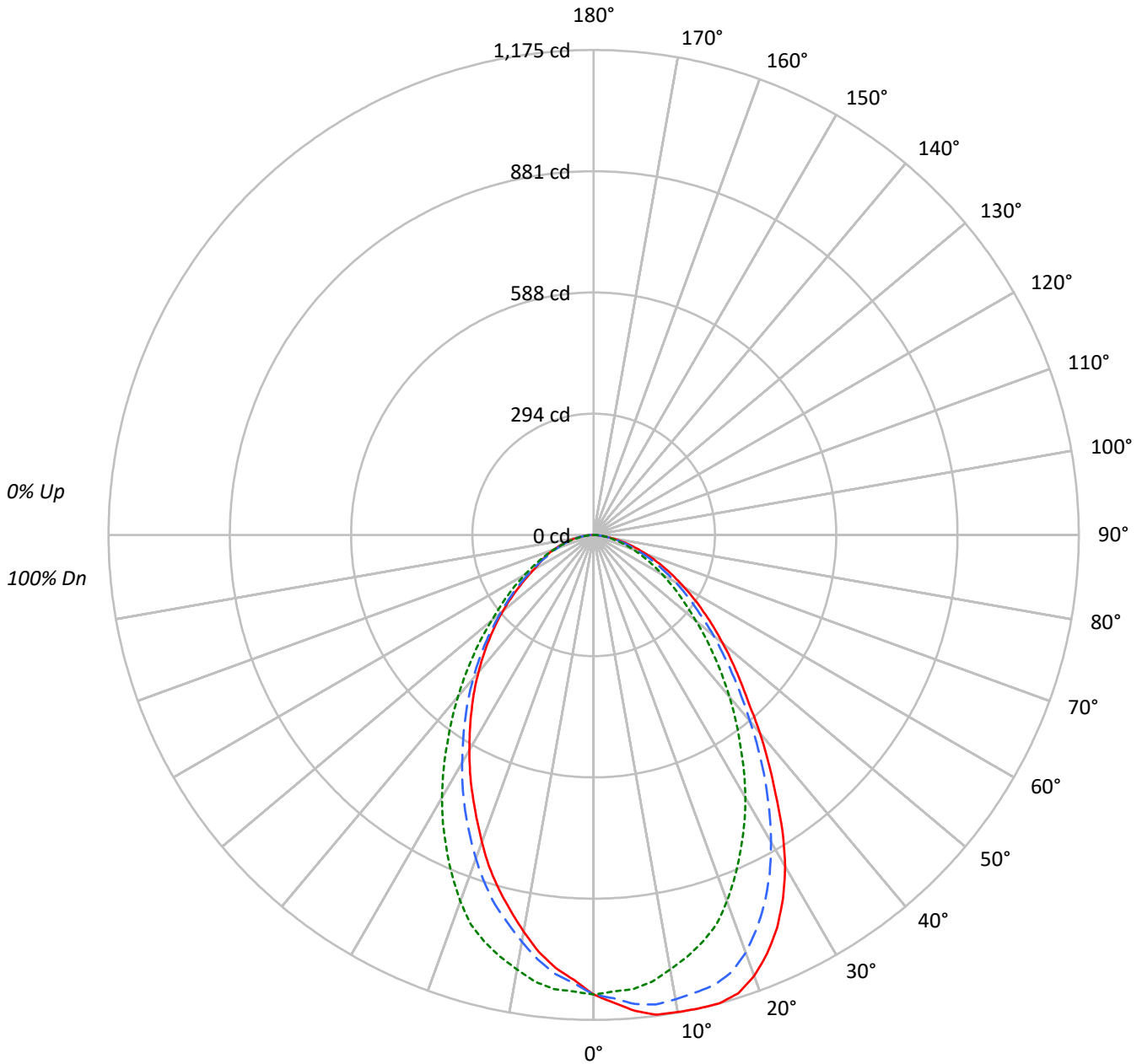
Lumens per Lamp: N/A  
Luminaire Lumens: 1988.5 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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: P580006  
CATALOG NUMBER: HCC4S20D010SL-HM40525830-41WWW

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580006

CATALOG NUMBER: HCC4S20D010SL-HM40525830-41WWW

**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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76								
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66								
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47								
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42								
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38								
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35								
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32								

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

	0°	90°	180°
0°	137345	137345	137345
5°	143380	136731	130404
10°	147004	133878	122242
15°	150056	130315	113408
20°	149245	123964	103854
25°	142997	114648	94492
30°	132101	104670	85642
35°	115779	93102	77517
40°	100812	82263	69817
45°	87759	71746	62379
50°	78177	61847	55054
55°	69847	54364	47611
60°	62364	47513	41025
65°	55424	41678	38993
70°	48650	35920	36352
75°	41223	30596	33741
80°	31609	26069	30686
85°	18540	20521	26040



TEST NUMBER: P580006

CATALOG NUMBER: HCC4S20D010SL-HM40525830-41WWW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.4	5.2
10°-20°	287.9	14.5
20°-30°	393.3	19.8
30°-40°	395.0	19.9
40°-50°	326.7	16.4
50°-60°	236.8	11.9
60°-70°	150.0	7.5
70°-80°	75.8	3.8
80°-90°	18.6	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°	785.6	39.5
0°-40°	1180.6	59.4
0°-60°	1744.1	87.7
0°-90°	1988.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1988.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1114	1114	1114	1114	1114	
5°	1158	1141	1104	1068	1053	111
15°	1175	1129	1020	926	888	331
25°	1051	981	842	736	694	480
35°	769	723	618	542	515	482
45°	503	474	411	371	358	391
55°	325	296	253	230	221	292
65°	190	169	143	128	134	189
75°	86	75	64	67	71	92
85°	13	13	14	17	18	18
90°	0	0	0	0	0	

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



TEST NUMBER: P580006

CATALOG NUMBER: HCC4S20D010SL-HM40525830-41WWW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1113.5	1113.5	1113.5	1113.5	1113.5	1113.5	1113.5	1113.5	1113.5
2.5°	1134.5	1130.5	1123.9	1116.1	1107.0	1096.4	1087.2	1082.1	1079.4
5°	1158.0	1152.7	1141.0	1123.9	1104.3	1084.7	1067.6	1057.2	1053.2
7.5°	1172.5	1164.5	1147.6	1121.3	1091.3	1062.4	1037.5	1023.1	1019.1
10°	1173.7	1164.5	1142.3	1107.0	1068.9	1030.9	1000.9	979.9	976.0
12.5°	1175.1	1163.3	1135.8	1093.8	1046.6	999.5	962.8	937.9	931.4
15°	1175.1	1163.3	1129.2	1079.4	1020.5	966.8	926.2	897.3	888.1
17.5°	1164.5	1151.5	1110.9	1053.2	989.1	928.7	881.6	851.5	842.4
20°	1137.0	1122.7	1076.8	1013.9	944.4	881.6	834.4	803.0	791.2
22.5°	1097.8	1080.7	1032.3	964.2	894.7	830.5	784.7	752.0	741.4
25°	1050.7	1033.6	981.1	914.4	842.4	782.0	736.3	706.1	694.3
27.5°	993.0	974.6	923.6	856.7	789.9	729.6	687.7	660.2	648.4
30°	927.5	907.9	859.3	795.1	734.9	677.3	636.7	614.3	601.3
32.5°	851.5	834.4	791.2	733.6	677.3	622.2	588.2	568.6	558.0
35°	768.9	759.8	723.1	673.3	618.3	572.5	542.3	523.9	514.8
37.5°	695.5	686.5	654.9	613.1	564.6	522.7	497.8	482.1	474.2
40°	626.1	618.3	588.2	552.9	510.9	474.2	453.3	441.5	433.6
42.5°	558.0	554.1	529.2	496.5	459.8	428.4	411.3	402.1	395.6
45°	503.1	497.8	474.2	442.7	411.3	385.2	370.7	364.2	357.6
47.5°	454.6	448.0	423.1	395.6	366.8	343.2	330.1	323.6	320.9
50°	407.4	400.9	378.6	351.1	322.3	305.2	294.8	288.2	286.9
52.5°	365.4	358.9	334.0	307.9	285.6	271.2	262.0	255.4	252.8
55°	324.8	317.0	296.0	271.2	252.8	239.7	230.5	224.0	221.4
57.5°	288.2	280.3	262.0	238.5	221.4	209.6	201.8	195.2	192.6
60°	252.8	246.3	229.3	207.0	192.6	182.1	174.2	169.0	166.3
62.5°	220.1	214.8	197.9	178.1	166.3	157.3	150.6	145.4	148.1
65°	189.9	184.7	169.0	152.0	142.8	133.6	128.3	128.3	133.6
67.5°	161.2	155.9	142.8	128.3	120.5	114.0	110.0	114.0	117.9
70°	134.9	129.7	117.9	106.1	99.6	94.3	94.3	98.3	100.8
72.5°	110.0	104.8	95.7	86.5	81.2	77.3	81.2	83.8	86.5
75°	86.5	82.6	74.7	68.1	64.2	62.9	66.8	69.4	70.8
77.5°	64.2	61.6	56.3	51.0	48.5	49.8	53.7	55.1	56.3
80°	44.5	43.2	39.3	36.7	36.7	38.0	40.6	41.9	43.2
82.5°	27.5	27.5	24.9	23.6	24.9	27.5	28.8	30.2	30.2
85°	13.1	14.5	13.1	13.1	14.5	17.0	17.0	18.4	18.4
87.5°	3.9	3.9	5.3	5.3	6.5	6.5	6.5	6.5	7.9
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)